TORONTO'S
REGIONAL
LANDSCAPE
SYSTEM

Ravine Reconnect: Restoring Landscape Connectivity in a Growing Metropolis

LACF Annual Grant Project
Final Report

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Motivation

The Ravine Reconnect project is a multi-year initiative motivated by a deep appreciation of the great value and potential of our ravine system. This understanding has been gained from personal experience and engagement with ravine parks over many years - walking, hiking, biking, and cross-country skiing through them, mapping and photographing them, noting gaps to be connected and opportunities for improvement, discussing ideas with family, friends, and colleagues, and engaging with professionals and advocates involved in their revitalization.

The project is inspired and informed by the legacy of advocacy and stewardship, and the ongoing work of the City of Toronto and TRCA to protect, restore, connect, and expand the ravines through the implementation of the Ravine Strategy. It aims to help amplify the impact of this work by motivating broader community advocacy and support for prioritizing and investing in the ravines system.

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Ravine Reconnect:
Restoring Landscape Connectivity in a Growing Metropolis

Toronto is defined by its natural landscape of forested ravine parks connecting the city's neighborhoods to the shoreline of our Great Lake Ontario. The ravines are the city's most important natural assets, yet they are not understood holistically as a Metropolitan Park System and as natural infrastructure, and they remain underfunded. Today, the system is fragmented, disrupted by grey infrastructure like roads, railways, hydro corridors and other land uses, in need of maintenance, ecological restoration, and trial connectivity work. The viability of a healthy and resilient city depends on giving the ravines greater awareness, care, and investment to protect, enhance, and connect this vast regional system. Investing in and placing greater value on the ravines is essential in creating an accessible, continuous natural heritage system that unites the city within and beyond its limits, enhances its ecological value, and strengthens Toronto's identity as a city rooted in its living landscape.

Project Summary

The Ravine Reconnect project seeks to **cultivate a broader community of advocacy and stewardship for Toronto's ravine parks** as part of a Metropolitan Parks System and the greater Regional Landscape System that sustains our growing urban region.

Using **photography and storytelling** the project highlights the diversity of experiences afforded by the many different ravine parks across the city's neighborhoods,

Through **mapping and spatial analysis** with this ArcGIS Story Map, the project aims to build a stronger awareness of the many values of the ravines, not only experientially at the neighborhood scale as most of us know them, but as a larger infrastructural system that is closely tied with the ecological, microclimatic, and socio-economic patterns of the city and region.

The project **envisions a collective image** of an interconnected **Metropolitan Park System** and a broader **Regional Landscape System**, to promote the great potential of investing in our natural infrastructure for the long-term sustainability, climate resilience, and quality of life of our Greater Golden Horseshoe urban region in one of the most strategic locations in the Great Lakes.

Building on the City of Toronto and TRCA's Ravine Strategy work, it seeks to expand and connect the system by **raising awareness of specific gap and opportunity areas** in local communities for improved trail connectivity and accessibility, ecological restoration, and public amenities, to **enable advocacy, partnerships and collaboration** on tangible projects, and amplify impact at a more rapid pace.

Bringing attention to the **valuation of the ecosystem services provided by the ravines as natural infrastructure assets, and the funding gaps to maintain the**m to enable their infrastructural and recreational functions, helps the general public understand the underlying issues that limit the pace of implementation. This can lead to more **actionable advocacy for greater investment and prioritization of our natural heritage system as part of the city's critical infrastructure assets.**

"The ravines are to Toronto what canals are to Venice and hills are to San Francisco. They are the heart of the city's emotional geography, and understanding Toronto requires an understanding of the ravines."

- Robert Fulford, Accidental City

The Ravine Reconnect Story Map creates a **platform for building partnerships, connections, and collaboration** among like-minded individuals, coordinating with existing initiatives by non-profits, community organizations, the City and TRCA toward common goals of connecting, restoring, and celebrating our ravines parks as part of our greater Regional Landscape System. **Drawing inspiration from community action and success stories** like Bring Back the Don, the project seeks to inspire community members to get informed and involved in the work happening or lacking in their neighborhood, for the benefit of not only their community, but the greater city-wide system.

Working with students through courses, workshops, and on-site fieldwork, the project seeks to support new generations of ravine advocates to sustain this initiative in perpetuity, inspiring creative design solutions to gap areas, and strategic rethinking of problems to enable more efficient and scaleable implementation approaches for impactful landscape connectivity and restoration.

The Ravine Reconnect project intentionally remains a **work in progress, sowing the seeds to cultivate and grow a sustained long-term movement of greater civic engagement, creative thinking, and collaboration** for the revitalization of our urban ravine parks into a Metropolitan Park System that will sustain our growing urban region for centuries to come.

Methodology

The project uses the following methods to achieve the stated goals:

>> Photography

>> Historical Timeline

>> Mapping and Spatial Analysis

>> Conceptual Diagramming, Mapping & Visioning

>> Consulting with Parks Staff on gap & opportunity areas, Signage Strategy, and implementation projects

>> Economic Valuation & Budgetary Research

>> Storytelling of Advocacy Initiatives & Neworking

>> Site Observation & Documentation of Gaps

>> Teaching a Multidisciplinary Course and guiding students to engage with the ravines

Project Deliverables

The multi-faceted project includes the following deliverables as parts of an advocacy strategy:

>> An **online ArcGIS Story Map** as the main platform for the project, synthesizing photography, mapping, storytelling, and research into an interactive self-exploratory public engagement and advocacy tool

>> A presentation from the **Workshop in Urban Data Storytelling**, with key maps and research, framing the key Story Map narrative of the value of the ravines and the need to invest in them
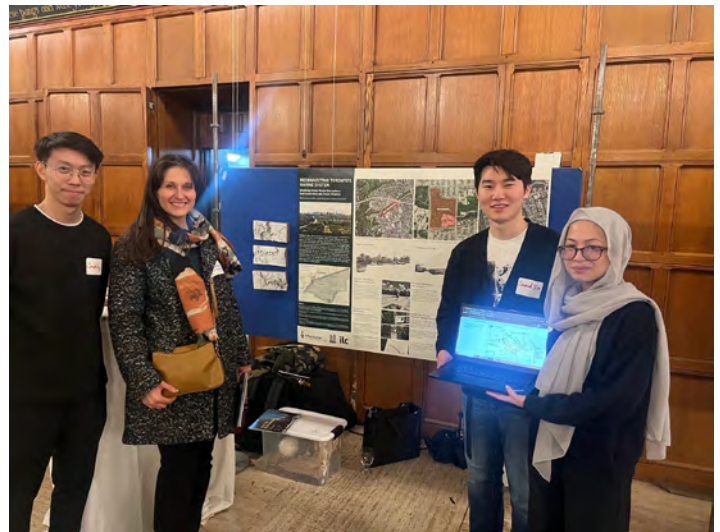
>> A foldable **Poster Map** as a public engagement tool that can be handed out or posted in public places and as physical link to the online platform, featuring the Regional Landscape System on one side and city-wide Metropolitan Park System on the other, with project images and information, and StoryMapQR

>> A **Multi-disciplinary Capstone Project Course** held at the University of Toronto School of Cities, with student work outcomes linked in the Story Map, and a syllabus for future courses.

Multidisciplinary Urban Capstone Project

The Ravine Reconnect project draws inspiration by Anne Spirn's West Philadelphia Landscape Project https://wplp.net/ where an academic studio engaged with communities to build landscape literacy and appreciation for the buried rivers under the paved landscape and to enable them to advocate for their community while contributing to the city's larger landscape and water management system. That was a very long term project, which built capacity in underserved communities and eventually influenced city policy toward a nature-based solutions approach to the combined sewer overflow and stormwater management problem.

The Ravine Reconnect initiative follows in the footsteps of the West Philadelphia Landscape Project, to support the progress being made by the City of Toronto and TRCA with the Ravine Strategy implementation, and to serve as an educational tool to cultivate an informed public

TOP LEFT & RIGHT: MUCP Ravine Reconnect group presenting their ideas at the Midterm Review at Innis Hall in December 2024.

that will value and protect the landscape system in perpetuity.

The course component of the Ravine Reconnect project took the form of a **Multidisciplinary Urban Capstone Project (MUCP)** offered Sep. 24-Apr. 25 by the University of Toronto's School of Cities**,** which encourages collaboration across disciplines and faculties. The course connected groups of undergraduate students from different disciplines with community partners that presented real on-the-ground urban problems and projects that could benefit from the creativity of students. The **Ravine Reconnect MUCP** involved a group of 5 fourth-year undergraduate students from different disciplines including business, public policy, data analytics, and architecture, to collaborate on an 8-month capstone project focused on the Ravine Reconnect objectives. They worked to to raise awareness of the ravine system, address gap areas with creative design solutions, and to build advocacy to improve landscape connectivity across the city's neighborhoods, trying to build up the concept of a unified landscape system.

Given the multidisciplinary nature of the team (only two of them were design students), they decided to include research, on-site fieldwork, digital storytelling, and lesser focus on design interventions in their scope of work. Instead, the students identified developing a wayfinding and signage strategy as a priority they wanted to tackle to improve connectivity and accessibility

RECONNECTING TORONTO'S RAVINE SYSTEM

**Identifying Urban-Ravine Distruptions:
Lost Connections and Future Potential**

Toronto is often characterized as a "city within a park," a reflection of its extensive urban ravine system, which spans 1,200 km and comprises over 150 ravines, making it the largest in the world. Toronto's intensified urbanization and fragmented land use have altered the ravines' structural and functional connectivity (Desfor and Laidley 2011), described as a disruption to riverine ecotones (Forman, 1995). While City of Toronto's Ravine Strategy (2017) includes improvements of better gateways into the ravine, no formalized city-wide study has examined how Toronto's ravines can function as a continuous, connected network. Many ravines lack clear entry points, reinforcing their isolation from the city. Our design research aims to fill that gap—assessing existing barriers and proposing strategies to integrate ravines into a more cohesive urban system.

References
Desfor, Gene, and Jennefer Laidley, eds. 2011. Reshaping Toronto's Waterfront. Toronto: University of Toronto Press. ProQuest Ebook Central. https://ebookcentral-proquest-com.myaccess.library.utoronto.ca/lib/utoronto/detail.action?docID=4669748.

Forman, R.T.T. 1995. Land Mosaics: The Ecology of Landscapes and Regions. Cambridge: cambridge University Press.

Spirn, Anne Whiston. 2005 "Restoring Mill Creek: Landscape Literacy, Environmental Justice and City Planning and Design." Landscape Research 30 (3): 395–413. https://doi.org/10.1080/01426390500171193.

Acknowledgements
Thank you to the Multidisciplinary Urban Capstone Project (MUCP) and our community partner, Sonja Vangjeli (International Landscape Collaborative), for her invaluable guidance and expertise in shaping this research.

The Meadoway, Gatineau Hydro Corridor, Scarborough, ON M1H 2K2

Dentonia Park Golf Course, 781 Victoria Park Ave, Scarborough, ON M4C 5S8

Warden Station, 701 Warden Ave., Scarborough, ON M1L 3Z5

1. Hydro-Corridors

Potential Intervention: Additional Crosswalks

The Meadoway Corridor offers a crucial opportunity for ravine-to-ravine connectivity, but a disrupted bike path prevents seamless access to the East Don Trail. Current conservation efforts focus on ecological restoration, yet trail integration remains incomplete.
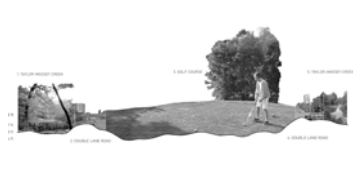
2. Land Use/Zoning

Potential Intervention: Microclimate

At Dentonia Park and Flemingdon Park Golf Course, ravine access is restricted where pedestrians and cyclists are forced to detour around the golf course. Informal or missing trails further limit connectivity.

3. Roads and Railways

Potential Intervention: Underpass

Warden Station sees an average of 12,635 weekday riders (TTC, 2022) yet remains disconnected from the adjacent ravine due to lack of integration and unclear entry points. Poor pedestrian design further impede access.

Research Analyses: Methodology

Site Assessment (Primary Research)
- Selected study area as defined by Neighborhood Investment Priority Areas
- Conducted rubric-assessments and photographic analysis on field visits

Spatial Analysis & Applied Design
- Developed GIS-based StoryMaps to visualize land-use patterns and trail fragmentation as a tool for public engagement.
- Conducted experimental evaluation of wayfinding signage placement through physical modeling.

Stakeholder Engagement & Literature Analysis (Secondary Research)
- Consulted City of Toronto James Young and community partner Sonja Vangjeli
- Reviewed Toronto's environmental history, urban design and literacy including case studies of the West Philadelphia Landscape Project, and Toronto Social Pinpoint.

Design Intervention: Strategic Signage Placement

Opportunity to include more information on signs within the parks and near transit and high traffic locations adjacent to them.

Adjustments aim to restore connectivity through helping visitors navigate gaps when traveling to and within the parks.

Incudes visuals and information to raise awareness of these gap areas and the significance of ravine parks to the Toronto area.

Design Intervention: Mapping Tool

Urban Studies
Innis College, University of Toronto

ABOVE: MUCP Course Final Presentation Poster produced by the students with three ravine gap areas studied in the East Don and Taylor Massey Creek area in East York.

LEFT: Topographic models of the three gap areas laser cut and built by the students to better understand the site terrain and possible interventions.

to the ravines in an inexpensive but highly effective way, so this was added to their scope.

They worked with the City's established family of signage products to develop a presentation deck outlining a system-wide strategy for wayfinding, illustrating its implementation in their study gap areas. They also developed public engagement tools - a poster with enlarged maps of three selected ravine park gap areas and interpretive sectional collages of their study sites, illustrating different typologies of gaps and connectivity improvement design interventions in their focus area – Taylor Massey Creek, East Don, and the Meadoway in Scarborough. They also built three 3D topo study models as design and engagement

tools to better understand the terrain of the ravine sites and imagine possible interventions.

Finally the students also put together a compelling ArcGIS Story Map of their own to summarize their research on the history of the ravine system, their analysis and site observations of three gap area study sites, and their ideas about how to improve landscape connectivity through an improved wayfinding and signage strategy for park systems like Toronto's ravines that are disrupted by streets and urban fabric.

The two semester course and self-directed capstone project was a great learning and growth opportunity for the students - tackling a real urban problem, engaging with city staff and doing field work in new sites they had not even visited before, learning new skills in persuasive story telling, mapping, analysis, project management, and becoming advocates for the ravines themselves.

Learning from this first run of the course, a syllabus has been developed for future iterations, building on this work by developing creative design solutions for different typologies of gap areas, to help more connectivity projects get implemented. Designed to be repeated, the course aims to build capacity by cultivating a new generation of design thinkers as advocates for our ravine system to continue these efforts into the future.

TOP LEFT & RIGHT: MUCP Ravine Reconnect student group presenting their ideas at the Midterm Review at Innis Hall in December 2024.

BOTTOM RIGHT: The student group presenting their final deliverables at the Design Showcase at Hart House in April 2025.

The MUCP Student Story Map is accessible here:

https://storymaps.arcgis.com/stories/ e916417bc95c49a195fe2ceb7f6a6db9

Poster Map as Engagement Tool

The Ravine Reconnect project includes a series of diverse engagement tools - both digital and physical - that work together across platforms to raise awareness of the ravines and invite participation, stewardship, and closer engagement with ongoing work to improve landscape connectivity.

A foldable poster-size map of the Toronto's Urban Ravine Parks System and Regional Landscape System can be downloaded to be printed from the ArcGIS Story map. The poster map can be folded into a linear green banner brochure that provides a brief narrative of the potential, issues and opportunities of the ravines system, and showcases key destination parks and recently revitalized ravine parks. Importantly it also prominently features a QR code to lead viewers to the online ArcGIS Story Map.

On one side the **city-wide ravine system map** highlights priority areas already underway, gaps and opportunity sites for future improvements and a selection of key parks showcasing recently completed improvements, and some key destination parks in the system. The back side shows Toronto's broader **Regional Landscape System,** highlighting how the ravines fit into a vast landscape conservation network of the Green Belt, Oak Ridges Moraine, Escarpment and Waterfront, which structure and sustain our urban region among the Great Lakes.

The foldable map is intended to be a portable tool for advocates and the general public to bring along on hikes and engage more deeply with the gap and opportunity areas identified by the city for future work, and also to help to identify additional opportunity sites that could contribute to the greater system. These maps could be handed out at Ravine Day events or made available at a few key parks to curious hikers.

The poster-size map can be posted in prominent community spaces like school entrances, community centers, and transit stations, as a way of promoting the presence of the ravine parks across the city and instilling the idea of a collective city-wide **Metropolitan Parks System** that we need to protect, maintain, connect, and restore to sustain our growing urban region.

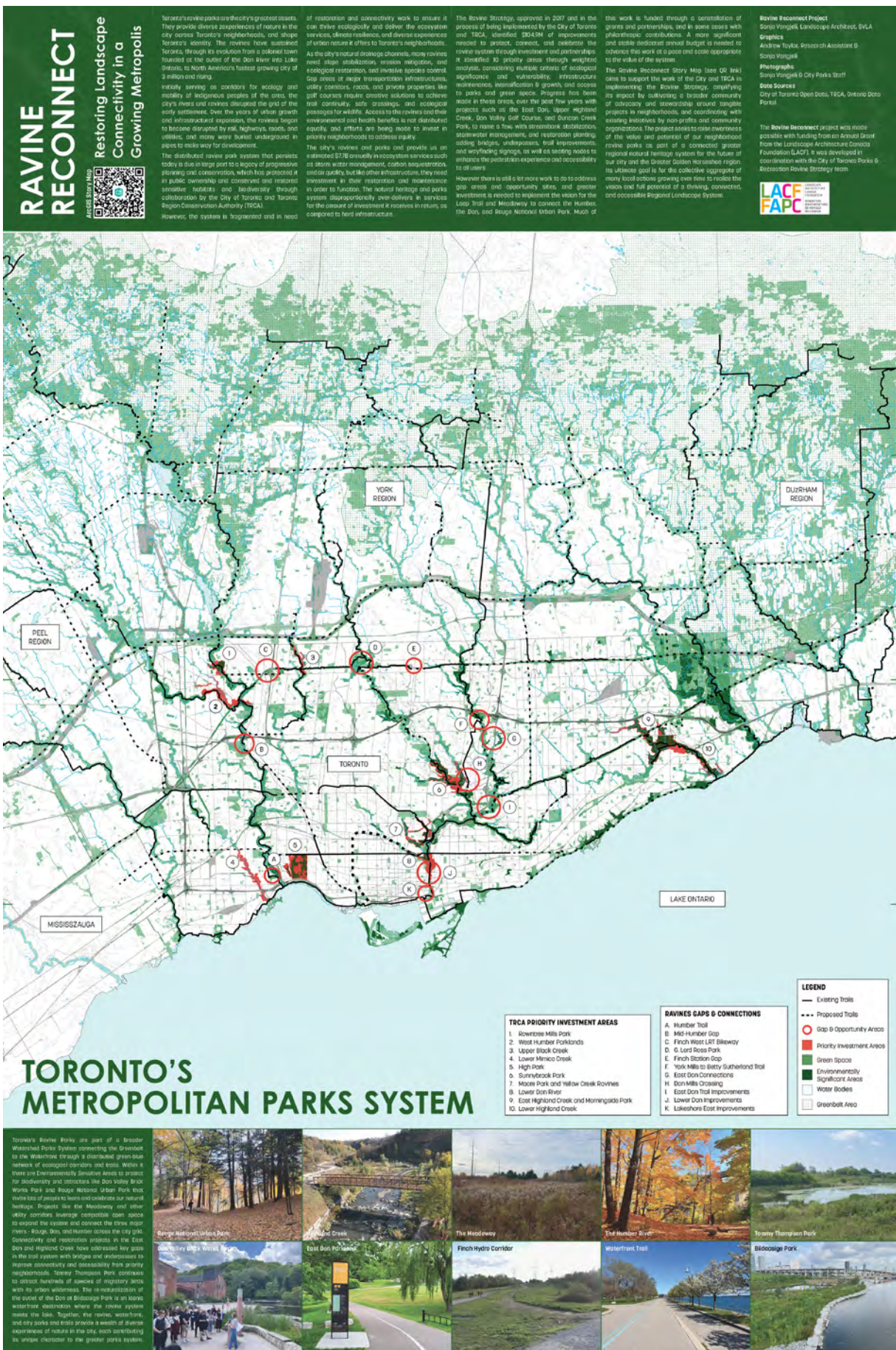Workshop in Urban Data Storytelling at School of Cities

Workshop in Urban Data Storytelling

Putting together a compelling storyline to build an ArcGIS Story Map is not easy. There is a multitude of information about the ravines from many different sources - books, online sources, city reports, GIS data, my own photographs etc. Interpreting and curating multiple types of information into a strong convincing narrative that inspires people to act, is its own skillset.
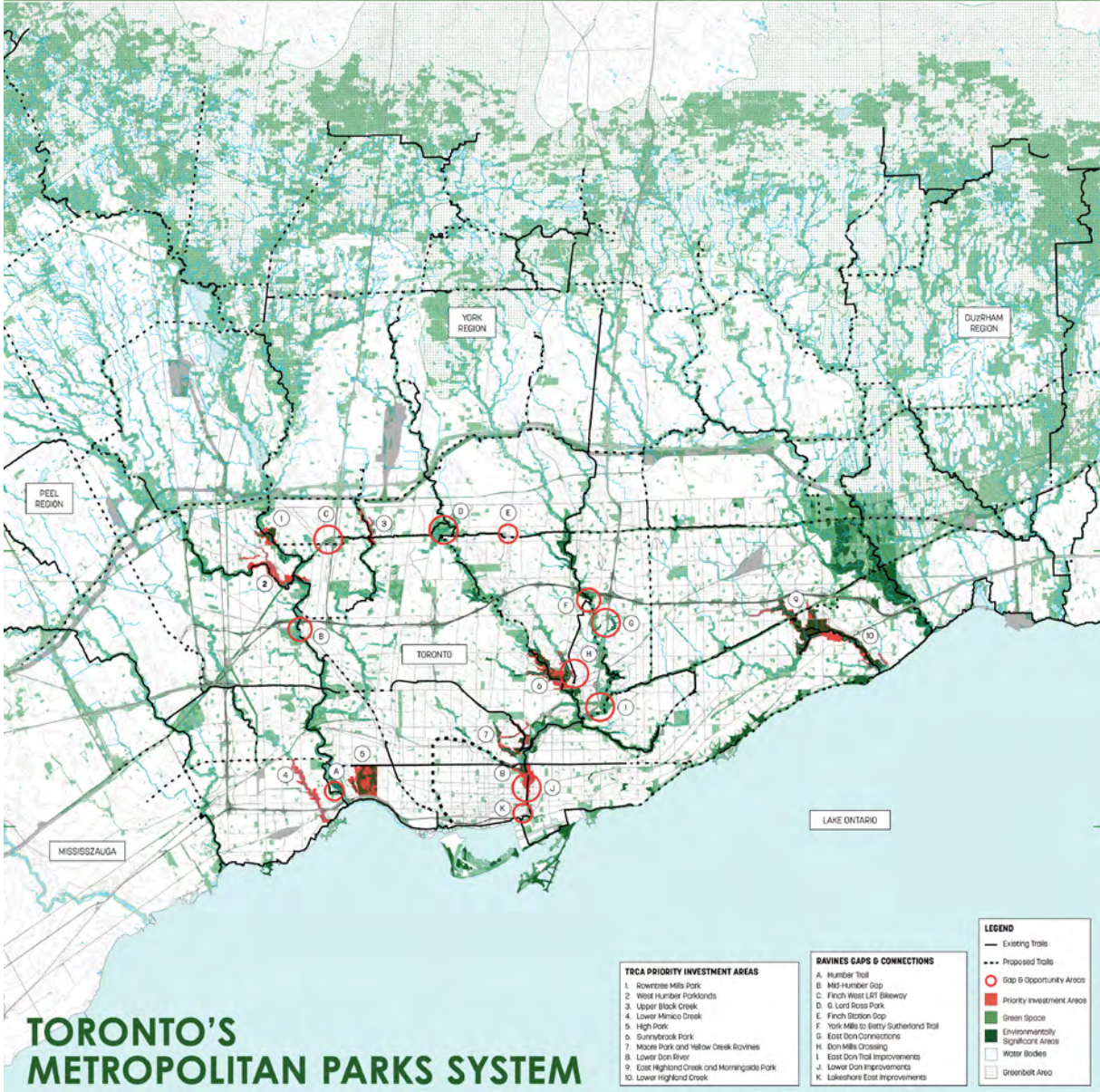
In May 2025 I participated in a week long **Workshop in Urban Data Storytelling (WUDS)** hosted by the University of Toronto School of Cities in collaboration with University of California Berkley, to gain skills in analysis and spatial visualization of urban data and strategic use of data in putting together a compelling and convincing narrative.

The work done in the workshop was focused on the Ravine Reconnect project and was instrumental in formulating the narrative structure and advancing the research, data analysis, processing, mapping and visualization for the final Story Map. Tools such as QGIS and Python coding were used to filter data, join it with geospatial layers, and to be able to visualize data to put together a final presentation.

The narrative structure developed in the workshop was presented to the WUDS cohort and instructors, including Dr. Karen Chappel, Director of the School of Cities, who provided valuable feedback. The comments from the group were incorporated into the final Story Map to make a stronger argument and a more engaging story.

Front of Foldable Poster Map including project summary, QR code link to the online ArcGIS Story Map, a map of the existing in progress Ravine System showing priority project areas, gaps and opportunity sites, and trail sections that remain to be connected. When folded, the map becomes a brochure of the top and bottom green banners that features key destinations in the park system, and a few recently completed Ravine Strategy projects.

Back of Foldable Poster Map featuring Toronto's broader Regional Landscape System between several lakes, the Green Belt, Escarpment, and Oak Ridges Moraine, and the green ravine valleys that connect them to Lake Ontario.

GEORGIAN BAY

LAKE SIMCOE

GREENBELT

TORONTO

MISSISSAUGA

LAKE ONTARIO

HAMILTON

LAKE ERIE

USA

TORONTO'S REGIONAL LANDSCAPE SYSTEM

ArcGIS Story Map

LEGEND

- ▪▪ Trails
- Urban Development
- Agriculture Land
- Forest Cover
- Green Space
- Water Bodies
- Greenbelt Area

ArcGIS Story Map

The primary deliverable of this project is an online ArcGIS Story Map that promotes awareness and advocacy for Toronto's ravines. It examines the ravines from various perspectives and forms of qualitative, quantitative and spatial understanding including photography, storytelling, historical research, mapping across scales, visioning, and economic valuation, and networking of existing initiatives. With these various methods the Story Map aims to build an understanding of the ravines as part of an aspirational Metropolitan Park System, that needs to be interconnected to sustain the city and region as a critical resilience infrastructure.

The Story Map is organized in the following chapters providing easy access to the various modalities of understanding the ravines.

ArcGIS Story Map Chapters

1. Experiencing the Ravines

2. Understanding their History

3. Mapping Urban Relationships

4. Visioning a Regional Park System

5. Connecting & Expanding the Ravines

6. Valuing & Investing

7. Taking Action

The following is a summary and preview of the contents of the Story Map, but of course it is best experienced in its interactive online interface.

The ArcGIS Story Map can be accessed online using the link or QR Code below:

https://arcg.is/1DCy002

1. Experiencing the Ravines

The first chapter of the story map begins experientially with photography and immersive text about the sights and sounds of the experience of walking in a ravine park. This is the way most people know and engage with the ravines, and it provides an inviting introduction for readers who may be unfamiliar with them.
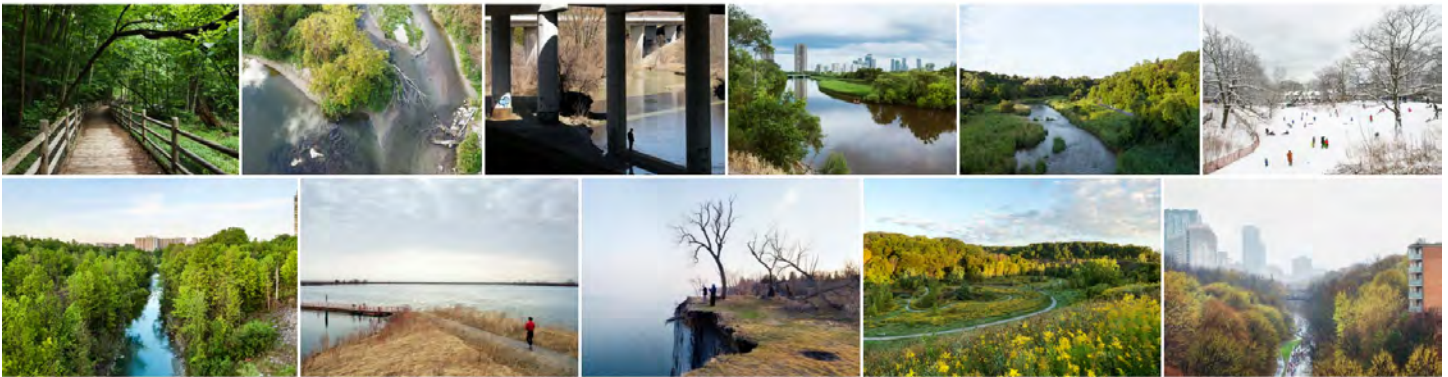
"Descending from the noise, traffic, and heat of a busy city street into the immersive forested trails of a Toronto ravine park is a memorable experience. The deep shade of mature deciduous forest restores comfort to my body in the summer heat. A gentle breeze blows through the rustling leaves, and the sound of birds chirping cheerfully draws my attention upward to the vibrant layers of tree canopies towering above. Squirrels jumping from branch to branch, then running on fallen logs across the bubbling brook bring me down to earth again. The gentle footsteps of other hikers down the trail, and the voices of kids playing, running across the fo1rest floor, cracking fallen branches underfoot, remind me that I am still in a city neighborhood. Yet I feel transported, as if far away from the city into wild nature."

The first chapter includes beautiful photography by Robert Burley, from the book project *An Enduring Wilderness: Toronto's Natural Parklands* Published by ECW Press in 2017 and commissioned by the City of Toronto in conjunction with the Ravine Strategy. The collection of photographs is presented as a collage showcasing the diversity of experiences Toronto's ravine parks offer across different city neighborhoods, or in gallery view when clicked into to view each of the images in larger scale one at a time, with captions.

Buttons provide links to additional imagery on the artist's project webpage, as well as to an interactive map created by Toronto City Planning that georeferences more ravine images, inviting further exploration.

Williamson Ravine, 2017, Credit: Robert Burley

A selection of images from Toronto's Ravine and Lakefront Parks, Credit: Robert Burley

2. Understanding History

The second chapter looks at a historical perspective, tracking the co-evolution of the ravines with the early founding of the town of York and the growth of Toronto into a Metropolis of 3 million, now the fastest growing in North America.

It tracks the physical transformation of the landscape as the infrastructure of the city expands, but also the evolution of ideas, attitudes toward nature and the city, and approaches to landscape transformation - from industrialization to re-naturalization.

The timeline also highlights the legacy of landscape conservation in the region, from the formation of Conservation Authorities with the impacts of Hurricane Hazel in the 50s, to the activism of the 70s-90s and ongoing community action that has led to major positive transformations like the re-naturalization of the Lower Don River.

Timeline Overview

Before 1600 – Indigenous Land

1700s – Early Colonial Contact

1800s – Grids & Industrialization

1900s – The emergence of Regional Planning

1950 – Hurricane Hazel

1970s- 2000s – Activism & Environmental Planning

2000s to Present – Conservation, Restoration, and Revitalization

Before 1600 - Indigenous Land

Long before Toronto became a city, its ravines, rivers, and shorelines were home to Anishinaabe, Haudenosaunee, Wendat, Chippewa, and later the Mississaugas of the Credit among others. The ravines served many essential roles, including:
(1) as transport routes - such as the 45 km Carrying-Place Trail along the Humber River; (2) Seasonal fishing and hunting grounds serving subsistence sites, gathering spaces for knowledge exchange and trade; (3) Places of spiritual and cultural significance reflected in ceremonies, oral traditions, cultural practices and respect for the land and water.

Some Indigenous Ancestral Sites in the Toronto Area
Source: https://talkingtreaties.ca/peoples-of-this-land

1700s - Early Colonial Contact

Waterways, such as the Carrying Place Trail, were used by French and British settlers for trade, transportation, and military movement. In 1787, the British negotiated the Toronto Purchase with the Mississaugas people. However, the terms and legitimacy of this agreement have been widely contested. The purchase laid the groundwork for the establishment of the Town of York in 1793, marking the beginning of rapid colonial expansion and a departure from Indigenous land stewardship practices.

Toronto in 1793 and 1834

1800s - Grids & Industrialization

Toronto's urban expansion in the early 1800s was a transformative period, marked by the incorporation of the City in 1834 and the industrialization of the Toronto Ravines along the Don and Humber Rivers. Creeks like the Garrson, Taddle and Russel were buried to prioritize urban development. The end of the century saw a shift in priorities, with greater importance given to major infrastructure, like railway development and channelized waterways for navigation. The Don, once a natural waterway, was logged, channelized, and used for industrial activity, altering its course

A sample from the ArcGIS Story Map Timeline

3. Mapping Urban Relationships

The third chapter takes a more quantitative and geospatial approach, promoting mapping as a method of understanding the spatial relationships between the ravine system and the city by overlaying its infrastructure, tree canopy, urban heat vulnerability, and flood risk, as well as socioeconomic layers like household income and property values.

With interactive swipe maps that layer the ravine system over or under these other aspects of the city, the reader can see for themselves the correlation between the location of the ravines and the patterns of climate vulnerability and socio-economic status across the city's neighborhoods, better understanding the many values provided by the ravines.

The maps also look at the distributed ravine system from an equity perspective, looking to assess whether the ravine park benefits are distributed equally across the city's neighborhoods, looking for underserved areas that have poorer access to prioritize for investment. The map on the bottom shows a 10-20m walkshed from trail entrances into ravine parks, showing pretty good access across the city with the exception of a few gap areas.

This kind of spatial analysis can help identify priority areas for intervention to make access to the ravines and their many environmental and social benefits more equitably shared resources. It also helps solidify the public's understanding of ravine parks as a system that is city-wide and that has an infinitely greater value if connected, than as the sum of its parts.

RIGHT: A selection of interactivez Swipe Maps from the Story Map.

Map 1: Ravines, parks, and green spaces overlaid with transportation and utility corridors that currently disrupt the green network, but could help to extend it.

Map 2: Tree canopy density across the city overlaid with the system of ravine parks, showing the major contribution of the ravines to certain neighborhoods' tree canopy.

Map 3: Impervious services, basement flood report sites, and flood plains, overlaid with the system of ravines, showing their contribution to flood mitigation.
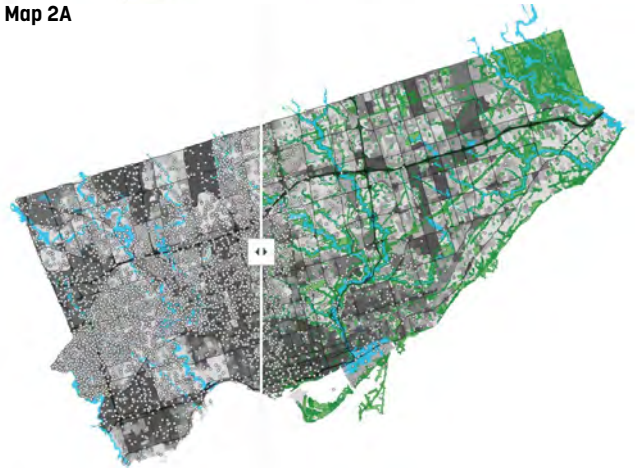
Map 4: 10-20m walkshed in orange and yellow around trail access sites, overlaid on the ravine system, as well as highways and transit subway lines.
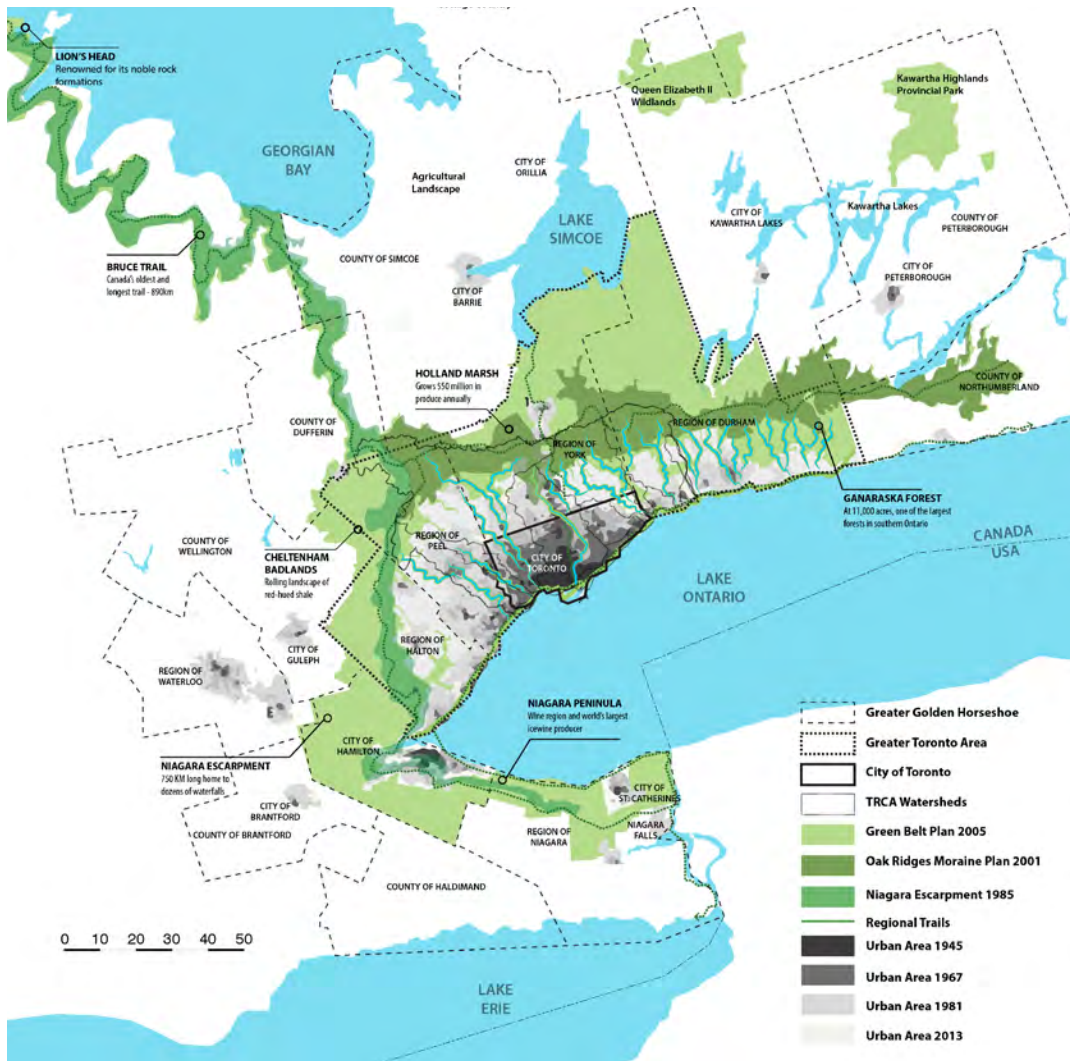

Map 1

Map 2A

Map 4

Map 7

4. Visioning a Regional Park System

The visioning chapter takes an aspirational approach to understanding the potential of the ravine system by diagramming and mapping its idealized fully connected form. A diagram at the city scale connects gap areas with bolded continuous trails that extend past the city's jurisdictional boundaries into the surrounding region. The broader regional scale map shows the wider context of the Green Belt, the Escarpment, Oak Ridges Moraine, and the important role of the river valleys and ravines that connect these conservation lands to Lake Ontario through the city and urbanized areas surrounding it. These images attempt to **create a collective imaginary of a the Metropolitan Park System** the project promotes, as a tangible aspiration to work towards by investing in reconnecting and expanding the existing ravine parks.

5. Connecting & Expanding the Ravines

The following chapter moves from the conceptual diagram of an idealized system to a more detailed map of the existing system of fragmented ravine parks and trails, highlighting gap areas and opportunity sites for intervention. It also highlights the city's existing **Priority Investment Areas which have been identified in the Ravine Strategy** for connectivity and restoration projects, and are partly under way. The chapter provides some background on the strategy and features some implementation progress in certain ravines through photography, and a brief overview of capital funding needs and commitments and for future work. A section at the end explores **strategies for expanding and connecting the system** through small tactical projects, and larger compelling visions that invite philanthropic contributions and partnerships.
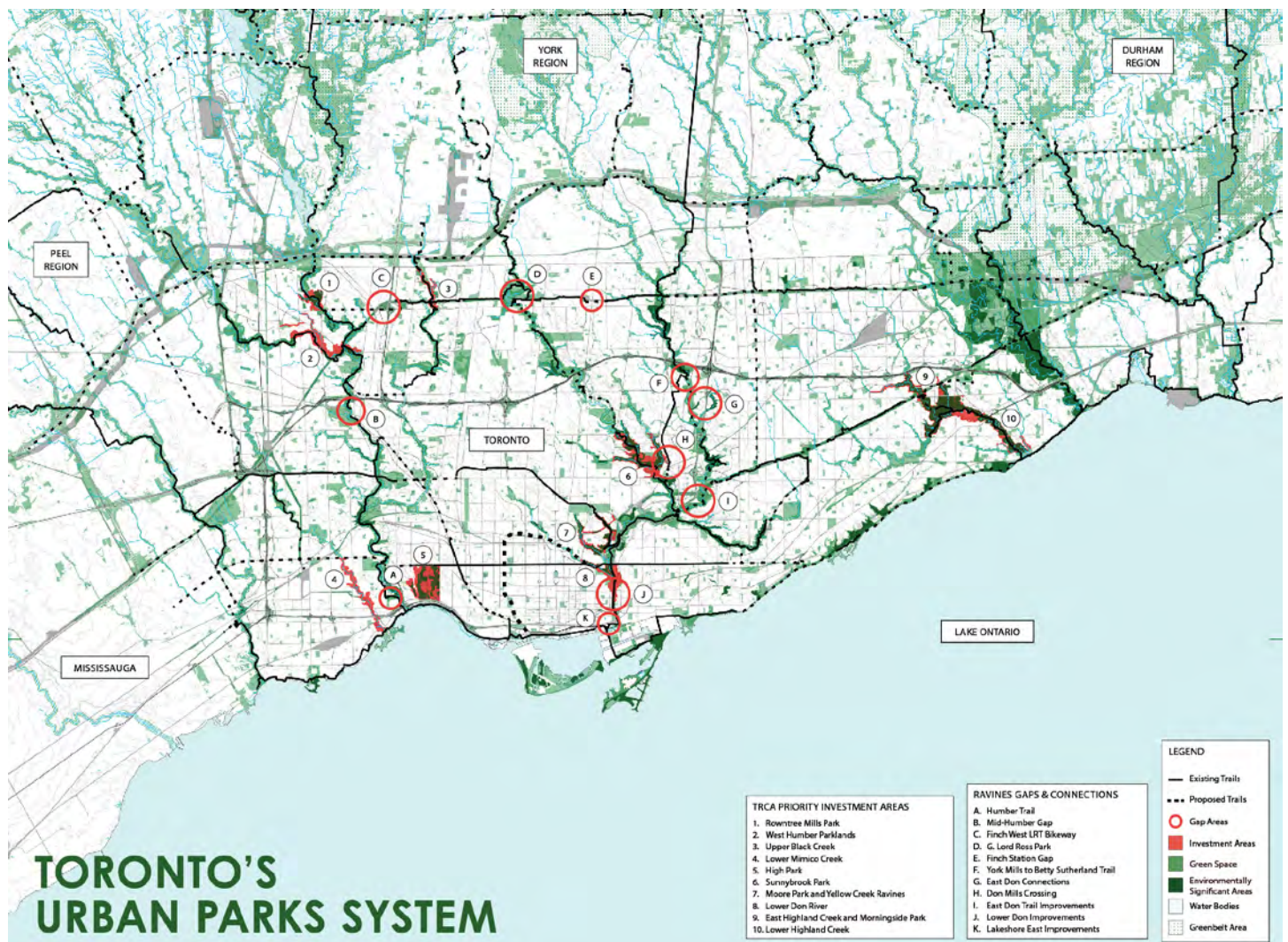

Toronto's Regional Landscape System

ABOVE: Images of recently completed ravine park improvements.

Conceptual Diagram of Toronto's potential Metropolitan Park System with Key Projects Highlighted

TORONTO'S URBAN PARKS SYSTEM

TRCA PRIORITY INVESTMENT AREAS	RAVINES GAPS & CONNECTIONS
1. Rowntree Mills Park	A. Humber Trail
2. West Humber Parklands	B. Mid-Humber Gap
3. Upper Black Creek	C. Finch West LRT Bikeway
4. Lower Mimico Creek	D. G. Lord Ross Park
5. High Park	E. Finch Station Gap
6. Sunnybrook Park	F. York Mills to Betty Sutherland Trail
7. Moore Park and Yellow Creek Ravines	G. East Don Connections
8. Lower Don River	H. Don Mills Crossing
9. East Highland Creek and Morningside Park	I. East Don Trail Improvements
10. Lower Highland Creek	J. Lower Don Improvements
	K. Lakeshore East Improvements

LEGEND

— Existing Trails
- - - Proposed Trails
⭕ Gap Areas
🟥 Investment Areas
🟩 Green Space
🟩 Environmentally Significant Areas
⬜ Water Bodies
▦ Greenbelt Area

Existing ravine parks and trails with Priority Investment Areas, Gaps & Opportunity Sites Highlighted

Ravine Reconnect   17
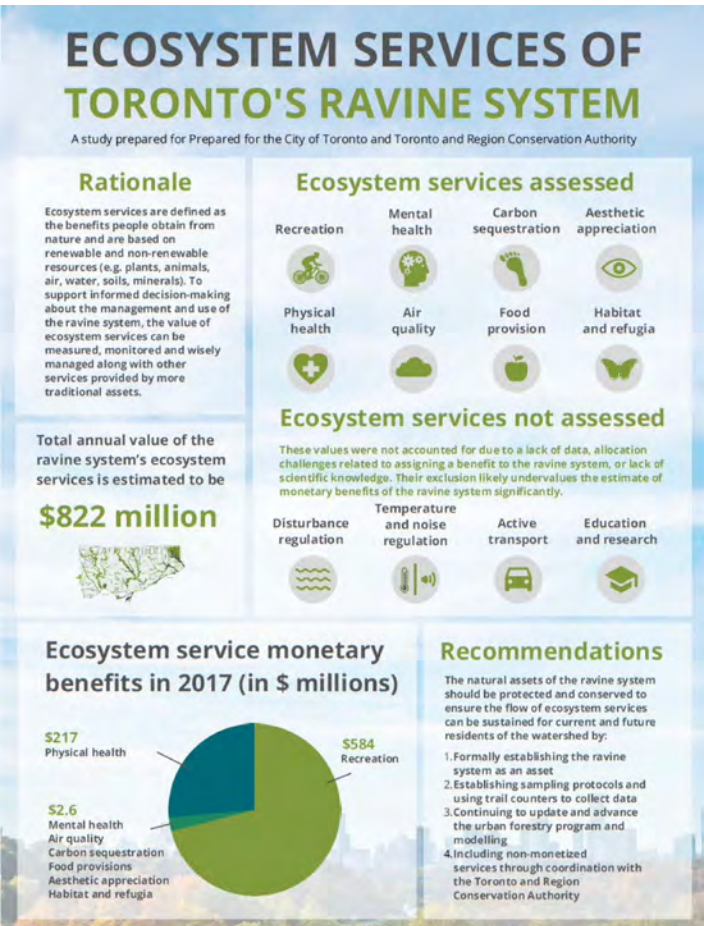
6. Valuing & Investing

The chapter on Valuing and Investing in the Ravines takes a quantitative approach to understanding the value of the ravine system as infrastructure that provides ecosystem services to the city.

It introduces Natural Capital Accounting (NCA), acknowledging its limitations in capturing the full value of natural heritage, but also its practical uses for asset management, to secure funding allocations in city budgets for the maintenance and revitalization of natural infrastructure within the same framework as hard infrastructure.

Referencing assessments of ecosystem services done for the Ravine Strategy, and the City's 2025 Corporate Asset Management Plan, various estimations of value are provided ranging from $822M for ravine system ecosystem services, to $7.7B bundled with city parks, and $9.5B for all Natural Environment Services. The various estimations show the challenges of quantifying economic value for natural assets and services, since they are multifaceted, interrelated with other categories of infrastructure such as water and transportation, and difficult to isolate. Therefore it is hard to rely on these numbers as representing the full value of natural assets.
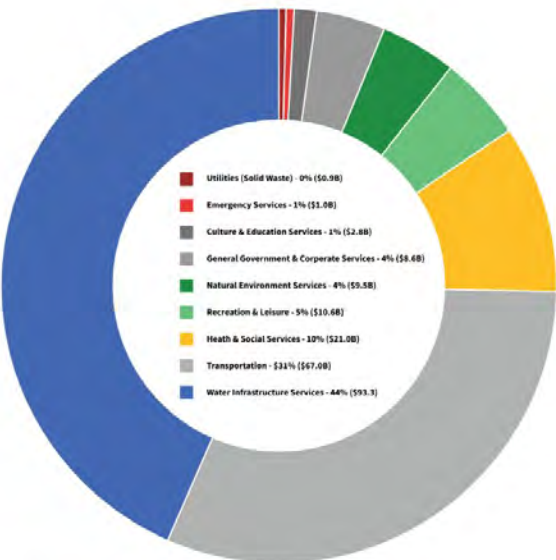
The chapter also looks at the amount of maintenance and capital investment that goes back into the ravine system and natural environment services, relative to hard infrastructure like water and transportation, referencing both the Asset Management Plan and the 2025 10-year Capital Budget. The comparison shows that the value of annual services provided by the natural assets far exceeds the funding allocated to maintain and improve the system. This imbalance, if continued for long periods of time could undermine the future integrity of the ravines system and the services it provides.

The chapter highlights gaps in annual maintenance funding, and the need for greater investment in regular dedicated capital funds for Ravine Strategy Implementation in order to maintain, restore, and connect existing ravine parks, and build toward a broader Metropolitan Park System that will sustain the growing region.

Ecosystem Services of Toronto's Ravine System Study Summary

Source: City of Toronto Ravine Strategy, 2017

Replacement value of Service Areas provided by City Assets

Source: City of Toronto 2025 Corporate Asset Management Plan

7. Taking Action

With the knowledge and different forms of understanding gained from the previous sections, the last and most important chapter invites readers to take action and become part of an active community deeply aware and engaged in the protection, connection, and restoration of ravine parks as part of the broader regional park system. It also provides a matrix of useful clickable button links to sources of information on the ravine system and individual component projects, as well as links to organizations offering walks, educational events, and programs to engage the public in stewardship, advocacy, and enjoyment of the ravines.

The Community Advocacy Section describes the legacy of activism and advocacy that continues to be a key driver in the progressive planning and conservation culture of our region, and that has led to tangible impact like the re-naturalization of the Lower Don River. The success story of this 30+ year community advocacy effort, shows what sustained engagement can accomplish, and inspires future community action on the ravines.

Mock Funeral for the Don River, 1969, Source: Pollution Probe / Tom Davey

Prince Charles speaks with Task Force chair Mark Wilson in 1991 about the plans to restore and revitalize the Don River, Source: Spacing

Key ways to protect and strengthen the ravine system to be enjoyed by all:

1. Explore the wealth of diverse experiences that our ravine parks have to offer in urban nature.

2. Get informed about your local ravine parks and the broader city-wide and regional system. Learn about their value, how much of the city's budget gets invested in them, how much progress is made every year on Ravine Strategy projects, and how you can contribute to the greater system through the management of your property.

3. Participate in educational activities that connect you to a broader network of ravine champions, volunteers, and professionals involved in the Ravine Strategy, and share the knowledge you gain with others in your community.

4. Advocate for ravine connectivity projects to promote greater investment in connecting gap areas, pursuing opportunity sites, and maintaining the vast ravine system. Promote improvements in your community like signage on streets and transit stops, easements through golf courses, underpasses under rail, crosswalks across streets, etc.

5. Get involved in stewardship activities to protect and restore ravines and their sensitive habitats from the ongoing building and infrastructure construction boom.

6. Talk to your family, your neighbours, your community, and your elected officials about making our Ravines System a priority; investing in it at par with other critical infrastructure, so it can thrive and continue to provide ecosystem services, climate resilience, and equitable access to nature in the city.

7. Contribute your time, creative thinking, and skills to support conservation and stewardship efforts, and expand landscape connectivity and restoration work in the ravines, in collaboration with ongoing City-led and grassroots initiatives.

8. Build a larger community of advocates, stewards, and champions to work toward an expanded, connected, healthy, and thriving regional natural heritage system that will sustain many generations to come.

8. Ravine Reconnect

The final section summarizes the goals, methods, and anticipated outcomes of the Ravine Reconnect project, not only at the moment of the project publication, but in the longer term. The initiative is presented as work in progress, as part of a larger long-term movement intended to grow and gain momentum over time.

The focus on involving students in the initiative through multidisciplinary design courses and on-site field work is to sow the seeds to cultivate new generations of advocates, informed, engaged, and with creative design skills and strategic thinking to contribute to future conservation and restoration efforts working toward the vision for a broader regional park system. The work of the first MUCP course is summarized and a link to their Story Map is made available offering a more focused look at a few opportunity sites, with a proposed wayfinding system. A link to a body of work from previous design studios that have addressed the ravines system is also made available to showcase the creativity of student projects and the potential of connecting City Ravine Strategy work with academic design studios and advocacy efforts to amplify their collective impact.

Finally a section on Advocacy & Engagement tools provides a download link to the physical Poster Map. Both the online Story Map and foldable Poster Map work hand in hand as advocacy tools - one referring to the other. The physical poster map, when posted in prominent public places, is a gateway to the online resource with a QR code link. The physical map is also downloadable from the online platform, as a portable map for anyone who wants to take it with them to visit gaps and opportunity sites for themselves and explore new parts of the system further afield. The download link to the poster map is included so it can be easily printed and posted in public places like schools, community centers, and transit stations, and take on a life of its own by others beyond the limits of the project.

These publicly accessible and interactive advocacy tools are intended to facilitate broader engagement with the ravines, to introduce more and more people to the diversity of experiences and multitude of environmental benefits the ravines provide, and to interest them in learning more, getting involved, and connecting with others to advocate and work toward their advancement as a Metropolitan Park System.

By placing these tools and different forms of knowledge in the hands of a broader public, the **Ravine Reconnect project becomes a collective effort, a movement that expands and grows over time into a culture of *landscape literacy,*** of deeper awareness of the irreplaceable value of our natural heritage, of our dependence on it, and our responsibility to sustain and restore it for current and future generations.

TOP TO BOTTOM: Fall Colours in a Don Valley ravine , Solitary hike in Rouge Park, Learning about Don Valley Brick Works Park. Credit: Sonja Vangjeli

Dissemination

The digital online format of the Story Map is conducive to broad dissemination by nature of its free public access on the internet hosted by ESRI ArcGIS Story Maps. Linked from the LACF project page, it will also be shared with the landscape architecture community as part of LACF newsletters and annual grants portfolio.

The Story Map is also being shared with City of Toronto Parks & Recreation as an engagement tool they can use to help communicate the value of the ravines to the public. Copies of the printed Poster Maps will be made available to a few strategic places such as Evergreen Brickworks, and events such as Ravine Days. The digital version of the Poster Map can be downloaded and posted more broadly, and can also be sent digitally to the identified advocacy groups as a resource they can use.

Beyond these methods of dissemination that will be ongoing, a magazine article, and poster presentation at the IFLA conference will bring more focused attention to the project upon its initial release in Sep. 2025.
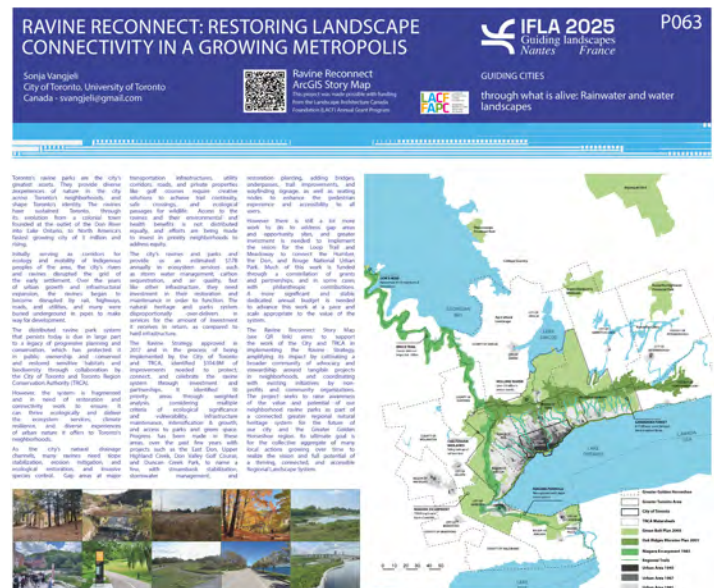
Landscapes Paysages Magazine Article

An article in the Fall 2025 issue of LP Magazine which is focused on Natural Capital, will feature the Ravine Reconnect project and provide a QR code link to the online Story Map to a national audience of Landscape Architects. The article frames our Ravine System in the context of Natural Capital Accounting, arguing that its intrinsic value defies economic valuation, and that we need to invest more money and time into restoring, connecting, and expanding, it into a Metropolitan Park System.

International Federation of Landscape Architects Congress 2025 Presentation

The project will also be presented at the IFLA Congress in Nantes, France on Sept. 10-12 as a poster with maps and imagery, and the QR code as a gateway to the Story Map. This forum will expand the audience of the project to the international landscape community, potentially creating connections with similar initiatives in other regions that can inspire collaborations.

Landscapes Paysages Magazine - Call for Submissions Fall 2025

IFLA Poster for Ravine Reconnect Project

Summary of Use of LACF Funds

LACF's support of the Ravine Reconnect project through the Annual Grants Program was instrumental in enabling the initiative to gain momentum and collaboration from Toronto's Parks Forestry and Recreation, and to be entrusted by the University of Toronto School of Cities to lead a Multidisciplinary Urban Capstone Project team as a community partner. It allowed the project to start the process of building a broader advocacy movement by making a **strategic connection between academia, advocacy, and municipal work.**

The funding through the annual grant helped offset costs for access to ArcGIS tools to build and host the Story map, paid research assistant time for data gathering and graphic support for deliverables and initial setup of the story map, and covers printing costs for the development of physical engagement tools like the Poster Map. It also supported efforts to pursue teaching opportunities for the Ravine Reconnect course, creating a new 8-month MUCP course as volunteer community partner, preparing readings, data resources, problem framing and methodology, as well as taking learnings from it to develop a syllabus for future courses as design studios to build on the work started.

The LACF seed funding was matched with many hours of in kind time by the author and project supporters, not only to develop the final deliverables, but also to engage deeply with the subject and sites, visiting and photographing different parts of the system, observing and documenting gaps and opportunity sites, discussing with colleagues, and **thinking strategically about the most effective methods for growing a self-sustaining advocacy movement.**

The LACF grant made possible tangible outcomes for the project, by enabling production of engagement and advocacy tools for the broader public, and leveraging the networks and parallel efforts of the university, the City's Parks & Recreation department, and the CSLA Landscape Architecture community, to disseminate the project and amplify its impact by building broad support for improved landscape connectivity in growing urban regions like Toronto.
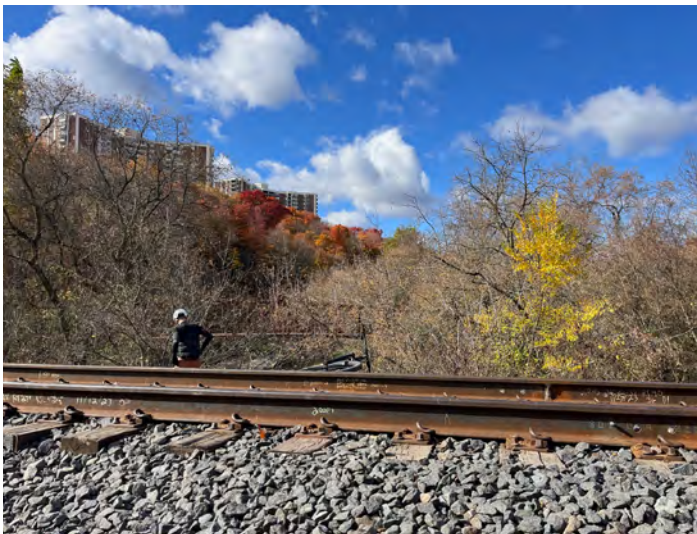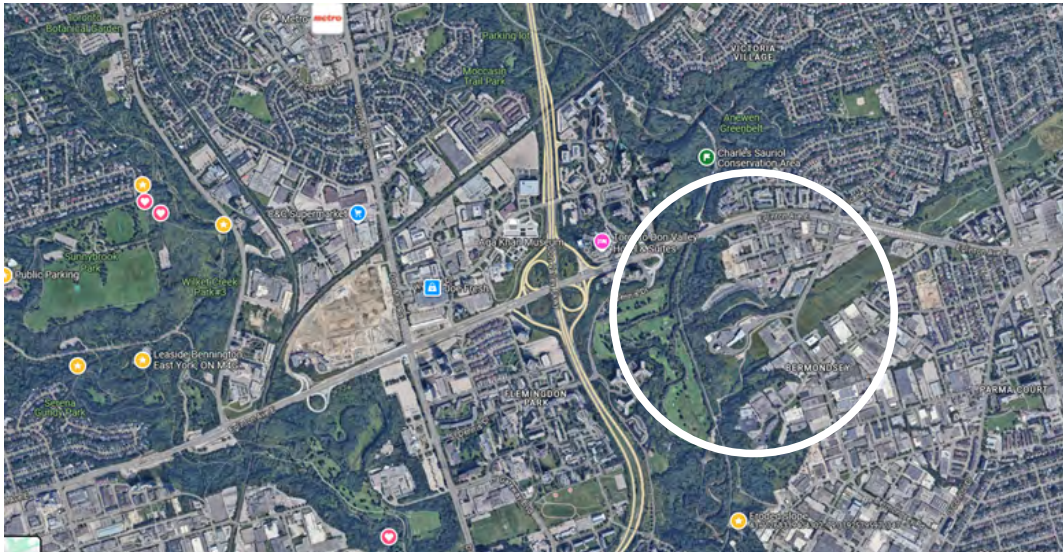
The project outcomes provide a framework to engage the broader public, landscape architects, and students in the conversation about how to connect the city's ravines and lakefront parks into a **Metropolitan Park System** and how to make them more accessible to all communities. The initiative promotes and builds on the work of the City's Parks department on the Ravine Strategy implementation and encourages more political support and investment to make it a priority. The objective of the project is to not end with the completion of the annual grant deliverables in 2025, but to support an ongoing expanded advocacy community for the city's landscape system that can extend and sustain the project goals into the future.

Through engagement with the City of Toronto Parks Staff that are working on this issue through the Ravine Strategy, as well as through dissemination of the project outcomes with conferences and in publications, this LACF enabled project goes beyond the production of ideas and publications in the abstract, seeking to inspire action and implementation of the ideas it advocates for in the physical environment. It aims to **create broader social and environmental change by cultivating *landscape literacy* in the broader public,** and provides tools to raise awareness, highlight gaps and opportunities, and suggest ideas for improvement that could be advocated for implementation.

This process will likely take much longer than an annual grant cycle, but the LACF annual grant program facilitated and incubated its inception, which is the most important part. By engaging students in this process, the potential for continued engagement and impact in this advocacy process is extended, inspiring them to continue the initiative through their future work and share what they have learned.

The impact of the LACF grant will go a long way toward improving landscape connectivity in Toronto and beyond– physically and perceptually in the collective consciousness of the public.

Site visit photos documenting infrastructural barriers to ravine connectivity in the East Don, and the promising progress of the Meadoway project (bottom R).

Credit: Sonja Vangjeli

Fall colours in the Humber River Valley. Credit: Sonja Vangjeli

Acknowledgements

The Ravine Reconnect project has benefited from time, input, and contributions from many supporters and collaborators to whom I am most grateful. The project would not be as multifaceted without the perspectives and influence of many voices, several of them fellow landscape architects.

Engagement and coordination with the City of Toronto Parks & Recreation, Forestry, and Planning has informed and supported the development of the project over the past few years. Early support from **Jane Welsh** and **Wendy Strickland,** both key drivers of the Ravine Strategy, gave the project a solid foundation to build on existing city efforts.

Between 2024 and 2025 the initiative was supported by engagement, project information, and feedback from **Ruthanne Henry,** who leads Ravine Strategy implementation in Toronto Parks & Recreation. Ruthanne has engaged with the project periodically as advisor over the past year, providing Ravine Strategy implementation updates, feedback at key milestones, and attending the final showcase of the MUCP course. She has contributed photography and implemented project information, reviewed drafts and provided valuable input on the final content for the Story Map and LP Magazine article.

The preparation for the MUCP course was assisted by **Alex Sheinbaum,** also from the City's Ravine Strategy team, who helped assemble key data resources, and provided input on the framing and study sites to make them useful for ongoing Ravine Strategy work. **James Young,** who led the City's Parks Wayfinding and Signage Strategy, also contributed time to the MUCP course, to provide information and meet with the students to answer questions and give advice on their proposed park system wayfinding strategy.

Early encouragement from Professor **Anne Spirn** was valuable motivation for the Story Map and the course, as this initiative is inspired by her concept of practice research and her influential West Philadelphia Landscape Project.

Support from Professor **Alissa North,** and the body of work she has developed by leading many years of Design Studios on the Ravine System, was helpful and inspiring for framing the Ravine Reconnect course, and its desired outcomes.

Encouragement and support from Professor **David Roberts**, who leads the MUCP program at the University of Toronto, helped me achieve a successful first run of the MUCP course based on the Ravine Reconnect project. The contributions, creative thinking, and energy the **MUCP students** - **Sabrina Shahidan, Abhi Dumpala, Samuel Shing, Joseph Cheng, and John Chen** - brought to the initiative have enriched it greatly and influenced my thinking.

The final deliverables - the online Story Map and Poster Map - were developed with assistance from **Andrew Taylor,** Research Assistant for the project, and a graduate of the MLA program at University of Toronto. Andrew contributed historical research, graphically engaging maps and data visualization, and was instrumental to getting the Story Map off the ground.

Photographer **Robert Burley,** contributed a selection of high quality photographs from the *An Enduring Wilderness* Project, enabling a visually rich, experiential introduction to the Story Map.

The project is dedicated to the many professionals and volunteers in various public agencies, academic institutions, non-profit organizations, and community advocacy groups, whose tireless efforts to protect, restore, and promote the ravines every day sustain Toronto's natural heritage system for all to enjoy.

I hope this project can contribute to help strengthen, connect, and grow this network of ravine advocates, to amplify the impact of our collective work to reconnect and expand our ravines system for future generations.