



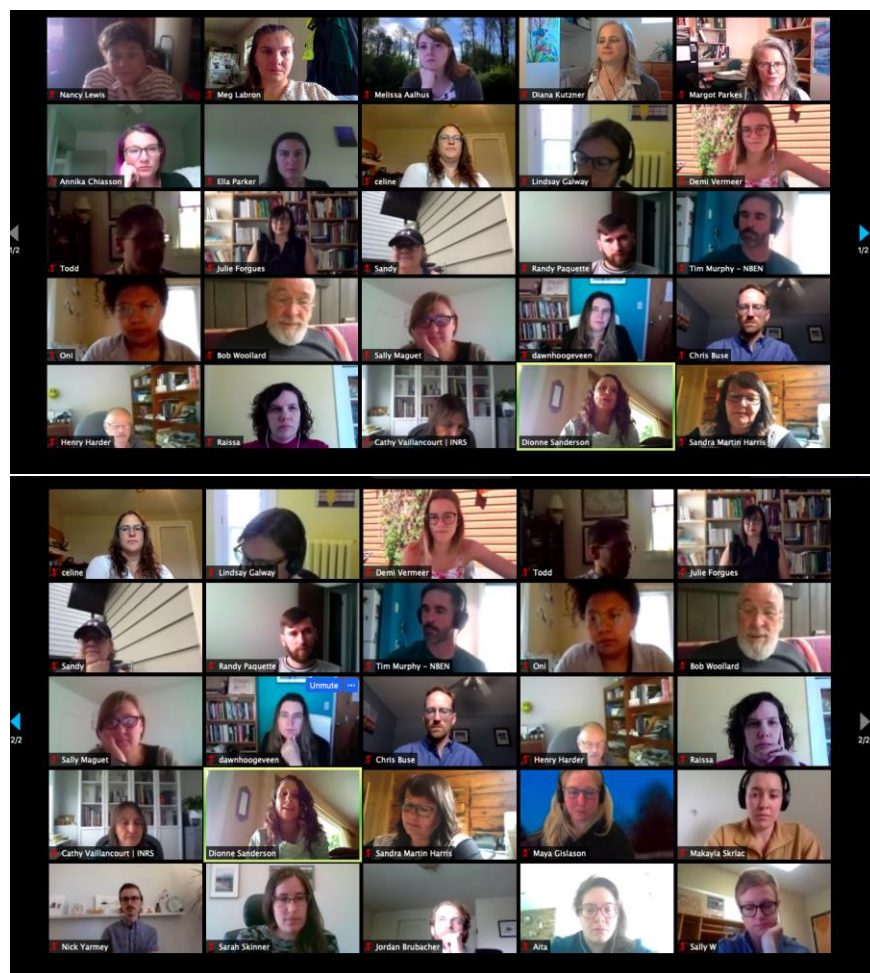
Environment
Community
Health
Observatory
Network

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

June 10-12, 2020



ECHO Members Online on Day 1 of the 2020 Annual Meeting

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.

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Summary

On June 10-12, 2020, university researchers, research partners, community members, and youth from across Canada connected virtually for the 2020 Annual Meeting of the Environment, Community, Health Observatory (ECHO) Network. 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 ECHO Annual Meeting, not counting the project launch, which was held in May of 2017 in Prince George, British Columbia. This year, ECHO Network members were going to be hosted by the Northern BC Regional Case in Prince George in conjunction with a large international gathering supported by the ECHO Network – the Land, Health, and Healing Gathering. Unfortunately, the COVID-19 global pandemic derailed the planning for an in-person event so the planning team adapted to host the meeting online and for a shorter than usual duration.

The online Annual Meeting unfolded over the course of three days. It was organized into short morning and afternoon sessions to accommodate members connecting from home, especially those with young children. The first day opened with a virtual lakeshore walk led by PhD candidate Sandra Harris, who is a member of the Witset First Nation and lives in Tse Kya, BC in the Gitksan laxyip, the Hazeltons'. The virtual walk grounded us in place, even from afar. Diana Kutzner, Research Manager of the ECHO Network, then led us through the ECHO Journey to Date, contextualizing the meeting and work to come within a timeline of ECHO accomplishments and engagements so far. After an outdoor break, members re-convened for the Cross-ECHO Exchange and Work Plan session, which included 'Road Trip' updates from each of the Regional Cases, and a visioning session for what members hope to see in ECHO's remaining years. Day Two included an informative ECHO-Screen session led by Chris Buse and various Research Assistants and Associates across the Network who are doing the important work to bring the ECHO-Screen to life. The second half of Day 2 included the Mystery Iggy Competition and Zoom Social – silly hats and online puzzles were involved. On Day 3, ECHO Team Learning & Impact led the group through a Three Horizons Framework exercise, which helped the team envision the final years of the ECHO Network. The meeting closed with a wrap up and conclusion session. . We are happy to offer this Annual Meeting Report to the Network in summary of the work we did together during those three days.

Résumé

Du 10 au 12 juin 2020, des chercheurs universitaires, des partenaires de recherche, des membres de la communauté et des jeunes de tout le Canada se sont connectés virtuellement pour la Réunion Annuelle 2020 du Réseau d'observatoires de l'environnement, de la communauté et de la santé (ECHO). Le Réseau ECHO est un programme de recherche de 5 ans, financé par une subvention d'équipe des Instituts de recherche en santé du Canada, qui vise à travailler ensemble dans différents secteurs pour mieux comprendre et répondre aux impacts cumulatifs du développement des ressources sur la santé, l'environnement et les communautés.

Il s'agissait de la troisième Réunion Annuelle d'ECHO, sans compter le lancement du projet, qui a eu lieu en mai 2017 à Prince George, en Colombie-Britannique. Cette année, les membres du Réseau ECHO allaient être accueillis par le Northern BC Regional Case à Prince George en conjonction avec un grand rassemblement international soutenu par le Réseau ECHO - le Land, Health, and Healing Gathering. Malheureusement, la pandémie du COVID-19 a fait dérailler la planification d'un événement en personne. L'équipe de planification s'est donc adaptée pour accueillir la réunion en ligne et pour une durée plus courte que d'habitude.

La réunion annuelle en ligne s'est déroulée sur trois jours. Elle a été organisée en courtes sessions du matin et de l'après-midi pour permettre aux membres de se connecter depuis leur domicile, en particulier ceux qui ont de jeunes enfants. La première journée s'est ouverte par une promenade virtuelle au bord du lac, animée par la doctorante et femme de Wet'suwet'en, Sandra Harris, afin de nous ancrer sur place. Diana Kutzner, responsable de la recherche du Réseau ECHO, nous a ensuite guidés à travers le parcours d'ECHO à ce jour, en contextualisant la réunion et le travail à accomplir dans un calendrier des réalisations et des engagements d'ECHO jusqu'à présent. Après une pause à l'extérieur, les membres se sont réunis à nouveau pour la session d'échange et de plan de travail Cross-ECHO, qui comprenait des mises à jour sur le "Road Trip" de chacun des cas régionaux, et une session de visualisation de ce que les membres espèrent voir dans les années à venir d'ECHO. Le deuxième jour a été consacré à une séance d'information sur l'écran ECHO, dirigée par Chris Buse et divers assistants et associés de recherche du réseau qui font un travail important pour donner vie à l'écran ECHO. La deuxième moitié de la deuxième journée a été consacrée au concours Mystery Iggy et Zoom Social - des chapeaux ridicules et des puzzles en ligne ont été utilisés. Le troisième jour, l'équipe ECHO Learning and Impact a dirigé le groupe dans l'exercice du cadre des trois horizons, qui a été une autre activité utile pour envisager les dernières années du réseau ECHO. Une brève conclusion a été tirée, et l'assemblée annuelle de 2020 s'est achevée sur cette conclusion.

Nous sommes heureux d'offrir au Réseau ce rapport de la réunion annuelle qui résume le travail que nous avons accompli ensemble pendant ces trois jours.

Day 1 (June 10, 2020) - The ECHO Journey

The first meeting day began with opening words from Margot Parkes and Henry Harder, followed by a round of brief introductions giving the 55 ECHO Network members in attendance an opportunity to share with others who they are and which traditional territories they were calling in from. Members had also been invited to provide a more detailed introduction on a shared collaborative document.

1.1 A Lakeshore Walk with Sandra Harris

To begin our day together and ground ourselves in place – in this case Northern British Columbia – where most of us were not able to be physically, we were grateful and honoured to have Sandra Harris take us on a virtual lakeshore walk in the traditional territory of the Cas Yikh, Gitdimt'en (Bear) Clan of the Wet'suwet'en, Hazelton, BC. For those interested, the video can be viewed at the following link:

<https://www.youtube.com/watch?v=IgiQqZx1Z2w&feature=youtu.be>. For further exploration of this topic, see also: https://ecohealthkta.net/digital_stories_wetsuweten/

1.2 ECHO Network Journey to Date

The grounding lakeshore walk was followed with a summary of some of the highlights of the ECHO Network journey since May 2017. It is acknowledged that there are many different ways in which this journey can be recounted, and, in this case, it was described from the perspective of the Research Manager, Diana Kutzner, who has been with the project since the launch. This journey was presented in the form of Figure 1 (see below).

The ECHO Network journey began on the traditional unceded territory of the Lheidli T'enneh in Prince George, British Columbia, at the University of Northern British Columbia (UNBC) where ECHO Members engaged in key discussions around how we would like to start this journey. Henry Harder and Sarah de Leeuw provided some powerful metaphors regarding being mindful of feeding the good or the bad wolf, and the need to foster a sense of wonder on this challenging ECHO Network journey. We considered the questions which have helped guide us to date, of 'what should be', 'what is', 'what could be', 'what can be'. We also quickly learned just how important it would be for us to engage youth in this integrative work.

From this start in May 2017, the next few months were taken up with developing the processes that would allow our Network members to work together, including forming teams and committees, collaborative platforms, and engaging in some foundational entrance interviews to capture core team members' motivations and evaluative priorities for the ECHO Network.

In summer of 2017, we welcomed several regional case Research Assistants to Prince George to begin some foundational geospatial teamwork across cases including work on one of the first tools and processes — the UNBC watershed portal.

In early 2018, a number of team members from UNBC went to visit the Battle River Watershed Alliance (BRWA) and University of Alberta (UofA) in Camrose, Alberta. They took a deeper dive into the work of identifying integrative watershed health indicators. Back in Prince George, the ECHO Network team contributed to conversations at the 2018 Cumulative Impacts Research Consortium Forum on cumulative

impacts policy and practice in northern BC. Another tool and process emerged with the CIRC Integrated Regional Profiles guide and maps.

The 2018 Annual Meeting took many ECHO Members to the Battle River Watershed and the UofA Augustana Campus in Camrose, Alberta. We were inspired by local champions such as Dave Doze and his work on Battle Lake and challenged by both the hidden and the obvious cumulative impacts of resource development. An important ‘pathways to health’ conversation challenged us to interpret each other’s drawings while learning more about the enormity of the challenges we face and how to tackle them as a Network going forward.

Several publications were produced in 2018, including the drinking water contaminants report by the UofA/BRWA team and the knowledge synthesis work on health and resource extraction led by Ben Brisbois. At the end of 2018, Sandra Allison, Margot Parkes, Anne Fauré, and Diana Kutzner attended the CIHR mid-term meeting. The end of 2018 was also influenced heavily by the ECHO team’s effort to pull together a 35-author team manuscript, which was published in early 2019.

2019 was also the start of more cross-ECHO workshops, including the trialing of tools and processes such as the NBEN/UdeM case’s Risks and Benefits Calculator. A key meeting also was the CANUE-ECHO Meeting, which engaged the team in discussions of the challenges of integration of health indicators, equity, and geospatial mapping.

Our 2019 Annual Meeting was hosted in Moncton, New Brunswick, helping attendees learn about the Cogagne watershed and history, how communicating without words can be challenging via the Comic Jam, and ongoing equity challenges as part of this work.



Figure 1. ECHO Network Journey.

Attendees engaged in documenting their aspirations for the outputs and outcomes of the project going forward. The Career Trajectory Working Group was a key team to emerge from the meeting, to begin to tackle questions around careers after working in this type of integrative space.

Ongoing work on geospatial mapping was further fuelled by the development of the BRWA/UofA case's watershed health wheel and indicators. The November 2019 Indicator Frameworks meeting in Vancouver, BC highlighted the desire of ECHO members to engage with the CalEnviroScreen tool and process in each regional case. During this time, our team experienced some disruption due to several weeks of strike action at UNBC. Starting off 2020, we submitted our progress report to CIHR, one of the formal requirements as part of this team grant, which also provided an opportunity to document some key tools, processes, and publications produced to date by this team.

Reflecting on the desire expressed by team members at the 2019 Annual Meeting to have an additional touch point throughout the year, possibly virtually, the Collaborative Working Day convened in January 2019 and helped progress key conversations on moving the Network towards intersectoral action, addressing diversity and representation within the Network, and work on indicator frameworks.

Soon after this event, COVID-19 arrived in Canada and the ECHO team went through some major shifts and adaptations in order to adjust and stay safe in the pandemic. Events such as the Land, Health and Healing Gathering had to be postponed and adapted. However, ECHO members were able to continue in enabling further cross-ECHO conversations, including the ECHO-Screen show and tell, and the GBA+ open house. This has landed us at the 2020 ECHO Network Annual Meeting as we continue another chapter of the ECHO Network journey.

Break – optional outdoors for Geo-paparazzi exercise

We then had a break between sessions, where ECHO Network members were encouraged to get off their screens and go outside. During this time, those who were interested were able to trial the ECHO Portal 'geo-paparazzi' app. See Appendix 3 for details on the Geo-paparazzi App and FileShare Portal.

1.3 Cross-ECHO Exchange and ECHO Work Plan

The purpose of this session was to land everyone back in the work that the ECHO Network is currently doing, and to take stock of what has been accomplished on the Network's ECHO Journey to date. This session also held the space to reflect on the present moment, and to frame the shift that will be occurring during the next phase of the Network's efforts towards a strong cross-ECHO emphasis, and an interest in taking notice for action. After a brief introduction to contextualize the intention of this session, each of the four regional cases offered updates on their ECHO 'road trip'. The conversation then shifted to next steps and plans for the final years of the project. We moved into breakout groups to facilitate this discussion more in-depth, focusing on the question "what is your biggest hope for ECHO's remaining time, and what is your role in making that happen?"

1.3.1 Regional Case Updates

We started by hearing about the highlights along each of the Regional Case 'road trips' with brief seven-minute presentations.

1.3.1.1 NBEN/UdeM Road Trip

Annika Chiasson prepared a scrapbook to show highlights along the NBEN/UdeM ECHO journey to date. Since starting their road trip on unceded Mi'kmaq territory, the NBEN has seen their network grow as they have picked up many new passengers. Being a part of the ECHO Network has given them the excuse to pursue existing and new connections with First Nations and regional medical health professionals, including the Chief Medical Officer. Some of you will remember they hosted a Public Health Workshop in Moncton, New Brunswick prior to the 2019 Annual Meeting.

NBEN hosted a fantastic ECHO Annual Meeting last year in Moncton, NB, where they were able to share with the Network what makes New Brunswick unique. Doing research based in arts, using photos, pictures, drawings and stories has also been very important to NBEN throughout their journey. Wanzor Beaubrun completed a youth photo voice activity, Hara Saadia created development and impacts vignettes, and Annika has continued to utilize graphic facilitation in a number of projects.

They had a visit to Belledune, an area known to be strongly impacted from industry. They visited the NB power plant, the sawmill, the fort, and spoke with the Glencore Smelter employees who were striking outside. With the exception of the conversations had with the striking workers, there was little discussion of the impacts of industry on community, health, and the environment.

The Risk and Benefits calculator is another highlight. It dates back to 2011, but the development was stalled due to lack of funding. ECHO funding made it possible to pick up again, and it was completed in September 2019.

The NBEN/UdeM Regional Case is very sad to see Raissa Marks jump off their van, a big thank you to Raissa! Nevertheless, they are excited to be welcoming a new passenger and executive director to their van, welcome Tim Murphy! Tim is happy to hop on board and wants to continue getting the Risk Benefit calculator out there so people know it exists.

1.3.1.2 BRWA/UofA Paddling Trip

I would love to live like a river flows, carried by the surprise of its own unfolding - John O'Donohue

The BRWA paddling trip started in the headwaters, Figure 2, wanting to know how to do reporting in a more holistic manner. At this point, the ECHO Network and UofA got into the boat and the Health in the Watershed Atlas was born. Much like spring flooding, they were inundated with new data sets, new challenges, and new terminology.

The BRWA research assistants have been busy creating fact sheets to inform the BRWA how they are doing compared to other watersheds, policy briefs to determine if policies in other areas can be used to increase the health in the Battle River watershed, and mapping different indicators on the wheel.

The BRWA is also progressing work on the ECHO Screen and has successfully completed the first iteration of the Alberta EnviroScreen. The ECHO Screen is at a confluence now, the next steps will be informed by cross-ECHO conversations.



Figure 2. Headwaters.

BRWA is also excited to progress a program called, *People Assessing Health in their Watersheds*, that aims to start having conversations with the public. Feedback from this will guide our tools and actions.

1.3.1.3 FNHA/SFU Canoe Trip

FNHA/SFU framed their journey as a canoe trip. In Spring 2019, Dawn Hoogeveen and Katie Bauder joined the canoe. In the fall, the regional case was progressing a Learning and Impact workshop when they hit some turbulence. Linda Pillsworth left the canoe, and her guidance was missed, Dionne Sanderson also stepped off for a couple of months, while Lindsay Beck got back into the canoe, and Danielle Behn-Smith also joined for a bit.

The regional case workplan was guided by the Population Health and Wellness agenda, looking at 22 indicators over the next years. It is guided by relationship building, strength-based, two-eyed seeing, and supporting First Nations to achieve healthy and vibrant lives.

The workplan includes progressing a ‘Connection to the Land’ indicator for FNHA. FNHA has had some land-based “We Walk Together” gatherings that have resulted in great conversations. They hope their case study can go into communities again soon. They have also been working on their anthropogenic maps, which originally were mapped with a deficits-based approach, but are now being adjusted to map intactness and using a strength-based approach. Dawn has been working on Health Impact Assessments (HIA). The local environmental observer (LEO) Network was on hold as the coordinator has moved onto another position, we are looking to fill the position, stay tuned. Maya Gislason and Dawn are progressing a paper on intersectionality and intersectorality.

FNHA had to rest their canoe on the shore when COVID-19 hit, but Jordan Brubacher has gotten out and started walking as he continues to help with the cross-ECHO group titled Geospatial ECHO (GECHO). Dawn continues progressing HIA work and Maya is helping to progress ECHO’s Team Equity, and Tim Takaro is progressing COVID webinars.

FNHA is looking forward to hosting the next year’s ECHO Annual Meeting in Vancouver!

1.3.1.4 NH/UNBC Road Trip

The NH/UNBC or Northern BC Regional Case has had a year full of transitions. Their figurative road trip ‘van’ slowed down for a few staff to jump out, but it kept on going. Last fall, Sandra Allison and Barb Oke moved on from Northern Health to new and exciting opportunities. Raina Fumerton took over as acting Chief Medical Officer of Health, and Melissa Aalhus took over for Barb. Katrina Koehn moved into Melissa’s former role for the year, and now both Katrina and Melissa will be leaving for Medical school. Raina and Chris Buse will continue, and Sally Western has joined as a strong addition to the team. COVID-19 has taken up most of the time and capacity for the Northern BC Regional Case, putting many ECHO plans on hold.

Despite transitions and COVID-19, some commitments were still progressed. The Regional Case’s knowledge translation materials are almost finalized, they have come along way with Katrina’s graphic design skills, and with the feedback the ECHO Network provided. Northern Health is also updating their Standard Comments document; and they’ve received feedback from the Network on that document. They have also advanced work on the ECHO Screen tool (see pg. 16 -19 for more information).

Chris, Kevin Hanna, Dawn and Margot have also put together a successful SSHRC Knowledge Synthesis Grant looking at best practices in integrated assessment approaches for regional and strategic environmental assessments. Stay tuned for that report.

1.3.2 Priorities for Cross-ECHO Exchange for Final Years/Next Phase of our ECHO Journey

Following the road trip updates from the regional cases, Margot Parkes helped to re-orient the group to the next phase of the ECHO Network’s shared journey. Noting that we are currently past our midway point for the project, she stated a need for a thoughtful and intentional shift within the Network. This shift will move the Network from an emphasis on regional case work toward a cross-ECHO emphasis. A cross-ECHO emphasis will involve a more conscious focus on what the ECHO Network Regional Cases have learned and taking notice for action. Referencing Figure 3, the ECHO Framework, Margot emphasized that in order to achieve our goals in this work, we must now progress toward tangible actions. As the funding for the ECHO Network ends in the year 2022, there is also a recognized need to be thinking about steps after the ECHO Project ends.

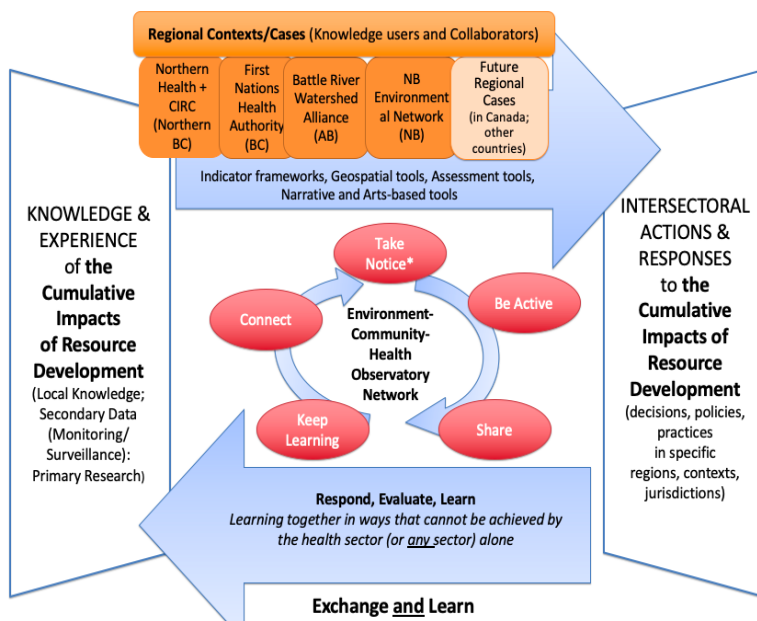


Figure 3. ECHO Framework

Margot also took a moment to recognize how important and impactful successions are and have been within the Network. Acknowledging and thanking some of the ECHO Network members who have since moved on to new roles, including Sandra Allison, Raina Fumerton, Henry Harder, and Holly Clermont. Margot noted that we have been lucky to have contributions and leadership from a wide range of skilled and committed people over the years. These successions also have an impact on the Network, and so the importance of using the ECHO Framework (Figure 3) to guide our movement toward actions is all the more important.

Overall, it is acknowledged that through the reciprocal relationship between the wider ECHO Network of ~80 people, and the work of the four Regional Cases (the ECHO ‘arms of action’), we are seeing ripples of impact that extend far beyond just the ECHO Network itself. Knowing that we have already learned and achieved a lot, we must also recognize that this work needs to be shared beyond the Network. Recognizing the importance of considering possible zones of influence for the ECHO Network, Margot recognized the influential work of Holly Clermont, a post-doctoral fellow with the ECHO Network from

2019 to 2020, who introduced spheres of influence, Figure 4, as a way of framing this thinking within the Network.

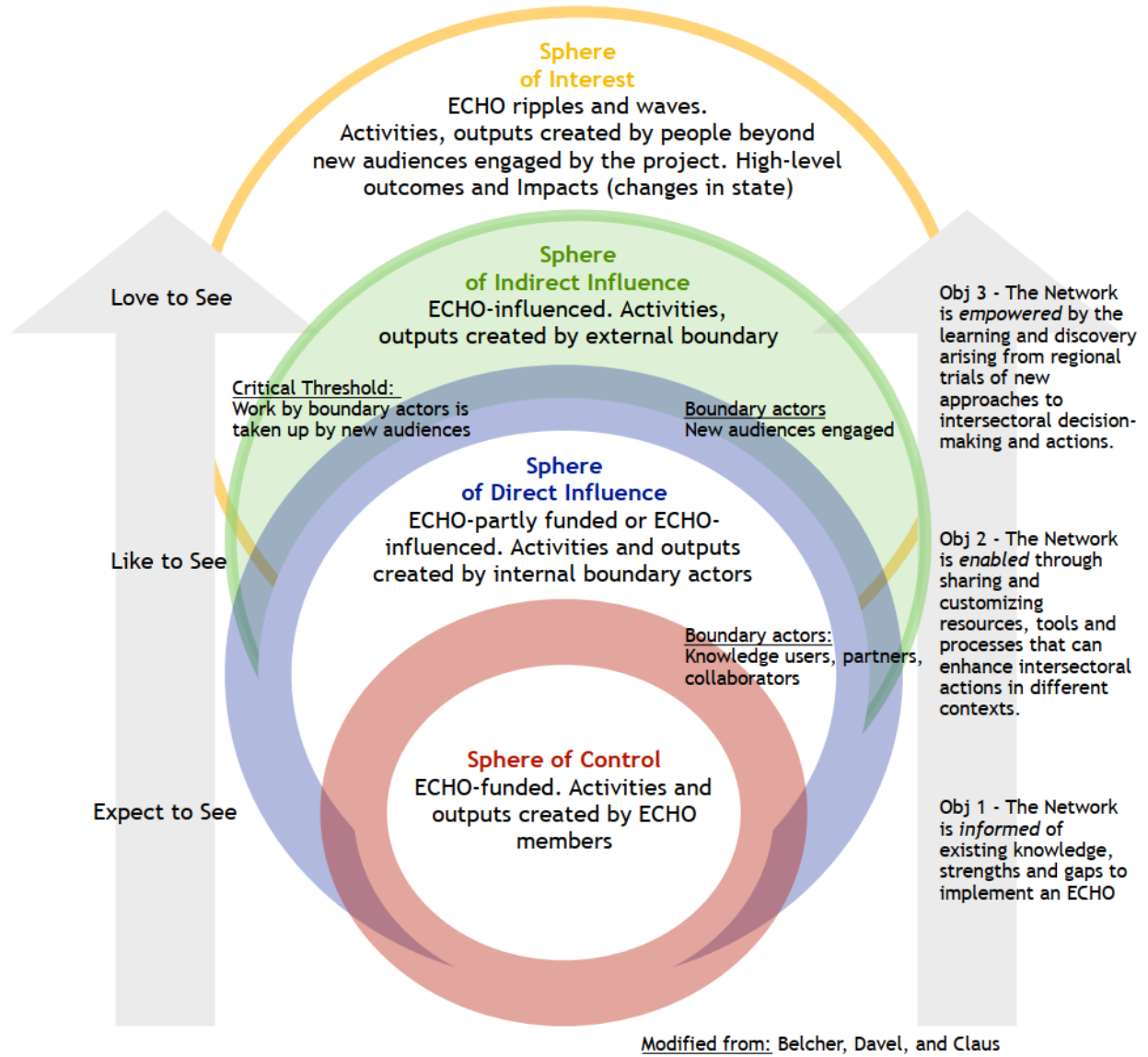


Figure 4. Spheres of Influence

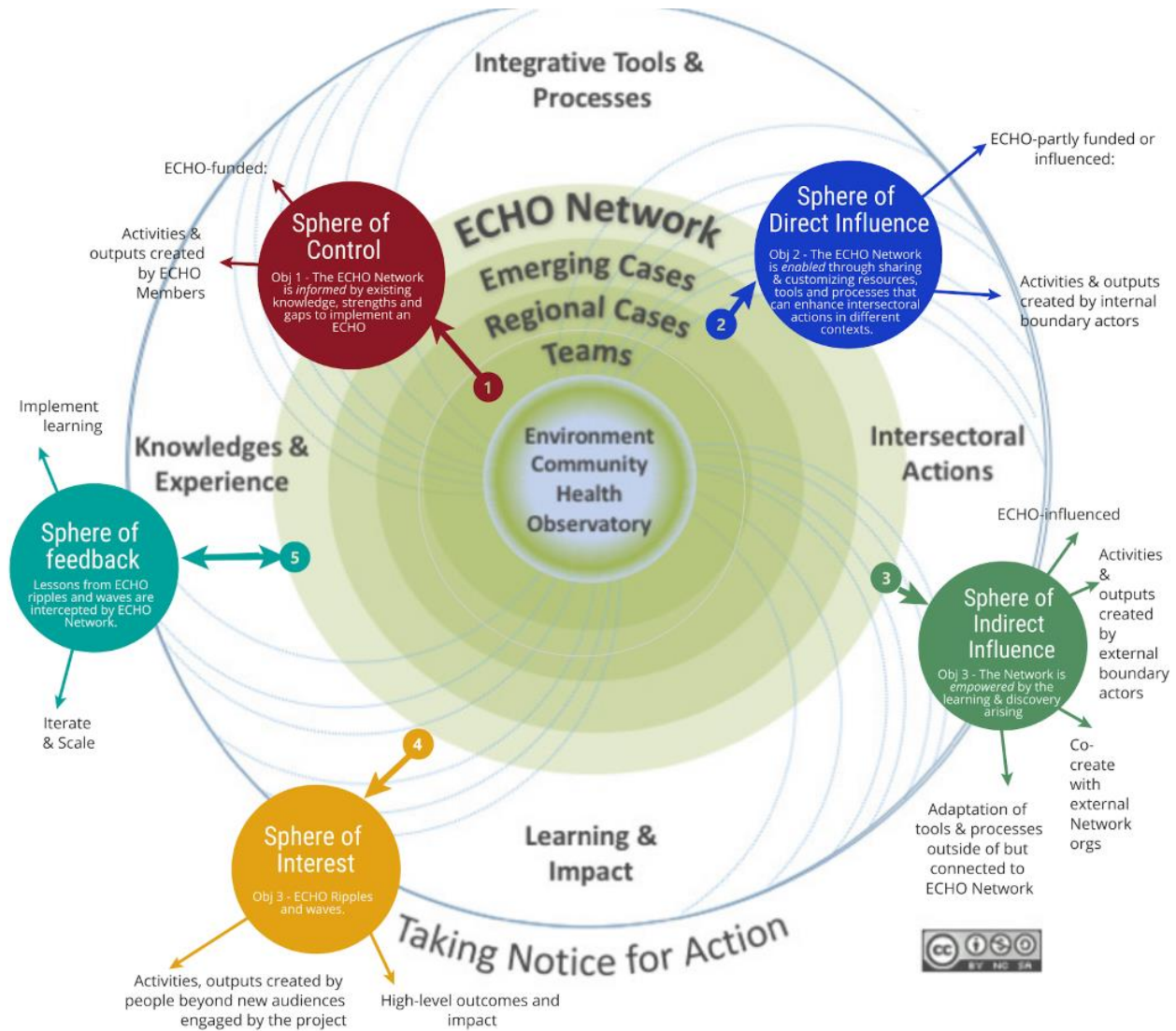


Figure 5. Sphere of Influence with Nested Circles of Influence

The spheres of influence help us envision our reach and impact, partly by reminding us that there are no limits to research influence. As the project influence decreases, external influences can increase. In the sphere of control, we focus on what we do, but as we stretch outwards and engage with others, we shift our attention to what we want to change.

Figure 5, above, overlays the spheres of control, direct influence, indirect influence, and interest over an evolved version of the ECHO Framework (published under the conditions of Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0), depicting the Network as a nested, emerging observatory network. The spheres are linked to the different types of ECHO Network activities, outputs, outcomes and influences.

1.3.3 Break Out Groups

After the presentation of cross-ECHO interactions and the evolving ECHO Framework and Spheres of Influence, Annual Meeting attendees moved into break out groups for 15 minutes to discuss the shifts that members would like to see happen within and beyond the ECHO Network over time.

The following questions were posed to the break out groups:

What are your biggest hopes (shifts, changes, 'seeds of change') that ECHO can make over remaining time and what is your role in making that happen:

- i) *Cross-ECHO activities (teams)*
- ii) *Regional case contexts and actions*
- iii) *Beyond ECHO*

Each group was assigned a note-taker who recorded the discussion. Upon return to plenary, a brief discussion was had regarding the breakout group questions. The following hopes and ideas emerged from the break out groups:

Biggest Hopes:

- A renewed focus on career paths & look toward the future, mentorship for people who want to do intersectoral work.
- A shift in health impact assessment work across Canada – influencing current structures and processes of evaluation in industrial projects, a shift in tone and legislation – to get a commitment to take action on a systemic approach that incorporates the social, cultural, and environmental scope.
- An asset/appreciate approach to the EnviroScreen (an example might be embedding Elder stories and traditional land use stories into maps), as well as traditional knowledge being incorporated into environmental and health impact assessments.
- An ECHO Network that is responsive to the “synergies between the civil mobilization and cooperation happening in response to COVID-19, structural and systemic racism, and climate change”- to focus on influencing policies and structures.
- Food security and prioritizing getting self-sufficient food systems on political agendas.
- The ECHO Screen becoming a well-known, user-friendly, and trusted source of information across Canada.
- Adding an interactive component to the ECHO Screen so that people can access information and can also provide feedback from the ground level on the accuracy of data.
- A comprehensive policy document, focusing on impact assessment components that aren't always captured, that can be readily understood and used by people working in HIA spaces. This could be accompanied by a guidebook for communities that can be referenced throughout HIA processes.
- A shift beyond “diversity and inclusion” and toward “equity and justice” that grounds ECHO work in allyship and solidarity with marginalized communities – practical application of a GBA+ lens.
- Two Eyed Seeing approach as being more central to ECHO work, integration of Indigenous ways of knowing into ECHO tools in order to be more relevant (especially for FNHA/SFU), how to use qualitative data for change – suggestion to create a “narrative/storytelling group” within ECHO – arts-based and visual methods as well.
- Continuing the work of the GECHO team and IWRG portal in a way that becomes accessible to non-techie/quantitative folks.

- Belonging to the land, belonging to a story and relating to it – as a central piece that ECHO may be missing.
- A focus on connections beyond ECHO, keeping the work and conversation going, ensuring that this work continues beyond the Network.

1.3.3 Plenary

After the 15-minute discussion in breakout groups, ECHO Network members returned to the Plenary discussion for a small debrief of the discussion and to close out Day 1 of the Annual Meeting. Cross-ECHO Activities moving forward were noted, such as continued Network governance through the Steering Committee and Operations Committee meetings, midway conversation interviews to be conducted with members who are transitioning into new roles or out of the project entirely and committed outputs such as various upcoming manuscripts.

Diana Kutzner also acknowledged various cross-ECHO workshop initiatives that are forthcoming: further GBA+ workshops, a Two-Eyed Seeing workshops, and additional ECHO-Screen workshops. She encouraged ECHO Network members to reach out to the ECHO ‘Core’ Team with suggestions for other cross-ECHO activities, especially regarding any gaps that members would like to see filled. This open conversation is an exciting opportunity for the remaining time, and we encourage you to take advantage of this!

Day 1 wrapped up with Margot Parkes reminding members to register for Day 2’s sessions, including the ECHO-Screen Workshop, the Mystery Iggy Competition and the Zoom Social.

Day 2 (June 11, 2020)

2.1 ECHO-Screen Workshop

Day 2 of the 2020 ECHO Annual Meeting opened with the ECHO-Screen workshop, presented by members of the GECHO Team: Chris Buse, Aita Bezzola (NH/UNBC), Hara Saadia (NBEN/UdeM), Nick Yarmey (BRWA/UofA), and Jordan Brubacher (FNHA/SFU). The presenters offered a summary of the work that they have accomplished across cases so far in their adaptations of the CalEnviroScreen to the ECHO Screen and answered questions from the 43 ECHO Network members in attendance. A special thanks to Holly Clermont for her analysis of this workshop's content and preparation of the SOAR Reflection which follows.



The graphic features a blue background with a grid pattern and a circular pattern of lines on the left. In the top right, there is a logo for the Environment Community Health Observatory Network, which consists of a circle of colorful hands. To the right of the logo, the text reads: "Environment Community Health Observatory Network" and "Réseau observatoire sur l'environnement les communautés et la santé". In the center, the word "SOAR" is written in large, bold, blue letters, enclosed in a red square frame. Below "SOAR", the word "Reflection" is written in smaller, blue letters, also enclosed in a red square frame. On the left side, the text "EnviroScreen workshop Annual Meeting June 11, 2020" is displayed. At the bottom left, it says "43 attendees" and "Presenters: Chris Buse, Aita Bezzola, Hara Saadia (for NB and Nick Yarmey), and Jordan Brubacher".

EnviroScreen workshop
Annual Meeting
June 11, 2020

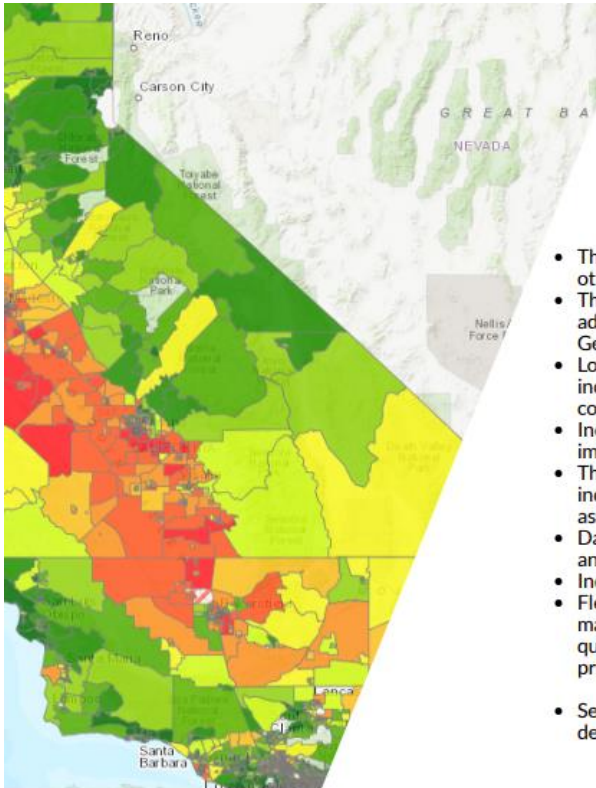
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et la santé

SOAR

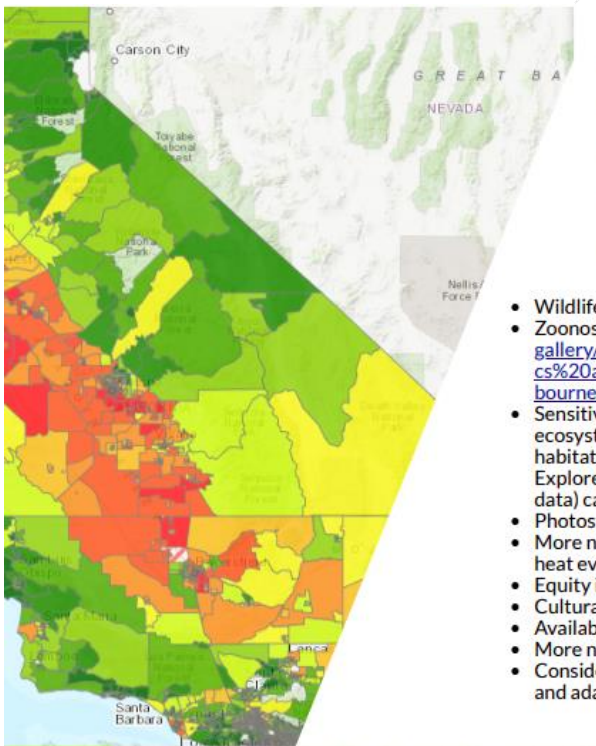
Reflection



Q. What are the criteria for a good ECHOScreen indicator?

(relevance, timeliness, scope/scale, integration, measurability)

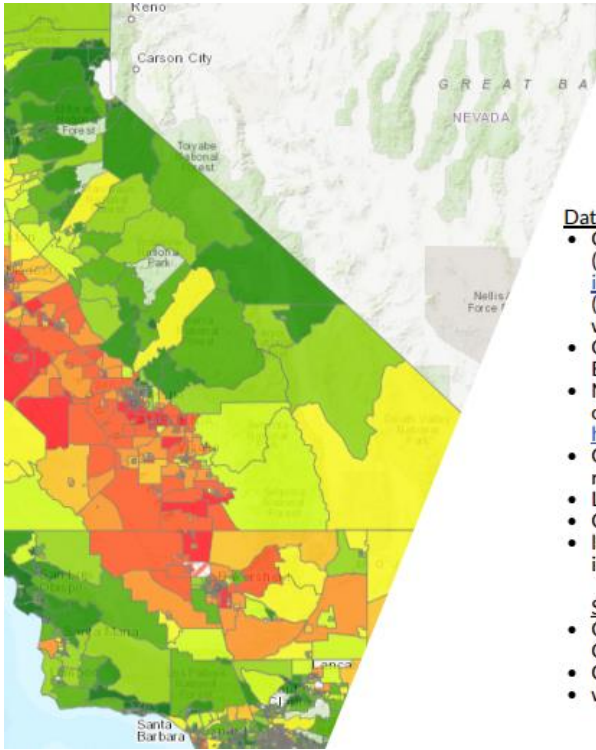
- The data that inform the indicator are comparable to other provinces.
- The data can be linked with more than one bounded administrative or ecological boundary (e.g., Local Geographic Area, sub watershed).
- Longevity: The data were collected historically, the indicator is prioritized by decision-makers, and data collection is expected to continue.
- Include asset-based indicators, since they easily show improvement.
- The indicator has a clear direction, and/or there is some indication of thresholds where they become deficits or assets.
- Data are available at scales that are relevant to policy- and decision-makers.
- Indicator lag times are understood.
- Flexibility: Every province measures the indicator, but it may not be measured in the same way. Some, like water quality, differ across provinces but follow a national protocol.
- See resources for identifying social indicators and developing asset-based indicators, in Resources, below.



Q. What indicators are 'must haves' for our first run?

Remember we want data that is available across all cases, and potentially across the entire country.

- Wildlife health, animal health
- Zoonoses (e.g., lyme disease http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Epid/Vector-bourne/Lyme_Disease_Risk_Areas_Map_BC.pdf)
- Sensitive ecosystems (e.g., riparian areas, wetlands), rare ecosystems (e.g., Garry Oak ecosystems, dunes), and critical habitats for focal species. Similar to AB intactness measures. Explore how land cover measures (e.g., Agric Food Canada data) capture these. Consider a sensitive ecosystems score.
- Photosynthetic phytoplankton
- More nuanced climate indicators (e.g., measure of extreme heat events)
- Equity indicators (e.g., gender)
- Cultural use indicators
- Availability of housing relative to demand
- More nuanced social indicators (e.g., shared housing)
- Consider what local communities are struggling with, and adapting to.



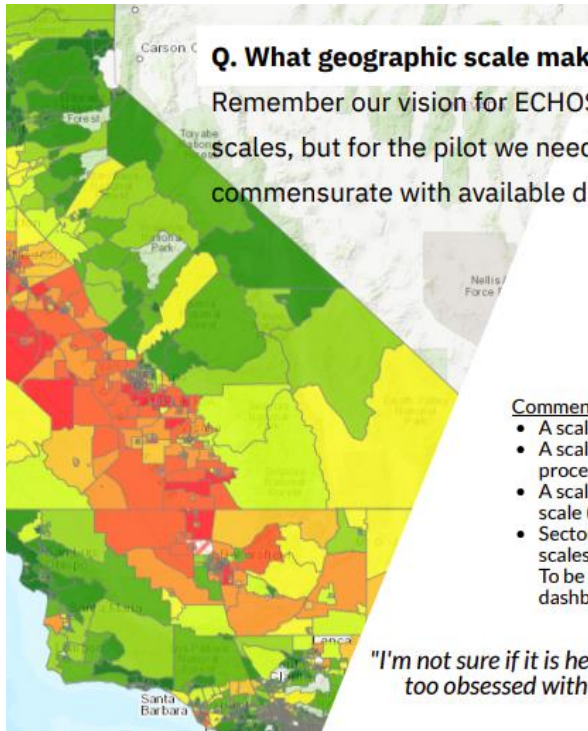
Q. What data sources can we tap into that enable comparisons across regional cases?

Data Sources:

- Community Wellbeing Index (national) <https://www.sac-isc.gc.ca/eng/1100100016579/1557319653695> (in BRWA "state of the watershed" reporting and watershed health indicator wheel)
- Canadian Council of Ministers of the Environment <https://www.ccme.ca/>
- National land cover/land use data for intactness of natural areas/ecosystem/habitats: <http://www.agr.gc.ca/atlas/habitu>
- Greenness (infrared measure, national, high resolution, linked to multiple health indicators)
- Local Climate Zone (national)
- Census data
- light, air pollution, and also noise pollution in some jurisdictions

See also:

- Canadian Wildlife Health Cooperative <http://healthywildlife.ca>
- Centres for Disease Control
- wildlife health researchers (e.g., VPH/MPH)



Q. What geographic scale makes the most sense for an initial pilot?

Remember our vision for ECHOScreen is to be able to navigate across scales, but for the pilot we need a discrete level of analysis commensurate with available data.

Options:

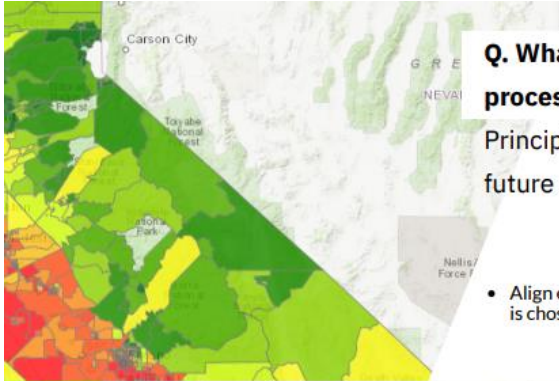
- Local government divisions (e.g., BC regional districts)
- Census divisions (national)
- Provincial health divisions (e.g., AB Local geographic areas, NB health regions)
- Provincial land management divisions
- Electoral divisions
- Ecological divisions (e.g., subwatersheds, biogeoclimatic divisions)

Comments:

- A scale most relevant to end-users
- A scale to influence (certain) policy and decision-making processes
- A scale that confronts large differences at the provincial scale (interior to coastal, north to south).
- Sectors/audiences relevant to this work operate at specific scales and within well-defined administrative boundaries. To be useful across these sectors, we will probably need a dashboard that includes multiple jurisdictional layers.

"I'm not sure if it is helpful to be too obsessed with scale."

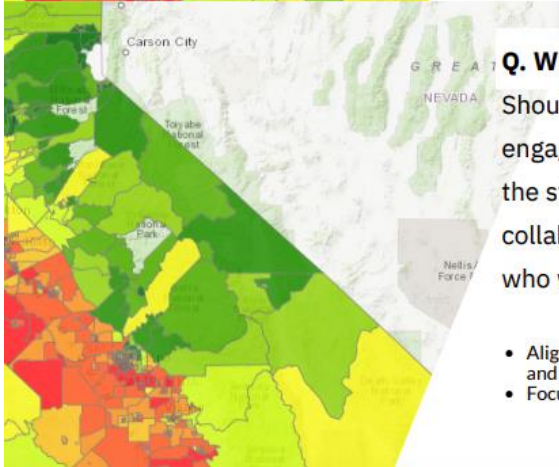
"The finest resolution provides the most information."



Q. What would a good engagement process around this tool look like?

Principles, goals to help guide the design of future sessions

- Align engagement processes with the scale that is chosen.



Q. What audiences should we be targeting?

Should we focus on regional case engagement (place-based)? Or, be leveraging the strength of the entire network and its collaborators to engage new audiences and who would these be?

- Align engagement processes with governments and populations that are most at risk.
- Focus on The Local (communities).

What have we learned and accomplished that we can build upon?



STRENGTHS

- ECHO's provincial EnviroScreens are modified from California's mapping tool, CalEnviroScreen <https://oehha.ca.gov/calenviroscreen>
- The northern BC case began working with CalEnviroScreen variables 1.5 years ago, developing a prototype and revising indicators and administrative features (e.g., census divisions, regional districts, Local Health Areas) with feedback from Geographic Information Systems (GIS) experts, potential users of the tool, and others.
- Following the x-ECHO Indicator Frameworks meeting in November 2019, the AB case developed a prototype AB-EnviroScreen mapping tool and interactive dashboard.
- The NB case created an Indicator Community Impact (ICI) team, comprised of Université de Moncton, NBEN, NB Department of Health, NB Health Council, and the Department of Environment and Local Government.



OPPORTUNITIES

What internal or external initiatives can we build upon?

- CalEnviroScreen is already being applied to other American contexts (Lee, 2020).
Lee, C. (2020). A Game Changer in the Making? Lessons from States Advancing Environmental Justice through Mapping and Cumulative Impact Strategies. *Environmental Law Reporter*, 50, 10203. <https://heinonline.org/HOL/Page?handle=hein.journals/elrna50&id=207&div=&collection=>
- FNHA recently completed its Population Health and Wellness Agenda <https://www.fnha.ca/Documents/FNHA-PHO-First-Nations-Population-Health-and-Wellness-Agenda-Summary-of-Findings.pdf> Its creation included an iterative, year-long process to select indicators.



ASPIRATIONS

About what do we care deeply?

- Developing a robust model/tool that integrates E-C-H, uses high quality data, and respects Ownership, Control, Access and Possession (OCAP) and similar principles <https://fnigc.ca/ocap>
- Developing an asset-based EnviroScreen model, a combined asset/deficit model, or both (an asset *and* a deficit-based model) that can be considered together (CalEnviroScreen is wholly deficit-based.)
- Developing a model that serves rural, remote and Indigenous communities where representative data is scarce
- Considering and understanding the interactions among EnviroScreen variables
- Co-creating the tool with users, including policy- and decision-makers
- Understanding what we want to *change* with this tool and associated processes



RESULTS

How do we know if we are succeeding? What resources do we need?

- We keep detailed, dated records of which indicators were considered, and why they were included or excluded. In developing the tool, we record each significant decision, and the basis on which it was made. We routinely share these across the ECHO Network in collaborative documents (e.g., Google Docs, Sheets), meetings, and show and tell workshops.
- We hold [cognitive] spaces for indicators and integrative indicator sets that have not yet been identified or created.
- We develop a shared strategy to engage with external audiences, and share our learning from these audiences.

RESOURCES

Some resources for identifying social indicators and developing asset-based indices:

<https://www.sac-isc.gc.ca/eng/1100100016579/1557319653695>

<https://uwaterloo.ca/canadian-index-wellbeing/about-canadian-index-wellbeing/wellbeing-canada>

<http://fnn.criaw-icref.ca/en/page/community-vitality-index>

<http://tamitik.ca/wp-content/uploads/2018/06/FinalKitimatHaislaCVI-ReportMay-24-2018.pdf>

<https://measuringhumanity.org/asset-based-indicator-framework>

Vanclay, Frank. 2002. Conceptualising social impacts. Environmental Impact Assessment Review 22: 183-211. (Vanclay is a key researcher in SIA)

Marieka's introduction to Social Impact Assessment, including impact categories/potential indicators, in the shared Google doc:

<https://docs.google.com/document/d/1bFk3Aa5Cy6rC8lqP5Rcn9z3A9SW5wetJdSeMvT-lmc4/edit#>

Day 3 (June 12, 2020) - The Path Ahead

3.1 ECHO Learning & Impact Workshop: The Three Horizons Framework

Our third day began with a brief overview of the Watershed Portal developed by the Integrated Watershed Research Group (IWRG) followed by an orientation to the remaining day by Margot Parkes and Sandra Allison and the 3-Horizons activity workshop developed by Holly Clermont and the ECHO Network's Team Learning & Impact.

Holly provided a brief overview of a systems tool – the 3 Horizons framework via a brief video introduction by Kate Raworth (<https://www.youtube.com/watch?v=5KfRQJqpPU>). In this framework, Holly asked attendees to consider or envision the ECHO Network as the 'disruptor'.

The 3-Horizons framework can help us understand the structures and processes within systems, but particularly to tune in on systems' processes, and practice holding both structures and processes in our minds together. The 3-Horizons framework is proposed as one approach to help us to develop a deeper collective awareness of the systems within which we are embedded and those we hope to transform with the ECHO Network. Holly reminded us how attendees had shared their hopes for the ECHO Network project on Day 1 of the Annual Meeting and related this to the third horizon of the framework, which identifies the seeds for the future we want to see grow.

Following the Youtube explanation video, attendees were placed into four breakout groups to allow each individual group to go through the exercise of answering key questions to each horizon as follows and allowing 10, 15, and 25 minutes respectively for discussion:

Horizon 1: Business as Usual, the dominant way of doing things today. We believe there is something about it, that means it is not fit for an E-C-H integrated future. It contains the seeds of its own demise. Over time, we believe it will decline. Overall question: What is dying and how can we help it let go and leave well?

Horizon 3: Emerging Future, or The Future We Want. The seeds of that future are visible today and we want to see them grow until they become the predominant way of doing things, improving upon or replacing H1. Overall question: What is being born and how can we help it to arrive well?

Horizon 2: Arena of Disruptive Innovation. Disrupters activate new ways of doing or being (e.g., new technology, a disaster, an election, a new concept, a movement, or ECHO), as new actors step into the dynamic space of change between H1 and H3. The innovation can be captured by the old H1, or harnessed to bring through the emerging future. Overall question: What is being disruptive and how can it be harnessed (H2+) and not captured (H2-)?

Following the breakout groups, attendees re-joined the main Zoom room for a plenary discussion in response to a prompt by Holly asking everyone to consider "What is this framework telling you today?".

Overall, individuals felt that the 3-Horizons framework is pushing people to new spaces, encouraging them to think outside of spaces where they usually land and providing liberating moments during discussion of current and possible future systems. For some, it helped to highlight that the work the ECHO Network is trying to do is challenging work and there are lots of things that push back on trying to do things differently. At the same time, defaults often push back on allowing things to emerge. One group in particular noticed that, sometimes we (as a Network) find that we cannot take notice and immediately move to action - there are necessary times of reflecting, turning, and "churning" on the challenges we encounter. There was also an acknowledgement that sometimes we can be quite hard on ourselves because we want to immediately move to action, but we cannot discount the importance of allowing time

for people to churn on things. During the discussion, there was a deepening realization that often there are no obvious next steps and it is helpful to have these types of reflective conversations. Additionally, it was discussed that having an evaluator as part of the Network to help us identify what the possible next steps can be – particularly to move from ‘doing the same things better’ to ‘doing better things’ that we haven’t thought of yet — is helpful. Churning appeared as a very appropriate term considering that the centre of the ECHO Framework includes a learning loop and seeks to engage the Network in several turns of learning on various tools and processes.

Others in the group felt the 3-Horizons framework helped to see how individual processes are part of bigger slower moving processes and how everything is related; nothing operates in a vacuum. One of the most compelling ideas, in the H2+ and H2- thinking, was the idea that disruption can be absorbed by the status quo and make minor changes to it or be transformative. Moreover, thinking about how a particular type of innovation may lead to one process or another is an interesting way to consider the system.

In the plenary, several individuals also raised the COVID-19 pandemic and the Black Lives Matter (BLM) movement. They asked, if we weren’t in a pandemic, what would be the disruptor we would be talking about at this meeting? Climate change seemed top of mind for some individuals. There was some discussion also of how BLM and the pandemic together are bringing inequities in the world into sharper focus.

Holly closed the plenary with an ask to participants to reflect on their experiences of using the 3-Horizons framework and using the collaborative online working space to share with others how they wish to shape the future; in particular, to share one priority that individuals have on how they wish to make change.

3.2 Wrap-up & Conclusion

The 2020 ECHO Network Annual Meeting transpired in a very different format than we had originally hoped, as our team adapted from the original in-person meeting in Prince George, BC, to an online format due to the COVID-19 pandemic. Our usual format of spending at several days together was adapted into three days of shorter online ECHO Network meetings. Over the course of the three days, we reviewed and reflected on the ECHO Network’s project mid-way point and work completed to date, took a closer look at the ECHO-Screen tool and process trialing, which is one of the most active across the Regional Cases, and looked ahead to where the ECHO Network could most successfully land its action and impacts over the remaining project time.

The meeting closed with a few announcements of upcoming events, including the Land, Health & Healing Gathering seasonal touchpoints, scheduled for October, December and March. Attendees were invited to provide feedback on the Annual Meeting via an online Survey Monkey form. Lastly, Annika Chiasson, Regional Case Coordinator for New Brunswick Regional Case & Program Coordinator for the New Brunswick Environmental Network, created Figure 6 to showcase the entirety of the ECHO Annual Meeting. Thank you Annika!

ECHO ANNUAL MEETING 2020



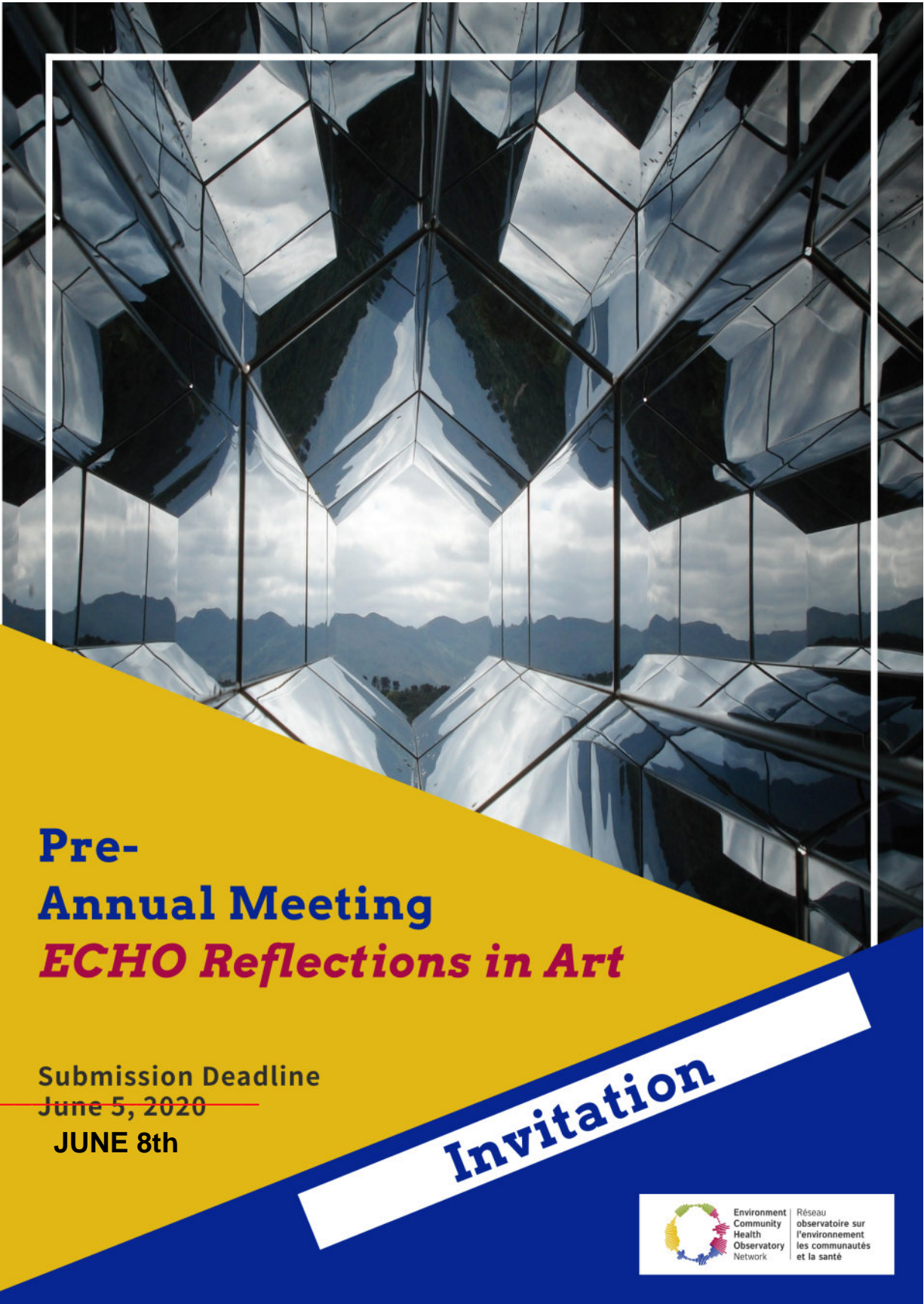
Figure 6. ECHO Annual Meeting 2020 Graphic

List of Participants of the 2020 ECHO Annual Meeting

Aalhus, Melissa - nBC	Hampe, Tanis - nBC	Perez, Dharma - AB
Allison, Sandra - nBC	Harder, Henry - nBC	Poland, Blake - ON
Arsenault, Todd- NB	Harper, Sherilee - ON	Rakotorahalahy, Oni - NB
Bauder, Katie - BC	Hoogeveen, Dawn - BC	Saadia, Hara - NB
Beaubrun, Wanzor - NB	Joubert, Brian - AB	Samm, David - AB
Beck, Lindsay - BC	Kennedy, Angel - BC	Sanderson, Dionne - BC
Bezzola, Aita - nBC	Korol, Katya - BC	Sax, Marieka - nBC
Brisbois, Ben - ON	Kutzner, Diana - nBC	Skinner, Sarah - AB
Brubacher, Jordan - BC	LaRochelle, Serge - NB	Skrlac, Makayla - nBC
Buse, Chris - nBC	Lewis, Nancy – HI (USA)	Snedeker, Kate - AB
Castleden, Heather - ON	Luttrell, Gethsemane - BC	Surette, Céline - NB
Chiasson, Annika - NB	Maguet, Sally - BC	Takaro, Tim - BC
Clermont, Holly - nBC	Marks, Raissa - NB	Tranchant, Carole - NB
Cole, Donald - ON	McCreanor, Tim – AUS	Trotman, Rachael - NZ
Emmons, Scott - BC	Morgan, Vanessa - nBC	Usipuik, Megan - nBC
Farrales, May - BC	Moutray, Mia - nBC	Vaillancourt, Cathy - QC
Forgues, Julie - NB	Murphy, Tim - NB	Vermeer, Demi - AB
Fumerton, Raina - nBC	Oke, Barb - nBC	Western, Sally - nBC
Galway, Lindsay - ON	Onabola, Christiana - nBC	Williams, Aleyah - BC
Gislason, Maya - BC	Paquette, Randy - AB	Woollard, Bob - BC
Hadley, Louisa - nBC	Parker, Ella - nBC	Yarmey, Nick - AB
Hallstrom, Lars- AB	Parkes, Margot - nBC	Ziolo, Mira - BC

Appendix 1

ECHO Reflections in Art Invitation



**Pre-
Annual Meeting**
ECHO Reflections in Art

Submission Deadline
~~June 5, 2020~~
JUNE 8th

Invitation



Environment
Community
Health
Observatory
Network

Réseau
observatoire sur
l'environnement
les communautés
et la santé



ou are cordially invited to participate in one or both of two, entirely voluntary **ECHO REFLECTIONS IN ART** activities ahead of the 2020 ECHO Annual Meeting.

These are opportunities to spread your creative wings, reflect upon ECHO in the artistic format of your choice, share your reflections with the ECHO Network, and if you wish - contribute to outward-facing communications. This is not meant to be onerous - a contribution can be as simple as a single photo with a caption. Although **we welcome both individual and group submissions**, this is not a competition.

Contributions will be showcased during the June 2020 Annual Meeting, and will be used in a live analytical exercise by Team Learning & Impact at an August retreat. The methods and results of this exercise will be communicated back to the Network, whereupon Network members will have the opportunity to dialogue about the contributions and analysis and how these might be used in outward-facing materials for the ECHO Network and regional cases. Sharing beyond the Network will require permissions from the artists/contributor(s).

Please submit your *Reflections in Art* **by June 8th**, to ensure they will be represented at the Annual Meeting.

Activities

Choose:

1. E-C-H Expressions in Art (any format), or
2. ECHO Virtual Spring (photo(s) and text), or

Select both.



E-C-H Expressions in Art



ECHO Virtual Spring



Activity 1. E-C-H Expressions in Art

We sometimes hear that it is easy to integrate two of the Environment, Community, and Health imperatives (e.g., Environment and Health), but integrating all three is more elusive.

We ask that you contribute a photo, video, artwork, music, dance, poem, story, or *any* other creative endeavour demonstrating Environment-Community-Health integration.

What does Environment, Community, and Health integration mean for you? What do you see through your E-C-H lens?

Holly, an ECHO post-doctoral fellow, has provided an example of what she sees through her E-C-H lens, to whet your appetite for this activity (see page 6). Meg Labron, ECHO Project Assistant, has combined Activities 1 and 2 in her photo essay on page 7.

Instructions for Activity 1. E-C-H Expressions in Art

Step 1: Submit your creative expression to Makayla at echonetwork@unbc.ca. If your contribution cannot be emailed (e.g., sculpture, painting), please share a photo or video of it.

Step 2: Fill and submit a Google form describing and geo-locating your contribution <https://docs.google.com/forms/d/e/1FAIpQLSd-umrwCSEb0tg5HGbabrwAXDgi-sX0MD2hQbnJS3dCCPB7cg/viewform> . (See Activity 1, 'Everyone else', for help in geo-locating your work.)



Activity 2. ECHO Virtual Spring

Since we are unable to meet in person and together experience the spring season in Prince George, we ask that you submit one or more photos portraying your **reflections of ECHO** as you experience spring in your own places and spaces. Meg has offered a lovely photo essay as an example, on page 7. Remember, for either activity, a single photo and caption are perfectly fine. For Android users, your contribution can be a Geo-Paparazzi photo and note (see page 4).

Introducing Geo-Paparazzi

For Android phone and tablet users, this is also an opportunity to trial a mapping and survey tool that will directly load your creations to UNBC's Watershed Portal - the Geo-Paparazzi app. For those who do not have an Android device, or do not wish to use the app, you may send your contributions to ECHO Research Assistant Makayla Skrlac, who will upload your contributions into the Portal.

Instructions for Activity 2. ECHO Virtual Spring

Android users wishing to trial Geo-paparazzi only:

Step 1: Download the app

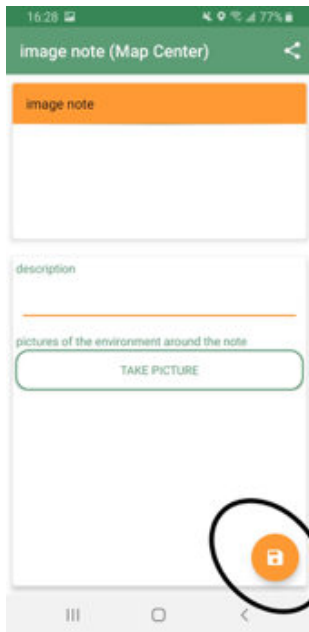
- Download the Geopaparazzi app from the Play Store, or...
- In your web browser on your Android device, go to <https://github.com/geopaparazzi/geopaparazzi/releases>
- Navigate to the .apk file of the latest version (currently GeoPaparazzi 6.0.3).
- Download the apk - https://github.com/geopaparazzi/geopaparazzi/releases/download/version_6.0.3/GeoPaparazzi_6.0.3.apk

Step 2: Use the app

- Find the application on your device and open it.
- Select Map from the main screen.
- You may need to press the GPS button to turn on location services. This takes you to the location settings on your device.



- Click on the bright green button (bottom centre), to navigate to your location.
- To record an observation and photo of your location, click on the dark green button that looks like a stack of pancakes.
- Here you can choose what kind of note you would like to use. Add note - Image note.
- Save the note by clicking on the orange button (bottom right).
- Watch for further instructions on how to upload the Geo-Paparazzi file into the UNBC Portal, closer to the date of the Annual Meeting. **Note:** Makayla Skrlac will be in touch with you if you've completed the Google form also referenced above.



Everyone else:

Step 1: Submit your photo(s) to Makayla at echonetnetwork@unbc.ca.

Step 2: Fill and submit a Google form describing and geo-locating your photos: <https://docs.google.com/forms/d/e/1FAIpQLSd-umrwcSEb0tg5HGbabrwAXDgj-sX0MD2hQbnJS3dCCPB7cg/viewform>

If you are using your phone for this activity, and have a Google Maps app, you can screen shot your location for precision, and then find your latitude and longitude with your computer. In Google Maps maps.google.com on your computer, go to your location, right-click 'What's here?', and copy your latitude/longitude from the box that appears (right-click, copy).

ENVIRONMENT- COMMUNITY- HEALTH INTEGRATION



What I see through
my E-C-H lens

Try...
Smart
Growth,
Sustainable
Communities
principles

1 Wide roads -> providing access into/out of coveted peri-urban housing developments; residents' only escape from wildfire; fragmenting ecosystems, severing wildlife corridors, facilitating the spread of invasive species

2 Locally overabundant Canada Geese -> faeces contaminating parks, playgrounds, sportsfields and swimming areas; grazing and grubbing destroying and degrading critical habitats

TRANS
Goose Mgmt
DISCIPLINARY

TRANS
Ecosystem Rehab
DISCIPLINARY

3 Formerly proposed coal mine -> respiratory health (coal dust), noise, road safety, marine navigation; Fanny Bay oyster industry; Baynes Sound marine life, climate

EA TERMINATED

AGENDA

1. Coordination across agencies
2. Coordination across jurisdictions
3. Integration of knowledges
4. Multi-level, rapid surveillance
5. Source control (e.g. N-runoff, climate action)
6. Research and test treatments
7. Funding for all of the above

4 Toxic algae blooms -> marine life, shellfish industries; risk of 'clam hunger' poisoning for some Indigenous people; worsening with a warming climate

ECHO Virtual Spring - Prince George, BC

Meg Labron, ECHO Project Assistant



Spring in the Garden...

Spring is sure underway here on Lheidli T'enneh territory... the lakes and rivers are open again, the bears are waking up, and more people than ever are getting into gardening! The garden has been a passion of mine for years now, and this is my third summer living in this particular spot... each year it has grown a little. The garden keeps me physically healthy and active, even on rainy days, and is a massive part of my mental health care. Seeing everything green up this year has been so exciting - garlic is pushing through the earth, pansies are blossoming... I've had my first cup of nettle tea this spring and have been "distantly" connecting to friends through seed and plant exchanges. A very covid-exchange included some of my home-grown tomato plants in exchange for a roll of toilet paper and a home baked sourdough loaf!



My new miniature greenhouse, built with primarily salvaged materials is a peaceful spot for a morning coffee

Reflections of ECHO...

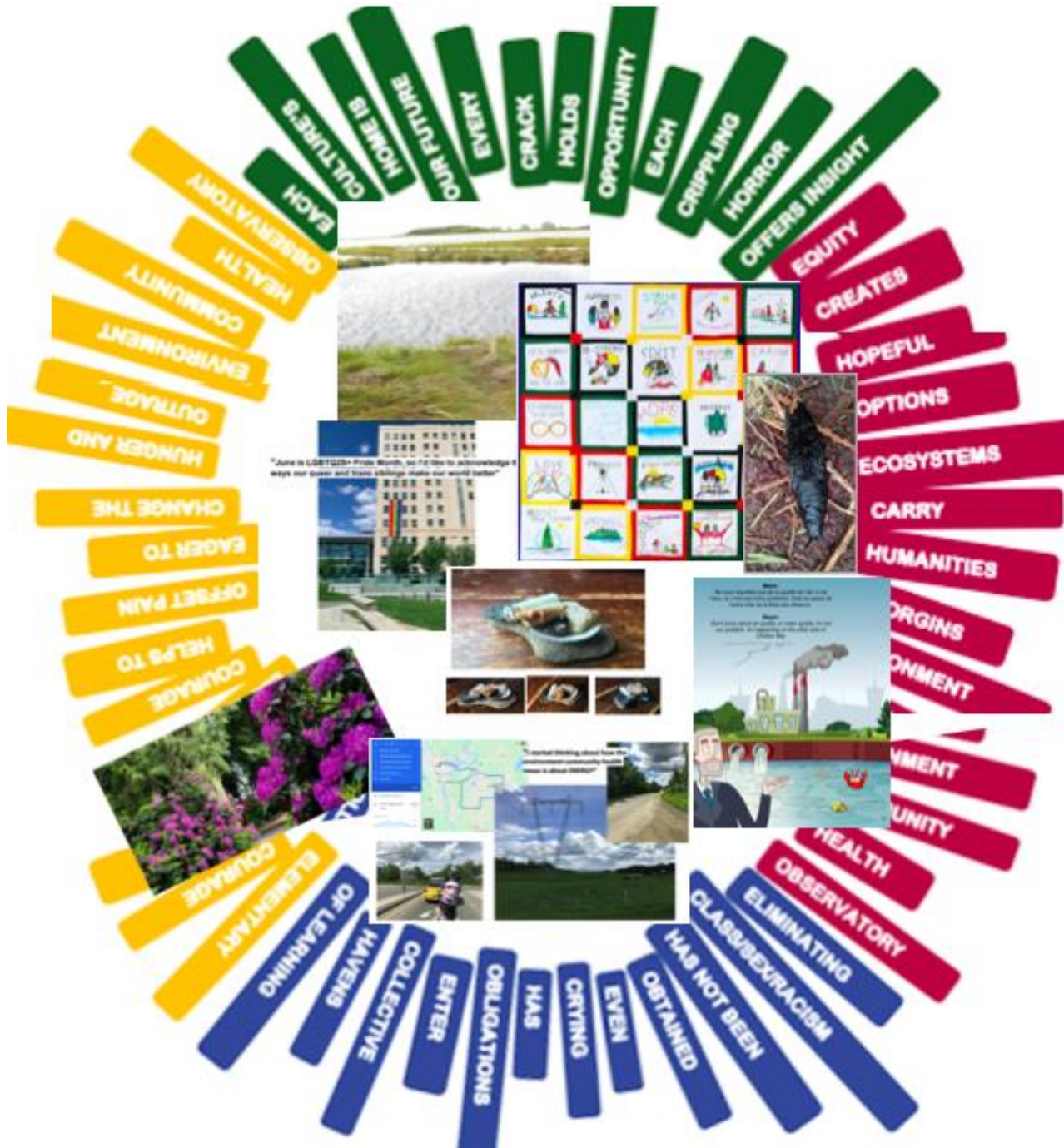
As I prepare my garden for our third summer together, I'm reflecting on all of the ways this practice integrates environment, community, and health for me. Academia is not always the healthiest environment, so being able to take breaks out my back door and put my hands in soil makes such a difference to me. I have gotten to know so many of my neighbours simply by being outside so much, which has helped me build a real sense of community here. And living my values in action through composting, planting for pollinators, and growing food organically is a pretty special opportunity.



I have a mini compost collection program with friends in town who want to compost but don't have the space ☺

Appendix 2

ECHO Reflections in Art – Submission Examples



Appendix 3

ECHO Reflections in Art Invitation: Using Geo-paparazzi and loading into the Portal

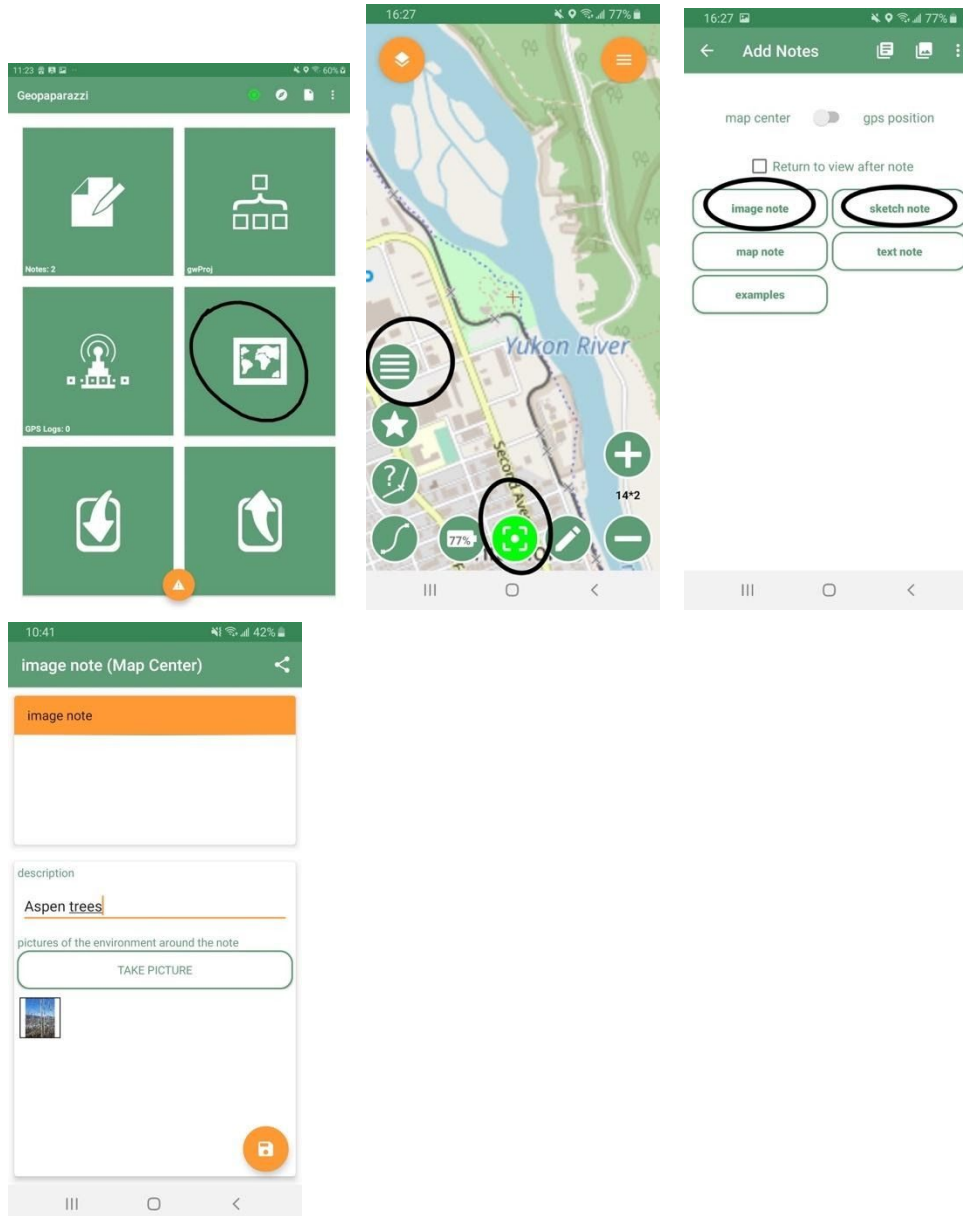
ECHO Reflections in Art Invitation: Using Geo-paparazzi and loading into the Portal

Step 1: Download the app

- Option 1) Open the play store on your Android device and search for geo-paparazzi to download the app.
- Option 2) Using a web browser on your device follow this link to download the app <https://fileshare.gis.unbc.ca/index.php/s/zwbyyXqmxHFMTLs>

Step 2: Use the app to record your photos/observations and location

- Find the application on your device and open it.
- Select the “Map” button from the main screen.
- Click on the bright green button (bottom centre of the map), to navigate to your location.
- You may be asked to turn on location services. This takes you to the location settings on your device.



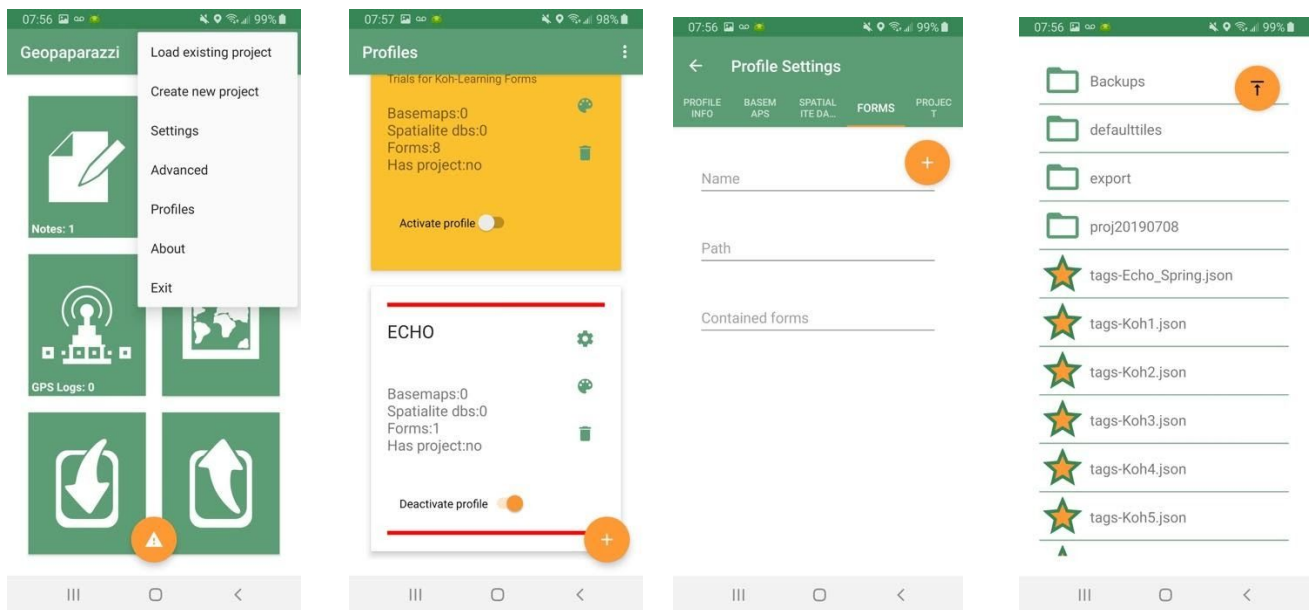
- To record an observation and photo of your location, click on the dark green button that looks like a stack of pancakes (you can also do this by clicking on “notes” from the main screen).
- Here you can choose what kind of note you would like to use. Choose “Image note.”
- Save the note by clicking on the orange button (bottom right).

Step 2.5 [OPTIONAL]- Load the customized ECHO note template onto your phone

If you are interested in learning how to use customized notes in geo-paparazzi, do this step, if not, skip straight to Step 3 below! Creating and loading customized notes on your phone allows you to choose exactly what fields of information you would like in your forms. In this step you

will download an already created ECHO form for this activity and learn how to get it working on your phone.

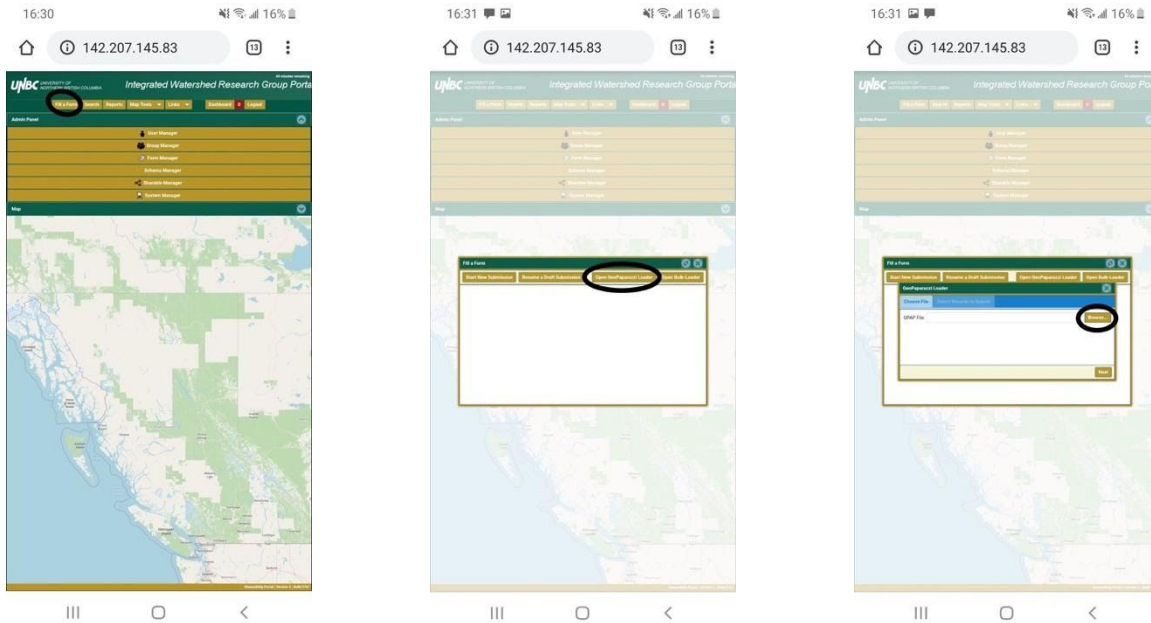
- On your phone's browser, download the file at the following link <https://fileshare.gis.unbc.ca/index.php/s/EH2Jg5xgHEN7tzT>
- Open geo-paparazzi, and on the main menu, click on the three dots in the top right corner, and select "Profiles".
- Next, select the orange plus sign at the bottom of the screen to add a new profile
- Create a name for your new profile, then select 'ok' a new box will show up with the name of your profile
- On the box for your new profile, select the gears symbol, and then select the 'forms' tab, now we will connect to the file we just downloaded
- Select the orange plus sign and navigate through your phone's files to find the "tags-Echo_Spring.json" file that you just downloaded. This might be in your downloads folder.
- Once the file is connected, go back to your profile and make sure it is activated (flip the switch on the profile to activate).
- Now, navigate back to 'Add Notes' section, and you should see that a new note is available, "ECHO Spring Art Reflection"
- You can now use this form to create your art reflection in a more customized way!



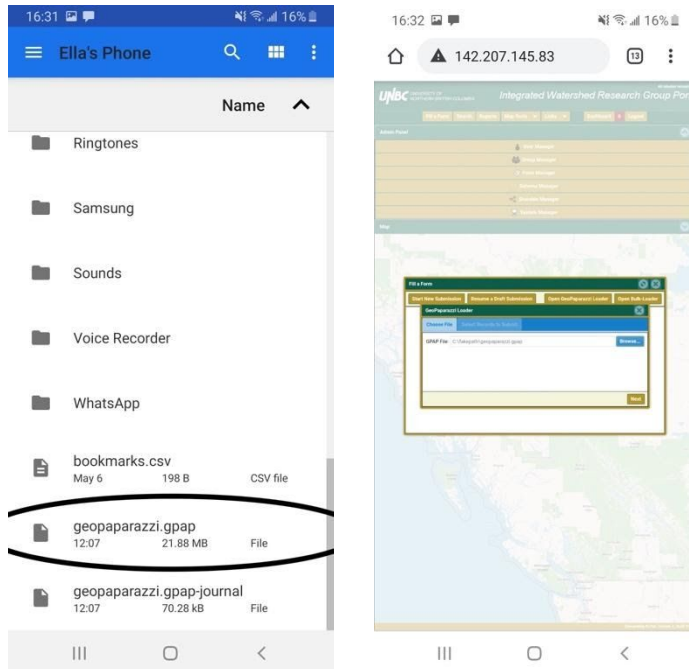
Step 3: Upload to the Portal

Now that you have created an image note, or a customized ECHO note using the geo-paparazzi app, it is time to load this into the portal.

- In your web browser, navigate to the portal at using this link: <http://142.207.145.83/> , and click- “Log In”.
- Use the following sign-in information
 Username: echogeneral
 Password: birchsap
- Once you are logged in, click on the “Fill a form” button
- Then choose the option to “Open the GeoPaparazzi loader”



- Now you will need to navigate in your phone’s file directory to upload the .gpap file that you just created when you submitted the image note. In the GeoPaparazzi loader click on ‘browse’.
- This part will look different depending on your phone, but you will need to navigate through your phone to find your phone’s ‘files’ folder. In your files at the top-level, you should have a file called “geopaparazzi.gpap”. This is the file you will upload to the portal.



- Once you have selected the correct file, click on 'next' in the GeoPaparazzi loader
- Wait... the file may take a couple of minutes to upload, depending on how many photos you took!
- Next, you will be asked to select which records to submit. If you saved multiple notes in Geo-paparazzi, you will see a list appear. If you are not sure which one you want, double click on the row to check the contents of the note. Then click the check box of the records you want to load.
- Click "Create Draft Submission(s) From Selection"

**If you are having trouble with the Portal browser on your phone, you can also do this on a computer, you will just need to transfer the "geopaparazzi.gpap" file to your computer and upload it from there.

If you have completed all of these steps then congratulations! Your notes are now saved as drafts in the Portal. Makayla will complete the final step to enter them into the Portal. If you are interested, you are welcome to contact Makayla if you would like to learn more about the final loading step.

Appendix 4

Halftime/Midway Learning & Impact Conversations Proposal

Prepared by Holly Clermont (PDF) for ECHO Research Design Working Group; last revised April 27, 2020

This proposal outlines the rationale and structure for a series of key informant conversations. It addresses two interrelated Learning and Impact (or evaluation) questions:

1. How is the ECHO Network responding and adapting to significant transitions experienced by its members and partner organizations?
2. How is the ECHO project and Network influencing efforts in the regional cases?

Exploring Transitions – Objectives

- Connect with 16 ECHO members who have experienced/are experiencing personal role changes and/or significant changes in organizational practices.
- Take notice of the nature and implications of these transitions within the ECHO Network.
- Learning from these conversations, support the ECHO Network in responding and adapting to challenges associated with turnover and organizational transitions.

Learning with Regional Cases - Objectives

- With the 13 ECHO members involved in regional cases, take notice of regional perspectives as they pertain to interactions with the Network and the outcomes and aims of the project.
- Learning from these conversations, support the ECHO Network to more effectively achieve planned and emergent outcomes and aims.

Background:

The ECHO Network's developmental approach to evaluation encourages iterative learning and planning cycles to detect emergent opportunities and challenges, encourage innovation, help Network members to navigate complexity and uncertainty, and support the Network as it adapts to changing internal and external conditions (ECHO, 2019; Patton, 2011). More recently, the Network adopted aspects of 'principle-focused' evaluation, whereby one examines whether an organization's guiding principles are meaningful, actionable, being followed, and leading to desired results (Patton, 2018). The Network's evaluation approach also includes aspects of 'blue marble' evaluation, which expands the context of a project or program to include global-local connections, with an eye to global systems transformation (Patton, 2020). As both a developmental and principles-focused form of evaluation, blue marble evaluation vigorously embraces equity and decolonizing principles such as social and environmental justice, two-eyed seeing, and reciprocal care of the natural world.

Rationale, Objective 1 – Exploring Transitions:

As we move into the final half of ECHO's 5-year CIHR Team Grant, it is important to recognize how the form and function of the ECHO Network is changing (see Aim 1 in Appendix A). This includes, but is not limited to, turnover resulting from member departures and staff promotions, and significant changes within partner institutions. While turnover and other types of transitions are to be expected in multi-year collaborations, such changes are often recognized as detrimental – affecting communication, capacity-building, and project performance (Health Services and Policy Research Support Network, 2010). The proposed conversations are opportunities to reflect on what it means for a collaborative research partnership to respond and adapt to planned and unplanned workplace shifts and broader crises - whether a university faculty strike, a sector responding to a global pandemic, or some other important change.

Rationale, Objective 2 – Learning with Regional Cases

A series of learning and impact conversations with members of the four primary regional cases were held in April and May of 2019 (Maguet, 2019). Conversations were structured around a series of questions designed to discover

what had been learned since joining the ECHO Network, how the Network had altered awareness and relationships, and the ways in which the Network had added value to regional work. Members of the regional cases have since come together for several events, including the May 2019 annual meeting in New Brunswick, several cross-ECHO Learning and Impact workshops, a November 2019 indicator frameworks meeting in Vancouver, and a Collaborative Working Day on Zoom in January 2020. Regional case coordinators meet in monthly Operations Committee meetings, and regional case members participate in a range of ECHO groups. Many events have had evaluative elements, and Team Learning and Impact members have had the opportunity to observe and question regional case members in both events and meetings. Results were disseminated in several reports:

- 2019, Annual Meeting Report: May 28-30, 2019
- 2019, September. 2019 Learning & Impact Results
- 2019, September. Communications, Projects, and Publications
- 2019, September. ECHO Collective Tracking, draft v.8 ('ECHO CV')
- 2020, January. EHSI IPR Progress Report
- 2020, January. Discussion Brief: Key Findings from ECHO Evaluations for Collaborative Working Day Discussions, 2020-Jan-28
- 2020, April. Indicator Frameworks Meeting (2019-Nov-14-15) Learning & Impact Summary

In late 2019 and early 2020, the regional cases developed new work plans that adjusted or fine-tuned project activities and anticipated outcomes. Ahead of planned visits to the regional case areas, I held short scoping conversations with the regional case coordinators and a few others working on the regional cases. These revealed nuggets of rich learning yet undisclosed, as well as unaddressed challenges that merit further exploration. My visits to the regions were postponed due to Canadian and provincial travel restrictions associated with the COVID-19 pandemic and associated concerns regarding disease transmission. The proposed conversations are opportunities to take notice for action - to capture regional case learning, identify gaps in learning, and surface and explore emergent or persistent challenges.

Scope:

The proposed conversations will not replicate entrance or exit interviews, or the spring 2019 regional case conversations. Rather, they will explore transitions and regional case issues as described above. Conversations will encompass all three types of evaluation (i.e., developmental, principles-focused, and blue marble), and address the principal aims and anticipated outcomes of the project. In Appendix A, outcomes and aims are organized by draft theory of change impact streams (i.e., integration, innovation, capacity, action, equity/diversity/inclusion (EDI)-transformation, and eco-centric).

Proposed methods:

An array of conversation questions will be shared with key informants ahead of a semi-structured virtual or phone conversations in spring and summer 2020. Informants will be encouraged to identify relevant questions or suggest others. Key informants will include outgoing members (most or all of whom plan to remain involved with the ECHO Network in some capacity), members who have replaced them, and members experiencing significant institutional change. The estimated duration of each conversation is 1 to 1.5 hours. Proposed questions are provided in Appendix B. Conversation notes will be deductively coded to impact stream, and inductively coded to themes using MAXQDA data analysis software.

Outputs:

Principal and pivotal findings will be presented to ECHO Network members in a Learning & Impact workshop and/or discussion brief, or alternatively in Team and Committee meetings, to enable timely adjustments to plans, structures and processes. Findings will also inform an evaluation manuscript prepared by Team Learning & Impact.

Literature Cited:

ECHO Network. (2019). Learning & Impact Plan (draft). Internal document.

Health Services and Policy Research Support Network. (2010). *Building Research Capacity within the BC Health Authorities: A report on the evaluation of the Health Authority Capacity Building program*. Michael Smith Foundation for Health Research. https://www.msfr.org/sites/default/files/HACB_Evaluation_Report.pdf

Maguet, S. (2019). ECHO Network Regional Case Conversations 2019. Internal document.

Patton, M.Q. (2011). *Developmental Evaluation: Apply Complexity Concepts to Enhance Innovation and Use*. The Guildford Press.

Patton, M.Q. (2018). *Facilitating Evaluation: Principles in Practice*. SAGE Publications, Inc. <https://doi.org/10.4135/9781506347592>

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ECHO Proposed Impact Streams and Associated Outcomes:

Impact Stream	Outcome - If we....
Integration	<i>Recognize and understand the cumulative E-C-H impacts from resource development...</i>
Innovation	<i>Imagine, develop, test, and refine new theories, tools and processes to assess and monitor them...</i>
Capacity	<i>Share and promote these among affected, influential and instrumental actors in a spirit of reciprocal learning...</i>
Action	<i>Create avenues for adoption and use of E-C-H integrated evidence...</i>
EDI-Transformation	<i>Attend to equity, diversity, and inclusion principles and commitments in all that we do...</i>
Ecocentric	<i>Attend to human health interconnections with, and reliance on, the health of ecosystems and other species...</i>
Principles	<i>Adhere to ECHO's principles of agency, utilization, transdisciplinarity, and trainee development...</i>
Project Aims	High-level Outcome - Then the ECHO Network will...
<u>1.</u> Make evidence-based recommendations on the form and function of a cross-jurisdictional ECHO that will foster integrative understanding of the complex dynamics of resource development and health.	<i>Contribute evidence and recommendations towards the form and function of future cross-jurisdictional E-C-H Observatories (ECHOs) that will foster integrative understanding of the complex dynamics of resource development and health</i>
<u>2.</u> Inform, enable, empower/trial and evaluate intersectoral strategies to address the cumulative determinants of health that interact over time and space, targeting actions and responses that cannot be achieved by the health sector alone.	<i>Improve overall understanding of, and responses to, the cumulative impacts of resource development</i>
	<i>Contribute to efforts to improve ecological and social determinants of health</i>