



Western
Environment
Centre
wecnl.ca

Newsletter

Inside this issue...

- The e-bike share project
- Sustainability tips
- Reaction to the fracking review panel report



Spring/Summer

2016

From the Editor's Desk

If there is one theme that binds the material in this newsletter together, it is this: citizen action.

Citizen action is galvanized by changes made in our personal lifestyles and living habits. This newsletter offers a number of sustainability tips and initiatives, from ecologically friendly cleaning recipes, to updates on the e-bike projects, and tips on how to get involved in WEC. Living more sustainably is not just the right thing to do; it also can make a person happier. For example, using a bicycle or an e-bike reduces one's dependency on fossil fuels, provides exercise, and affords one a breathtaking, panoramic way to appreciate the stunning scenery for which western Newfoundland is so well known.

We also see citizen action in action in the recent release of the review panel that examined the prospect of fracking for western Newfoundland. After much research and deliberation, the panel recommended that the government continue to "pause" any fracking proposals at this time. "Pause" might seem like a weak word, but the report came with a list of eighty-five recommendations that would have to be met before the pause could be removed. These recommendations may in fact extend that pause into something far more long-term. Critical to the report's stance was the wave after wave of citizen action: citizens who took the time to learn the details about fracking and its impact elsewhere, who came out in force to public meetings, who wrote letters, gave presentations, and manifested to government and to the panel that social license does not exist for fracking in western Newfoundland. This strong expression of public opinion probably will be the central component in the government's approach to the panel's conclusions. I extend to these people a deep and heartfelt thank-you.

You will see a connection between the citizen action in western Newfoundland and that found in western Canada and the United States, as individuals such as Jessica Ernst struggle against energy companies and governments to obtain redress when fracking contaminated land and water supplies. Ernst is a particularly remarkable individual, persisting year after year. A review of a book by Andrew Nikiforuk provides more details.

Citizen action is the essential element if the world is to meet its targets to reduce greenhouse gases and combat climate change. The Paris Conference of December 2015 (COP21) gave people a ray of hope in that regard, a welcome change of direction that is discussed in this newsletter. Once again, it was citizen action that encouraged government representatives to listen.

Citizen action also reveals itself in the reaction of a number of organizations to a proposed salmon aquaculture project in Newfoundland. WEC answered the call of the Atlantic Salmon Federation to write a submission to the government on the proven ill effects of salmon-farming. WEC's submission is found in this newsletter. I hope that you enjoy this issue.

Edwin Bezzina

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We're on Facebook!



You can find us by searching
"Western Environment
Centre"

We're also on Twitter



(www.twitter.com/wecnl)

WEC welcomes comments and questions!

Feel free to write to the
editorial board
(outreach@wecnl.ca) or the
Board of Directors
(info@wecnl.ca).
We'd love to hear from
you.



Cover photo: one of WEC's e-bikes
(<https://www.facebook.com/WECNL>); photo M. Wilson

WEC's Mandate

The Western Environment Centre (WEC) is a charitable, non-profit, non-governmental organization that is based in Corner Brook and services all of Western Newfoundland. Specifically, the organization strives to:

- engage communities in environmental issues in a balanced, objective, and informed manner
- work with community partners, businesses, and government agencies to build capacity and involvement in projects related to environmental action and sustainability
- create a community of environmentally pro-active citizens

WEC activities can be subdivided into the following areas:

- Long-term projects (e.g., the community garden established at the Blow-Me-Down Ski Park)
- Specific environmental events
- Working committees
- Detailed responses to inquiries about local and regional issues of environmental concern

How to become a WEC member

(and how to encourage friends to become members):

Please fill out the membership form on the back page and then send it by post to our surface address or by scanned copy to our e-mail address (info@wecl.ca). Becoming a member is a fabulous first step to becoming environmentally involved in your local community!

Board of Directors

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Five great ways to get involved in WEC

1. Join one of the working committees
2. Join the Facebook group and invite others to do the same
3. Attend WEC events
4. Become a WEC volunteer
5. Participate in the WEC community garden

The E-Bike Share!

An electric bike (e-bike) is a unique vehicle, incorporating the benefits of both a bicycle and a motor vehicle. Unlike a regular bicycle, an e-bike allows the rider to choose the amount of effort she/he exerts, therefore allowing them to get exercise if desired, but also to move quickly up hills with minimal effort when needed.

An e-bike rider can comfortably get to work or school without breaking a sweat, but can also enjoy the benefits of bicycling in the fresh air with some light exercise. An improvement over walking, the e-bike can be almost as quick as driving in many instances, particularly in rush hour.

Season: May 1 to end of November (end date is weather dependent); Cost: \$20 per day or \$80 per week

Sign in/out:

1. Cycle Solutions (35 West Street)

Daily rentals: Monday-Friday from 9:00am-5:00pm; Weekly rentals: Monday-Saturday from 9:00am-5:00pm

2. Office of Engagement (Grenfell Campus, Memorial University, Arts and Sciences building, room 235)

Daily rentals: Monday-Thursday from 8:30am-4:00pm; Weekly rentals: Monday-Friday from 8:30am-4:00pm

Who can ride:

Must be 16 or older and must know how to ride a bike

Must possess a valid driver's license or proof of completion of the WEC bicycle safety course

Must pay rental fee with valid credit card (you can prepay online: <https://wecnl.wordpress.com/projects/ebike/>)

Bicycle safety courses will be offered as needed throughout the season. They will teach skills such as safe conduct in traffic, proper signalling, and safe riding techniques. Please email outreach@wecnl.ca if you're interested.



Sponsorship opportunity

Good advertisements are key to the success of a business, and what better way to advertise your business/service than our e-bikes? Our electric bikes travel around Corner Brook every week, catching the eye of everyone! They have even been as far as Gros Morne National Park! Advertising space is available on the side panel of panniers (9"x12"), and the fee is \$350 per side per season (plus \$20 signage fee). Sponsorship in form of donations is also gladly accepted. You will be generating more business opportunities for yourself while supporting the Western Environment Centre, and the Corner Brook Electric Bike Share Program, as well as helping to promote a healthy community by fostering environmental, social, and economic sustainability!



The E-Bike Share!

On July 11th, the Corner Brook Electric Bike Share Program launched a new **photo contest**, where participants are asked to take a scenic, interesting, or unique photograph and share it with us by emailing info@wecnl.ca, posting it on our Facebook page, or sharing it with us on Twitter! By doing this, participants enter themselves into the contest, with monthly winners being drawn for a prize of a free day on the bike (\$20 value) and a season winner being drawn for a prize of a free week on the bike for the 2017 season (\$80 value). Bikes are \$20 for a 24 hour rental and \$80 for a 7-day rental. Bikes are available at Cycle Solutions and the Grenfell Campus Residence Complex.

Corner Brook Electric BikeShare Project

In 2015 the Western Environment Centre launched its brand new E-BikeShare Project. How did the Pilot year go?

Rental Locations



■ Cycle Solutions
■ Grenfell Campus

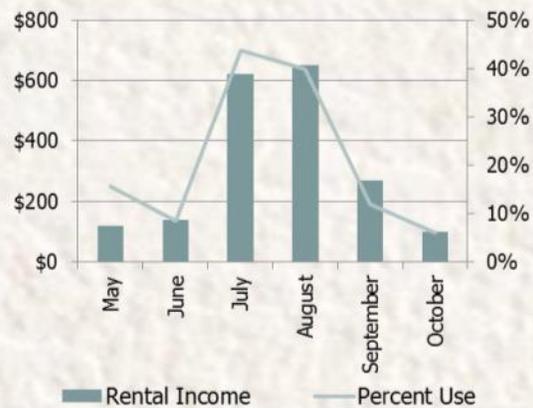
Rental Length



■ 1 Week ■ 24 Hours

106 RENTALS!

Rental Income and Percent Use



Greenhouse Gas emissions reduced by 1.01 metric tonnes



73 Unique Renters



30 Volunteers Recruited



Reached over 8000 people

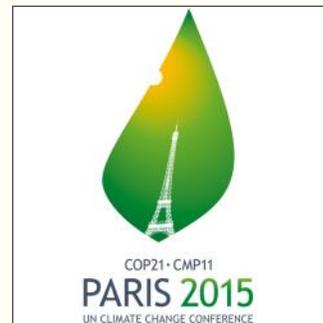
About the Project

- ⇒ Funded by EcoAction and the Government of Canada
- ⇒ In partnership with Cycle Solutions, Memorial University of Newfoundland, and the Grenfell Campus Student Union



Climate Change: The Paris Conference

When discussing climate change, no longer are we arguing about a problem in the distant future. With loss of life and devastating droughts and heat waves, extreme weather events, rising sea levels and the gradual disappearance of Arctic ice and permafrost, we can certainly say that the world is living climate change right now. Some nations are living it more than others. So the great debate of 2016 is, “can we avoid the very worst of the impending climate crisis?”



The Paris Climate Agreement is a major milestone and helps to address that question. Green Party Leader Elizabeth May summed it up clearly by saying: “Canadians can be rightly proud of what our government did in Paris....Paris threw us a lifeline. Don’t let it slip between our fingers.”

But let us back up and give you the quick facts, both good and bad, of the outcome of the Paris Agreement:

- It sets a long-term temperature goal by the second half of the century of no more an increase than 1.5 degrees as being far safer than the goal of 2 degrees, though the world's carbon reduction plans to date set us on track for catastrophe in a 2.7° to 3.4° world.
- It finally recognizes the duty of developed countries to help the most vulnerable in the world cope with the impacts of climate change, although the Agreement contains no binding commitment to fund that work.
- It clearly means that the world has accepted that most known reserves of fossil fuels must stay in the ground. It’s the beginning of the end for fossil fuels.
- It will be legally binding. They have built into the treaty mandatory global five-year reviews, but the deal has no enforcement mechanism to guarantee good behaviour. It did not use the levers available to governments to craft a treaty that is enforceable with trade sanctions, in order to give the Agreement some teeth.
- It does not respond with sufficient urgency; the treaty is only to take effect in 2020.

Where Canada is in all of this:

- Currently, we still have the climate target of the Harper Government, which is entirely inadequate.
- Trudeau announced that within ninety days following the Paris Conference Canada will have a Canadian framework to cut carbon pollution. He wants to meet with all the premiers within that time to discuss Canada's new climate target.

Prime Minister Trudeau highlighted Canada’s financial support for clean energy innovation and carbon-pricing at home and abroad, and the need to respond to the concerns of the world’s most vulnerable countries. Trudeau promised \$2.65 billion in international climate finance into Canada’s fair-share contribution of \$4 billion by 2020.

What now?

The gap between now and when the Paris Agreement takes effect in 2020 is devastatingly large and might make or break the world's ability to meet the 1.5 degree target. The Agreement recognizes the crucial importance of pre-2020 ambition, but does not mandate a dialogue on the matter until 2018. For that reason, public pressure is needed. You are needed.

For years, my motivation to work on the climate change file was dampened by the inaction of our previous federal government. Change is often a matter of timing. We now have a federal government that seemingly wants to take action. We have an upcoming meeting between Prime Minister Trudeau and the Premier of Newfoundland and Labrador, Dwight Ball, in order to discuss options. Also, oil prices are so low that our province needs to have a serious look at alternatives for our economy. Hence, politicians are listening. The time is right to shape the future.

The Western Environment Centre will actively engage in this dialogue. The Paris Climate Talks were brought to life because of pressure from grassroots civil society groups. And pressure is needed to take action now. Paris threw us a lifeline and I will swim for it hard. Will you?

Simon Jansen (info@wecn.ca if you want in)



A public march in London encouraging action at the Paris Conference (John Gomez, Shutterstock 410296927)

Naturally Homemade Corner: Dishwasher Detergent

Making your own homemade cleaners, cleansers, and beauty products is not only the more environmentally sound choice, but it's also less expensive, safer for your family, easy, and fun!

Ingredients:

- 2 cups of borax
- 2 cups of washing soda
- 1 cup of kosher or sea salt
- 3 tablespoons of citric acid
- 30 drops of grapefruit or lemon essential oil

Directions:

1. Mix all the ingredients in a sealable container or jar.
2. To use, fill the soap well of your dishwasher to the top and run load of dishes.

Tips:

Some may find residue on dishes, especially plastics (I find this with commercial detergents as well). To help eliminate this problem, use white distilled vinegar in the rinse aid well. You can also run your kitchen tap with very hot water before starting a load of dishes.

Caveat: Borax, when used in certain capacities, has raised some potential health concerns, especially with the young and with pregnant women. Handle cautiously and keep out of children's reach. For an alternative recipe, see <http://www.superhealthykids.com/how-to-make-all-natural-dishwasher-pods/>

Updates and Articles on Fracking

Commentary: The Newfoundland and Labrador Hydraulic Fracturing Review Panel Report: “Unconventional Opportunities and Challenges: Results of the Public Review of the Implications of Hydraulic Fracturing Operations in Western Newfoundland”

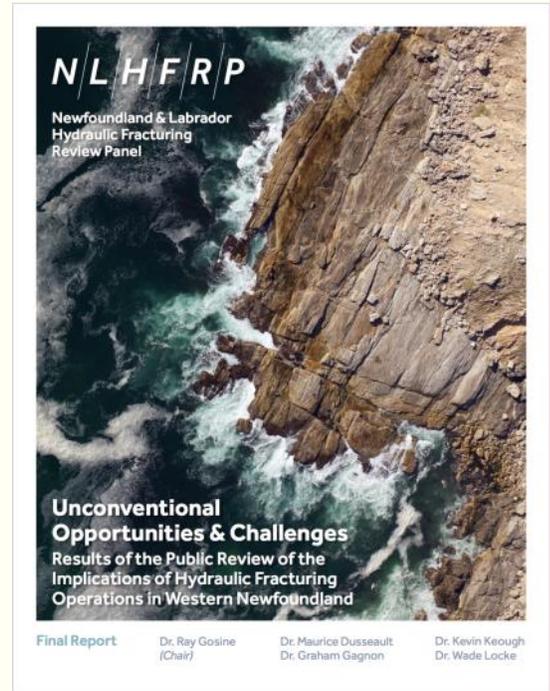
After months of research, deliberations, and consultations, the report of the fracking review panel has finally been released! This is an extensive, 1,100-page report containing conclusions, recommendations, and a series of ancillary reports written by the panel members and consultants.

The panel was composed of five individuals mostly from an academic engineering background. The panel’s mandate was to “conduct a public review and advise the Minister of Natural Resources on the socio-economic and environmental implications of the hydraulic fracturing process with respect to possible exploration and development of the petroleum resources of Western Newfoundland.” Once that mandate was established, the panel quickly set to work, accepting a total of about six hundred submissions from individuals, groups, associations, and corporations, then listening to presentations in various communities, consulting with various agencies, and visiting fracking sites elsewhere.

The panel’s conclusions were based on a scenario for a development project comprised of 480 wells that would operate on 30-40 well pads near the coast around Port-au-Port Bay. The estimated amount of recovered oil and gas would be 150 million barrels of oil and 75 billion standard cubic feet of gas. The project would take about six years to build and stimulate the wells and they each would produce oil or gas for about twenty years.

The panel did not feel that they could state categorically whether fracking should be allowed in western Newfoundland, but the panel did recommend that the DNR continue the “**pause**” on accepting applications for fracking. Such a general recommendation is similar to that made in other maritime provinces and is based on the conclusion that not enough is known about fracking and its attendant issues. For example, the geology of the Green Point Shale, as current knowledge stands, poses formidable hurdles to prospective oil exploration companies, because of its unevenness and unpredictability, far different from the orderly “layered cake” that proponents and company representatives often used in their presentations here. Much more study is necessary.

The word “pause” (as opposed to “hold” or “moratorium”) seems to imply a short period of time, **but the opposite is the case**. The panel composed a list of eighty-five recommendations, many of which would take a considerable amount of time to implement, and perhaps if followed correctly could negate the prospect of fracking in western Newfoundland altogether. These recommendations are categorized by various levels of importance, but collectively they are significant. For example, there would need to be extensive baseline testing of air and water quality and resources; the road and transport infrastructure of the region would have to be upgraded; fracking would have to be prohibited in Gros Morne National Park and a buffer zone would have to be established around it, which effectively prohibits fracking in the municipal enclaves in the Park; there would need to be a more extensive geological survey conducted of the Green Point Shale; a much better under-



Updates and Articles on Fracking

standing of the impact of fracking in the region on climate change and the province's greenhouse gas reduction targets would have to be undertaken; no fracking applications could be accepted until complete health impacts were carried out; a single regulator would need to replace what currently exists. The list goes on.

That is a great deal of work for what could be an economic opportunity of arguably marginal importance. The report concludes that the development scenario noted above would not play a pivotal role in the Gross Domestic Product of the province as a whole. The report argues that the project could represent a notable employment generator for the region, producing several hundred jobs during the construction phase and requiring about 30-40 jobs annually during the ensuing years that the wells remain in production. That is not very much in the bigger scheme of things, especially when one considers that the report notes that the construction jobs most likely would not go to the local population because of the technical expertise required (in other jurisdictions where fracking is allowed, the wells are built by teams that are brought in to move from one site to another). These minimal economic benefits could be neutralized if fracking has a negative impact on other sectors, such as tourism and fishing. In any case, for this development scenario to be commercially viable, the price of oil would have to rise to \$85.00 USD per barrel, which is not likely to happen in the near future.

“...a robust regulatory framework can exist on paper but be ignored in practice...”

One might well wonder if it would be worth pursuing such a project, especially considering the risks involved. The review panel report does discuss these risks, preferring to call them “issues” (stresses on local water supplies; wells that leak methane after production, water contamination arising from fracking fluids, earthquakes that result from the injection of used fracking wells into the earth, etc.). There is also an extensive appendix written by Dr. Maurice Dusseault, one of the panelists and a Professor of Engineering Geology at the University of Waterloo.

Moreover, as we have found in a disturbing number of cases, a robust regulatory framework can exist on paper but be ignored in practice (see the book review provided in this newsletter, for example). Western Newfoundland has a particular predicament in that the current regulator, the Canadian and Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) has a dual mandate of promoting and regulating oil and gas development in the province; this has been criticized by the Vaughan Commission as a conflict of interest. Moreover, we read in a recent report published in *The Globe and Mail* (Friday, March 18th, 2016) that, because of the economic slump in the oil industry, thousands of abandoned wells in Alberta are not being sufficiently monitored and capped, even though there are regulations requiring that this be done. It is no wonder, then, that there is little confidence in western Newfoundland in the development of a sufficiently strong regulatory framework for fracking to take place. That is why there is very little social licence for fracking in this region at this time, as the public surveys conducted by the panel attest.



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Updates and Articles on Fracking

Commentary: The Newfoundland and Labrador Hydraulic Fracturing Review Panel Report

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The panel members are to be thanked for undertaking this monumental review, certainly a daunting task. Admittedly, one would have liked to have seen a formal consultation with the Qalibu Nation, as required by the Duty to Consult principle with respects to relations between governments and indigenous peoples in Canada.

The panel also went through a process of having all of their recommendations reviewed by independent experts. All five panel members and the experts that reviewed the recommendations firmly stand behind this report and its recommendations should therefore be taken seriously.

The recommendation of a pause rather than a ban is unfortunate, though, in the sense that it does not allow the region or the province to move on and leave fracking behind. Already there have been voices calling on the government to start the process of implementing the recommendations, so that fracking can take place. However, our economic future would be brighter if we all work together and if we agree on a direction. A legislated ban on hydraulic fracturing would put an end to the debate and would allow all of us to start looking seriously at sustainable long-term economic options. All parties in the fracking debate have one thing in common: they were concerned about the economic future of the region.

And to put this in the larger global context, in Paris last December, world governments negotiated an ambitious climate change target of limiting global temperature increase to 2 degrees Celsius, with aspirations of 1.5 degrees. Following this historic deal, the Canadian government is working with provinces and territories to develop new policy and targets focused on tackling climate change and investing in clean energy and technology. We need a direction that will help develop our economies, protect our environment for future generations, and transition this country to be a global leader in a low-carbon future. Doing so would benefit everyone. According to the magazine *Renewable Energy World* (February 10, 2016), global investment in renewable energy is surging forward, because of expanding markets and investor interest. Every method of energy extraction has some form of impact on the environment, but the impact of renewable energy is far far less than fracking.

Given Canada's recent strong commitment to fight climate change and lower its carbon footprint, it would make more sense in the long run to cast our sights on a more feasible, economically viable, and sustainable energy future and that future lies, at least in a major part, in renewable energy.

Edwin Bezzina, Simon Jansen



IJsselmeer wind farm, The Netherlands (Shutterstock, UbjspP #449672500)

Updates and Articles on Fracking

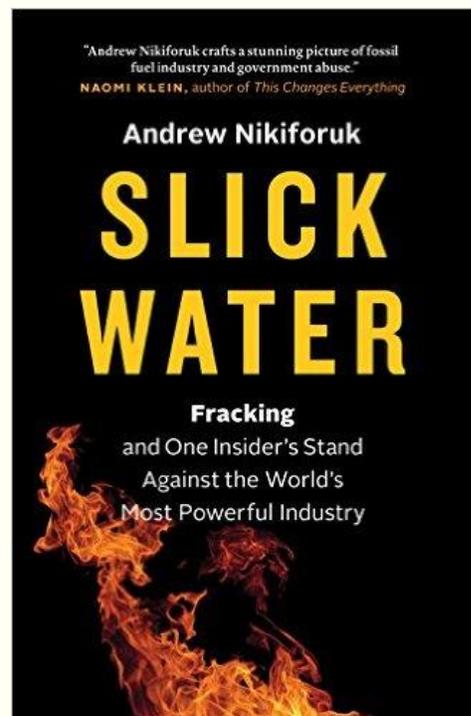
Book Review: Andrew Nikiforuk, *Slick Water: Fracking and One Insider's Stand Against the World's Most Powerful Industry* (Vancouver: Greystone Books/David Suzuki Institute, 2015), 360 pages, \$29.95.

This book is a highly valuable and quite readable study of the impact of fracking on various communities around the world but particularly on the life of one individual, Jessica Ernst, resident of Rosebud, Alberta. The study intermeshes detailed descriptions of Ernst's case with investigations into where fracking has gone wrong in various jurisdictions, in Colorado, in Ireland, in Alabama, and of course in western Canada.

The book focuses mainly on the long struggle by Jessica Ernst to gain redress and restitution for what Encana Energy did her to her water supply. The company conducted several hundred shallow fracking operations for coal bed methane in the area. The operations contaminated her water well with thermogenic methane and fracking chemicals. After many failed attempts to have the problem rectified, she decided to launch a lawsuit not only against the company, but also against the Alberta ministry of the Environment and the Alberta regulator, for negligence and also for undermining her right to free speech according to the Canadian Charter of Rights and Freedoms.

The book's author, Andrew Nikiforuk, is a journalist who writes for *The Globe and Mail*. He is the author of a number of books primarily on the oil and gas industry; some of these books have won awards for their rigour and incisive reporting. This book on fracking in particular continues his highly effective approach. The text is meant for a broader, non-academic audience, and is thus written in an accessible language that helps the reader make sense of what is in fact a complicated issue. Although the book would have benefited from some diagrams outlining fracking operations and their impact on the surrounding geology and freshwater systems, the book is supported by an eighteen-page bibliography listing study after study on the impact of fracking. In addition to this supporting material, the book is based on extensive interviews with Ernst and her legal team.

By documenting so many cases of problems involving fracking, the book undermines a claim long made by industry that fracking has been around for sixty years and there has not been one single case of water contamination. There have, in fact, been many many cases. Moreover, the proven cases, documented even in the scientific literature for oil and gas development, could be the tip of the iceberg. Many residents who experienced such problems settled with the company out of court, but as a condition of the settlement the company imposed a confidentiality order on the plaintiffs, preventing them from discussing the problem in public. That removed such cases from the regulatory record and thus obscures the true magnitude of the problems that fracking has created.



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Updates and Articles on Fracking

Book Review: Andrew Nikiforuk, *Slick Water: Fracking and One Insider's Stand Against the World's Most Powerful Industry* (continued from the previous page)

Such gag orders, as they are called, raise the issue of human rights. An out-of-court settlement should not contain such a stipulation, because it inhibits the right to free speech. Also, people such as Jessica Ernst have been subjected to intense pressure to withdraw their lawsuit. Misinformation spread about her has virtually ruined her environmental consulting business; the regulator's lawyers tried to typify her as an eco-terrorist, with no supporting evidence, a claim that was soundly dismissed by an Alberta judge. The Alberta regulator has been shockingly uncooperative in providing information to Ernst that they are required to provide according to the Freedom of Information Act.

What is remarkable about the book is Ernst herself. Nikiforuk describes her difficult upbringing, one that surprisingly equipped her with the strength of character to undertake a decade-long struggle with an oil and gas giant in Alberta and what was apparently an obstructionist government. The resources and tenacity required to persist with a lawsuit are truly enormous. Even though a judge in Alberta tried to argue that the province's environmental regulator was immune from civil litigation, Ernst and her legal team appealed to the decision to the Supreme Court of Canada. The Court is currently reviewing the case. The decision of the Supreme Court to hear the case was a stunning victory in itself. If the case is successful, one would hope that Nikiforuk will release a second edition of this book, describing what could very well be a ground-breaking triumph for ecological fairness and a significant game-changer.

One should be wary when government and company officials claim that fracking is safe so long as a robust system of regulations is in place. The Alberta government and many energy companies have long made this claim. Yet Nikiforuk's book offers conclusive evidence that both government and companies hid important data, tampered with proper testing, blocked access to information, and intimidated complainants. One should not have to run the gauntlet of such abuse to restore one's clean water supply, not in a democratic state that is built on a foundation of human rights. On a positive note, the book is an inspiring account of the indomitable will of one individual and others like her, against highly formidable obstacles and institutions. In the end, Nikiforuk's book leaves us with one key impression: The struggle to obtain ecological justice is a long and arduous one, but it is well worth waging.

Edwin Bezzina

Listen to Jessica Ernst's interview with the CBC, from July 2015: <http://www.cbc.ca/player/play/2672772553>

Helping WEC as you recycle

Here is a creative way to donate to WEC financially. WEC has an account at Scotia Recycling on 55 Maple Valley Rd (709-634-2025). When dropping off your recyclables, donate by telling the people at the desk that you wish to give the proceeds to the Western Environment Centre. Visit the Scotia Recycling website:



<http://scotiarecyclinggroup.com/services-by-location>. For information on recycling on Corner Brook, visit <http://www.cornerbrook.com/default.asp?mn=1.24.100> or phone their recycling line at (709) 637-1630.

More on Fracking

Check out the **Port au Port/Bay St. George Fracking Awareness Group** on Facebook for useful links and information!

Save Gros Morne and Our West Coast Facebook Site

Save Gros Morne and our West Coast aims to disseminate timely information on proposals to conduct horizontal slick-water hydraulic fracturing (fracking) along the West coast of Newfoundland. See their facebook site for updates, news, announcements, videos, photos, and especially an extensive list of resources relating to fracking dealing with many aspects of the topic (public health, fracking chemicals, what is happening in other provinces, and so on). It's a wonderful resource!

<https://www.facebook.com/SaveGrosMorne>

<http://savewestcoastnl.wordpress.com/>



Photo courtesy Natalie Thomas

The St. Lawrence Coalition

From their mission statement: The St. Lawrence Coalition was created to persuade government bodies to issue a moratorium on oil and gas exploration and exploitation in the Gulf of St. Lawrence as soon as possible. The St. Lawrence Coalition aims at bringing the gulf communities together, which share the same concerns and appreciate the natural resources of the Gulf of St. Lawrence. Our coalition is inter-provincial as five provinces are involved: Prince Edward Island, New Brunswick, Nova Scotia, Québec, and Newfoundland and Labrador.

website: <http://www.coalitionsaintlaurent.ca/en/coalition>

e-mail: coalitionstlaurent@me.com

Sylvain Archambault phone (418) 686-1854; cell (581) 995-4350



How to get involved in fracking awareness

1. Read the reports on fracking (for these, start with <http://savewestcoastnl.wordpress.com/>).
2. Attend the fracking awareness meetings and presentations.
3. Call or write to your MHA and MP.
4. Speak with your town council.
5. Check regularly the relevant websites on fracking on the west coast.
6. Tell your friends.
7. See the Council of Canadians Fractivist's Toolkit:

<http://www.canadians.org/blog/fractivist-toolkit-how-you-can-take-action-protect-water-and-stop-fracking>

WEC's Letter on a Grieg Aquaculture project

In February 2016, the Norwegian-based company Grieg Aquaculture Seafarms issued a proposal to the provincial Department of the Environment and Conservation in Newfoundland. The Atlantic Salmon Federation believes that the project could have dire effects on the existing salmon stocks and thus called upon organizations to encourage the government to subject the project to a full Environmental Impact Assessment. WEC thus wrote the following submission.

Hon. Perry Trimper, Minister of Environment and Conservation

Hon. Steve Crocker, Minister of Fisheries and Aquaculture

The Western Environment Centre (WEC) is a charitable, non-profit, volunteer organization. We strive to engage communities in environmental issues in a balanced, objective, and informed manner; work with community partners, businesses, and government agencies to build capacity and involvement in projects related to environmental action and sustainability; and create a community of environmentally pro-active citizens.

WEC has carefully conducted an unbiased scientific literature review and we have found several reasons to be cautious with the Grieg proposal. We have outlined a few of the main concerns below. WEC believes that the precautionary principle inherent in the environmental assessment process should be exercised in this case. In addition to overall impacts on not only the marine environment, but the environment as a whole, scientists agree that drastic impacts are possible to a very sensitive species; *Salmo salar*. **A full Environmental Impact Statement which considers alternative methods and includes public consultations should be conducted before the project is allowed to proceed.**

The following major points of concern are condensed for ease of review. These points are not the only potential concerns with the project and are by no means intended as an exhaustive summary. If you would like any additional information on any of the areas of concern please do not hesitate to contact us and we can provide more complete responses and references.

- 1) Salmon populations on the South Coast of Newfoundland are already under consideration as threatened under the Species at Risk Act (SARA). Assessments have concluded that over the past three generations stocks of mature *Salmo salar* are showing a declining trend with no sign of recovery. Information found within the ongoing SARA and DFO review cites present and expanding aquaculture as a specific risk to the species. Furthermore, phase 2 of the proposal involves placing 11 sites directly in the line of Salmon migration thereby increasing the likelihood that any potential negative effects would impact the species.
- 2) Fish feces and other waste are deposited directly into the surrounding water. This has proven to alter the chemical makeup and biological diversity of the surrounding seabed. Studies have found that marine life in proximity to salmon pens have higher levels of mercury than normal. All of this waste can result in a loss biomass and productivity. Phytoplankton and marine plants are unable to undergo photosynthesis in areas surrounding salmon farms which has a profound ripple effect throughout the entire ecosystem.
- 3) High density leads to issue with disease and parasites. The proponent has not made clear how they intend to deal with this beyond the industry standard of pesticide and antibiotics. Like waste, these chemicals go directly into the water and can be found in higher concentrations throughout the marine ecosystem as a result. The Newfoundland and Labrador aquaculture industry has been riddled with disease outbreak and the way to prevent these outbreaks is not done in environmentally sound nor ethical manners.



A Humber River Jumper (Humber Falls, NL) (photo Tom Moffatt/ASF)

- 4) The proponent intends to introduce a strain of salmon which is foreign to Newfoundland and Labrador. Even using industry best practise to prevent escapes, lessons from other jurisdictions show that escape is unavoidable. These escaped fish interbreed and mix with the local population which has significant impact on the genetic makeup. Wild fish stocks are susceptible to the diseases and parasites carried by the farmed fish.
- 5) The high amount of feed for salmon farms is resulting in a depletion of forage fish stocks. Globally aquaculture accounts for as much as 88% of all fishmeal consumption which equates to roughly 1/3 of the global fish catch each year. With intensifying climate change this has led to local depletion of overall fish stocks and in some instances total fishery collapse from removal of biomass from the marine food chain.
- 6) The proponent has not considered alternatives such as land-based pens. The proponent also glosses over mitigation measures in some instances such as disease prevention and completely ignores industry best practise mitigation measures in other areas. If the province is to accept a proposal, wouldn't it be sensible to be confident that the proponent has considered all the options and brought forward the best possible techniques?

WEC is cognizant that the economy and the environment are very closely intertwined. We are not saying that a safe, environmentally sound and sustainable aquaculture industry isn't possible. With the close ties the people of this province have with our resource based economy and our fisheries; it only makes sense to proceed with caution. With time and careful consideration we can learn from the mistakes of others and maybe even do this right - but with the proven negative impacts of salmon-farming on the environment, the commercial fishery, traditional practises, and an entire species at risk of collapse we simply cannot afford to be wrong. Short-term gain of jobs will not make up for the continued delayed recovery of our commercial and recreational fisheries, nor will those jobs repair the damage done to our fragile ecosystems. WEC respectfully asks you to delay this decision until such a time that it can be proven safe beyond any reasonable doubt.

References

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Gross, M R. (1998). One species with two biologies: Atlantic salmon (*Salmo salar*) in the wild and in aquaculture. *NRC Canada*

Krkosek, M., M.A. Lewis, A. Morton, L.N. Frazer and J.P. Volpe. (2006). Epizootics of wild fish induced by farmed fish. *Proceedings of the National Academy of Sciences of the USA*. 103:15506-15510.

Update: This project was released from further Environmental Review on July 22 by Perry Trimper, Minister of Environment and Conservation, essentially granting approval for development. The Atlantic Salmon Federation has claimed that the decision is unlawful under the provinces own Environmental Assessment Regulations and has vowed to continue using all available options to stop the project. Our next newsletter will provide a full update and overview of the issue.



Salmon in the Sun, York River,
Gaspé (photo Charles Cusson/ASF)

Welcome to our new Board Members!

Emma Bocking moved to Corner Brook from southern Ontario in the summer of 2015 to start a job with Ducks Unlimited Canada, where she works with other local DUC staff to coordinate wetland stewardship and conservation projects across the province. She started volunteering with WEC last fall by volunteering at the Wonderful Fine Market, and has been on the Board of Directors ever since. Through WEC, she hopes to learn more about the grass-roots environmental movement in Newfoundland and Labrador. Emma has a Master of Science degree in peatland hydrology, and is quite happy that her job involves spending time talking about, and visiting so many wetlands. She also enjoys hiking, baking, reading, and gardening.



Mikaela Wilson was born and raised in Coquitlam, BC. After completing her Bachelor of Science degree at Vancouver Island University, she dropped everything and drove across the country in September 2014. Mikaela brings extensive experience in conservation groups to the Western Environment Centre, with work experience at such non-profit organizations as the Georgia Strait Alliance and the Vancouver Aquarium. She joined the Board of Directors very recently, in May 2016, and looks forward to adding even more amazing experiences with non-profits to her repertoire.



WEC now has a Executive Director!

Katie Temple was appointed as WEC's Executive Director, a part-time paid position that will help WEC develop various projects and directions for the organization. Katie has been involved in the organization for quite some time and her knowledge and experience will be highly valuable for this endeavour. Funding for this position was made available primarily by the Community Healthy Living Fund. Congratulations, Katie!



Welcome to **Nick Childs!**

He is a student who has been hired to promote and work on the e-bike project over the summer. He is a very good fit for the position as he loves sports, the outdoors, and exercise. He looks forward to working with WEC.



WEC has a new Chair! **Glen**

Keeling has been with WEC for several years. He has stepped up to the plate to act as the new Chair. Glen holds a B.A. in Environmental Studies from Grenfell Campus (MUN) and works as a Fishery Guardian for Seawatch Inc. **Simon Jansen** will continue to serve on the Board and spearhead various projects.



A big **thank you** to Erin Fletcher for her involvement in the Board and participation in WEC events. We wish her well as she pursues a degree in environmental law at the University of Victoria.



Annual Membership Form

Type of Membership: New Renewal Lapsed
annual membership fee: \$10.00

Name: _____

Address: _____

Phone number (with area code): (____) _____

E-mail address: _____

Would you like to be added to our e-mail list? Yes No

What environmental issues interest you the most?

Coastal habitat Wildlife Energy

Urban Planning Community Garden Forestry

Climate Change Farmers' Market Transportation

Other: _____

How did you hear about WEC? Select all that may apply.

Facebook Twitter Our Website

Radio Newspaper Other Website

WEC Newsletter Email E-bike project

Word of mouth Event Community Garden

Other: _____

Are you interested in becoming a Board Member? Yes No

Do you have any additional information for WEC?

To learn more about WEC, visit www.wecnl.ca or join us on Facebook or Twitter.

Benefits of Membership

- Receive updates on WEC events and activities
- Receive our newsletter
- Access to WEC resources
- Become part of a growing organization that is committed to protecting the environment in Western Newfoundland and elsewhere

Office Use Only

Date: _____

Origin (e.g. walk-in):

Payment method:

Cash Cheque

Online via paypal see wecnl.ca

Memberships expire after 1 year.

Please return form & payment to:

The Western Environment Centre,
Suite 6, 86 West Street (2nd floor)

Corner Brook, NL, A2H 2Z3

E: info@wecnl.ca

T: (709) 639-0937

WEC will protect your private information. We never share or sell our membership lists.