



**Environment
Community
Health
Observatory
Network**

**Réseau
observatoire sur
l'environnement
les communautés
et la santé**

**Strengthening intersectoral capacity to understand and respond to health impacts of
resource development**

Annual Meeting Report May 28-30, 2019



Members of the ECHO Network Team in Moncton, NB

The ECHO Network (Environment, Community, Health Observatory): Strengthening intersectoral capacity to understand and respond to health impacts of resource development.

¹The ECHO Network is a 5-year research program, funded by a Canadian Institutes of Health Research Team Grant, focused on working together across sectors to better understand and respond to the health, environment and community impacts of resource development.

Environment Community Health Observatory (ECHO) Network
University of Northern British Columbia
3333 University Way
Prince George, British Columbia
Canada V2N 4Z9
Tel.: +1 (250) 960-6342
Fax: +1 (250) 960-5744
E-mail: echonetwork@unbc.ca
Website: www.echonetwork-reseaecho.ca/

© 2019 ECHO Network and Northern Health

Suggested citation:

Kutzner, D., Parkes, M.W., Hadley, L. (2019). *2019 ECHO Annual Meeting Report*. ECHO Network and Northern Health, Prince George, BC.

The ECHO Network involves collaboration and organisational support from the following organisations;



The ECHO Network receives funding support from a CIHR Team Grant in Environments and Health for Intersectoral Prevention Research (2017-2021)



We would like to acknowledge that the land on which we gathered throughout our Annual Meeting is situated on Sikniktuk, the traditional and unceded territory of the Mi'kmaq.

1. Table of Contents

SUMMARY	4
RÉSUMÉ	4
PRE-MEETING DAY (MAY 27)	5
DAY 1 (MAY 28) – THE PAST YEAR	6
1.1 ECHO REPORTING & UPDATES: REGIONAL CASES	6
1.1.1 <i>The ECHO Network Update</i>	6
1.1.2 <i>Northern Health Authority & University of Northern British Columbia Regional Case</i>	7
1.1.3 <i>First Nations Health Authority & Simon Fraser University Regional Case</i>	7
1.1.4 <i>Battle River Watershed Alliance & University of Alberta Regional Case</i>	8
1.1.5 <i>New Brunswick Environmental Network & Université de Moncton</i>	8
1.2 INTERACTIVE POSTER SESSION	9
1.3 THE PAST YEAR – LESSONS LEARNED	9
1.3.1 <i>ECHO Network survey</i>	10
1.4 BRINGING EQUITY TO THE FOREFRONT	11
1.4.1 <i>Challenges with the challenges</i>	11
1.4.2 <i>Mapping equity terrain – moving from definition to practice</i>	12
1.4.3 <i>Arts-based/narrative research approach: Comic Jam</i>	12
1.5 CAMPUS TOUR & ACADIAN HISTORY WALK	13
DAY 2 (MAY 29) – FIELD DAY	13
2.1 KOUCHIBOUGUAC NATIONAL PARK	13
2.2 IRVING ECO-CENTRE: LA DUNE DE BOUCTOUCHE	14
2.3 ÉCOLE BLANCHE BOURGEOIS	15
2.4 FOOD, FUN & IGGY COMPETITION AT FERME MARCEL-GOGUEN	15
DAY 3 (MAY 30) – MAKING CHANGE LONG-TERM	16
3.1 DEBRIEF FROM FIELD DAY	16
3.2 LEARNING & IMPACT – THEMES FROM REGIONAL CASE CONVERSATIONS	17
3.2.1 <i>Preliminary results of the regional case conversations</i>	17
3.2.2 <i>World Café about ECHO Network outcomes & outputs</i>	19
3.3 ECHO OUTPUTS EXERCISE – HOW DO WE REALIZE THE FULL POTENTIAL OF THIS ECHO NETWORK?	20
3.4 EMERGING ISSUES	21
3.4.1 <i>Narrative Stories in Regional Cases: How to create action in community?</i>	22
3.4.2 <i>CEAA/SSHRC “integrated impact assessment” idea</i>	22
3.4.3 <i>New Frontiers Tri-Council Research Program</i>	22
3.4.4 <i>Learning Trajectory + Influence of ECHO on Career Pathways</i>	22
3.5 ECHO LEARNING & IMPACT: SD91 STUDENT PRESENTATION & DISCUSSION	23
3.6 ECHO NETWORK WORK PLAN	23
3.6.1 <i>Outputs & activities exercise- summarized suggestions:</i>	24
3.7 CLOSING	25
WORKING GROUP DAY (MAY 31)	26
LIST OF PARTICIPANTS OF THE 2019 ECHO ANNUAL MEETING	27

Summary

Between May 27-31, 2019, university researchers, research partners and community members from across Canada came together for the 2019 Annual Meeting of the “*ECHO Network (Environment, Community, Health Observatory): Strengthening intersectoral capacity to understand and respond to health impacts of resource development*”. The ECHO Network is a 5-year research program, funded by a Canadian Institutes of Health Research Team Grant, focused on working together across sectors to better understand and respond to the cumulative health, environment and community impacts of resource development.

This was the third meeting of the research team, which held its project launch in May of 2017 in Prince George, British Columbia and its 2018 Annual Meeting in Camrose, Alberta. Over the past year, ECHO Network Members have progressed the research agenda of the project focused on knowledge exchange via virtual and in-person workshops to trial tools and processes to address the cumulative impacts of resource development. The Network grew from 60 Members at initiation to 80 Members in 2019. The 2019 Annual Meeting was designed to provide the Network with opportunities to gather, share, and exchange knowledge and experiences across the team, and further develop regional case focused work. Each day of the Annual Meeting was designed to focus on key questions guiding the Network’s research, learning, and knowledge exchange activities.

The meeting took place on Sikniktuk, the traditional and unceded territory of the Mi’kmaq. Key representatives from key partners of the ECHO Network were in attendance, including: the Battle River Watershed Alliance, Canadian Wildlife Health Consortium, BC First Nations Health Authority, New Brunswick Environmental Network, Northern Health Authority, Simon Fraser University, University of Alberta, Université de Moncton, University of Northern British Columbia, and others.

Résumé

Du 27 au 31 mai 2019, des chercheurs universitaires, des partenaires de recherche et des membres de la communauté de partout au Canada se sont réunis pour l’assemblée annuelle 2019 du Réseau ECHO (Observatoire sur l’environnement, les communautés et la santé) : Renforcer la capacité intersectorielle de comprendre les effets du développement des ressources sur la santé et d’y faire face. Le Réseau ECHO est un programme de recherche de 5 ans, financé par une subvention des Instituts en recherche en santé du Canada, qui vise à travailler ensemble dans tous les secteurs pour mieux comprendre les effets cumulatifs de l’exploitation des ressources sur la santé, l’environnement et les communautés et comment y réagir.

Il s’agissait de la troisième réunion de l’Équipe de recherche qui a eu son lancement de projet en mai 2017 à Prince George en Colombie-Britannique, et son assemblée annuelle de 2018 à Camrose, en Alberta. Au cours de l’année écoulée, les membres du Réseau ont fait progresser le programme de recherche du projet axé sur l’échange de connaissances par le biais d’ateliers virtuels et en personne pour tester des outils et des processus permettant de traiter des impacts cumulatifs du développement des ressources. Le Réseau est passé de 60 membres à son lancement à 80 membres en 2019. La réunion annuelle de 2019 a été conçue pour fournir au Réseau des occasions de se rassembler pour partager et échanger des connaissances et des expériences entre les équipes et les cas. Chaque journée de l’assemblée a été conçue pour mettre l’accent sur les questions clés qui guident les activités de recherche, d’apprentissage et d’échange de connaissances du réseau.

La rencontre a eu lieu sur Sikniktuk, le territoire traditionnel et non cédé des Mi’kmaqs. Des représentants clés des principaux partenaires du réseau ECHO étaient présents, notamment la Battle River Watershed Alliance, le Consortium canadien de la faune, le BC First Nations Health Authority, l’Université Simon Fraser, l’Université d’Alberta, l’Université de Moncton, l’Université du Nord de la Colombie-Britannique et d’autres intervenants.

Please email echonetnetwork@unbc.ca for the 2019 Learning & Impact Results report.

Pre-Meeting Day (May 27)

Improving health outcomes in rural communities across Canada workshop

Objectives:

- Explore the connection between public health and the environment, particularly in the context of resource development in rural areas and small communities across Canada.
- Provide an opportunity for participants to discuss ways in which to better achieve public health goals in this context.
- Use existing tools and processes as a springboard for improving intersectoral action on public health in rural areas and small communities across Canada.

The 2019 ECHO Network Annual Meeting took place at the Université de Moncton in Moncton (UdeM), New Brunswick. The day prior to the official meeting, a workshop focused on bringing together public health professionals from NB, AB, and BC as well as other professionals whose work touches public health broadly such as environment & community groups, service providers, and academics.

Participants were welcomed by Dr. Céline Surette, Principal Applicant of the ECHO Network project at the Université de Moncton, prior to handing over to Raissa Marks, Executive Director of the New Brunswick Environmental Network (NBEN), who led the group through the afternoon. No detailed notes were taken during this workshop, however, workshop activities included breaking the group out by sector and having discussions addressing three key questions:

- How can we promote health given the connections between public health and the environment?
- What strategies have been successful?
- What changes are needed? Which of these are part of our mandate and which are not?

The resulting report back identified common themes such as the need for collaboration, breaking down of silos, and intersectoral action. This activity was followed by a break and presentations by Dr. Chris Buse, Co-Applicant of the ECHO project at the University of Northern BC (UNBC) on the CalEnviroScreen tool; and Barb Oke, Regional Manager, Health and Resource Development at the Northern Health Authority, BC about the Health and Resource Development Office.

The second workshop activity focused on the following questions:

- How can we use what we learned today to improve public health in our province?
- How do we move these ideas forward?
- What are some quick wins?

Key results included the following suggestions/ideas:

- Build better connections between land departments and health authorities
- The NB Healthy Environments Branch could be a key branch to connect into
- The need to keep going forward, help drive policy, and connect integrative planning processes
- A question around whether benefit agreements between the province and different parties could be mapped out and that health needs to be part of these
- The need to build capacity in lands offices
- The language of 'integrative' is not easily understood and health language is a challenge

Day 1 (May 28) – The Past Year

The first official meeting day began with a welcome to the traditional territory of the Mi'kmaq by Elder Donna Augustine. An offering of tobacco was made to Donna by Dr. Céline Surette. The offering of tobacco is an offering to the spirit. Donna grounded us in place by providing the group with an overview of the history of the Mi'kmaq people in the area who have overcome and continue to persist despite the many atrocities they've faced, and continue to face, through colonization. She highlighted how the Mi'kmaq continue to be open – with their hands extended in friendship – to the newcomers, as they did when European settlers first arrived in the area. She acknowledged the importance of this work as “we have to take care of earth because the earth takes care of us”.

The traditional welcome was followed by welcome remarks by Dr. Pandurang Ashrit, Dean of Faculty of Sciences at UdeM, followed by Dr. Céline Surette. Dr. Surette has Acadian ancestry and provided some background to the Acadian history of the area and the strong friendship of the Acadiens with the Mi'kmaq people. Lastly, the group was welcomed to the meeting by Dr. Sandra Allison, Chief Medical Health Officer at Northern Health and Principal Research Partner of the ECHO Network, and Dr. Margot Parkes (UNBC), Nominated Principal Applicant of the ECHO Network.

1.1 ECHO Reporting & Updates: Regional Cases

All Regional Case updates responded to the three questions, which had been circulated to teams ahead of the meeting.

- What is the best thing/biggest accomplishment your regional case accomplished since we last met?
- What challenges have you faced and how are you/have you resolved them?
- What are you moving towards/prioritizing in the next year?

1.1.1 The ECHO Network Update

The first update was given from the Operations Committee, led by Diana Kutzner and Margot Parkes, along with team members Melissa Aalhus, Sarah Skinner, Dionne Sanderson, Annika Chiasson, and Louisa Hadley. The team presented an overview of the ECHO Network's project timeline and the Network's shift in focus from year one to year two. This shift was defined by moving from setting up network structures and functions to increasingly engaging in the sharing of tools and processes, learning about knowledge exchanges occurring through the Network, and learning about how knowledge gained through these exchanges can be mobilized back to (and beyond) the Network. Melissa, Dionne and Sarah provided an example each of how ECHO has influenced their work:

- Melissa (NH/UNBC): has found that ECHO has benefitted NH through increased time, resources and capacity to devote to the grey areas of their mandate. As a result of ECHO, NH has been able to comment on policy aspects which have received less attention previously. This has been a big gain.
- Dionne (FNHA/SFU): has benefitted from relationship building and continuously learning and having the privilege of being part of the COPEH-Canada ecohealth course to learn more about those connections.
- Sarah (BRWA/UofA): BRWA was able to raise health-related questions in regards to a gravel pit proposal, which was a very tangible result of conversations with the ECHO team.



Prior to moving into the updates of the Regional Cases, ECHO Team Learning & Impact drew everyone's attention to some note sheets and three key questions. These were to be answered while listening to the update presentations and poster presentations during the upcoming two sessions:

1. How relationships are being formed and made
2. Changing awareness of intersections between E-C-H
3. Any emerging intersectoral actions

1.1.2 Northern Health Authority & University of Northern British Columbia Regional Case

The NH/UNBC team lead by Dr. Chris Buse started their reporting off with a poem about their team's struggle with a research ethics application at UNBC. This illustrated the challenges which can be encountered with the collection of small sample sizes and qualitative in-depth interviews about controversial topics related to resource extraction and health.

The NH/UNBC Regional Case team has struggled to find shared goals but is now collectively moving in a direction on which everyone can agree. A key focus for the team has been the need for NH to find ways to communicate the impacts of resource extraction to the general public, therefore, several figures and materials have been developed. Helpful feedback from a recent Cross-ECHO Learning & Impact workshop with ECHO Network members has helped further develop these figures.



Barb Oke

Other key highlights of the team's work over the year included Dr. Buse's presentation on cumulative impacts at the [Annual Conference of the New Brunswick Children's Environmental Health Collaborative](#), Barb Oke and Dr. Margot Parkes' presentation at the Prince George Spruce Beetle Summit, and Barb Oke and Melissa Aalhus' presentation at the [National Collaborating Centre for Environmental Health](#).

1.1.3 First Nations Health Authority & Simon Fraser University Regional Case



Dionne Sanderson and Jordan Brubacher

Dionne and Jordan used a river's journey from the headwaters to the ocean as an analogy to the journey their FNHA/SFU team has been on over the past two years. FNHA was challenged by their CEO to build on the [Transformative Health Accord First Nations Health Plan](#), including a shift from deficit-based to an asset-based approach. FNHA invited Dr. Craig Stephen to provide recommendations to the team about the best ecological health and wellness indicators. They identified a set of potential indicators that can be cross-referenced with other health indicators, and new qualitative indicators were developed. Jordan took these over from Dr. Lindsay Galway.

The FNHA team used disturbance mapping as a tool in the process of developing and informing potential ecological health and wellness indicators. Additionally, the team developed their own definition of ecological health. However, disturbance mapping as a tool presented a new challenge, it did not appear to align with the asset-based approach the team had committed to. Despite feeling like they experienced a setback with the disturbance mapping, the team did not get stuck, but rather were enriched by the experience. They went back to the drawing board, and instead of finding a quantitative indicator, they developed a new approach titled 'We Walk Together', where members of the team will meet with youth to gather stories about the health of the land. Going forward, they will start with community consultations on this topic.

1.1.4 Battle River Watershed Alliance & University of Alberta Regional Case



From left *Lars Hallström, Madison Pearson, Sarah Skinner*

Dr. Lars Hallström began the team’s presentation by drawing attention to the recent political shift in Alberta, as well as the raging wildfires they are experiencing. Rural communities in Alberta are struggling for survival due to economic downturns. Within public health, the focus remains mainly on more traditional aspects of health, such as the recent measles outbreaks and water quality indicators. The current political climate is seen as being too risky for Alberta Health Services to go beyond this traditional health focus.

The team has continued to build on the [drinking water contamination scoping review](#) conducted last year by engaging municipalities through interviews regarding indicators. First results show that there is a lack of integration, particularly of health data. Most municipal departments make decisions by hiring consultants who obtain and analyze data to help inform decision-making, rather than accessing the data themselves. These interviews are helping to inform the refinement of an online indicator portal, which could help provide updated information on the health of the environment to municipal decision makers.

A project led by Dr. Elizabeth Vergis has focused on approaches to evidence in watershed management. The BRWA continued work on the state of the watershed report, with a focus on social and economic indicators. Over the next two years, they plan to release of an updated report which will include more of these types of indicators. Alongside this work, the BRWA is also progressing work focused on source water protection and riparian restoration. The Regional Case team is actively pursuing the potential use of the [CalEnviroScreen](#) mapping tool in the Battle River watershed.

1.1.5 New Brunswick Environmental Network & Université de Moncton

The NBEN/UdeM team’s year was filled not only by planning the 2019 ECHO Annual Meeting but also by presenting on the [youth climate project](#), originally inspired by the global youth climate movement. The past year has also been defined by a shift in government in New Brunswick. The current minority government has presented some interesting opportunities as well as some changes in the NBEN. This includes changes for NBEN’s connection with ECHO members at the ministry level.



From left *Raissa Marks, Annika Chiasson, Céline Surette*

A great success for the team was this year's [Annual Conference of the New Brunswick Children's Environmental Health Collaborative](#). Last year people were not quite clear on cumulative impacts; this year's workshop on cumulative impacts of resource development led to clarification and a better understanding of cumulative impacts among attendees. There are still gaps and the team needs to continue working its connections in government. The NBEN/UdeM team is also working on a number of tools and processes (on the posters presented in the next session) including graphic reporting – a skill Annika has developed over the past year. The ECHO Network has been a great opportunity and somewhat of a great 'excuse' to continue to build and strengthen connections and relationships – it has enabled NBEN to make links and connections, including with the [Rural Action and Voices for the Environment](#) (RAVEN) project, [Kopit Lodge](#), [New Brunswick Business Council](#) and others. Within the team there is also great interest in progressing tools and processes and conversations in regards to health impact assessments.

Raissa and Annika presented at the [Children's Environmental Health Collaborative](#) leadership consultation (small group) meeting- they asked: what tools and processes would facilitate intersectoral action? Although there weren't clear answers, this was a great opportunity for learning.



Key comments/issues raised in response to the presentations:

- *Themes across the regional cases that resonated included challenges with politics, indicators, capacity, and mandates*
- *Opportunities for community and relationship building is important and needs to be leveraged for decision making*
- *There is a sense of collaboration within teams, but more collaboration across teams is needed*
- *The word 'environmentalist' can make some people edgy*

1.2 Interactive poster session

Following the updates from across the ECHO Network Regional Case teams, attendees moved into the interactive poster session. Presenters did a 1-minute pitch of their poster; presenters were split into two groups, half presented while the other half could look at posters, then they switched.

1. ECHO Team Learning & Impact – Dr. Diana Kutzner
2. Data usage in municipalities – Madison Pearson
3. Natural Resource Development and Cumulative Health Impacts: A Case Study from New Brunswick - Hara Saadia
4. Cost-Benefit Calculator – Raissa Marks
5. Team Communications – Barb Oke, Sarah Skinner
6. Northern BC Regional Case – Barb Oke, Melissa Aalhus, Dr. Chris Buse, Dr. Marieka Sax
7. Nechako Watershed & Streamkeeper video – Jordan Cranmer
8. Geopaparazzi tool – Connor Ebert
9. Photovoice project – Wanzor Beaubrun
10. Mentorship & Capacity Training in ECHO – by Alex MacDonald (presented by Dr. Margot Parkes)
11. Sustainable Development Goals – by Christiana Onabola (presented by Dr. Margot Parkes)
12. Climate change and research in resource dependent communities – Julia Gyapay (presented by Dr. Margot Parkes)

1.3 The past year – lessons learned

Sally Maguet, Tanis Hampe and Dr. Diana Kutzner led the group into this session which was designed by Team Learning and Impact with the primary purpose of understanding three key questions (see Interactive Activity #1). The

session began with a brief overview of preliminary results from the ECHO Network survey before organizing three breakout groups which discussed (1) How relationships are being formed and made, (2) Changing awareness of intersections between E-C-H, and (3) Emerging intersectoral actions as understood from the updates during the morning sessions.

1.3.1 ECHO Network survey

The purpose of the ECHO Network Survey was to reach out to the entire ECHO Network Membership and better understand how they are learning from the Network, what kinds of tools and processes they are learning about, and what types of tools and processes they would they like to learn more about. We also included some questions around some of the more challenging topics our Network is trying to address. We wanted to gain insights about how ECHO Network Members think we can better address issues of equity, diversity, and inclusion, as well as the ‘more-than-human’ dimensions of the project. There were 45 survey responses in total, that’s 52% out of 86 ECHO Network Members. The ECHO Network has seen an overall increase in membership numbers since the project launch in 2017, when we had 60 Members. Of the 45 total responses, 24 people completed the survey. The survey had closed only 2 weeks prior to this Annual Meeting, thus the data presented was limited to a quick overview.



Interactive Activity # 1: Interactive breakout group activity to discuss the following three questions in the context of the updates and interactive poster session:

1. How relationships are being formed and made
2. Changing awareness of intersections between E-C-H
3. Emerging intersectoral actions

1.3.1.1 Key themes and results from the roundtable reporting on 3 questions:

How relationships are being formed and made	Changing awareness of intersections between E-C-H	Emerging intersectoral actions
<ul style="list-style-type: none"> • Investment/capacity • Trust & vulnerability • Finding untypical allies when seeking commonalities • Seeing new connections/ generating new awareness • BlueJeans & face-to-face meetings • Communication • Common language & understanding • Listening & speaking • Integration of knowledge • Working together 	<ul style="list-style-type: none"> • ECHO = catalyst for this work • Increase in systems thinking • Changing understanding of ‘what is community’ • Importance of storytelling to increase awareness • Sectors separate E-C-H but people live E-C-H all at once • Art allows for things to come together again • Art offers way to communicate differently • Common interests make working across sectors easier 	<ul style="list-style-type: none"> • Academics outside ivory towers • Working outside of traditional peer review manuscript model • May 27th workshop was an emerging intersectoral ‘action’ but what are immediate ‘actions’? Goes back to relationships • Building data and public knowledge to inform conversations • Getting people to realize what is tied to health & get them to care that work affects their health • Bringing people to you



Key emerging questions/thoughts/issues from this session:

- *What intersectoral actions are we working towards in the ECHO Network?*
- *What are possible immediate intersectoral actions?*

1.4 Bringing equity to the forefront

This session was led by Dr. Maya Gislason, Katie Bauder, Dr. Dawn Hoogeveen, Dr. May Farrales, and Dr. Diana Kutzner. Dr. Gislason asked the group to take time to collect our thoughts and reflect on tools that we have to do equity-informed work. An important question that was asked is how we are going to manifest this work. Is the team really as inclusive as possible? Often this work can be challenged when we want to take the fastest route to make the changes we want. It is critical that our research and work reflects the principles and the tools we want to create.

1.4.1 Challenges with the challenges

Dr. Dawn Hoogeveen presented a summary of the challenges encountered during the recent writing of the first collaboratively authored ECHO Network manuscript, titled “Addressing the Environmental, Community, and Health Impacts of Resource Development: Challenges across Scales, Sectors, and Sites” in the journal *Challenges*. The writing process resulted in feedback on the project’s work and some of the areas that require further targeted attention. Analyzing the comments from the paper also indicated similarities between work Dr. Vanessa Sloan Morgan presented around accountability in ECHO at last year’s Annual Meeting in Camrose, AB. A summary of the feedback themes includes:

- There was a thread about knowledge synthesis, moving from protocol to paper. Public health observatory approaches can be adapted to support the combination of information integration, capacity-strengthening, cross-jurisdictions.
- Knowledge to action, how are we doing this, what is the action? Intersectoral and political tensions that are being raised. Indigenous, informed vs. led.
- Weakness in planetary health as a frame.
- Resource extraction and political economy/power in relation to planetary health.
- Needs more emphasis on project work rather than theory.
- Too much intersectoral jargon.
- Scale, challenges over placing Indigenous elements on the margins.
- Scale, The Hidden and the Obvious, Staying with the trouble.
- Scale: more contentious section of the paper. Dynamics of global governance of resource extraction did not make it into the paper as much as some thought it should.
- Messy at the top and the bottom. Scalar messiness.
- Meaningfully integrate Indigenous dimension, including case law.
- The hidden and the obvious. Things that are political hot topics might not be what practitioners are working on. A lot of interpretations emerged last year. Invisible issues of power. Climate change discussions of energy development. Who are the agents? What are the processes?
- Staying with the trouble. There were mixed feelings about the use of Donna Haraway’s work. Arts-based and narrative approaches would augment discussion and tensions.
- Are there any risks to aligning the tensions with Indigenous people as messiness?

Among the writing team, there are important emerging dynamics, including an increasing awareness of gaps, missing voices, and also awareness of both hidden and emerging conversation both inside and outside the team. This was not a static paper, it was a living document and meant to be a springboard for more collaboration going forward, as well as work on the areas highlighted in the themes above.



Key emerging questions/thoughts/issues from this session:

Returning to Vanessa’s point:

- *How, then, do we hold these conversations while maintaining focus on our respective accountabilities?*

1.4.2 Mapping equity terrain – moving from definition to practice

Katie Bauder delivered a “Mapping Equity Terrain” presentation to generate an equity focus for subsequent meeting discussions and to invite attendees to think deeply about concepts related to **equity**, **inclusion**, and **diversity**. A set of definitions from Simon Fraser University’s EDI working group were presented and attendees were asked to contribute ideas about how they can be incorporated across methodologies and disciplines. Cases from big data research in environmental health were presented as examples for incorporating equity in a data-intensive or quantitative paradigm. Attendees were left with theoretical frameworks to consider for their work, as well as for the next session, the Comic Jam.



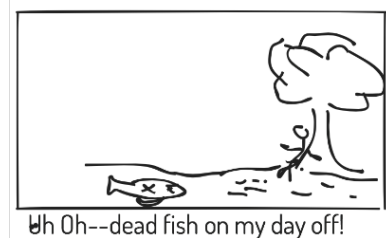
EDI definitions

- **Diversity:** *Diversity involves respect. Diversity is a respectful acknowledgement of the many ways in which we are different. At the heart of diversity is an invitation to learn more about different worldviews, philosophies, practices and ways of being. It is about moving beyond simple tolerance to authentically engaging the rich differences of each of us. It is about understanding each other.*
- **Equity:** *Equity is about fairness. Equity recognizes differences and takes those differences into account to ensure a fair outcome. This is different from equality, which is treating everyone the same. Equity recognizes that injustices have occurred and continue to occur, and involves removing barriers, biases, and obstacles that impede equal access and opportunity to succeed.*
- **Inclusion:** *Inclusion refers to belonging. When you belong, you are accepted for the unique traits that make you different from other people, and you accept others for theirs. This means that you do not have to change or hide parts of yourself to ‘fit in’. You can be flexible in your approach to building relationships across differences – both to be yourself and to meet others as they are. Achieving inclusion is the shared responsibility of everyone.*

1.4.3 Arts-based/narrative research approach: Comic Jam

Dr. May Farrales led the group through a Comic Jam – the objectives of this arts-based research approach were fourfold:

1. To build on the insights and ideas gained from the 2018 ECHO Network’s photovoice activity that provided individual participants with a creative means to engage in self-reflection in the initial stages of the ECHO project.
2. To allow for a creative way of dialoguing and documenting challenges emerging from participants' engagement with the ECHO Network.
3. To capture the ways in which challenges are being understood and negotiated by differently situated and placed participants.
4. To allow for thinking and discussion on how members of the ECHO Network situate and see the arts-based and narrative inquiry approach further developing in the project’s second phase.



This activity was intended to be a ‘quick draw’ activity with little verbal conversation during the comic jam. It encouraged participants to not overthink the prompt or story, but to go with their first idea and drawing. The overarching goal was for a group of participants to build a story together through ‘hand-drawn’ pictures. Participant groups were given the following prompt and asked to draw in response to it: “It’s sometimes challenging to work together across environment, community, and health, I wish...”. Following the exercise, all participants were invited to provide their reflections on the activity in response to the prompt “What did you learn from the activity?” Responses will be analyzed and themes shared with the wider ECHO team later this year.

1.5 Campus tour & Acadian history walk

Day 1 of the 2019 ECHO Network Annual Meeting concluded with a fantastic walking tour of the Université de Moncton campus by Annika Chiasson. Annika shared the history of the Acadians, who descended from French settlers who arrived in North America from 1604 onward. Primary Acadian settlements were along the Bay of Fundy. Annika provided insights into their lifestyle, and told participants about the interactions between the Acadians with the Mi'kmaq as well as the impact of the great expulsion of 1755, when Acadians were deported and scattered throughout the British colonies along after France had to cede Acadie to Great Britain. The mural which Annika is standing in front of was painted by artist Wasp Elder in 2017, on the Résidence Lafrance at UdeM. It is a tribute to the Mi'kmaq people and is based on a photography of [Molly Muise](#).



Annika Chiasson guiding the walking tour.

Day 2 (May 29) – Field day

Day 2 was spent on a field trip from Moncton to Kouchibouguac National Park, the Irving Eco-Centre, École Blanche Bourgeois, and finished with an evening of Acadian food and fun at the Ferme Marcel-Goguen in Cocagne. The field day was designed to allow ECHO Members to explore the nature and cultural heritage of New Brunswick and learn at the same time about resource development challenges in the province.

2.1 Kouchibouguac National Park

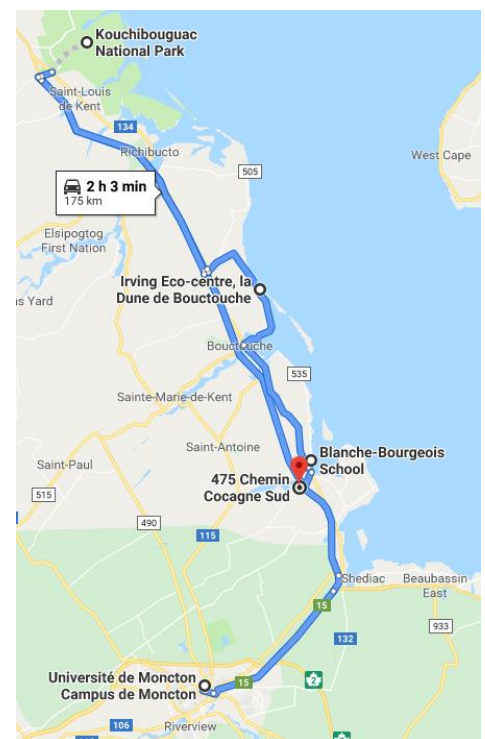
Victor Savoie, an interpreter with the [Kouchibouguac National Park](#) greeted the group and introduced [Kopit Lodge](#) Speaker Kenneth Francis of the Elsipogtog First Nation at the Kouchibouguac National. Kopit Lodge is a grassroots community organization, which monitors and advises Elsipogtog politicians on management of resource extraction and development in the Sikniktuk region. Kenneth told the group about the difficult history of the Elsipogtog First Nation with the Province of New Brunswick and also with the Kouchibouguac National Park. Only very recently (on May 9, 2019) have the Elsipogtog First Nation and Minister of Crown-Indigenous Relations signed a Memorandum of Understanding (MOU) to discuss Aboriginal title to Mi'kmaq land that covers one third of New Brunswick. Kenneth emphasized the need to protect the land and that much work still needs to be done gain full recognition of Indigenous Title but that this work is necessary to protect the land for future generations and all people.



Following Kenneth, park interpreter Victor Savoie acknowledged that Kouchibouguac National Park is

located on unceded Indigenous territory and shared some of the key features of the park with the group; 1200 people were evicted from the area when the park was first established. Kouchibouguac National Park is an important area for a variety of species, including species at risk such as the Piping Plover. The tides and lagoons in the park offer habitat critical for many species. Victor shared some of the many animals that have been lost in New Brunswick (e.g., Caribou, Wolves, Wolverine,

Walrus) and some which have been gained (e.g., Whitetailed deer, Moose, Coyote) as well as those that have gone extinct as a result of the fur trade, such as the Sea mink.



In response to questions from the audience about possible climate change impacts, Victor responded that, anecdotally, climate change impacts appear most obvious so far at the lagoon, which is now host to a number of hermit crabs.

2.2 Irving Eco-Centre: La dune de Bouctouche

The next stop was the [Irving Eco-Centre](#), where the group was split into six sub-groups which was given 8 minutes each at six different stations, including with:

1. Adrienne O'Pray, NB Business Council
2. Serge Robichaud, Council of Canadians
3. Paula Tippett, Retired Medical Health Officer, St. John Region
4. Lainey MacNeill, Grade 5 student
5. Marie-Linda Lord, Université de Moncton
6. An Irving Eco-Centre Interpreter

Paula Tippett told us about the health impacts of the oil refinery in St. John she observed during her time as MHO. Serge Robichaud provided some insights into the effects of the intensive forestry industry in New Brunswick, including glyphosate spraying to kill hardwood. Lainey MacNeill presented a poster she recently had made for the Heritage Fair, which discusses the Irving's influence in New Brunswick. Adrienne O'Pray gave an overview of the major export products of NB, particularly oil and gas with Irving owning 4 out of 7 major export products of the province. Marie-Linda Lord discussed the Irving family and the Irving influence related to: the ownership of the family of over 300 enterprises in NB, the extensive ownership of newspapers, and the journalism program at UdeM. The Eco-Centre interpreter highlighted the boardwalk and the Centre's role in protecting the Marram grass and dunes.



Following the rotating visits with the person at each station, the groups came back together to debrief at the beach.

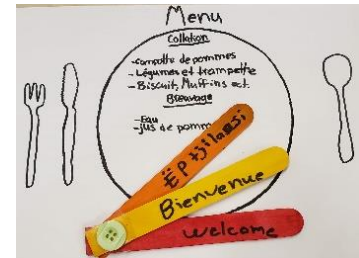


Key emerging questions/thoughts/issues from the visit to the Irving Eco-Centre:

- *Interesting similarities between NB and BC in terms of who owns/controls media coverage (e.g., Jim Pattison Group)*
- *What is the influence of Irving starting at the educational level, for instance on universities and their programs?*
- *Despite all challenges, several people who shared with the group were hopeful*

2.3 École Blanche Bourgeois

At the École Blanche Bourgeois in Cocagne, the field trip participants were welcomed by a group of enthusiastic 5th graders and their teacher, who served the group a snack they had prepared themselves. Students also presented posters informed in part through their participation in a research project with Dr. Céline Surette, on how arts-based methods can be applied in discussions of complex issues related to resource development. Following a break, the [Groupe de développement durable du Pays de Cocagne](#) spoke to the visitors about the work of the group, the importance of the local watershed, and the resource development challenges in New Brunswick. Read a summary of the visit and the research project the students are engaged in [here](#).



Serge LaRoche speaking to ECHO Members at École Blanche Bourgeois.

2.4 Food, Fun & Iggy competition at Ferme Marcel-Goguen

The field trip evening was spent at a local farm where Annual Meeting attendees received a warm welcome by Bernadette Goguen, who served delicious chicken and pumpkin soups all made with ingredients produced on the farm. The evening included washer tossing, pig feeding, horse visits, dancing to Acadian music by Christine Melanson and of course, the Iggy competition which challenged the participants' knowledge of Acadian history and Chiac (Acadian French language).



3.2 Learning & Impact – themes from Regional Case conversations



Sally Maguet opened this session by re-introducing ECHO Members to evaluation: frequently used evaluation terms, reasons for evaluation, and the differences between traditional evaluation processes and the ECHO Network’s developmental evaluation approach. A key focus of ECHO is strategic learning and continuous improvement – people doing complex projects situate themselves in this space. Emphasis is placed on feeding the learning back into the project as it progresses. The overall focus is on learning rather than proving that a program has been effective. Developmental evaluation is a new emerging field, and it is still a very new conversation for evaluators as well. It is also a non-linear process; it is a looping process.

Developmental evaluation informs strategic visioning from the start of a project. The logic model approach is like a road map. You plan a route and drive there. It will tell you if the route you planned will get you there. Developmental evaluation can be compared to having a star to guide you. You might go around the mountain, might go over, it does not matter as long as you are going in the right direction. The guiding star(s) is set by a shared vision.



Evaluation terms

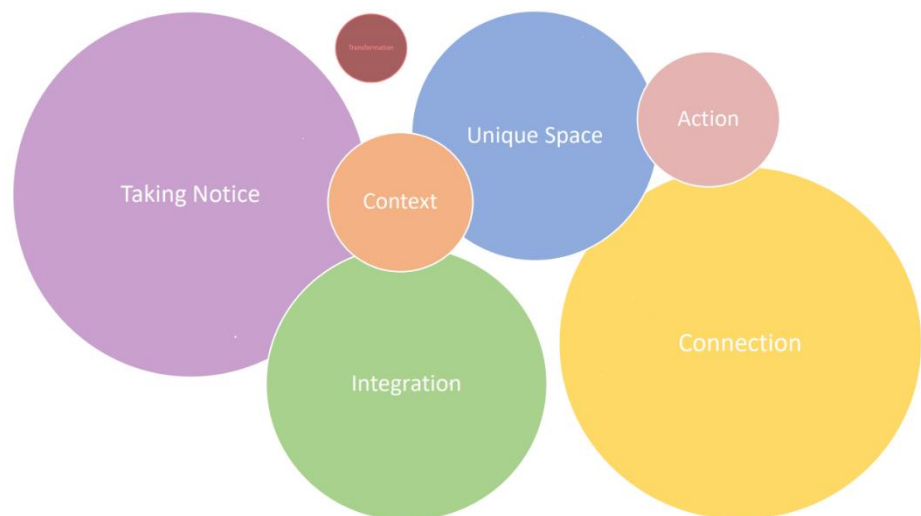
- *Output* – tangible, reports, publications, something you can report on
- *Outcome* – the change that occurs as a result of an output. E.g. changes in policy, or the way of doing a thing
- *Impact* – long-term outcome. Lively debate. Something that occurs due to some of the outcomes of the project. E.g. Improved well-being of communities. Challenging to draw any kind of line. Outcomes are easier to make a connection to what you are doing.
- *Indicator* – can’t think about indicators until we look at outcomes. Observable, measurable, possibly how much. For instance, health criteria involved in environmental assessment processes.

3.2.1 Preliminary results of the regional case conversations

The **regional case conversations** helped us get a pulse of where Network Members are at. We asked the members of the four regional cases (who were able to participate) four questions about: what is new and different in their work, any changes in their awareness of E-C-H connections, any changes in relationships, and how the Network is adding value. An appreciative inquiry approach informed the questions chosen. The resulting key themes were:

- Connection.
- Taking Notice.
- Integration.
- Unique space.
- Context.
- Action

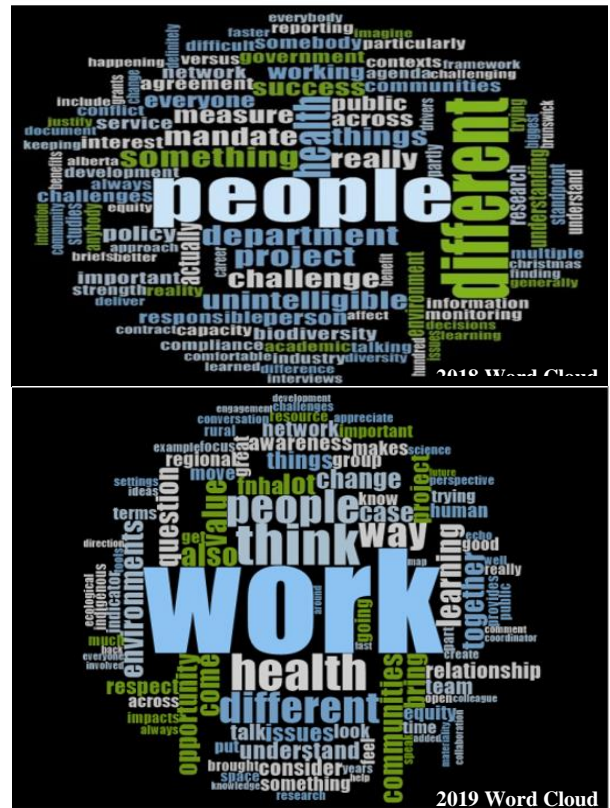
These themes are very preliminary as the regional case conversations only concluded about 2 weeks prior to the Annual Meeting. These conversations were not formal interviews, but rather a check-in conversation. Sally also presented two word clouds, one from the



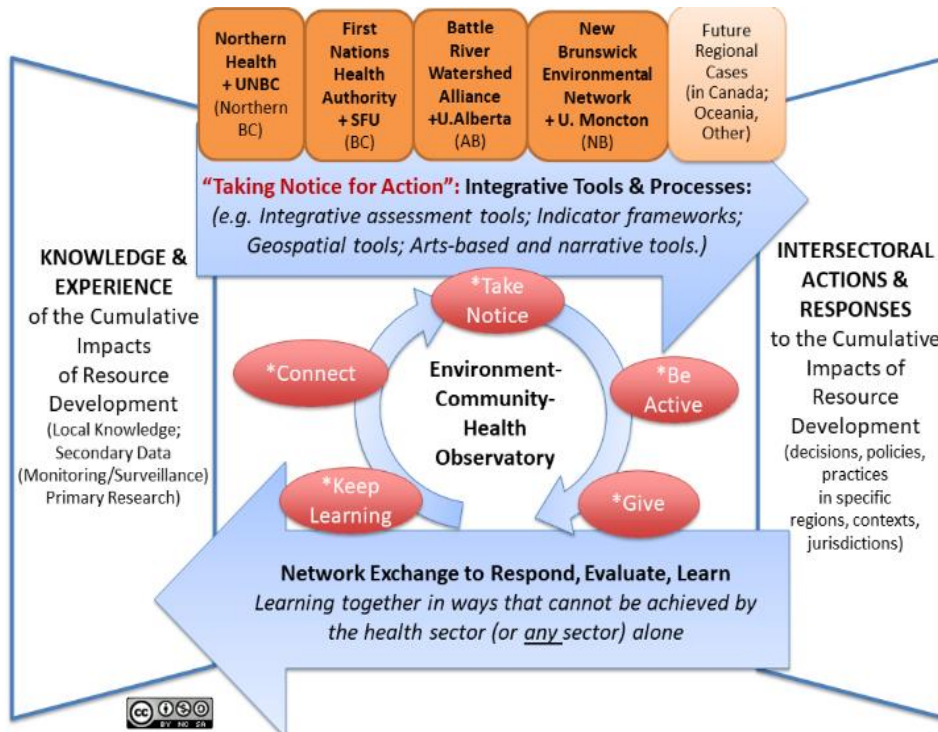
Entrance Interview data analysis, presented by Dr. Vanessa Sloan Morgan at the 2018 ECHO Annual Meeting, and one generated by the regional case conversation data. A key difference standing out between the two versions is the word ‘people’ and ‘work’.

In light of these results, Annual Meeting attendees engaged in a lively discussion about the appreciative inquiry approach used for these conversations and the need to also inquire about what isn’t working so well in the Network. There was also discussion about how different knowledges are valued and that there is diversity - and sometimes tensions - in this regard among Network Members.

Sally also reminded attendees of the framework at the core of the ECHO Network – which originates from the New Economics Foundation’s pathways to wellbeing. The keywords of the framework are *Connect, Take Notice, Be Active, Keep Learning, and Give*. The next activity was an exercise focused on the key outcomes which ECHO Network Members have previously identified as outcomes they would like to see the ECHO Network achieve.



The ECHO Network Framework



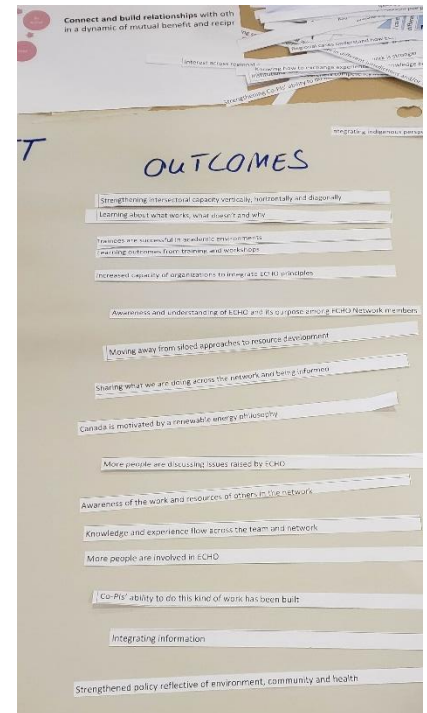
3.2.2 World Café about ECHO Network outcomes & outputs



For the World Café style exercise, ECHO Network Members were asked to choose one table with one of the five ways of well-being. Each table was given strips of paper that had ECHO's long-term outcomes on it, as recorded from previous learning & impact exercises such as the Entrance Interviews. Each table was asked to sort these strips of paper into outcomes versus outputs. Only those strips of paper that had outcomes or

outputs which were most relevant under the respective pathway to well-being (i.e., either *Connect*, *Take Notice*, *Be Active*, *Keep Learning*, or *Give*) were to be placed. Questions that were used to help frame the discussion at each table included:

1. Are the long-term outcomes that came from the entrance interviews still what we are looking for? Are they relevant to your context?
2. How do we bridge the gap between short, medium- and long-term outcomes?
3. What action will get you to those outcomes?
4. Who needs to be involved?
5. What does success look like for you in the next 3 years?
6. What are the actions in the next 6 months?



For details about the results, please email echonetwork@unbc.ca for the 2019 Learning & Impact Results report.



Key emerging questions/thoughts/issues from this session:

- *Learn or move towards the goals? Sometimes there is some tension here as sometimes there can be a need to step back if you've realized we need to rethink the goals. Developmental evaluation requires you to keep stepping back.*
- *What is the guiding star or shared vision of the ECHO Network we are trying to evaluate our progress towards?*
- *"Both and"*
- *"Challenge is we can have all the data and KT in the world, but the political appetite isn't here".*
- *How does the ECHO Network define action? Developmental evaluation action can be changes in relationships.*
- *What isn't working in the Network? Appreciative inquiry – still approach tough questions BUT with appreciative approach. Don't ignore the tough questions or gloss over them*

3.3 ECHO Outputs Exercise – How do we realize the full potential of this ECHO Network?



Dr. Margot Parkes led the group into the next session to engage ECHO Members to consider the question of *what do we need to adjust to what's worth doing?* Margot emphasized that while it is fine to focus on things we can count, we also need to have discussions about some tricky issues and spaces, for instance to understand what is an action and how we can get concrete about action. The emphasis with ECHO is not on just any action but intersectoral action and boundary crossing that helps us get to where we need to be.



ECHO Members were asked to engage in an exercise to identify 5 things – concrete, tangible outputs / products / activities / things (or events / services) which ECHO Members want to see/ will be relieved to see resulting from the ECHO Network prior to the end of the project in 2022. ECHO Member were also asked to identify how we can match efforts to make sure it happens. Each person was asked to match their 5 outputs to a side of the ECHO Framework loosely associated with the type of output it is (i.e., *Knowledge and Experience; Intersectoral Actions & Responses; Integrative Tools & Processes; and Network Exchange to Respond, Evaluate, Learn*).

Tanis Hampe typed up the content from the resulting wall of post-it notes (see the full set of meeting notes from this Annual Meeting for details). A brief report-back resulted in the following first-brush list of outputs ECHO Members want to see realized:

Books/documentaries/manuscripts/publications

- From cases and across the network
- E.g., health impacts of resource extraction; integrating health, environment and community

Communication/key message products

- That can be used with partners, policy makers, and for the public that make clear connections/pathways between E-C-H
 - Narrative and data/figures
 - Particularly health impacts of resource development so health departments can see a fit

- Why we work intersectorally
- Information equity concept raised by the youth
- How do you ‘do’ intersectoral action (toolkit, pathways)
- What does the ECHO community look like?

Continue to share and spread tools and do more development & research

- E.g., CalEnviroScreen, Disturbance map

Workshops/projects

- Specific ideas from contributors that they will bring into their work planning
- Within and learning across regional cases

Other output requests:

- Build more partnerships (move beyond ECHO and traditional local partnerships). Connect with other projects already happening
- Indicator development/‘surveillance system’
- “Leveraging” across cases
- Interest in influencing policy
- Something going on here, something to document and share about ECHO’s way of engaging

The full list of outputs was reviewed by Team Learning & Impact and analyzed for themes. For details, please email echonetwork@unbc.ca for the *2019 Learning & Impact Results* report.

See Appendix A (*forthcoming*) for details.

3.4 Emerging Issues

After coming back from lunch, Margot asked attending Members to raise any emerging issues they would like to discuss in small groups next. Five emerging issues were raised and breakout groups organized themselves accordingly:

- Chris: July 10th, hard deadline for SSHRC submission on best practices on resource development assessment.
- Tim: New Frontiers tri-council mega project that nobody knows about - high risk, high value, discuss how to measure and build and evaluate resilience at a community level and how that would fit in an environment and health framework. Grant coming.
- Lars: Community, resilience, and mental health in rural spaces from k-university and larger frameworks and methodologies for mental health.
- Hara: Knowledge translation for regional cases- how to create action in communities?
- Bob: Would like to look specifically at the learning trajectory and career paths of people who are influenced by ECHO, people whose careers are changed, changing, learners etc. and how to have a plan to influence the academic sites.



3.4.1 Narrative Stories in Regional Cases: How to create action in community?

Hara Saadia led this group, and Wanzor Beaubrun was the note taker.

- Rapprocher les données de la réalité des gens par des histoires
- Raconter des histoires en lien aux problèmes qui permettent aux membres de la communauté de bien comprendre les enjeux.
- L'histoire doit accompagner de solutions qui poussent les populations à l'action
- Raconter des histoires sur des choses positives qui se passent dans la communauté et de leur proposer des outils pour conserver
- Try to be part of community activities and link the scientific data
- Help the community to experience the territory another way
- Bring simple research results into the community activities
- Build relationships with communication

3.4.2 CEAA/SSHRC “integrated impact assessment” idea

Dr. Chris Buse led this group with note taker Jordan Brubacher.

The group discussed the current call by SSHRC, which offers \$30,000 grants to 13 projects and are focused on *Informing Best Practices in Environmental and Impact Assessments* and a pitch to develop a grant proposal, pursued by Chris.

3.4.3 New Frontiers Tri-Council Research Program

Dr. Tim Takaro led this group, with Katie Bauder as the note taker.

The idea for this emerged from the Research Challenges on Planetary Health group made up of people (Cylinders of excellence) and not benefitting from the strengths across the group. Resilience came up as an important concept but as something hard to define and measure (at every scale). Funding opportunity will shape that, which is as amorphous as the term. Background on the program: Tri-councils announced “New Frontiers” for early career investigators, for projects that are high risk, international and addressing wicked problems. It is hard for the three councils to work together, they have never done it, such tri-council grants are rare. They're pooling money from National Centres for Excellent and Grant program in CIHR.

Different ideas for how to pursue this funding pot were discussed through resilience and a focus on mental health, which connects with climate change, civic engineering, infrastructure, agricultural dimensions and risks to farmers. There are connections in the team to Oceania, Peru, and Germany who would be useful.

Existing teams and structures within ECHO were identified as Team Watershed (boundary) and Team Equity that have the mental health dimension. Psychological expertise: Céline's colleague in social work, community. Colleague of Tim's in the APA. Lars' colleague: adaptive capacity psychology for rural/agricultural dimension (indicative of pressures related to drought). Dawn - Anxiety in the Anthropocene, there is an inter-disciplinary element in the political ecology realm.

3.4.4 Learning Trajectory + Influence of ECHO on Career Pathways

Dr. Bob Woollard led this group with note taker Louisa Hadley.

The discussion revolved around the need for ECHO trainees to have more intentional opportunities for mentorship and to pursue the idea of a buddy system (matching trainees with mentors). The group committed to having a follow-up BlueJeans meeting to further refine the ideas initially discussed during this discussion.

3.5 ECHO Learning & Impact: SD91 Student Presentation & Discussion



SD91 students Jordan Cranmer, Alexis Seely, Ryan Carriere, and Connor Ebert presented next and provided their reflections on the 2019 ECHO Annual Meeting, and their engagement with the ECHO team. Overall, the students were appreciative of being part of the meeting and the way the attendees had integrated them into the event. Jordan and Alexis mentioned how they gained further insight into the interconnections of environment, community, and health and how important relationships are, particularly with youth. Ryan mentioned he appreciated learning about the Irving monopoly but felt there could have been more time to interact with the presenters at the Irving Eco-Centre, and that more context

would have helped. Connor felt some work could be done on information equity, to offer youth an opportunity to learn more in advance to allow them to contribute. He also suggested that youth integration could be more widespread, including a high-school delegate from each of the regional cases to allow them to learn from each other. He mentioned while there was some disappointment and discouragement on Wednesday, he has lots of hope, particularly seeing the students at the École Blanche Bourgeois so engaged.

The subsequent discussion landed on enthusiasm for a Team Youth – with potential leads and supports from Dr. Todd Arsenaault. Casey Litton, SD91 Science teacher, also wants to increase participation from other schools in SD91, if possible and particularly looking ahead to the next ECHO Annual Meeting, in Prince George in 2020.



Connor Ebert, Ryan Carriere, Alexis Seely, and Jordan Cranmer

3.6 ECHO Network work plan

Following the discussion with Jordan, Alexis, Ryan, and Connor, the group transitioned into the ECHO work plan for the remainder of the project and to discuss where the current plan may need to be adjusted to better accommodate our goals and objectives.

Examples of the outputs raised during the earlier exercise were given by Tanis Hampe to help inform the discussion:

- Books, manuscripts, from individual cases and cross cases.
- Health impacts of resource extraction, health integration in the community.
- Communications documents, key messaging, things that can be used.
- Some stuff involving data and figures. Some more narrative. A description of what we are doing and how we are doing it targeted for various audiences.
- Information equity. How are we opening up those dialogues?
- More development of tools, disturbance maps, CalEnviroScreen etc.
- Build more partnerships. Connecting with other projects already happening. Tangible workshops, there were some specific ideas. Within cases and across regional cases.
- Leverage. Interest in influencing policy. Indicator development. ECHO's way of engaging across our sectors.

Other examples were mentioned, with the group being challenged to identify how these aspirations can be met via a mechanism or someone willing to carry forward the conversations. The following items were raised and discussed:

- **Career planning & pathways;** with the trainees we will flesh this out in the next month (e.g., receptor sites for ECHO connected graduates but also links to youth) (Dr. Bob Woollard)

- **Statement on legislation**, for instance for Bill C69; need to increase cross-ECHO exchanges to better enable people across regional cases to work together and be able to respond to a federal call for input in timely manner (Dr. Tim Takaro)
- Missed opportunity if ECHO didn't engage with **federal legislation** which affects all case studies; staying with the trouble; there's a need to think of the power upstream and impacting it a lot more (Dr. Ben Brisbois); a proposed mechanism is **a critical reading group/book club**
- **Narrative stories** - Bringing the data closer to the community with stories and narratives. Telling stories that will allow us to link stories in a community and help people understand issues in their community. Stories need to have solutions that will lead to action, need to have stories that lead to action. Focus on their own tool. Try to be part of a community activity. Link the scientific data to that. Using narrative to help us deal with data. We can hold this and propose a document that would be available to the other cases and we would also welcome input. We will look into some sort of a webinar or discussion group online to carry this. (Hara Saadia & Wanzor Beaubrun)
- **New Frontiers grant**. Tri council mega project. Addressing a wicked problem. Integrating resilience indicators, mental health from a disaster, team watershed, team equity, mental health dimension. (Dr. Tim Takaro)
- **SSHRC CEAA** grant is grounded in cumulative impacts and this grant application will go forward and is a mechanism to carry forward work on impact assessment – seeking co-investigators (Dr. Chris Buse); there is interest in a possible impact assessment working group (Dr. Donald Cole)
- **GBA+ grant application** could be nested within Team Equity (Dr. Dawn Hoogeveen)

The discussion touched on the future of the ECHO Network, which will emerge from the team over time and Dr. Margot Parkes reinforced the message that a discontinuation of the Network would not be a failure – it was set up as a Network to add value to existing work, not necessarily to exist on its own. A grant such as the New Frontiers grant may offer opportunities to continue ECHO's work if that is what the group agrees is desired and the best way forward. These questions will be continually discussed at ECHO meetings, particularly the Research Design Working Group meetings.

Dr. Diana Kutzner and Dr. Margot Parkes next provided a brief reminder of ECHO's work plan and the key milestones accomplished to date, including the scoping and initiation phase which included development of the governance structures, funding transfer agreements and ethics processes, the ongoing work progressed by various teams since the beginning (i.e., Team Operations, Team Equity, Team Communications, Team Watersheds, Team Learning & Impact, and the Research Design Working Group), and the two cross-ECHO learning & impact workshops hosted by the NBEN-UdeM and NH-UNBC Regional Cases. The cross-ECHO workshops have highlighted that tools and processes do not need to be finalized prior to bringing them forward to the wider ECHO team for input and discussion, and the workshops held to date have fuelled helpful developments in the tools and processes presented.

The ECHO Network has reached the point where the Network can and should move into more concrete intersectoral actions. One way to do this is through spin-off projects or actions taken through regional cases. Another opportunity could be the 2020 event, or cross-sectional research – regional cases have budgets to support travel and knowledge exchange events between cases.

3.6.1 Outputs & activities exercise- summarized suggestions:



The discussion on the ECHO Network work plan led to the last exercise of the day. Attendees were asked to form groups and discuss intersectoral actions which can be taken now, actions which can be taken to enable intersectoral actions, and where the capacity may be found to support these actions. Two questions helped prompt suggestions:

- (1) What are the questions we need to ask ourselves now in regards to enabling intersectoral action? Engagement needs to be 'both and'.
- (2) Who will do what differently in their day job as a result of intersectoral action?

The resulting suggestions were summarized in three categories, as follows:

3.6.1.1 Travel

- Meeting in person funding; e.g., meet in the middle/pool money for traveling-traveling stipends
- Have projects with specific outputs enabled by ECHO Regional Case funding to allow for in-person work
- Get academic people to support in-person meetings through shared grant writing
- Offset carbon for travel

3.6.1.2 Knowledge exchange/sharing

- Other teams could have a sharing component to their meetings
- Emphasize outcomes between regional cases
- More topical scheduled (themed) regional case meetings online (meeting just between the cases)
- Finding ways for knowledge exchange between regions. E.g., students communicating across regions
- Cross-regional workshop invitations (speakers or participants)
 - Examples for relevant exchanges:
 - Northern Health (CMHO) talk to Alberta First Nations
 - BC students talk to Alberta/NB students
 - CalEnviroScreen
 - Knowledge building workshops (through webinar)

3.6.1.3 Other suggestions

- Employ Post-doc to carry forward prioritized work elements
- Rotate chairs in meetings (write agenda?)
- Use ECHO Source more to inform others of stuff
- Host a bi-annual meeting – accelerate sharing among cases (need coordinating designators)

3.7 Closing

The 2019 ECHO Network Annual Meeting officially closed in the afternoon of May 30th. To officially close the meeting, the group went outside to form a circle and share a highlight of the meeting for them personally with only one word. This was followed by a group photo and gift giving to the gracious New Brunswick hosts. A few members remained to form working groups to continue the next morning.

Working Group Day (May 31)

The day following the close of the official 2019 ECHO Network Annual Meeting was an optional day for ECHO Members to use as a collaborative working day. Working groups organized around three topics of interest:

1. Cross-watershed / youth engagement
2. More-than-human / beyond human / living systems
3. Tools and integrative assessment / CalEnviroScreen portal and funding opportunities

The remaining morning was used to re-group and reflect on this meeting to identify aspects to consider for future meetings.



Key emerging suggestions from this session:

- *consider designing the first intensive day by themes, rather than governance groups of the ECHO project;*
- *try to include more time in the field at certain places;*
- *giving 'tasters' of local context is ok, more can be learned individually through follow-up (less can be more);*
- *consider how can we design for more productivity /work time.*

List of Participants of the 2019 ECHO Annual Meeting

Aalhus, Melissa - nBC*	Gislason, Maya - BC***	Pearson, Madison - AB
Allison, Sandra - nBC	Forgues, Julie – NB	Saadia, Hara – NB
Arsenault, Todd – NB	Hadley, Louisa - nBC	Samm, David - AB
Bauder, Katie – BC	Hallström, Lars - AB	Sanderson, Dionne - BC
Beaubrun, Wanzor - NB	Hampe, Tanis - nBC	Sax, Marieka – nBC
Brisbois, Ben - ON	Hoogeveen, Dawn - BC	Seely, Alexis – nBC**
Brubacher, Jordan - BC	Jacques, Marianne - QC	Skinner, Sarah - AB
Buse, Chris - nBC	Kutzner, Diana - nBC	Surette, Céline - NB
Carriere, Ryan – nBC**	LaRochelle, Serge - NB	Tippett, Paula – NB
Chiasson, Annika – NB	Litton, Casey – nBC	Tranchant, Carole – NB
Cole, Donald - ON	Maguet, Sally – BC	Takaro, Tim - BC
Cranmer, Jordan - nBC**	Marks, Raissa - NB	Woollard, Robert (Bob) - BC
Ebert, Connor - nBC**	O'Donnell, Susan – QC	
Emmons, Scott - nBC	O'Pray, Adrienne – QC	
Farrales, May - nBC	Oke, Barbara - nBC	
Fauré, Anne – NB	Parkes, Margot - nBC	

*nBC = Northern BC

**SD 91 Students

***Attended remotely



Other ECHO Team members (Co-Applicants, Knowledge Users, Collaborators, Research Partners) not present at the Annual Meeting:

Adams, Evan - BC	Halseth, Greg - nBC	Marshall, David - BC
Brubaker, Mike - Alaska, US	Hamilton-Bogart, Bonnie - NB	Owens, Philip - nBC
Bunch, Martin - ON	Hancock, Trevor - BC	Petticrew, Ellen - nBC
Castleden, Heather - ON	Harmsworth, Garth - NZ	Poland, Blake - ON
Chiasson, Alyre - NB	Hinshaw, Deena - AB	Psyllakis, Jennifer - BC
Coleman, Mary Ann - NB	Joubert, Brian - AB	Saint-Charles, Johanne - QB
Dery, Stephen - nBC	Lewis, Nancy - Hawaii, US	Tranchant, Carole - NB
Fredeen, Art - nBC	Loewen, David - nBC	Vaillancourt, Cathy - QB
Galway, Lindsay - ON	Mackay, Fabienne - NB	Webb, Jena - Equador
Gilbert, Mike - nBC	Masuda, Jeff - ON	Zimmer, Patrick - SK
Greenwood, Margo - nBC	de Leeuw, Sarah - nBC	Lemire, Melanie - QB
Thiessen, Gerry - nBC	Horwitz, Pierre - AUS	Stelkia, Krista - BC
Vigano, Jennifer - nBC	Moewaka Barnes, Helen - NZ	Capon, Anthony - AUS
Harder, Henry - nBC	Okey, Tom - BC	Harmsworth, Garth - NZ
Stephen, Craig - BC	Arsenault, Todd - NB	Jenkins, Aaron - AUS
	McKellar, Kaileah - ON	McCreanor, Tim - NZ
		Trotman, Rachael - NZ