



CASE STUDY:

City of Toronto Asset Management, Climate Change and Natural Assets Training and Coaching

PROJECT DURATION: February–June 2024

TYPE OF PROJECT: training, green infrastructure, natural asset management, climate resilience, municipal

CONTEXT

The City of Toronto is responsible for a complex and diverse network of infrastructure assets that provide vital services to the community, including many natural assets. Recognizing the importance of integrating these assets into asset management, staff from the Parks, Forestry, and Recreation and Environment and Climate divisions (now reorganized to be Parks & Recreation, and Environment, Climate & Forestry) sought to deepen their understanding of asset management principles. Their aim was to build internal expertise and also to cultivate buy-in and active engagement and collaboration from several divisions. Toronto had already made significant progress on inventorying and valuing their natural assets. Building on this foundation, within the framework of Ontario Regulation 588/17 (O.Reg. 588/17), staff were

eager to advance their natural asset knowledge and increase institutional knowledge across a very diverse staff group.

To support these efforts, Asset Management Ontario (AMONTario) collaborated with the Toronto and Region Conservation Authority (TRCA) to provide customized training, coaching, and practical guidance on how to integrate natural assets and climate change considerations into the city's corporate asset management planning. This approach aimed to align natural asset management with current municipal activities, ensuring that these assets are properly valued and included in infrastructure decision making.

CHALLENGE

Effective asset management requires cross departmental engagement and alignment. However, integrating natural and built assets, especially with climate resilience at the forefront, presented some key challenges to the City of Toronto. One significant gap was an uneven understanding of asset management across divisions. Some staff were asset management experts, while others were natural assets experts who needed foundation knowledge in asset management. An additional gap was the lack of clarity around of how the current activities of different teams fit within the broader asset management

framework at the city. Empowering staff to champion natural asset management required not only closing these knowledge gaps but also fostering better communication and collaboration across division to ensure both natural and built assets are managed effectively across a very large municipality. The training’s emphasis on Toronto’s existing natural asset inventory and valuation provided staff with insights relevant to their day to day work, and facilitated a deeper understanding of asset management within the regulatory context and climate resilience priorities.

APPROACH

The project delivered a tailored natural asset management training program for City staff through six one-hour online sessions and an interactive workshop. Staff were divided into two cohorts, each concentrating on a specific natural asset: forests or beaches. These assets were chosen for their unique challenges and learning opportunities. Forests are more commonly included in municipal asset management plans (AMPs). They offered established best practices but also provided a challenge in aligning asset management requirements with existing forestry management practices. In contrast, beaches are rarely included in AMPs, with limited best practices to

reference, but they created a chance for the City to innovate.

Key topics included asset management systems, levels of service, condition rating systems, climate change integration, and lifecycle costs. Regular mentoring sessions provided additional support, allowing for questions and specific guidance. The project wrapped up with a joint session where participants shared insights and collectively decided on next steps for integrating what they’ve learned into their work.

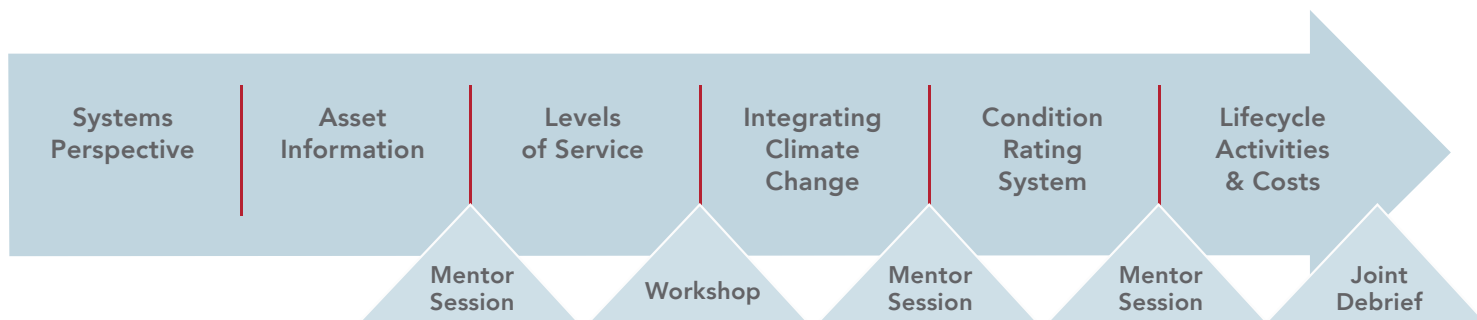


Figure 1:
Training Process Diagram

OUTCOMES

JOINT OUTCOMES

Participants:

- Gained an integrated, strategic understanding of asset management, equipping staff with the knowledge to confidently and effectively inform corporate asset management processes.
- Recognized that asset management is a shared responsibility, with opportunities for everyone to contribute to strategic and prioritized management of municipal assets.
- Developed an understanding of the interrelation between asset management, climate change adaptation and mitigation, and natural assets, enabling a holistic approach to prioritized decision making for these interconnected areas.
- Learned to recognize and address the distinct characteristics of natural assets compared to built assets.
- Learned how to use asset management processes and language to communicate the important role of natural assets in service delivery.
- Prepared to engage in the process for developing proposed levels for service for 2025 regulatory compliance.
- Enhanced communication and collaboration across and within departments.

FOREST COHORT

Participants:

- Validated the importance of differentiating between mature and successional forests in their asset hierarchy.

- Identified the potential to add attributes beyond size to their asset registers (for example, adding dominant species will support planning for forest-type specific management activities).
- Recognized that condition assessments in asset management differ from traditional ecological monitoring, though some principles can be transferred.
- Recognized the value of community levels of service as a public communications tool.
- Developed an understanding of the difference between technical levels of service statements and metrics.
- Identified key resources to support reporting on lifecycle activities and costs.

BEACH COHORT

Participants:

- Developed levels of service for beach assets, leading to the separation of the initial asset class (“beaches and bluffs”) into three distinct types: bluffs, natural beaches, and recreational beaches, due to their unique services and risks.
- Expanded the shoreline inventory by adding two new asset types: open waterbodies (including in-water features and open water) and hardened/semi-hardened shorelines (including armor stone).
- Embedded climate change resilience into levels of service development.
- Brainstormed factors to develop a recreational beach condition rating scale, including, for example: assessing swimming quality, erosion, and debris levels.



KEY LESSONS LEARNED

Throughout the training and coaching sessions, the group took away the following lessons:

Data: Good data can improve decision-making and help support and justify decisions related to climate action.

In a very large municipality, data might be collected but isn't necessarily widely known or available. There is a need to ensure data is accessible.

Decision Making: Developing levels of service through asset management can inform decisions at the asset level, helping bridge the gap between operations and strategy and supporting alignment throughout the municipality.

New Perspectives: Asset management is new for many environmental managers and it requires seeing their work from a different perspective. Including staff from a wide variety of branches or teams (from each division) in each cohort also helped participants learn about the process from different perspectives.

Communications: Developing levels of service can support good public communications on service expectations for natural assets. For example, it can help staff articulate the different management approaches between forests and manicured gardens, or between naturalized beaches and recreational beaches.

Risk: The risk assessment in asset management is a vital part of the process, especially in the context of climate change, and it is important to understand how various climate risks will impact assets across their lifecycles.

NEXT STEPS

To advance the City's natural asset management and climate integration efforts, the next steps they intend to build on the training include:

- Parks, Forestry, and Recreation and Environment and Environment and Climate staff will inform the corporate asset management process to meet the O.Reg. 588/17 July 2025 deadline, including the RFP development.
- Increase engaged participation from staff in all relevant corporate asset management processes.
- Ensure internal coordination to align asset management with ongoing climate actions, including the climate action working group.