

# Indigenous Data Sovereignty in Salmon Watersheds Toolkit

## Templates and Guidelines

Templates for policies, agreements, and decision-making frameworks for Indigenous Nations.

## First Nations Data Governance in Canada

National and provincial strategies to empower First Nations as they work to assert sovereignty over their data.

## Indigenous Data Governance Principles

Standards and principles to ensure that Indigenous Peoples retain control over their data throughout all stages of the data life cycle.

## Indigenous Data Sovereignty Networks

Communities of people working together to support Indigenous stewardship of Indigenous data at nation-state and international levels.

## Reading Lists and Resource Libraries

Collections of resources that may be helpful for anyone hoping to learn more about Indigenous data sovereignty.

## Third-Party Tools

Cloud services and technical tools that may provide additional protection of Indigenous data, support individualized agreements, or specialize in hosting data owned by Indigenous Peoples.



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This toolkit contains summaries and links to resources to support advancing Indigenous data sovereignty within BC, Canada, and internationally. As more non-Indigenous scientists are appreciating the vital nature of Indigenous Knowledge, there is increasing recognition of the the need to work with Indigenous Peoples through cooperative, co-led research projects and to empower Indigenous communities to collect their own data for environmental decision-making. However, considerations of data ownership (and specifically, Indigenous data sovereignty) have not kept up with the push to bring Indigenous knowledge and western science together. This is especially true for environmental research, including addressing cumulative effects in salmon-bearing watersheds.

The June 2, 2022 webinar, [Taking care of knowledge, taking care of salmon: Indigenous data sovereignty](#), hosted by the Watershed Future Initiative at Simon Fraser University, sought to begin addressing this gap. The webinar provided a space for First Nations leaders and technical staff to identify tangible action steps and implementable recommendations for First Nations sovereignty and governance of Indigenous data related to cumulative effects and climate change in salmon-bearing watersheds.

### **What is Indigenous data?**

Indigenous data is Indigenous cultural heritage embedded in languages, knowledge, practices, technologies, natural resources, and territories, and data collected by a Nation themselves or other governments or institutions. For more background, the WFI coordination team has prepared a primer about Indigenous data sovereignty that is available for download [here](#).

In addition, the WFI coordination team collated the resources below (broken into five categories) in the hopes of providing a helpful and informative starting point for anyone thinking about intersections between Indigenous data, cumulative effects, and Indigenous stewardship of salmon. Many of these were mentioned by workshop participants. These include overviews of Indigenous data ownership, management, and control, alongside some existing policies and frameworks for the Indigenous governance of data, and templates that First Nations can use to create their own data or information sharing agreements. While the WFI does not endorse these materials, we hope they will provide examples and/or a starting point for learning about Indigenous data sovereignty and putting it into practice.



# Data Governance Templates and Guidelines



These resources provide examples and guidelines for Indigenous Nations that are designing and implementing policies, decision-making frameworks, and systems to ensure that their data are managed properly and respectfully.

## **Central Coast Indigenous Resource Alliance Draft Information Sharing Agreement Template**

A template for developing a First Nations data/information sharing agreement. It describes considerations to follow when developing a data sharing agreement and outlines factors to consider or include.

## **Data Governance (Indigenous Data Governance and Management Toolkit)**

This section of the Data Governance and Management Toolkit outlines the components of a data governance framework, by introducing relevant areas of legislation within Canada, describing different types of contracts and agreements that an Indigenous Nation may use in data governance and management projects, provides tools that support data sharing (including template agreements and contracts), and introduces standards and best practices.

## **Informing First Nations Stewardship with Applied Research – Key questions to inform an equitably beneficial and engaged research process**

This guide aims to support researchers at all career paths and First Nations stewardship staff alike to engage in an equitably beneficial research process that supports conservation and stewardship initiatives. The guide was developed from lessons learned from research relationships between Nations and researchers in British Columbia, Canada. The content is intended to be generalizable and to be of use (at least in part) by other Nations and researchers from other labs and institutions collaborating on new projects.

## **Memorial University Indigenous Research Agreement**

This template is a tool to enhance the integrity and impact of research by responding to the principles of Indigenous ownership, control, access, and possession (OCAP®) of Indigenous data. The template exists to support researchers in their efforts to be accountable to the ways Indigenous data should be collected, protected, used, and shared in partnership and in accordance with Indigenous priorities.



## First Nations Data Governance in Canada



These are national and provincial strategies to empower First Nations as they work to assert sovereignty over their data.

### **The British Columbia First Nations' Data Governance Initiative (BC FNDGI)**

A comprehensive and integrated approach to addressing complicated and long-standing socio-economic and cultural issues by harnessing the power of data. The Initiative serves to unite and guide BC First Nations governments, First Nations organizations and partners towards their shared outcome of well-being.

### **First Nations Data Governance Strategy. Strengthening First Nations Institutions and Community Capacity**

Canada's first national strategy to further the vision that every First Nation will achieve data sovereignty in alignment with its distinct world view. The Strategy envisions a Nations-led, national network of regional information governance centres across the country equipped with the knowledge, skills, and infrastructure needed to serve the information needs of First Nations peoples and communities.

## Indigenous Data Governance Principles



Standards and principles to ensure that Indigenous peoples retain ownership, access, control, and possession over data throughout all stages of the data life cycle.

### **The First Nations Principles of Ownership, Control, Access, and Possession (OCAP®): The Path to First Nations Information Governance**

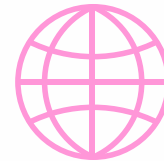
Since 1998, when the First Nations Informational Governance Committee (FNIGC) first created OCAP®, it has become the de facto standard for conducting research about First Nations. This document updates the original paper from 2002, reviews the origins and rationale for OCAP®, examines successful case studies, and discusses potential next steps for further applications of OCAP® principles.

### **The Global Indigenous Data Alliance CARE Principles for Indigenous Data Governance**

The open data movement seeks to increase access to scientific research data, but existing principles (e.g. FAIR: Findable, Accessible, Interoperable, Reusable) tend to ignore power differentials and historical contexts. This creates tension for Indigenous Peoples, who are asserting greater control over the application and use of Indigenous data and Indigenous Knowledge for collective benefit. The CARE principles – Collective benefit, Authority to control, Responsibility, and Ethics – complement the existing FAIR principles to ensure that Indigenous Peoples' rights and wellbeing remain the primary concern at all stages of the data life cycle.



# Indigenous Data Sovereignty Networks



Practitioners and researchers have formed networks to collaborate in producing resources, guidelines, and frameworks in support of Indigenous data sovereignty, at both the international and nation-state levels. These networks bring together communities of people working to support Indigenous stewardship of Indigenous data.

## *Nation-state data sovereignty networks*

### **Maiaam Nayri Wingara Aboriginal and Torres Strait Islander Data Sovereignty Group**

This collective was formed in early 2017 to develop Aboriginal and Torres Strait Islander data sovereignty principles and strategic data assets. The intent of Maiaam Nayri Wingara is to empower Aboriginal and Torres Strait Islanders to engage in Indigenous Data Sovereignty and to advocate for rights (informed by UNDRIP) using data to inform development.

### **Te Mana Raraunga – Māori Data Sovereignty Network**

Our data, our sovereignty, our future: this vision drove the establishment of Te Mana Raraunga and the Māori Data Sovereignty Network, which advocates for Māori rights and interests in data to be protected as the world moves into an increasingly open data environment.

### **The United States Indigenous Data Sovereignty Network (USIDSN)**

USIDSN's primary function is to provide research information and policy advocacy to safeguard the rights and promote the interests of US-based Indigenous nations and peoples (American Indians, Alaska Natives, and Native Hawaiians) in relation to data.

## *International data sovereignty networks*

### **Global Indigenous Data Alliance (GIDA)**

A network of Indigenous researchers, data practitioners, and policy activists advocating for Indigenous data sovereignty within their nation-states and at an international level.

### **Research Data Alliance International Indigenous Data Sovereignty Interest Group**

The goals of this group are aligned with the RDA mission of creating a global community to develop and adopt infrastructure that promotes data-sharing, data-driven research, and data use. Those members that are already involved in national-level networks are strong advocates for data-driven research and data use and are also working in varied ways to build data capabilities beyond academic institutions, so as to benefit Indigenous communities.



## Reading Lists and Resource Libraries



These are collections of resources that may be helpful for anyone hoping to learn more about Indigenous data sovereignty. The libraries include articles, peer-reviewed papers, blog posts, books, and audio-visual materials.

### **Advancing Indigenous Data Sovereignty**

This web-based library of resources to support advancing Indigenous data sovereignty is the product of a series of workshops hosted by researchers at Toronto Metropolitan University aiming to engage peers, experts, practitioners, and students to explore the application of OCAP® principles and other Indigenous protocols in a critical examination of research reconciliation processes in the social sciences.

### **Indigenous Curriculum Resource Centre, Respectful Research Library (Simon Fraser University)**

Collections of books, articles, websites, and audio-visual materials that centre Indigenous approaches to teaching and learning, and support the work of Indigenizing and Decolonizing curriculum at SFU. The Respectful Research Library includes resources on Copyright and Indigenous Knowledge, Indigenous data sovereignty, Indigenous information literacy, Indigenous research methods, writing and citing, and references and additional readings.

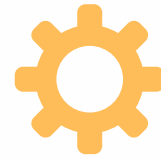
### **Indigenous Data Governance and Management Toolkit**

The toolkit supports Indigenous governments to use and manage socioeconomic data to improve life for their peoples, and in ways that reflect their cultural traditions. The Toolkit has been created by and for Indigenous governments. While some of the content is specific to this context, much of it will be useful for other Indigenous organizations as well.

### **Indigenous Data Sovereignty and Open Data in Environmental Sciences**

This is an evolving reading list geared towards understanding the ethical concerns and best practices of data collection, management, and analysis, especially as it pertains to working with Indigenous peoples and environmental science and management.

## Third-Party Tools



During the webinar on June 2, 2022, some contributors shared third-party cloud services and technical tools that may provide additional protection of Indigenous data, support individualized data sharing agreements, or specialize in hosting data owned by Indigenous Peoples. These services may be a way that Nations can assert control over their data while building capacity within their Nations to reduce reliance on external services in the future.

### **Community Knowledge Keeper**

This fully customizable referrals/consultation tracking and management system is configured to suit and support each community's specific needs and consultation process. The CKK also provides a comprehensive digital community archive for documents, photographs, audio, and video files.

### **Mukurtu**

A free, open-source, digital platform built with Indigenous communities to manage and share digital cultural heritage. It is a grassroots project aiming to empower communities to manage, share, and exchange their digital heritage in culturally-relevant and ethically-minded ways. Mukurtu is committed to maintaining an open, community-driven approach to the platform's continued development. Their first priority is to help build a platform that fosters relationships of respect and trust.

### **Secura**

While Secura does not specialize in hosting data managed by Indigenous peoples, this service supports custom data-sharing agreements.

### **Local Contexts Hub**

This is a web portal that allows Indigenous communities to customize the Local Contexts Traditional Knowledge and Biocultural Labels. When a community has their set of Traditional Knowledge and Biocultural Labels, they can apply them and share them nationally and internationally. The Labels support proper recognition and inclusion of Indigenous cultural authority in Indigenous collections and Indigenous data. The Local Context Hub also allows researchers and institutions to generate Notices to identify and disclose Indigenous interests in collections and data.

### **TrailMark Service**

TrailMark Cloud is an innovative web-based software Indigenous communities are using to protect and manage their heritage and traditional territories. It's an all-in-one solution for environmental field data collection, community-based research, archives management, web mapping, and more.

