



# Map Services Usage Policy

June 2024

# Secured WMS Guide

## Revision History

Revision	Date	Author / Reviewer	Description of Changes
1	June 5, 2024	BL	Creation of this document.



# Secured WMS Guide

## Contents

Revision History .....	2
Purpose.....	4
Scope.....	4
Definitions .....	4
Policy Statements .....	5
a. Acceptable Use.....	5
b. Access Control.....	5
c. Security.....	5
d. Data privacy.....	6
e. Data Accuracy and Integrity .....	6
f. Performance and Usage Guidelines .....	6
g. Training and Support .....	6
h. Service Support and Data Downloads .....	6
Available Services .....	7
Service Level Agreement (SLA) .....	7
a. Availability.....	7
b. Performance.....	8
c. Support Response Times.....	8
Roles and Responsibilities.....	8
a. Member Users.....	8
b. IT Department.....	8
c. GIS Team .....	9
d. Data Privacy Officer .....	9
Compliance and Enforcement .....	9
Review and Revision .....	9



# Secured WMS Guide

## Purpose

The purpose of this Web Map Services Usage Policy for Member Users is to establish guidelines for the appropriate and secure use of web map services (WMS) by member users within the organization. This policy aims to ensure that web map services are used effectively, securely, and in compliance with organizational standards and legal requirements.

## Scope

This policy applies to all member's users who are granted access to the web map services provided by the ICI Society.

## Definitions

- **Web Map Service (WMS):** WMS (Web Map Service) is a standard protocol developed by the Open Geospatial Consortium (OGC) for serving georeferenced map images over the internet. These images are generated by a map server using data from a GIS database and are rendered in a format like PNG, JPEG, or GIF. WMS allows users to request maps by specifying parameters such as the geographic area, projection, and layer(s) of interest. The protocol supports operations like GetCapabilities (to get service metadata), GetMap (to retrieve the map image), and GetFeatureInfo (to query information about features displayed on the map).
- **Note:** ICI Society does not currently offer Web Feature Services (WFS).
- **Geospatial Data:** Geospatial data, also known as geographic information, refers to data that is associated with specific locations on the Earth's surface. This data includes various forms of information about physical objects and features, such as coordinates (latitude and longitude), elevation, and attributes like names, classifications, and measurements. Geospatial data can be represented in various formats, including maps, satellite imagery, and 3D models, and is used in applications like geographic information systems (GIS), remote sensing, urban planning, navigation, environmental monitoring, and location-based services.
- **Org Account:** A user account created specifically for using ICI Society web map services.
- **Member User:** An individual or entity granted access to the organization's web map services, including employees, contractors, vendors, and authorized external partners.



# Secured WMS Guide

## Policy Statements

### a. Acceptable Use

- Org accounts are available by request at [info@icisociety.ca](mailto:info@icisociety.ca)
- ICI Society member users must abide by the confines of the ICI Society member's DSLA.
- Web map services must be used only for legitimate business or authorized purposes.
- Member users must not use web map services for any unauthorized or illegal activities.
- Use of web map services should not interfere with business operations or the performance of the services.
- Member users must respect copyright and licensing agreements associated geospatial data and map services.

### b. Access Control

- Access to web map services is restricted to authorized member users only.
- Member users and/or Org login credentials must not be shared with others.
- Access rights will be granted based on the principle of least privilege, ensuring users have the minimum level of access required for their role.
- Republishing and consumption of ICI Society's webservices is allowed for internal use only.
- It is recommended that webservices be accessed through an "Org account". These accounts will be notified of any changes to the web services.
- Regular reviews of access permissions will be conducted to ensure they remain appropriate.

### c. Security

- Member users must access web map services via secure connections (HTTPS).
- Strong authentication mechanisms (e.g., multi-factor authentication) should be used for accessing sensitive geospatial data.
- Member users must report any security incidents or suspicious activities related to web map services to the IT department immediately.
- Avoid accessing web map services from unsecured networks or devices.



# Secured WMS Guide

## d. Data privacy

- Member users must adhere to data privacy laws and regulations (e.g., GDPR, CCPA) when accessing and using web map services.
- Personal data, including location data, must be handled responsibly and in accordance with ICI Society data protection policies.
- Sensitive geospatial data should not be shared with unauthorized parties.

## e. Data Accuracy and Integrity

- Member users are responsible for verifying the accuracy and reliability of geospatial data before using it for decision-making or reporting.
- Member users must report any discrepancies or errors in geospatial data to the applicable member organization or the ICI Society.

## f. Performance and Usage Guidelines

- Member users should be mindful of the performance impact of their usage, avoiding excessive or unnecessary requests to web map services.
- It is recommended that large data downloads be directed to the ICI Society Data Catalog or ICI Society GeoShare data exchange.
- Caching mechanisms should be utilized where possible to reduce load on the map servers.
- Follow best practices for optimizing the performance of web map services, such as requesting only necessary layers and data extents.

## g. Training and Support

- Member users should participate in training programs and stay informed about updates and best practices for using ICI Society web map services.
- The ICI Society will offer support for issues related to web map services, including troubleshooting and guidance.

## h. Service Support and Data Downloads

- Org accounts: Org accounts are encouraged to be used for re-distribution of web services. This allows the ICI Society to better track which members are consuming web services and minimize potential disruptions should a user move on from a member organization. [Contact us](#) if you would like an org account.



# Secured WMS Guide

- **Org Account Notifications:** If using an org account for consuming web services, the organization will notify users of significant changes or deletions to web services. However, users may not be warned of all modifications or shutdowns, so contact the ICI Society if unexpected issues arise.
- **Portal Integration:** To avoid repeated login requests, users can register web services with their own ArcGIS Portal. Guidance for registering a web service is available at: [Registering Secured Services](#).
- **Custom GeoShare Process:** Users can request a custom GeoShare process to create a weekly data package (Geodatabase) for direct access and creation of their own web services. Contact Steve for more information.
- **Direct Data Downloads:** While small data downloads are supported within the web map with data export tools, significant data downloads should only be initiated via the organization's Data Catalog and not through direct access to web services. Direct data downloads can impact performance and create infrastructure and licensing issues. For customized data downloads, contact the ICI Society staff.

## Available Services

- Default ESRI mapping services which provides access to the contents of a map, such as the layers and their underlying attributes.
- WMS (Web Map Services) compliant with the OGC Map Service specification. Note that ICI Society's services are secured and require working with tokens. For instructions on how implement secured WMS services, please [contact us](#) and we will provide you with documentation and support.

## Service Level Agreement (SLA)

### a. Availability

- The ICI Society does not have the staff to guarantee 24/7 service but will make every attempt to keep the services running. Regularly scheduled maintenance occurs every Wednesday from 7:00 a.m. – 9:00 a.m., during which outages may occur due to server restarts after patching. Avoid scheduling demos or development during this window if relying on web services.
- Web services are provided on a "best effort" basis for 24-hour service. The organization commits to ensuring web map services are available 99.5% of the time, excluding scheduled maintenance periods.



# Secured WMS Guide

- Scheduled maintenance will be communicated to member users at least 48 hours in advance.

## b. Performance

- The ICI Society aims to provide response times for web map service requests within acceptable limits.
- Performance metrics will be monitored continuously to ensure compliance with this SLA.

## c. Support Response Times

- The ICI Society will work to resolve issues in a timely manner, with the goal of resolving critical issues within 24 hours, high priority issues within 48 hours, and medium and low priority issues within 5 business days.
- ICI Society business hours are Monday – Friday from 9:00a to 5:00p excluding statutory holidays.

## Roles and Responsibilities

### a. Member Users

- Comply with the Web Map Services Usage Policy.
- Use web map services responsibly and ethically.
- Report any issues, security incidents, or data discrepancies to the appropriate department.
- Participate in training and stay informed about best practices.

### b. IT Department

- Ensure secure and reliable access to web map services.
- Provide technical support and address security concerns related to web map services.
- Conduct regular audits to ensure compliance with this policy.





# Secured WMS Guide

## c. GIS Team

- Maintain and update geospatial data to ensure accuracy and reliability.
- Provide expertise and support related to the use of web map services.
- Conduct training sessions for member users on best practices and efficient usage of web map services.

## d. Data Privacy Officer

- Ensure that the use of web map services complies with data privacy laws and regulations.
- Conduct regular reviews of data handling practices related to web map services.
- Provide guidance on data privacy and protection.

## Compliance and Enforcement

Failure to comply with this policy may result in suspension of accounts, up to and including termination of access. Regular audits will be conducted to ensure compliance, and any breaches must be reported to the IT and security teams immediately.

## Review and Revision

This policy will be reviewed annually or as needed to ensure it remains current with emerging threats, technologies, and regulatory requirements. Revisions will be approved by the IT department and senior management.

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By focusing on the usage aspect specific to our members, this policy ensures that those granted access to web map services are aware of their responsibilities, the security and privacy implications, and the best practices for using these services effectively.

