



# **Land Information Ontario**

## **Infrastructure Web Map Service**

Version 1.1  
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## Table of Contents

Introduction	3
Disclaimer	3
Additional Information	3
Related Documentation	3
Overview	4
Layers and Attributes	1

## Introduction

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### ***Additional Information***

For more information about this document, please contact Land Information Ontario at (705) 755-1878 or [lio@ontario.ca](mailto:lio@ontario.ca).

### ***Related Documentation***

[Web Map Service Technical Overview](#)

LIO WMS follows the [OGC WMS specification](#) for versions *1.0, 1.1, 1.1.1*.

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## Overview

This document provides technical information about the Infrastructure Web Map Service (WMS). URL's for the WMS functionality are provided as well as the layers and available attributes.

### WMS URL

[http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms\\_infrastructure](http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure)

ACTION NAME	ACTION DESCRIPTION	URL
GetCapabilities	What the WMS can do and what feature types, as discrete layers it offers	<a href="http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;SERVICE=WMS&amp;REQUEST=GetCapabilities">http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;SERVICE=WMS&amp;REQUEST=GetCapabilities</a>
GetMap	Produce a map image	<a href="http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;REQUEST=GetMap&amp;LAYERS=XXX,XXX,XXX&amp;styles=&amp;SRS=EPSG:4326&amp;BBOX=-95.0,41.0,74.0,56.0&amp;WIDTH=600&amp;HEIGHT=400&amp;FORMAT=XXX">http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;REQUEST=GetMap&amp;LAYERS=XXX,XXX,XXX&amp;styles=&amp;SRS=EPSG:4326&amp;BBOX=-95.0,41.0,74.0,56.0&amp;WIDTH=600&amp;HEIGHT=400&amp;FORMAT=XXX</a>
GetFeatureinfo	Return attribute information as per layer definition	<a href="http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;REQUEST=GetFeatureInfo&amp;query_layers=XXXX&amp;LAYERS=XXXX&amp;STYLES=&amp;SRS=EPSG:4326&amp;BBOX=-95.0,41.0,74.0,56.0&amp;WIDTH=600&amp;HEIGHT=400&amp;info_format=text/xml&amp;x=X&amp;y=Y">http://www.lio.ontario.ca/wmsconnector/com.esri.wsit.WMSServlet/wms_infrastructure?VERSION=1.1.1&amp;REQUEST=GetFeatureInfo&amp;query_layers=XXXX&amp;LAYERS=XXXX&amp;STYLES=&amp;SRS=EPSG:4326&amp;BBOX=-95.0,41.0,74.0,56.0&amp;WIDTH=600&amp;HEIGHT=400&amp;info_format=text/xml&amp;x=X&amp;y=Y</a>

## Layers and Attributes

Layer	Largest Display Scale	Smallest Display Scale	Metadata Record	Attributes Available	SNIF Report	Comments
AIRPORT_AIRSTRIP	1:800000	N/A	<a href="#">Airport</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">Airport</a>	
NTS_POWER_NETWORK_LINE	1:800000	N/A	<a href="#">Power Network Line at 250k</a>	FMF_OBJECT_ID LABEL_ITEM	N/A	
RAILWAY_SEGMENT	1:100000	N/A	<a href="#">Railway Segment</a>	RAILWAY_USE_CODE FMF_OBJECT_ID	N/A	
NTS_RAILWAY	N/A	1:100000	<a href="#">Railway at 250k</a>	FMF_OBJECT_ID LABEL_ITEM	N/A	
ROAD_SEGMENT_NAMES	1:100000	N/A	<a href="#">Road Segment</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">Road Segment</a>	
ROAD_SEGMENT	1:100000	N/A	<a href="#">Road Segment</a>	FMF_OBJECT_ID LABEL_ITEM SYMBOL_ITEM	<a href="#">Road Segment</a>	
NTS_ROAD	1:400000	N/A	<a href="#">Road at 250k</a>	FMF_OBJECT_ID LABEL_ITEM SYMBOL_ITEM	N/A	
ROAD_600K	1:800000	N/A	<a href="#">Road at 600k</a>	FMF_OBJECT_ID LABEL_ITEM SYMBOL_ITEM	<a href="#">Road at 600K</a>	
TRANSPORT_POINT	N/A	N/A	<a href="#">Transport Point</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">Transport Point</a>	
NTS_TRAIL	N/A	1:800000	<a href="#">Trail at 250k</a>	FMF_OBJECT_ID LABEL_ITEM	N/A	

Layer	Largest Display Scale	Smallest Display Scale	Metadata Record	Attributes Available	SNIF Report	Comments
TRAIL_SEGMENT	1:800000	N/A	<a href="#">Trail Segment</a>	FMF_OBJECT_ID LABEL_ITEM TRAIL_USE_CODE	<a href="#">Trail Segment</a>	
TRANSPORT_LINE	1:100000	N/A	<a href="#">Transport Line</a>	FMF_OBJECT_ID GEOG_UNIT_TYPE_NUM LABEL_ITEM	<a href="#">Transport Line</a>	
UTILITY_LINE	1:800000	N/A	<a href="#">Utility Line</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">Utility Line</a>	
ROAD_SEGMENT_1MILLION	N/A	N/A	<a href="#">Road Segment at 1 Million</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">Road Segment at 1 Million</a>	
ORN_LOCAL	1:100000	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID LABEL_ITEM FULLSTREET	<a href="#">ORN Segmented Address</a>	
ORN_COLLECTOR	1:200000	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID LABEL_ITEM FULLSTREET	<a href="#">ORN Segmented Address</a>	
ORN_ARTERIAL	1:400000	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID LABEL_ITEM FULLSTREET	<a href="#">ORN Segmented Address</a>	
ORN_HIGHWAY	N/A	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID LABEL_ITEM FULLSTREET	<a href="#">ORN Segmented Address</a>	
ORN_FREEWAY	N/A	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID LABEL_ITEM	<a href="#">ORN Segmented Address</a>	

Layer	Largest Display Scale	Smallest Display Scale	Metadata Record	Attributes Available	SNIF Report	Comments
ORN_SEGMENT	N/A	N/A	<a href="#">Ontario Road Network</a>	FMF_OBJECT_ID FULL_STREET_NAME_UPPER L_MUNICIPALITY_NAME R_MUNICIPALITY_NAME L_FIRST_HOUSE_NUMBER L_LAST_HOUSE_NUMBER R_FIRST_HOUSE_NUMBER R_LAST_HOUSE_NUMBER	<a href="#">ORN Segmented Address</a>	
OTN_TRAIL_SEGMENT	N/A	N/A	<a href="#">OTN Trail Segment</a>	FMF_OBJECT_ID ACTIVITY ENVIRONMENTAL_CONCERNS HAZARD_COMMENT MIN_WIDTH_CLEARANCE_METERS MIN_VERTICAL_CLEARANCE_METERS MAX_GRADE MAX_CROSS_SLOPE STRUCTURE STRUCTURE_DESCR SURFACE SURFACE_DETAIL FIRMNESS	<a href="#">OTN Trail Segment</a>	

Layer	Largest Display Scale	Smallest Display Scale	Metadata Record	Attributes Available	SNIF Report	Comments
OTN_TRAILHEAD	N/A	N/A	<a href="#">OTN Trailhead</a>	FMF_OBJECT_ID TRAIL_NAME TRAIL_ASSOCIATION TRAIL_ASSOCIATION_WEBSITE ACTIVITY LENGTH_KMS DESCRIPTION TRILLIUM_TRAIL_NETWORK_TYPE TRANS_CANADA_TRAIL_IND OFSC_TRAIL_DESIGNATION ORCKA_SWIFTWATER_CLASS UNESCO_WORLD_HERITAGE_SITE_IND SIGNAGE_IND ENVIRONMENTAL_CONCERNS HAZARD_COMMENT MIN_WIDTH_CLEARANCE_METERS MIN_VERTICAL_CLEARANCE_METERS MAX_GRADE MAX_CROSS_SLOPE OTC_TRAIL_CHALLENGE OTC_TRAIL_CHARACTER STRUCTURE_DESCR MAX_POSTED_SPEED_LIMIT_KMH	<a href="#">OTN Trailhead</a>	
DAM_AND_BARRIER	N/A	N/A	<a href="#">Dam and Barrier</a>	FMF_OBJECT_ID BARRIER_ID BARRIER_TYPE BARRIER_HEIGHT BARRIER_NAME BARRIER_OWNERSHIP_CLASS BARRIER_TO_FISH_FLG ANTHROPOGENIC_BARRIER_TYPE	<a href="#">Dam and Barrier</a>	



Layer	Largest Display Scale	Smallest Display Scale	Metadata Record	Attributes Available	SNIF Report	Comments
				ANTHRO_DAM_IND ANTHRO_FLOW_REGULATION_FLG ANTHRO_STATUS_FLG ANTHRO_FISHWAY_PRESENCE_FLG NATURAL_BARRIER_TYPE NATURAL_BARRIER_LENGTH BARRIER_TYPE_OTHER_DESCR SOURCE_ID SOURCE_DETAIL JUSTIFICATION_ID LOCATION_ACCURACY COMMENTS		

***Document Control***

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2010-05-10	1.1	Kazin	Addition of Dam and Barrier class