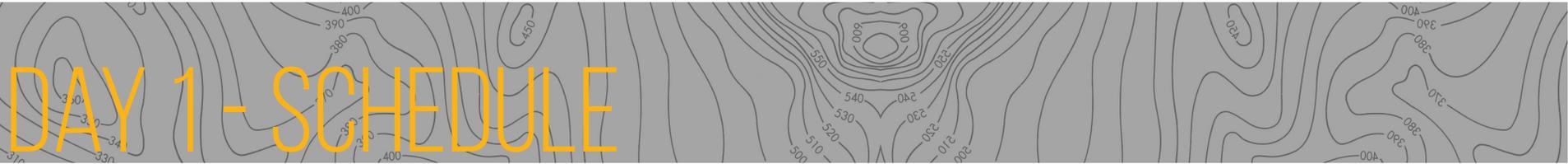


2019  
**INDIGENOUS  
MAPPING  
WORKSHOP**  
INUVIK, NWT | OCT 8 - 10

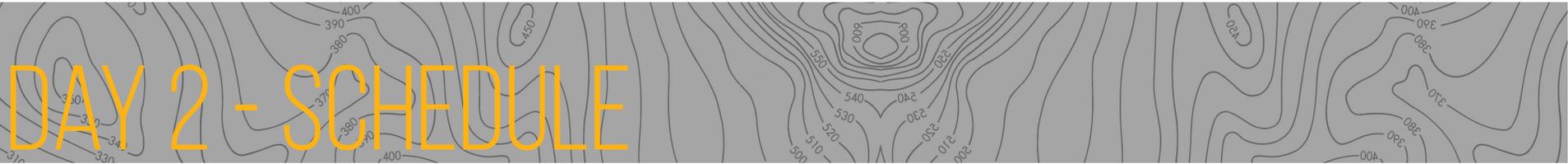
AGENDA



# DAY 1 - SCHEDULE

Time	Details
7:30 - 8:30	Breakfast/Registration
8:30 - 9:00	Prayer and opening remarks <i>Lillian Elias</i> <i>Natasha Kulikowski - Mayor of Inuvik</i> <i>Duane Smith, Chair Inuvialuit Regional Corporation</i> <i>Steve DeRoy, Director, The Firelight Group</i>
9:00 - 9:30	Overview of daily training sessions
<b>9:30 - 10:15</b>	<b>TBD</b>
10:15 - 10:45	Coffee Break
<b>10:45 - 12:15</b>	<b>First training session</b>
Room 1	Open Data Sources and Portals in QGIS: Finding, Downloading and Understanding Data
Room 2	Create and use interactive surveys. It's as easy as 'Survey123'
Room 3	Direct-to-Digital with Google Earth Desktop: Part 1
12:15 - 1:15	Lunch
<b>1:15 - 2:45</b>	<b>Second training session</b>
Room 1	Making a Map in QGIS (I): Basic Analysis, Styling and Labeling
Room 2	Field data collection with Open Data Kit
Room 3	Direct-to-Digital with Google Earth Desktop: Part 2
2:45 - 3:00	Coffee Break
<b>3:00 - 4:30</b>	<b>Third training session</b>
Room 1	Google Earth Desktop and GIS
Room 2	ArcGIS Pro Part 1 - Creating and Managing Spatial Data
Room 3	Mapping with Google My Maps

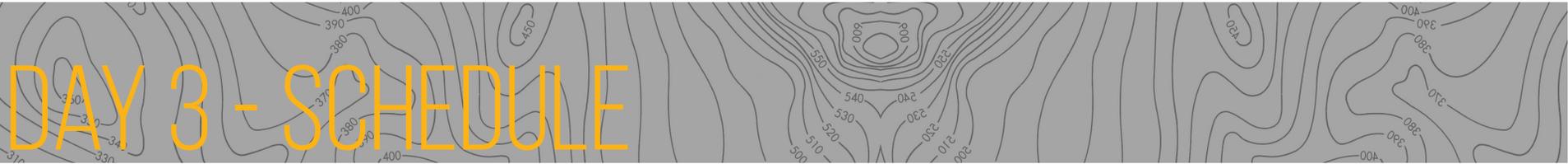




# DAY 2 - SCHEDULE

Time	Details
8:00 - 9:00	Breakfast
9:00 - 9:30	Overview of daily training sessions
<b>9:30 - 10:15</b>	<b>Keynote: Arctic Eider Society</b> <i>Joel Heath</i>
10:15 - 10:45	Coffee Break
<b>10:45 - 12:15</b>	<b>First training session</b>
Room 1	The SIKU application
Room 2	Find patterns and make decisions with ArcGIS Online
Room 3	ArcGIS Pro Part 2 - Data Analysis & Map Creation
12:15 - 1:15	Lunch
<b>1:15 - 2:45</b>	<b>Second training session</b>
Room 1	Share community knowledge with Story Maps
Room 2	Google Earth Desktop and GIS
Room 3	Collect field data with the Collector for ArcGIS mobile app
2:45 - 3:00	Coffee Break
<b>3:00 - 4:30</b>	<b>Third training session</b>
Room 1	No coding, no worries! Create a Web App for processing land referrals
Room 2	Collect Traditional Knowledge using the Direct-to-Digital Esri (D2De) tool for ArcGIS Pro
Room 3	Introductory to Remotely Controlled Aircraft (RCA) Use and Application





# DAY 3 - SCHEDULE

Time	Details
8:00 - 9:00	Breakfast
9:00 - 9:30	Overview of daily training sessions
<b>9:30 - 10:15</b>	<b>Keynote: Natural Resources Canada, Geo-Mapping for Energy and Minerals</b> <i>Rachelle Besner and Chris Stevens</i>
10:15 - 10:45	Coffee Break
<b>10:45 - 12:15</b>	<b>First training session</b>
Room 1	Google - 3D Storytelling
Room 2	Making a Map in QGIS (II): Using Managing Print Composer
Room 3	Government of the Northwest Territories Data Access
12:15 - 1:15	Lunch
<b>1:15 - 2:45</b>	<b>Second training session</b>
Room 1	Google - 3D Storytelling
Room 2	Inuvialuit Settlement Region Online Platform
Room 3	Share community knowledge with Story Maps
2:45 - 3:00	Coffee Break
<b>3:00 - 4:30</b>	<b>Third training session</b>
Room 1	Google My Maps and Data Visualization
Room 2	Managing Traditional Knowledge data and Mapping in ArcGIS Pro
Room 3	Government of the Northwest Territories Web Map Viewers
<b>4:30 - 7:30</b>	<b>Northern Tapas and cultural celebration</b>



# TRAINING SESSION DETAILS

## **Open Data Sources and Portals in QGIS: Finding, Downloading and Understanding Data**

### **Day 1**

**10:45 - 12:15 Room 1**

*This session will cover the basics of QGIS, and how it differs from other geospatial softwares. We will discuss how to access, download and interpret open data sources in QGIS. We will also learn how to add layers to QGIS, explore the GUI, discuss some useful QGIS plugins, and add and use basemaps.*

## **ArcGIS Pro Part 1 - Creating and Managing Spatial Data**

### **Day 2**

**3:00 - 4:30 Room 1**

*In this tutorial, you'll learn about different types of spatial data and how to discover, save, and manage these data using geodatabases in ArcGIS Pro. You'll also learn all about the ArcGIS Pro user interface. This is a good session for users who are migrating from ArcMap and those who are new to creating spatial databases. This is a great opportunity to learn the same mapping application used widely in industry, academic research, and the public sector. Become an ArcGIS Pro*

## **SIKU App**

### **Day 2**

**10:45 - 12:15 Room 1**

*An in-depth look at the SIKU app presented in the keynote speech by Joel Heath.*

## **Direct-to-Digital with Google Earth Desktop (I)**

### **Day 1**

**10:45 - 12:15 Room 2**

*Learn how to use Google Earth to map places of cultural and environmental importance discussed during a field interview. We'll cover the basics of how to create all the feature types - points, lines, and polygons - for mapping Indigenous knowledge and traditional land use*

*using the Direct-to-Digital method. You'll also learn how to add further detail to mapped sites using text and images. Finally, we'll discuss methods of sharing your map with others.*

## **ArcGIS Pro Part 2 - Data Analysis & Map Creation**

### **Day 2**

**10:45 - 12:15 Room 3**

*Create high-quality maps on your computer using ArcGIS Pro, Esri's premier desktop GIS application. In this tutorial you'll learn how ArcGIS Pro can be used to analyze and display spatial data. You'll also learn how to use analysis tools and how to create state-of-the-art, printable maps that you can share in meetings or publications. This is a great opportunity to learn the same mapping application used widely in industry, academic research, and the public sector.*

## **Mapping with Google My Maps**

### **Day 1**

**3:00 - 4:30 Room 3**

*This session will cover how to create quick and easy maps with My Maps, a simple tool for creating interactive and collaborative maps on the web. You'll also learn how to continue working on your maps with your mobile device, both online and offline. You can choose to share your map with your field team only or to the public or even embed it on your website.*

## **Direct-to-Digital with Google Earth Desktop (II)**

### **Day 1**

**1:15 - 2:45 Room 1**

*Learn how to use Google Earth to map places of cultural and environmental importance discussed during a field interview. In Part 2, we'll focus on the methodology and best practices of mapping Indigenous knowledge and traditional land use using the Direct-to-Digital method. You'll learn how to plan your interview, what questions you might ask, what*

*equipment you'll need to bring and more. Then we'll practice Direct-to-Digital interviews in pairs.*

## **Create and use interactive surveys. It's as easy as 'Survey123'**

### **Day 1**

**10:45 - 12:15 Room 3**

*When you need a way to ask questions of community members, collect answers, and use this information to inform decisions, Survey123 is the tool for you. The app is designed for people without GIS expertise to create and distribute interactive surveys just nothing more than a Web browser. With Survey123 you can also track the status of projects, perform resource inventories, and other applications. Learn how to create your own surveys, gather information, and watch as the results are updated on a map in ArcGIS Online.*

## **Field Data Collection with Open Data Kit**

### **Day 1**

**1:15 - 2:45 Room 2**

*This session will cover how to collect Traditional Ecological Knowledge and other information while offline in the field and sync it to a map, using Android mobile devices and Open Data Kit, an open source platform. Participants will learn how to collect, host and view information in a spreadsheet and on a map. You'll also learn to build and deploy the survey forms, that can include questions, GPS readings, photos, audio and more.*

## **Google Earth Desktop and GIS**

### **Day 1**

**3:00 - 4:30 Room 2**

### **Day 2**

**1:15 - 2:45 Room 2**

*In this session participants will learn how to bring different types of datasets into Google Earth Pro which will help in understanding*

# TRAINING SESSION DETAILS

*your community and facilitating Direct to Digital interviews, such as historical maps, GIS shapefiles, and GPS data.*

## **Find patterns and make decisions with ArcGIS Online**

### **Day 2**

**10:45 - 12:15 Room 2**

*If you need to do more than simply record points on a map, ArcGIS Online's powerful analysis tools allow you to answer questions and make important decisions using spatial data. These uses are especially relevant for many aspects of land management and for visualizing data. In this session you'll learn how a map, produced from some straightforward spatial analysis, can answer questions such as: what is the best location for a new community building? What are the possible environmental impacts associated with a project? What are the potential impacts of development on nearby significant sites?*

## **Making a Map in QGIS (I): Basic Analysis, Styling and Labeling**

### **Day 1**

**1:15 - 2:45 Room 3**

*In this session, we will introduce and explore some important spatial analysis tools that you will likely encounter when working on a project. We will also learn how to apply symbology and labels to your maps in order to convey your message and tell your story.*

## **Share community knowledge with Story Maps**

### **Day 2**

**1:15 - 2:45 Room 1**

### **Day 3**

**1:15 - 2:45 Room 3**

*If a map could tell a story, what would it say? ArcGIS StoryMaps allows you to combine maps, text, videos, sound, and photos into a narrative. You can share results of a community project,*

*showcase traditional knowledge and oral histories, and many more types of stories. A story map is an excellent way to engage and communicate with your community, administration, and decision makers. It is also a good way to educate all people about life and issues that may exist in your community. Learn how to build your own story maps in this session.*

## **Collect field data with the Collector for ArcGIS mobile app**

### **Day 2**

**1:15 - 2:45 Room 3**

*Learn how to use your smartphone or tablet's GPS to map significant places and boundaries with Collector for ArcGIS, one of Esri's most popular mobile apps. You'll create map layers to store points, lines, or areas, and then add these to a map that you can edit on your phone or tablet. Afterwards, you'll learn how to map locations in the field using Collector and add descriptions and photos to the locations you collect. Collector connects to a mobile phone or Wi-Fi network, or works completely offline, making it extremely useful in remote areas where there is no (phone or Internet) network service.*

## **No coding, no worries! Create a Web App for processing land referrals**

### **Day 2**

**3:00 - 4:30 Room 1**

*Create consistent and efficient processing of land referrals by developing a Web app customized for your community - all without writing a single line of code. To do this you'll use Web AppBuilder for ArcGIS - a user-friendly and flexible tool that is full of GIS functionality. Built into ArcGIS Online, WebAppBuilder allows you to use your own maps and data to keep track of land referrals, overlay proposed development areas with significant sites,*

*and assess the potential impact on your community according to criteria that you decide are important.*

## **Collect Traditional Knowledge using the Direct-to-Digital Esri (D2De) tool for ArcGIS Pro**

### **Day 2**

**3:00-4:30 Room 2**

*The "Direct-to-Digital" method for traditional knowledge (TK) collection developed by The Firelight Group allows you to collect TK data on a computer without having to use a paper form or a paper map. The Esri version of the Direct-to-Digital method ("D2De") provides an easy-to-use tool for ArcGIS Pro, Esri's primary GIS program, that allows you to collect TK data for sites located on a 3D globe.*

## **Introductory to Remotely Controlled Aircraft (RCA) Use and Application**

### **Day 2**

**3:00-4:30 Room 3**

*This session will go over the rules and regulations of operating a RCA, things to consider when purchasing a RCA, the different types of RCA's, how RCA's are being used, best practices and what happens after a flight.*

## **Google - 3D Storytelling**

### **Day 3**

**10:45 - 12:15 Room 1**

**1:15 - 2:45 Room 1**

*This session will cover how to tell engaging map-based stories about places of cultural and environmental importance that you can easily share online. Then we'll share techniques for presenting in a 3D landscape, including building virtual tours to guide your listeners through the landscape you're discussing, whether your audience is your community, school children, or an official meeting.*

## **Making a Map in QGIS (II): Using Managing Print**

# TRAINING SESSION DETAILS

## **Composer**

### **Day 3**

**10:45 - 12:15 Room 2**

*In this QGIS session, we will continue to make our maps by using the QGIS Managing Print Composer. We will learn how to properly format a map, and add standard map elements, while also getting creative and allowing your map to tell your story.*

## **Government of the Northwest Territories Data Access**

### **Day 3**

**10:45 - 12:15 Room 3**

*In this session, participants will be walked through how to download data from the Government of the Northwest Territories' various data download sites. We will be looking at how to download data from the NWT Centre for Geomatics Homepage, ATLAS Web Map Viewer, Mineral Tenure Viewer, NWT Discovery Portal, some Northwest Territories Geological Survey resources. In addition to downloading data we will also be looking at how you can use and access the Web Mapping Services provided by the NWT Centre for Geomatics.*

## **Inuvialuit Settlement Region Online Platform**

### **Day 3**

**1:15-2:45 Room 2**

*Since 2013, the Inuvialuit Settlement Region Platform (ISRP) has been a central storage environment for geospatial information which can be utilized to support improved decision making in the Beaufort Sea Large Ocean Management Area, and facilitating the implementation of the Integrated Oceans Management Plan (Brown, Bakelaar, & Lewin, 2013). The ISRP is a user-driven ArcGIS Online spatial data sharing portal, which is currently used by 41 members of the Beaufort Sea Partnership to easily communicate and*

*conduct multi-layer spatially based operations to meet management objectives. Additionally, this portal facilitates information sharing, improve decision making and daily data collection.*

*The ISRP session aims to provide an overview of the platform as well as an opportunity for users to request changes, answer questions and facilitate a dialogue which promotes collaboration. No formal training activities will be included. It is recommended that current or future users (Beaufort Sea Partnership Members) attend this session.*

## **Google My Maps and Data Visualization**

### **Day 3**

**3:00 - 4:30 Room 1**

*This session will focus on creating data visualizations with My Maps, a simple tool for creating interactive web maps. You'll learn how to import and style geographic data from spreadsheets in My Maps, how to collect data using a form and add it to your map, and how to handle different types of map files that you download from the web. You will style your map to give it the maximum impact and then you will learn how to embed it in your website.*

## **Managing Traditional Knowledge data and Mapping in ArcGIS Pro**

### **Day 3**

**3:00 - 4:30 Room 2**

*Have you built a geodatabase of Traditional Knowledge (TK) data for your community? The Traditional Knowledge Mapping (TKM) add-in for ArcGIS Pro allows you to structure and search through ("query") your geodatabase by community member, project, or category, and view the results on the map. The TKM ArcGIS Pro add-in is custom-built for querying Traditional Knowledge data, and filters the options along the way to make the query process as simple as possible.*

## **Government of the Northwest Territories Web Map Viewers**

### **Day 3**

**3:00 - 4:30 Room 3**

*In this session, participants will be shown how to use different GNWT produced web map viewers. We will primarily focus on using the ATLAS Web Map Viewer as well as the Mineral Tenure Viewer. We will be looking at how to not only how to work with the viewers and visualize the data but also how to upload your own data, create and print/export your very own maps without the use of additional GIS software.*

# KEYNOTE DETAILS

## DAY 1

### **SIKU.org – The Indigenous Knowledge Social Network**

SIKU.org is a social media online platform and mobile app designed with and for Inuit. It provides a wide variety of tools and services towards Indigenous self-determination in research, education and environmental stewardship. Winner of the 2017 Google.org Impact Challenge in Canada, over the last year substantial progress has been made in developing, conducting workshops, consultation, piloting in northern communities and obtaining design input and feedback from Inuit hunters, youth including Nunavut Sivuniksavut and community-driven research programs.

Far too often, Inuit knowledge and observations have been considered anecdotal by academic communities. The unique research tools available on the SIKU platform and mobile app prove a means for Indigenous communities to document their land-use observations on an ongoing basis, providing a detailed quantitative data set that can be used to bolster their reports and analysis of observations that were previously considered qualitative. Through the tools and services of the SIKU platform, communities and Indigenous organizations can define and implement their own research programs, as well as steward and analyze their own results for their own purposes. As such, it is an important distinction that the platform is designed to facilitate Indigenous self-determination in research and stewardship, rather than citizen science (i.e., where the public helps crowd source collection of data towards academic endeavour).

In addition to the tools and services provided by the platform, an important component of aligning the approach of SIKU with Inuit Tapiriit Kanatami's National Inuit Strategy on Research involves consultation on approaches to data stewardship, intellectual property rights and tools and permissions that support the unique needs of Inuit and other Indigenous communities, towards refining a Terms of Use and Privacy Policy for the platform, as well as defining logic for sharing, permissions and other features. This presentation will highlight the approach and logic defined to-date through ongoing consultation, and seek additional input moving forward towards how SIKU can best facilitate the parallel needs of individual contributors, projects, communities and Indigenous organizations, towards the long-term benefit of self-determination.

## BIO



### **Joel Heath**

*Joel is an accomplished Canadian academic and filmmaker and former Fulbright Chair in Arctic*

*Studies. He has 20 years of Arctic experience working with Inuit communities combining his expertise in ecology, sea ice dynamics, Inuit knowledge and mathematical biology. He has led development of a network of Community-Driven Research Programs, curriculum for northern schools, directed/produced the 16x award winning film *People of a Feather* ([www.peopleofafeather.com](http://www.peopleofafeather.com)). He is Executive Director and co-founder of the Arctic Eider Society ([www.arcticeider.com](http://www.arcticeider.com)), a registered Canadian charity based in Sanikiluaq Nunavut, and recent winner of the Google.org Impact Challenge in Canada for SIKU: the Inuit knowledge Wiki and Social Mapping Platform.*

# KEYNOTE DETAILS

## DAY 2

### Geo-Mapping for Energy and Minerals program

The Geo-Mapping for Energy and Minerals (GEM) program is the Government of Canada's \$200 million initiative (2008-2020) to advance the geological knowledge of Canada's North. GEM research provides fundamental and regional geoscience information that Northerners [and industry] can use to make informed decisions for land-use planning and responsible resource development.

Since 2008, the GEM program has produced more than 1000 maps and reports. The program represents a critical first step for a better scientific understanding of Canada's northern geology, helping to promote sustainable economic and social development, protect the North's environmental heritage, and make informed decisions by Northerners, for Northerners.

The GEM program is conducted in collaboration with provinces and territories and benefits from an established Advisory Group of Northerners, which includes representatives from territorial governments, the private sector and Indigenous socio-economic development organizations.

## BIO



### Rachelle Besner

*Rachelle is the Manager for the Strategic Relations and Reporting Unit for the Geo-mapping for Energy and Minerals (GEM)*

*program that is part of the Geological Survey of Canada. She is responsible for engaging Indigenous communities as it relates to geoscience research conducted by the GEM Program, facilitates the distribution of grants and contributions and works with researchers in the Geological Survey of Canada to find and build innovative tools to help communities use and benefit from geoscience data. Rachelle has been working for the federal government for the last 15 years on environmental issues in various capacities, which has brought her too many First Nations and Inuit communities throughout the North.*



### Chris Stevens

*Chris is a GIS Analyst at the Geological Survey of Canada. His work primarily focuses on geological mapping of northern territories as part of*

*the GEM program. He also has experience working both as a mining and exploration geologist prior to his work at the Geological Survey.*

# TRAINER BIOS



## Cynthia Annett

Cynthia is an associate research professor at Kansas State University where she provides technical assistance to American Indian Tribes and Alaska Native Villages through the Tribal Technical Assistance for Brownfields program at the Center for Hazardous Substance Research. She has worked as an environmental scientist and aquatic ecologist

throughout the US and Russia. Cynthia uses Google Earth, My Maps and Open Data Kit to help tribes inventory environmental impacts and cultural sites as a component of tribal resiliency and climate adaptation planning.



## Moka Apiti

Moka descends from the Ngāti Hikairo, Ngāti Te Wehi, Ngāti Wairere, Ngāti Porou and Te Whanau a Apanui tribes of Aotearoa, New Zealand.

Moka's journey in the GIS sector has been guided by the vision of his tribal elders 28 years ago. Moka serves his tribal communities in the roles of the Chair and Treaty

Negotiations Manager for his Ngati Hikairo tribe, GIS Project Manager for his Ngati Porou tribe, and as the Technical Advisor for his Waikato Tainui tribes on the National Tribal Leaders Data Forum on issues pertaining to Indigenous data sovereignty. Moka has worked extensively with tribes to support them to use GIS to engage and negotiate their Treaty grievance claims with the New Zealand Government, and designed and managed the GIS framework for tribes as part of the New Zealand Treaty Settlement process. He is passionate about building grassroots GIS capability to support tribes in the preservation of traditional knowledge systems and cultural revitalisation projects and continues to work with many tribes in their Post-Settlement phase. Moka is also the Managing Director of Digital Navigators Ltd, a Maori owned and operated business, which provides GIS mapping services, education and strategic

digital technology advisory to build family and tribal GIS capability within Indigenous communities. Digital Navigators Ltd hosts the annual Indigenous Mapping Workshop in Aotearoa New Zealand and is pleased to partner with the Firelight Group towards the delivery of this IMW2018 here in Quebec. As a Google Earth Outreach hion Experts panel Moka also uses these avenues to share his experience and expertise to support Indigenous peoples.



## Jennifer Parrott

Jennifer is the Research Manager of Inuvialuit Regional Corporation (IRC). Previously, Jennifer was Spatial Project Coordinator for the Inuvialuit Regional Corporation. During this time, she co-produced a series of data management systems which promote knowledge

exchange between Inuit, academia and government. She also developed an internal system for knowledge mobilization which has prepared the Inuvialuit to integrate with partnering data management systems. She is currently representing the Inuvialuit on a series of national and international committees including: Arctic Data Committee (International), Senior level Inuit-GOC Clean Growth/Climate Change Table (National), Expert Panel on Climate Change Adaptation and Resilience Results (National), National Inuit Data Management Committee (National: Chair), Inuit Qaujisarvingat National Committee (National) and National Inuit Climate Change Committee (National: Chair).



## Candice Pedersen

Candice is a young Inuk who grew up in Iqaluit, Nunavut. A graduate of the Environmental Technology Program, Candice has been working in the enforcement field for the Government of Nunavut and most recently the Federal Government of Canada. Candice has been

a part of the Ikaarvik Program since 2018, which focuses on Inuit Qauyimayatuqangit (IQ) and the relationship

between Inuit and researchers. Candice first joined the SIKU.org development team after participating in a training workshop in March 2019, and represented Arctic Eider Society at the United Nations Forum Convention on Climate Change in June. In her personal time, Candice is an avid outdoors person, enjoying hunting, camping, sewing garments for hunting and fashion alike, as well as protecting the environment. She has also been taught the traditional art of tattooing Inuit women and has been working to bring back these practices to the culture to empower aboriginal women in a rapidly changing modern world.



## Guy Polden

Guy Polden is a Senior Researcher with the Firelight Group, and works with the Traditional Use Studies and Mapping and GIS teams. With a multidisciplinary background in human geography, Guy brings seven years of experience in conducting high-quality mapping studies. With the

Firelight Group, Guy leads traditional knowledge and use research projects as well as GIS and cartography projects and training. Guy has provided training workshops in mapping and spatial data management in Indigenous communities across Canada and at Indigenous Mapping Workshops since 2015.



## Sarah Rosengard

Sarah grew up in Queens, New York. She is a community coordinator for the Arctic Eider Society (AES) and a postdoctoral fellow in oceanography at the University of British Columbia (UBC). While

completing a PhD in marine (and river) chemistry at MIT/Woods Hole Oceanographic Institution, she grew passionate about communicating science to stakeholders, using art to advance ocean science literacy, and helping communities drive the research process. Following these interests, she accepted a postdoctoral fellowship from the Ocean Leaders

# TRAINER BIOS

program at UBC to explore applications of ocean optics to marine resource management and STEAM education. Through this work, she connected with the AES and various partners in Nunavut to codevelop SIKU.org's use across northern communities. hunting, camping, sewing garments for hunting and fashion alike, as well as protecting the environment. She has also been taught the traditional art of tattooing Inuit women and has been working to bring back these practices to the culture to empower aboriginal women in a rapidly changing modern world.



## Logan Rudkevitch

Logan Rudkevitch is a second generation Northerner of Métis and Wiikwemkoong ancestry who was born and raised in Yellowknife, Northwest Territories. Having grown up in the North, Logan has a strong appreciation for the land and

an understanding of what it is like to live and work here. To further his interest in the environment and how it will change in the face of Climate Change, he has acquired a BA in Environmental Studies and a BS in Physical Geography from the University of Regina. Since finishing his schooling, he has returned to Yellowknife where he has been working at the Northwest Territories Centre for Geomatics. He works on various projects at the Centre from the Mineral Tenure Viewer and Land Administration Viewer, to drone imagery processing and 3D map work, to running workshops to build GIS capacity in Indigenous Organization to aid with Land Use Planning. He plans on continuing to live and work in the North, hopefully with an increased focus on using remote sensing to study Climate Change effects.



## Tara Rush

Tara works at Google Canada in Waterloo, Ontario. She holds a B.A. in Indigenous Studies from Laurentian University, and is attending University of Waterloo, Indigenous Languages as a post-grad student. She is

a lead on the Google American Indian Network (GAIN) team, ensuring that Google's tools are representative,

useful, and accessible to/for Native Americans and First Peoples through Product Inclusion and partnership with internal teams. She works on showing Indigenous communities how to map and monitor their lands as part of working with Google Earth Outreach. Annual mapping workshops designed to show Indigenous communities how to visualize their land, water, and cultural resources to make better-informed decisions about community development are a highlight of her work.



## Susie Saliola

Susie is a GIS Analyst in Esri Canada's Education and Research group. She provides support for various teaching and learning projects, facilitates workshops for both entry level and experienced GIS users, and partners with different organizations to create

meaningful maps and apps. Susie's background includes doing GIS work for public health and international non-profit organizations. She has an M.Sc. in Physical Geography & Forestry with a specialty in GIS and Remote Sensing from the University of Toronto and a Bachelor of Environmental Studies from York University.



## Peter Solodov

Peter is a Software Engineer at Google, working on Google Kubernetes Engine. Peter loves traveling and exploring remote places, meeting people and listening to their stories. He's interested in geospatial storytelling and its role in

connecting people and places throughout the world. Peter holds BCompSc degree from Concordia University.



## Lauren Tekano

Lauren is the Mapping and Geographic Information Systems (GIS) Technician with the Firelight Group. She holds a B.Sc. in Geography from the University of Victoria, where she concentrated in Environment &

Sustainability, and has recently obtained her Masters in Geomatics for Environmental Management (M.G.E.M.), through the University of British Columbia's Forestry Department. Her Masters research project focused in quantifying and mapping forest coverage change due to natural and anthropogenic disturbances in the Squamish River Valley, B.C. Through her studies, she has developed a strong interest in using GIS and remote sensing strategies for problem solving, storytelling and ecological analyses, which lead her to pursue a career in GIS and mapping.



## Jonathan Van Dusen

Jonathan is a Developer/Analyst in Esri Canada's Education and Research group. He provides development assistance for GIS research projects, using Esri's Web and desktop

software, and interacts with higher-education students by delivering lectures and workshops and facilitating virtual study groups. He is interested in the use of GIS for Traditional Knowledge management and social-justice issues, and is also interested in software usability and user experience. Jonathan graduated from the University of Waterloo with a major in Geomatics and a minor in Computer Science, and has gained Esri's ArcGIS Desktop Associate 10.3 and Web Developer Associate 10.4 certifications.