



Empowering People Through GIS

Advancing GIS Technology at Durham Region

Stephanie Jones and Sarah Rice

May 1st, 2025

Agenda

1

GIS at Durham Region

2

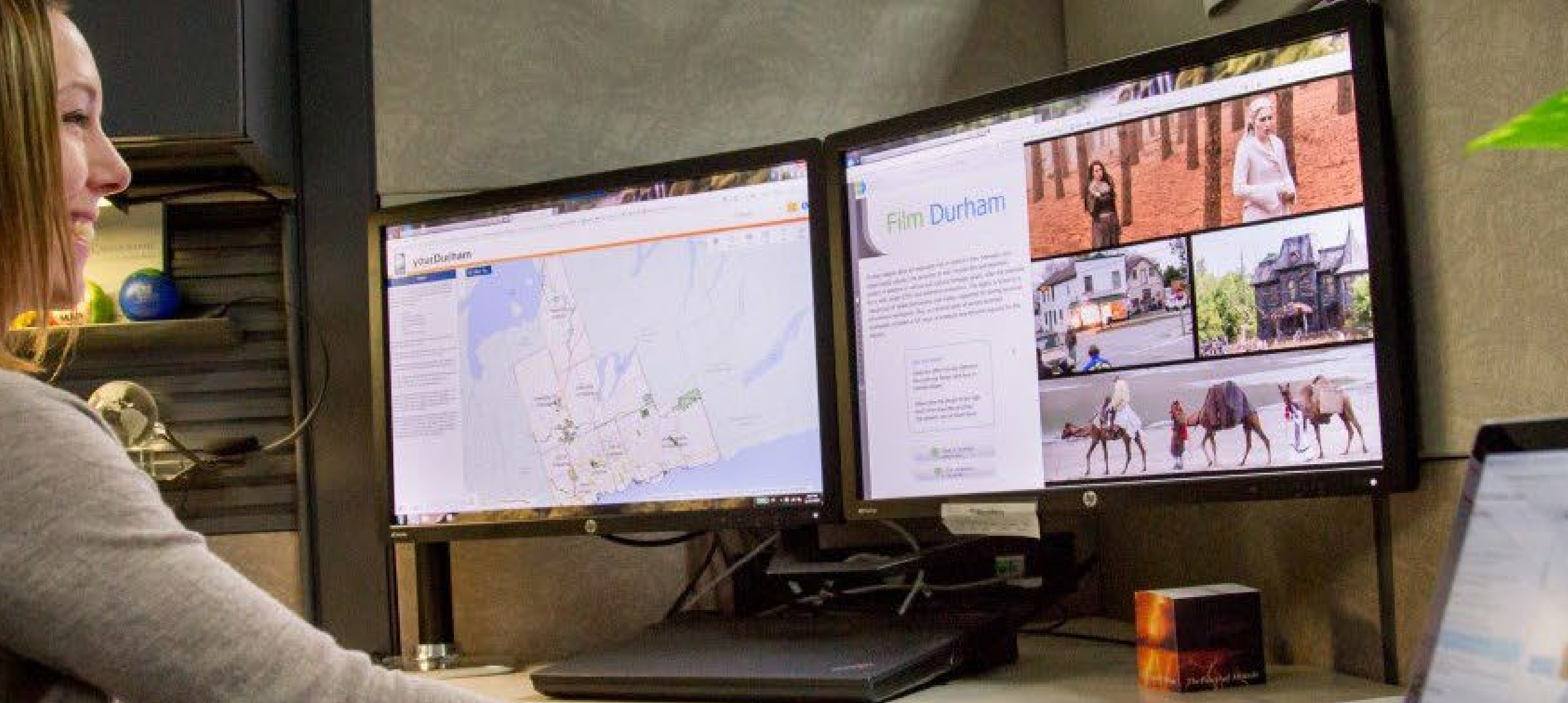
The Web GIS Upgrade Project

3

Success Stories

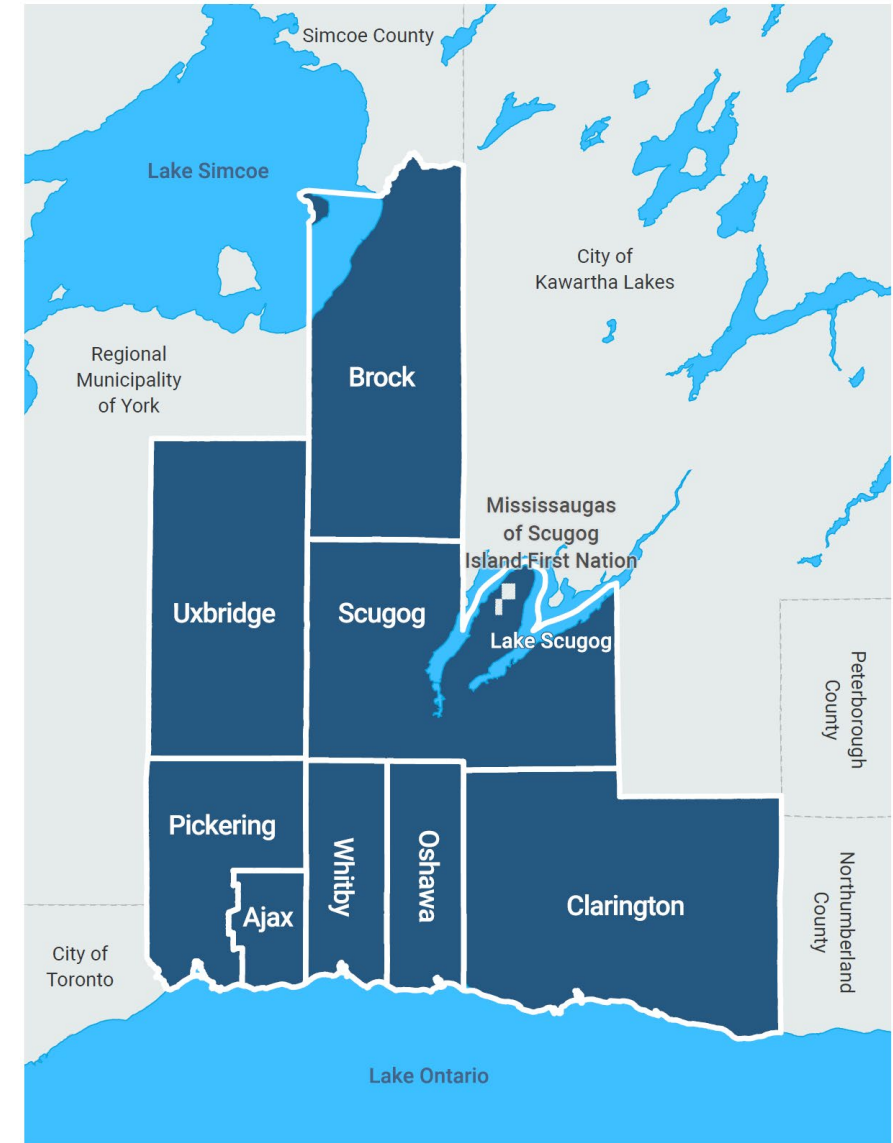
4

Next Steps



About Durham Region

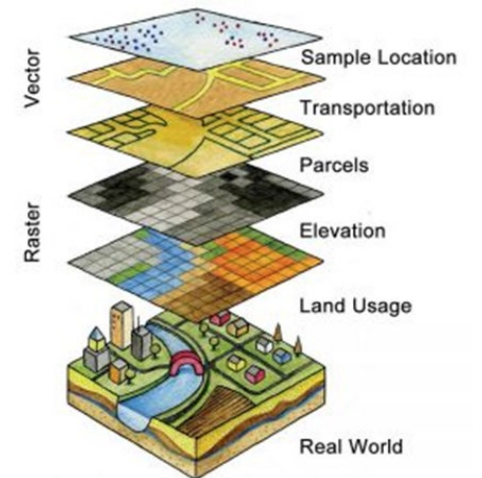
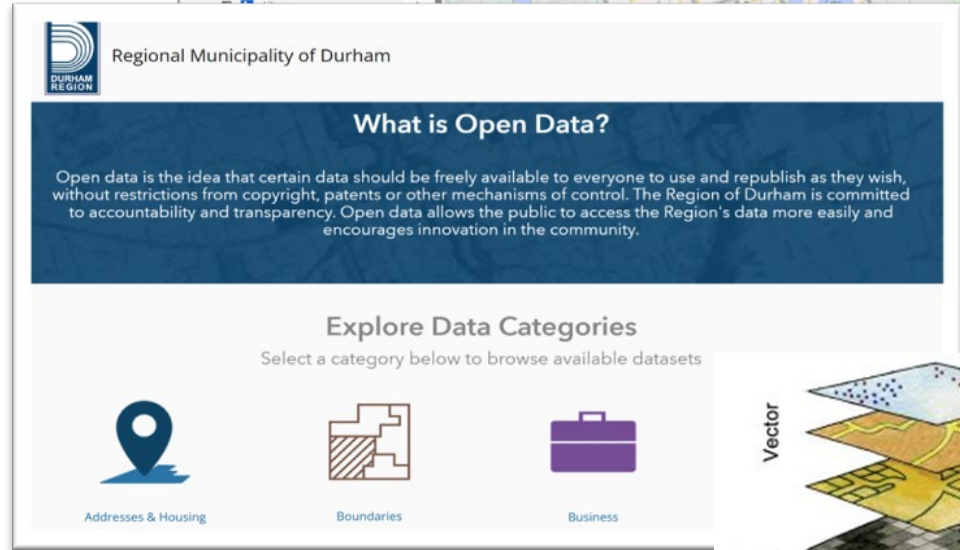
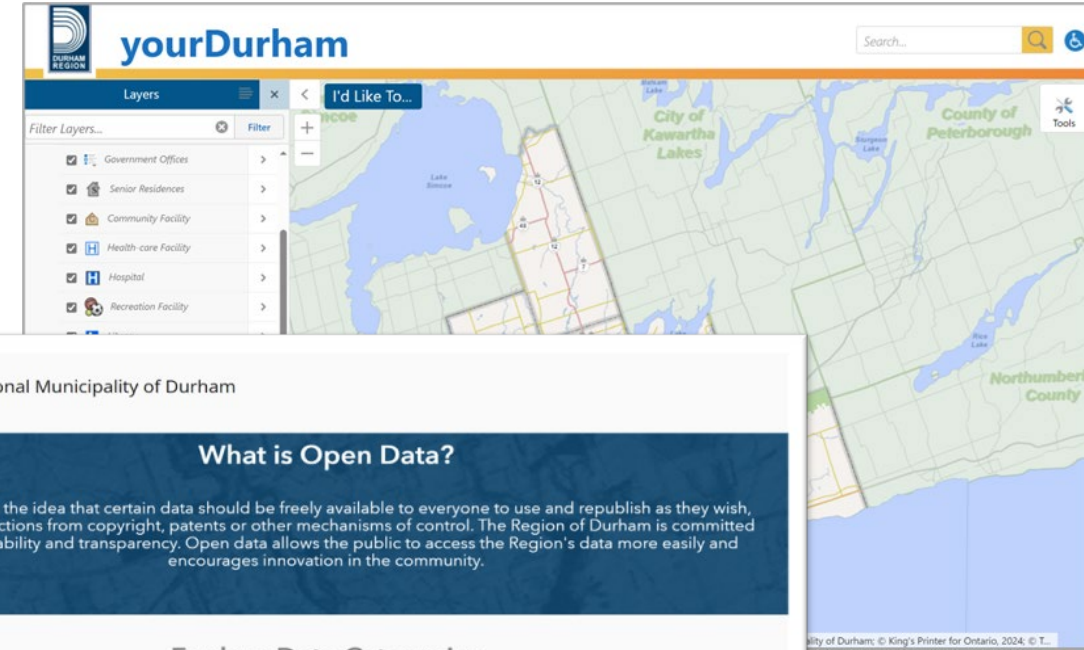
- Upper-tier municipality
- Population 753,090*
- Over 7000 employees
- 8 Departments
 - Community Growth and Economic Development
 - Corporate Services
 - Finance
 - Health
 - Office of the CAO
 - Social Services
 - Transit
 - Works



*Estimated population year-end 2023 (Region of Durham, Community Growth and Economic Development)

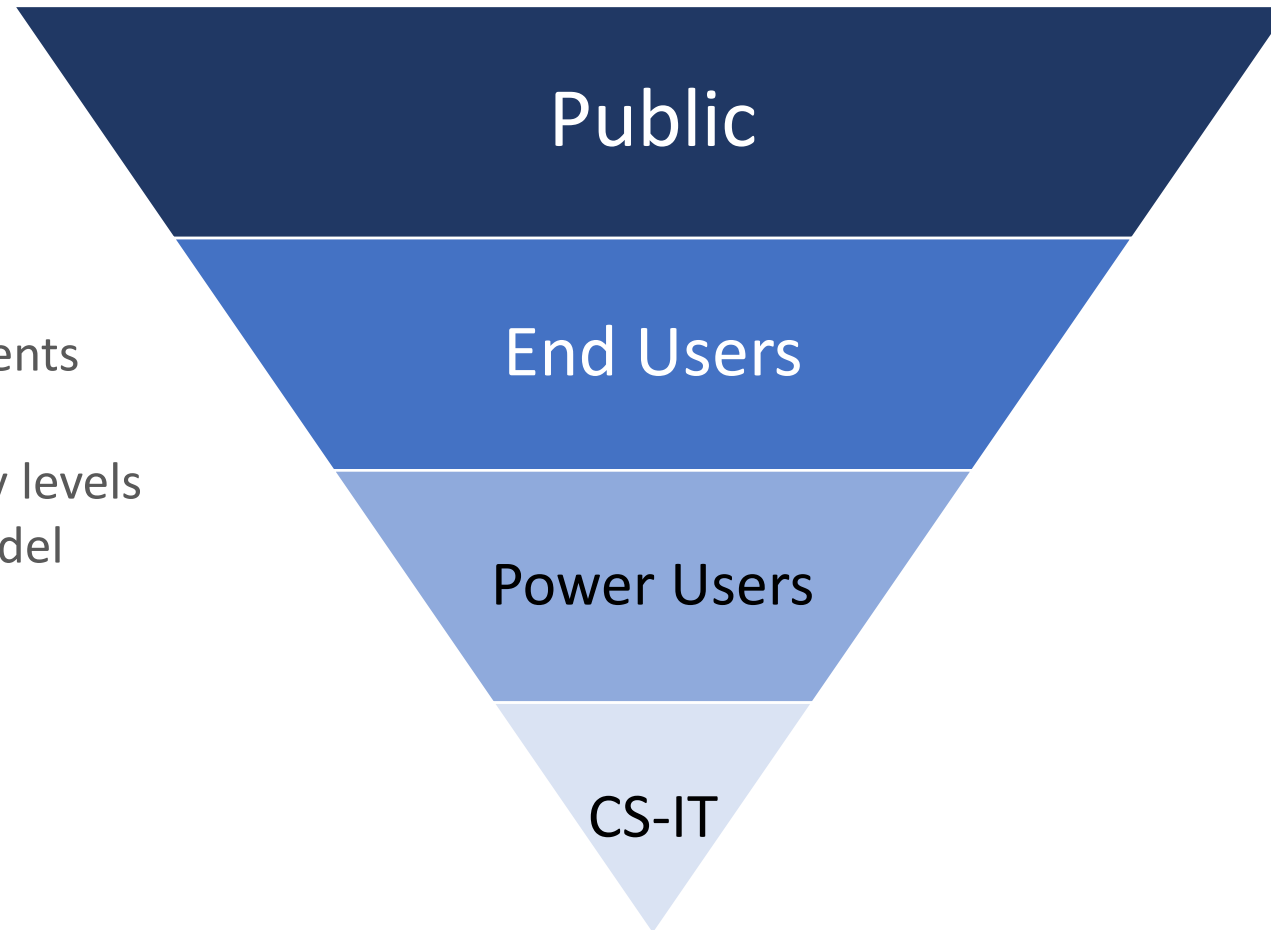
GIS is...

- Geographic Information Systems
- ESRI Software Platform
- Spatial Data
- Application Development
- Spatial Analysis



Web GIS Users at the Region

- Unique requirements
- Diverse skillsets
- Different maturity levels
- Decentralized model



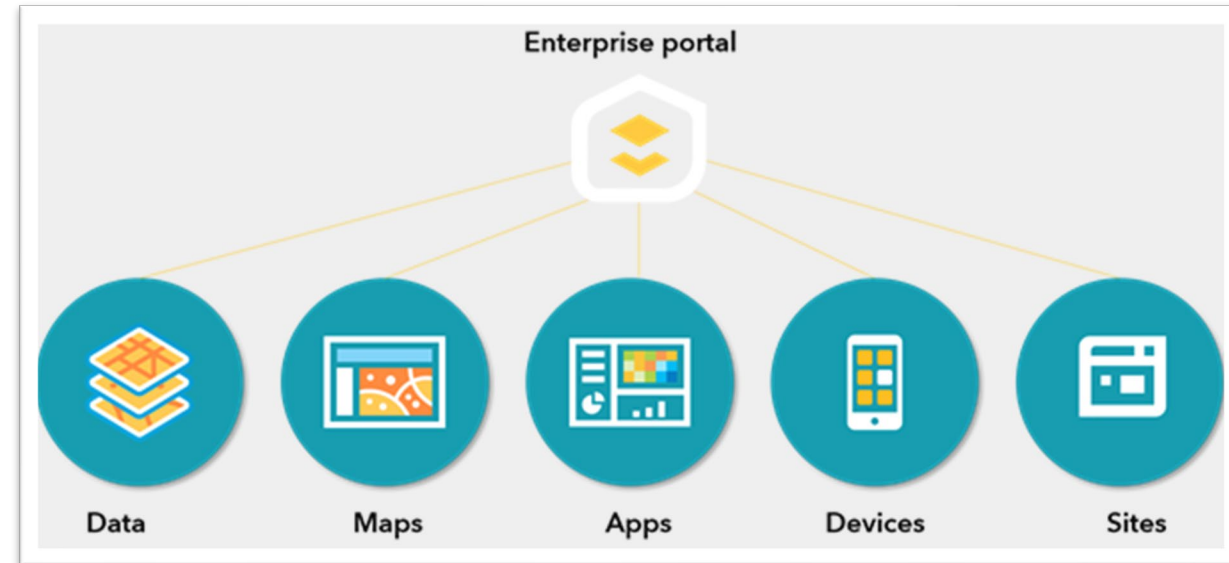


The Web GIS Upgrade Project



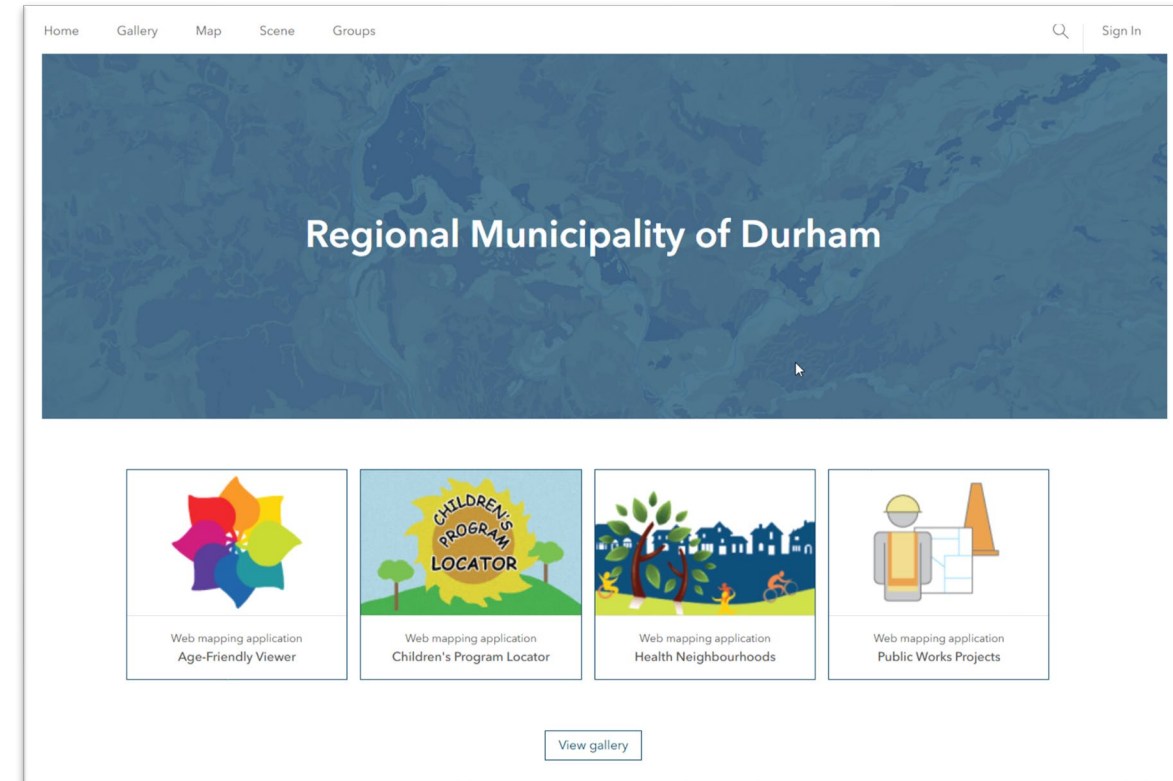
What is ArcGIS Portal?

- Portal is part the ESRI GIS platform
- Website/repository for GIS content
 - Create, use and share spatial data.
 - Create, save, and share web maps and scenes.
 - Create and host web mapping apps.
 - Search for GIS content within your organization.
 - Create groups for sharing GIS information with coworkers.
 - Share links to GIS apps.

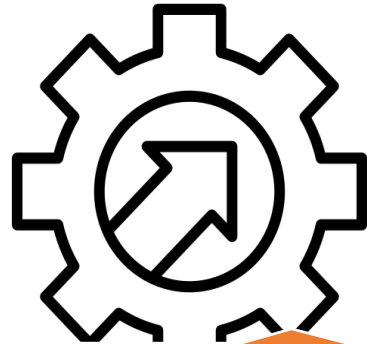


Where we started

- Internal only implementation
- Only promoted to a handful of power users
- Minimal use and adoption
 - Only a fraction of potential was being utilized
- Users wanted more ability to develop and self-serve



The goal



Upgrade



Security



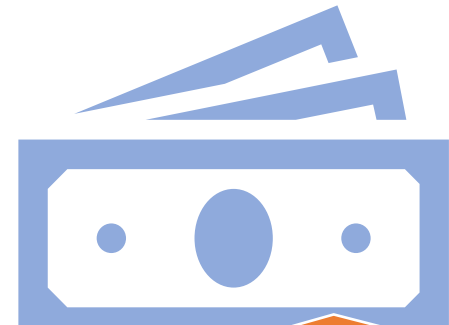
Collaboration



Empower



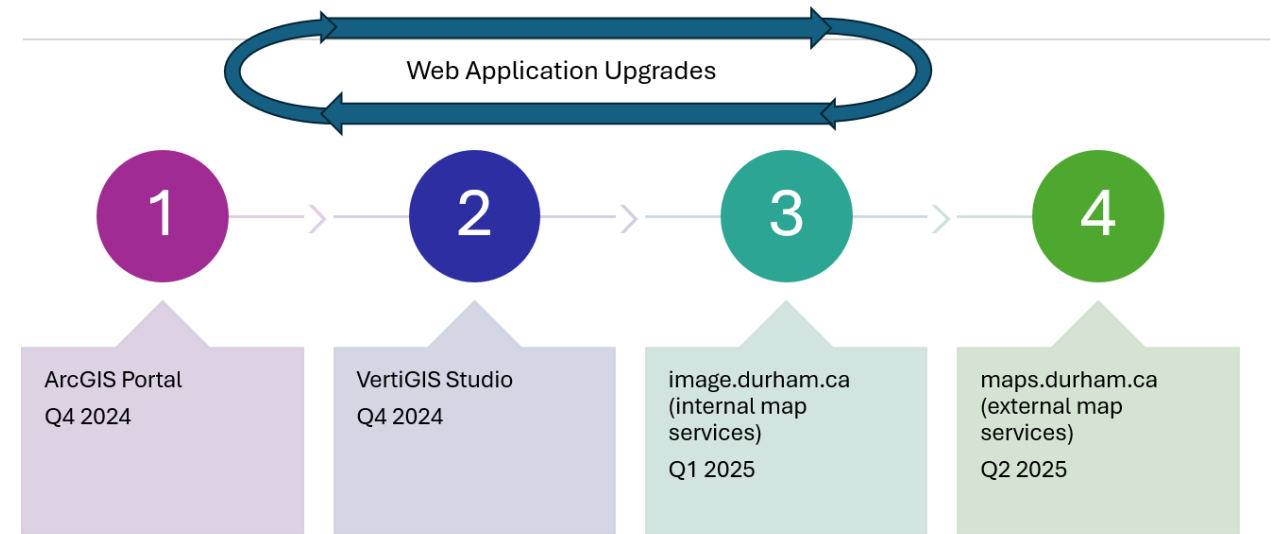
Community



Cost Savings

What we did

1. Provisioning of new server environment
2. Security and privacy assessments
3. Upgrade from 10.8.1 to 11.3
4. Licensing model
5. IT best practices
 - Implement Azure Application Gateway



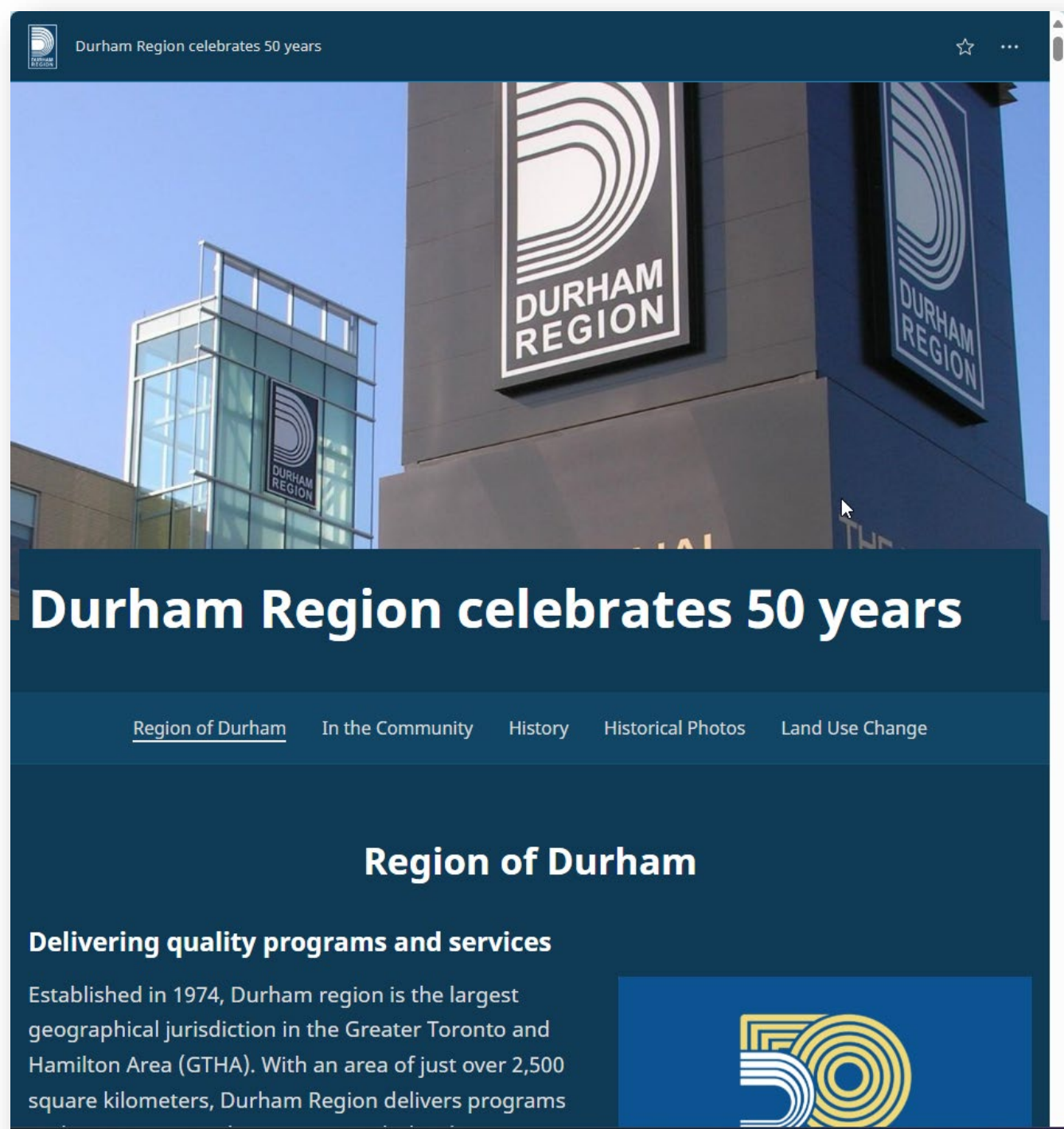


Success Stories



Public Mapping

- 50th Anniversary Story Map

A screenshot of a web browser displaying the Durham Region 50th Anniversary Story Map. The browser's address bar shows 'Durham Region celebrates 50 years'. The main header image shows a building with 'DURHAM REGION' signs. Below the image is a dark blue banner with the text 'Durham Region celebrates 50 years'. A navigation bar contains links: 'Region of Durham' (underlined), 'In the Community', 'History', 'Historical Photos', and 'Land Use Change'. The main content area has a dark blue background with the heading 'Region of Durham' and the subheading 'Delivering quality programs and services'. The text below states: 'Established in 1974, Durham region is the largest geographical jurisdiction in the Greater Toronto and Hamilton Area (GTHA). With an area of just over 2,500 square kilometers, Durham Region delivers programs'. A large '50' logo is visible in the bottom right corner.


Durham Region celebrates 50 years

[Region of Durham](#) [In the Community](#) [History](#) [Historical Photos](#) [Land Use Change](#)

Region of Durham

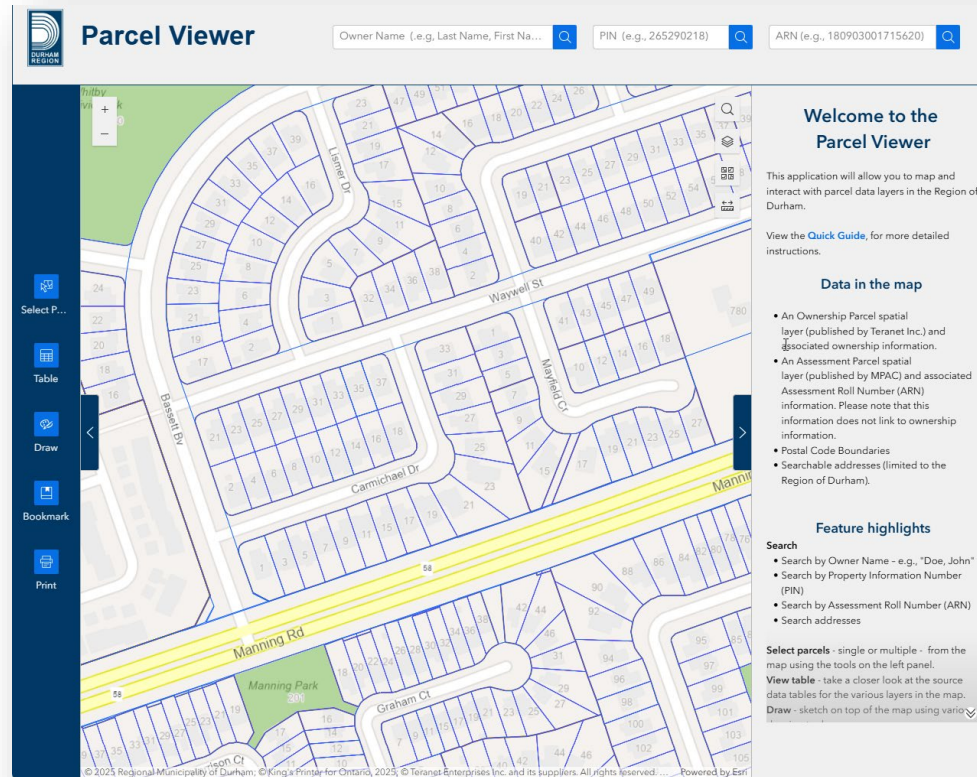
Delivering quality programs and services

Established in 1974, Durham region is the largest geographical jurisdiction in the Greater Toronto and Hamilton Area (GTHA). With an area of just over 2,500 square kilometers, Durham Region delivers programs

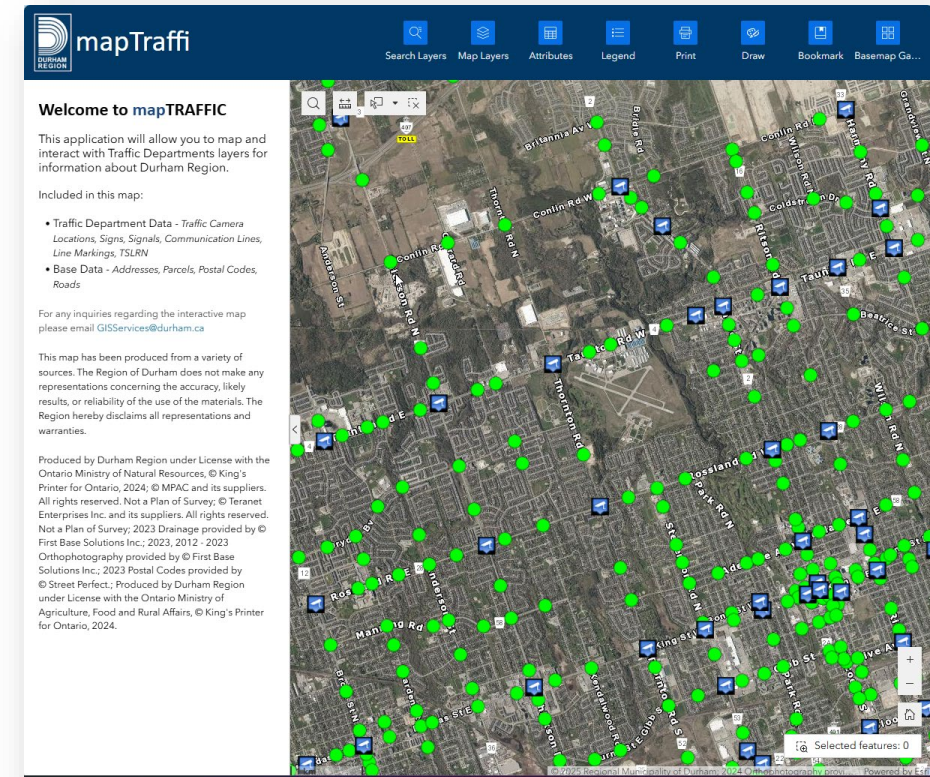
A large '50' logo in yellow and blue, celebrating the 50th anniversary.

Internal Mapping

Parcel Viewer



mapTraffic



Field Worker Apps

- West Nile Virus Field App

Sarah

Total Larvae Count:*

Enter Total Larve Count (maximum of 10 dips)

123

Larvae Count Rating:

System-Generated

Nil

Site Visit Notes:*

Please provide any pertinent information related to this site visit. Access Issues? Safety concerns? Conditions?

1500

Image

Please provide image(s) of the area you sampled.

Drop image here or select image

Maps

WNv Surveillance Map

GPS accuracy 23.4 m · 10 m required

Stagnant Water Site: WH-15

663619.00E 4862785.00N

20.3 km

Phone

-

StudentGroup

Student Group 2

Address1

Cochrane St

Address2

Lockridge Rd

ComplaintID

-

EastingX

663,619.00

NorthingY

4,862,785.00

HighPriority

No

Last Emerg Veg

High

Last Larvae Count

18

Last Larvae Rating

Moderate

Last Organic Level

WH-15

WH-16

WH-610

WH-62

WH-35

Where we are going

1. Continue Building Community
 - Creation of user group and working group
 - Develop Governance
2. Expand functionality
 - Empower to users to publish data
 - Integration with other data sources



Thank you!



Stephanie Jones

Supervisor, GIS and Data Analytics

Stephanie.Jones@durham.ca

Sarah Rice

Senior GIS and Data Analyst

Sarah.Rice@durham.ca

durham.ca

[@RegionofDurham](#)

