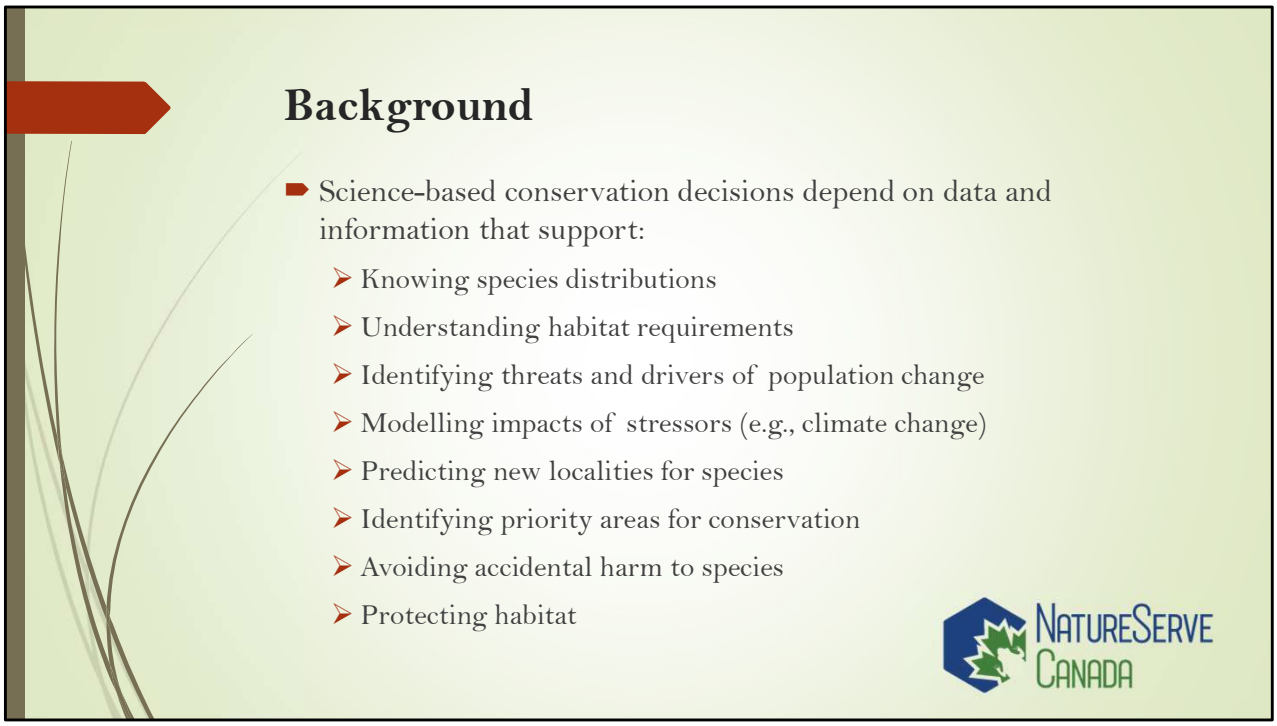
Improving Data Availability for Conservation Decisions

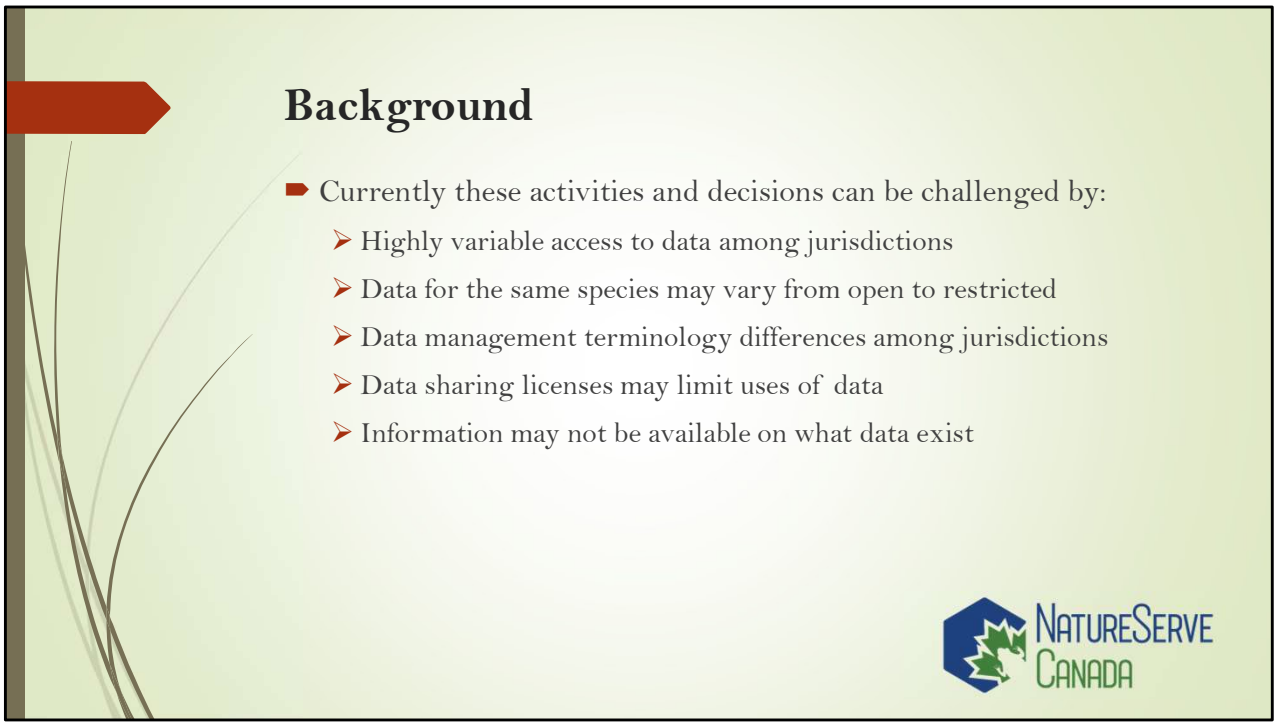
Data Security Template Policy & Procedures
NatureServe Canada Data Security Working Group

September 2021

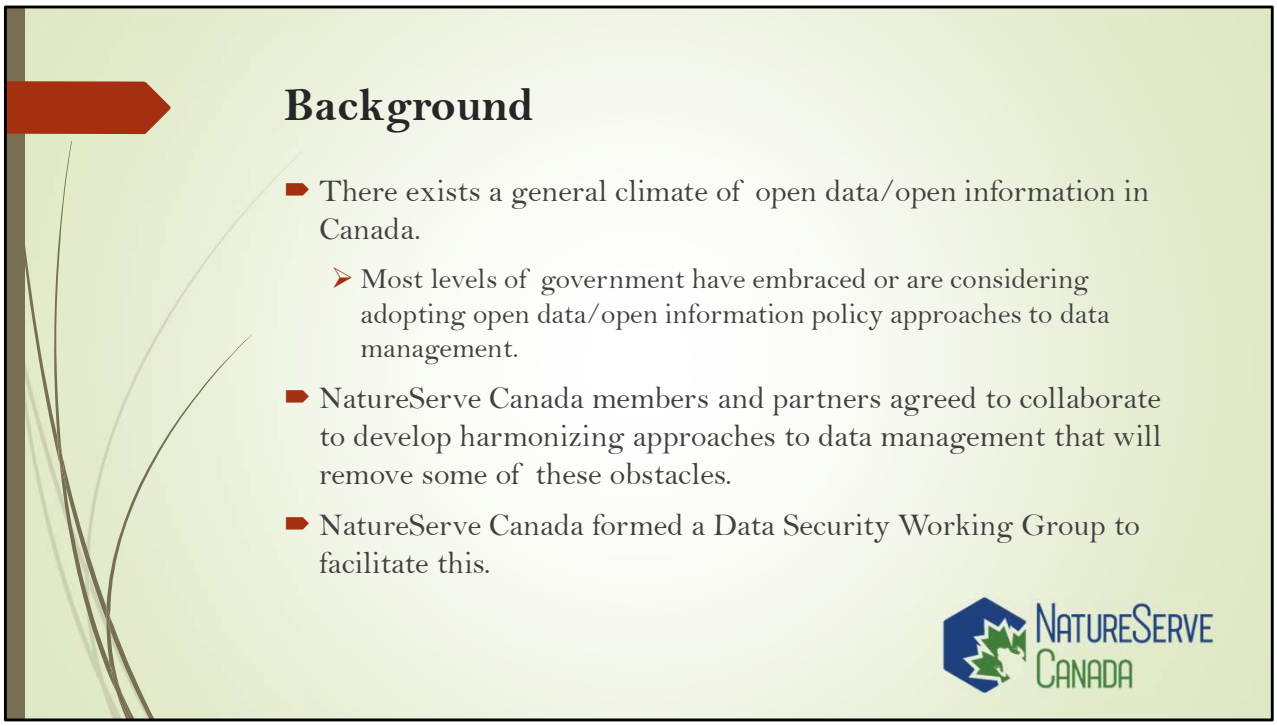
- This presentation provides an introduction to the NatureServe Canada Data Security Policy and Procedures Template developed by the NSC Data Security Working Group



- The issues of challenges with regards to data sharing/data security/degree of restriction are not new
- They have been the subject of may discussions between and among agencies and organizations tasked with collecting, managing and distributing species and ecosystems data; most notably at the 2019 NatureServe Canada AGM
- Access to best available data and information is key to effective conservation decision.



- These currently are some key challenges to science informed decisions and conservation actions
- They also result in inefficiencies and costs to the organization managing access to restricted data



- Recognition and agreement among NatureServe Canada members and partners in 2019 that there was a real need to improve data availability and move towards a more harmonized approach to data management across the network
- Most F/P/T jurisdictions have or are considering some form of open data/open information policies
- At the same time RENEW had been tasked by the CWDC to try and solve the same issue
- COSEWIC has also been challenged with and working on ways to try and streamline management of this issue
- The NSC Data Security Working Group was formed in 2020 to address these needs

Vision

- Better conservation decisions based on best available information.
- Improved flow of data and information between agencies, organizations, academics, and clients.
- Data openly available by default.
- Volume of data with some form of restricted access is reduced
- Greater consistency among jurisdictions in which data have restricted access.
- Clear and transparent rationale to support restricted access where warranted.

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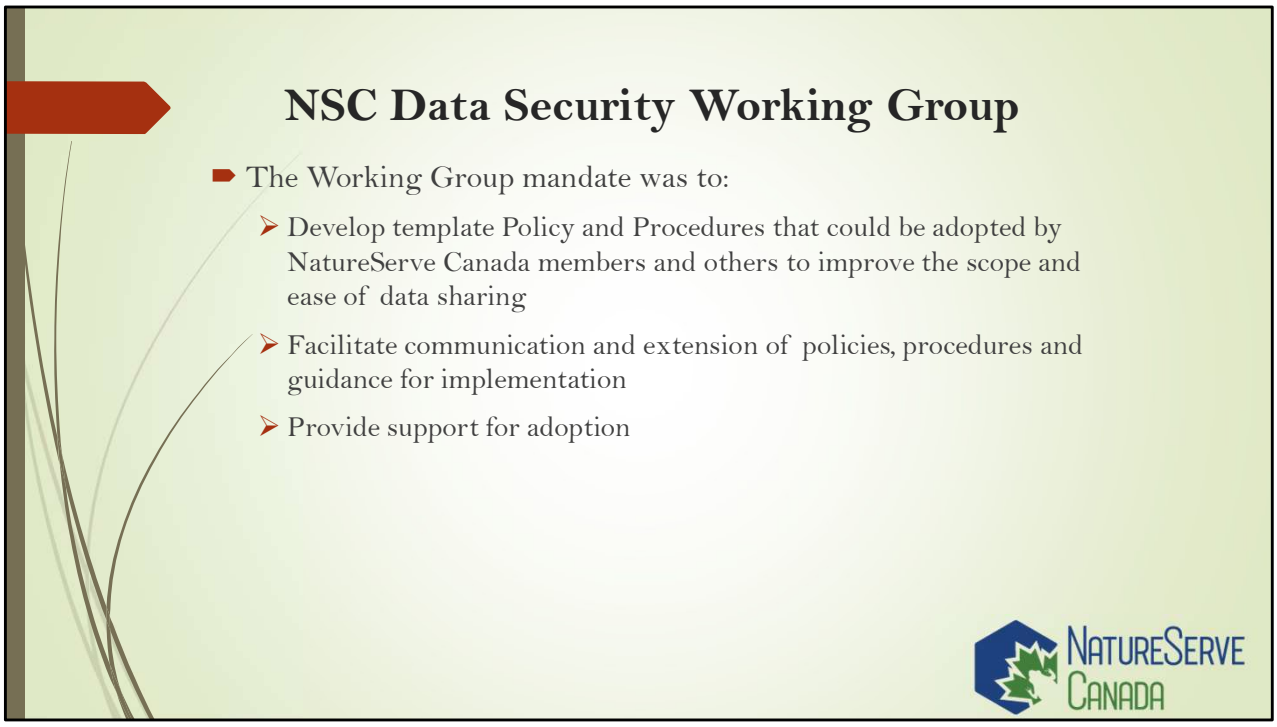
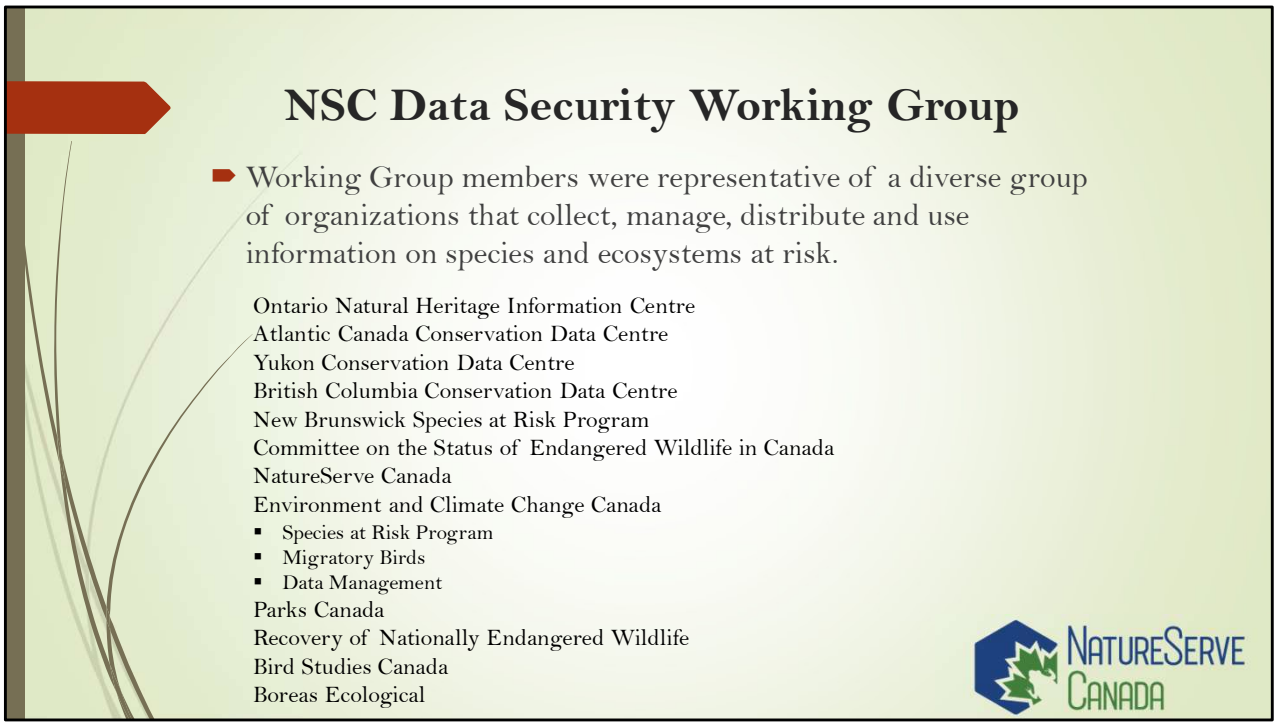
- Why is this important – how does the network and the larger conservation community benefit from a common approach and improved data sharing
- The real conservation outcome is that improved data sharing leads to improving the available information base which theoretically leads to better decisions
- Improved flow of data – also leads to improved working relations
- Volume of data with intensive management is reduced; an investment in process up front pays off with decreases in effort trying to manage a large set of data with some level of restricted access
- A clear and transparent process provides benefits because agencies/organizations are speaking a common language, working from the same playbook, and as a result develop trust; In addition clients and data providers trust increases because they have both greater understanding (the why and how data are designated as restricted access), a clear understanding of the process for obtaining access, and a recognition that restricted access data are limited to those situations where it is truly warranted
- Not achieving this vision results in increased chance of less effective conservation decisions and actions, increased potential for un-informed harm and increased costs to the agency/organization managing the data



- NSC Data Security Working Group formed to:
  - Develop template policies and procedures
  - Facilitate communication/review/guidance for implementation
  - Provide support for adoption



- NSC Data Security Working Group membership includes a broad suite of agencies/organizations working with SAR data
- The Working Group was led and facilitated by Eric Lofroth of Boreas Ecological

NSC Data Security Template Policy

- Statement of Principles
- Definitions
- Policy Statements

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- The Template Policy consists of these 3 components.
  - The principles outline the vision.
  - The definitions provide a common terminology.
  - The policy statements enable that vision.

Data Security Principles

- Well managed, secure data systems that adhere to best practices.
- Conservation and management of species and ecosystems at risk is better served by providing access to best available data and information.
- Access to data and information should only be limited or restricted in circumstances where the risk to the element or other identified values is increased to an unacceptable level. In principle the risk of disclosing must outweigh the risk of non-disclosure to limit access.
- Agencies that limit access to any data have a responsibility to communicate what data are involved, why access is limited, and spatially, as explicitly as possible without compromising the data, what broad geographic area those data are pertinent to.
- The authority to limit access to data on species or ecosystems should be identified within the guiding policy and procedures.

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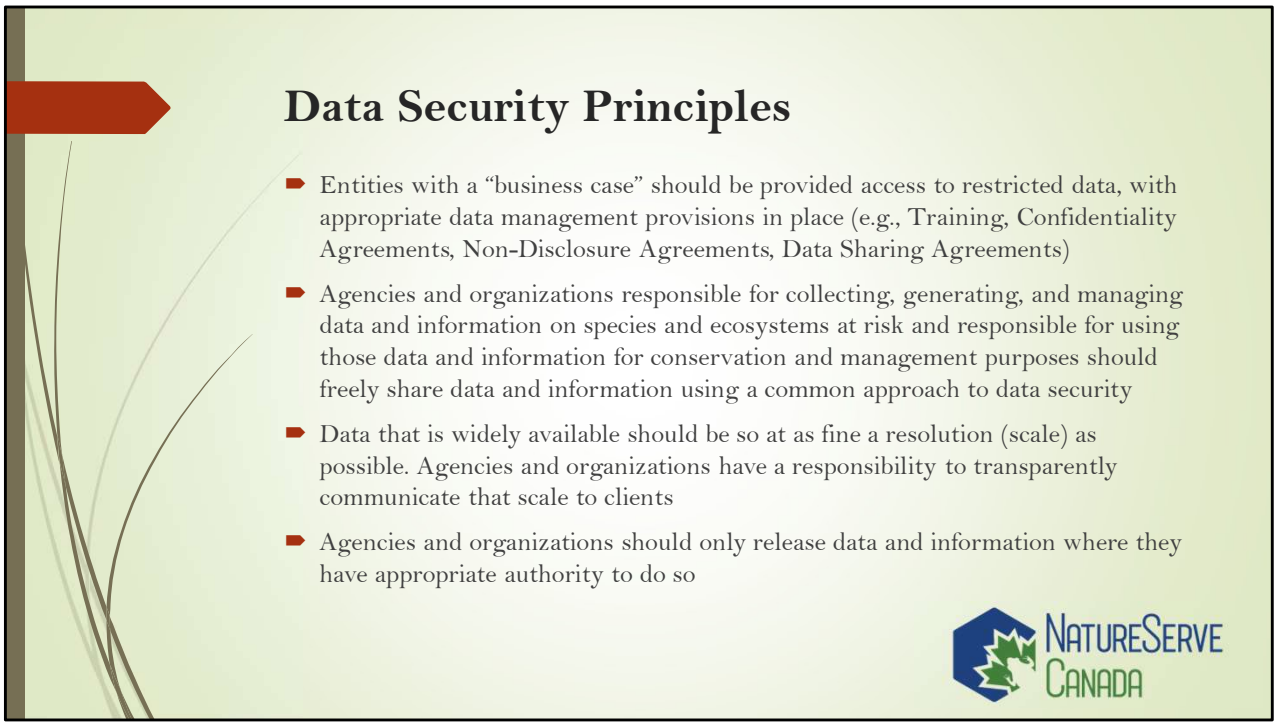
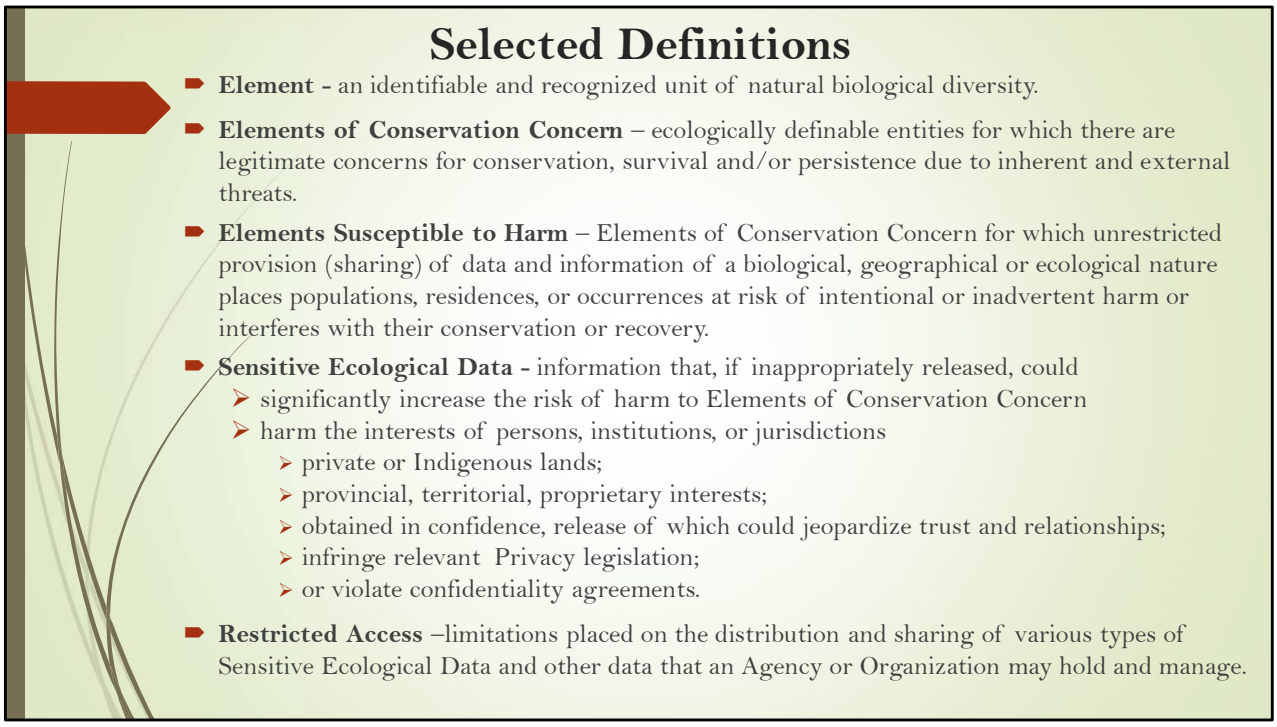


- Where client's can make an effective "business case" they should be provided Restricted Access data subject to appropriate data management provisions
- Organizations with common or overlapping mandates and activities should use a common approach to data security – will make everyone's lives much easier



- The definitions establish a common terminology
- They use terms that are consistent with language that the Conservation Data Centers use across the country
- They eliminate terms that caused confusion among clients

Policy Statements

1. It is the policy of the Agency/Organization to accept and manage data and information only when it has been collected consistent with relevant Federal, Provincial and/or Territorial statutes and regulations.
2. It is the policy of the Agency/Organization to make *Element* data and information as freely and openly available as possible, consistent with the philosophies and context of Open Data frameworks and where applicable, relevant Open Data and Information Policies.

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Policy Statements

3. Element data and information can be considered Restricted Access if and only if they meet one or more of the following criteria to designate them as *Sensitive Ecological Data*:

a) The data and information have been identified to pertain to *Element(s) Susceptible to Harm.*

b) The data and information are *Proprietary* and have associated limitations on their re-distribution.

c) The data and information are relevant to *Private Lands* and have associated limitations on their re-distribution.

d) The data and information are relevant to *Indigenous Lands* and have associated limitations on their re-distribution.

e) Release of the data and information would unduly harm *Program Relations* of the *Agency/Organization.*

f) Release of the data and information would unduly harm *Government Programs,*

g) Release of the data and information is likely to infringe upon or harm *Indigenous Cultural Interests.*

h) Release of the data and information may negatively affect *Public Safety,*

i) Release of the data and information would be in violation of relevant *Legislation or Regulation.*

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Policy Statements

4. It is the policy of the Agency/Organization to routinely provide access to *Sensitive Ecological Data* where the *Client* has demonstrated an appropriate *Business Case* and where the Agency/Organization has the relevant authorities to distribute those data.
5) It is the policy of the Agency/Organization to provide access to *Sensitive Ecological Data* subject to relevant guidelines, restrictions, and agreements as necessary to maintain the integrity of that data (e.g., Confidentiality and Non-Distribution Agreements, Data Sharing Agreements, Training Requirements).
6) Implementation of this policy is enabled and guided by relevant procedures for:
    a) Data and Information Acceptance and Management.
    b) Identification of *Sensitive Ecological Data.*
    c) Data and Information Distribution.
    d) Administration and Documentation.
7) The *Agency/Organization* will make its Restricted Access Data Policies and associated Procedures publicly available.

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Procedures

1. **Data Acceptance and Management**
   a. Data Acceptance
   b. Marking Restrictions in Data Systems on Entry
2. **Data Labelling - Identifying Sensitive Ecological Data**
   a. Identifying Elements Susceptible to Harm
   b. Identifying and Managing Proprietary Data
   c. Identifying and Managing Private Land Data
   d. Identifying and Managing Indigenous Land Data
   e. Identifying and Managing Data Relevant to Government Programs
   f. Identifying and Managing Data Relevant to Managing Program Relations
   g. Identifying and Managing Data Relevant to Indigenous Cultural Interests
   h. Identifying and Managing Data Subject to Public Safety Restrictions

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- This is the complete list of procedures.
- There are 17 procedures in total
- Crafted to recognize current jurisdictional situations and practices
- The procedures in red text are considered by the Working Group to be mandatory components of a comprehensive data security policy and associated procedures

Procedures

3. **Data Distribution**
   - a. Responding to Requests for Sensitive Ecological Data
   - b. Business Case
   - c. Agreements, Licenses and Confidentiality
   - d. Training
   - e. Displaying Sensitive Ecological Data
   - f. Release of Sensitive Ecological Data
4. **Administration**
   - a. Administration

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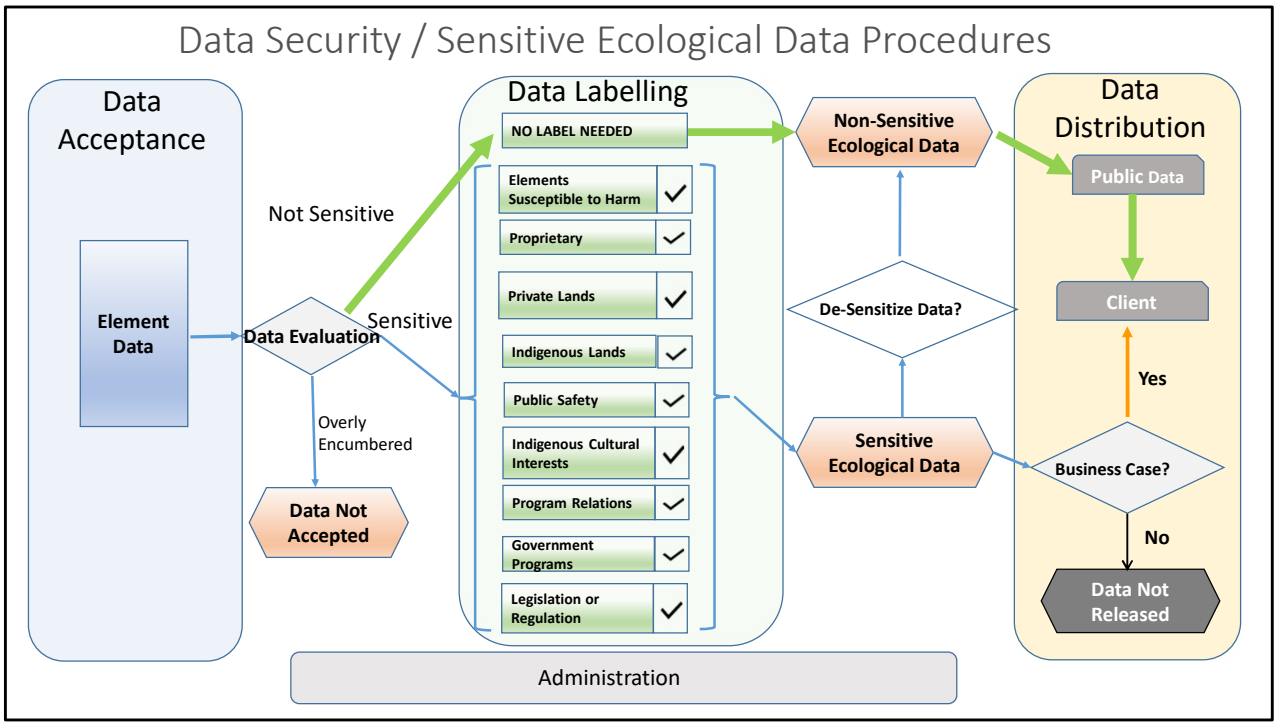
- The procedures highlighted in red text are considered by the Working Group to be mandatory components of a comprehensive data security policy and associated procedures



- Data flow Schematic that outlines the process of managing data acceptance and access
- 4 major areas – data acceptance; data labelling, data distribution; administration
- Procedures exist to enable and guide the necessary activities within each area
- The vision is that most data flows over the top and becomes Public Data

Implementation

- NatureServe Canada and the Data Security Working Group are providing support to agencies and organizations to adopt and adapt the Template Policy and Procedures to their respective governance and work environments

For further information please contact
info@natureserve.ca

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