NATURE FORCE

# 2025 FIELD SEASON UPDATE

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As 2025 comes to a close and Nature Force enters its fifth year, we are laser-focused on supporting the insurance industry's efforts to empower communities across Canada to protect themselves against climate change, create space for nature to thrive and build resilience, but we also see this milestone as an opportunity to look back at all we've achieved during this field season. **That's why we are thrilled to share our inaugural Nature Force Field Season Update.**

From spring to fall, our project teams were hard at work restoring wetlands, conducting research, building relationships with local partners, raising awareness for the key role nature plays in resilience, and delivering on the promise of the program. In this report you can learn all about the great things they've accomplished and how they've lifted their communities.

## ABOUT NATURE FORCE

Our mission is to connect the insurance industry with opportunities to pool support for natural infrastructure projects that reduce the impact of extreme weather on communities. Our work on the ground is supported by high-quality research, high-impact engagement opportunities and strategic outreach to encourage further investment in natural infrastructure.

NATURE FORCE

*"NATURE FORCE IS TRANSFORMATIONAL INDUSTRY PARTNERSHIP LIKE IT'S NEVER BEEN DONE BEFORE."*

**– Tina Osen,** *President – HUB International*

# NATURE FORCE IN BRITISH COLUMBIA

***Above:*** *A drone photo of the Sturgeon Bank Sediment Enhancement Pilot Project, after the addition of over 27,000 cubic metres of sediment over four years.*

The Lower Mainland of B.C. is significantly impacted by environmental pressures associated with rising sea levels, more frequent and intense storm surges and altered freshwater flows, which increase the risk of coastal flooding and erosion. Coastal tidal marshes help protect against these risks by dissipating wave energy and mitigating flood risk, while also creating valuable habitat needed to support wildlife, but they are increasingly receding. Our projects explore ways nature-based solutions can be used to improve coastal ecosystem and community resilience. This includes the development and implementation of innovative projects, such as the **Sturgeon Bank Sediment Enhancement Pilot Project** and **Boundary Bay Living Dike Project**, which allow us to test new and creative methods for restoring and enhancing sensitive tidal marsh habitat.

Through our volunteer engagement events, we focus on tying volunteer activities into these larger projects, directly involving Nature Force partner staff with these essential tidal ecosystems and drawing the connection between the health of these habitats and community resilience to climate change and other environmental threats. By increasing public awareness and demonstrating the outcomes of our pilot projects, we can support municipalities in integrating nature-based solutions into their climate adaptation strategies.

## BIG WINS

- **Recognizing Excellence:** With support from Nature Force, the Sturgeon Bank pilot project won the **Environmental Managers Association of B.C. Award for Remediation and Restoration** in June! The project was recognized as an innovative model for integrating ecological restoration with coastal flood protection using nature-based solutions.

- **Continuing Our Research:** Ongoing Sturgeon Bank pilot project monitoring was conducted throughout the year, with increased surveying effort during the field season. Monitoring included drone surveys, water quality data collection, benthic surveys to assess invertebrate communities, sediment elevation measurements, vegetation surveys and leading-edge mapping of marshes. In addition, throughout 2025, DUC staff collected field data for an ongoing applied research

project measuring the wave attenuation contribution of the Boundary Bay Living Dike. This key ongoing data collection helps us to understand how much coastal flood protection this natural infrastructure is providing the adjacent community.

- **Building Resilience:** The fourth year of sediment addition at the Sturgeon Bank pilot project was completed in late October 2025. More than 5,800 cubic metres of sediment was added to the site, for a cumulative total of over 27,000 cubic metres over the past four years.

- **Engaging Our Partners and the Community:** Our team hosted several volunteer engagement events to conduct marsh vegetation planting and brushwood dam repair at the Delta and Surrey Boundary Bay Living Dike Projects. DUC-led planting at the Delta site was conducted on April 29-30 with support from British Columbia Institute of Technology volunteers, and brushwood dam repair was conducted on May 23 by DUC staff and volunteers. Planting and dam repair at the Surrey site was conducted on June 23 with assistance from Nature Force volunteers, and on June 24 by DUC staff. On September 19, 14 Nature Force volunteers assisted with restoration planting and invasive species control at Addington Point in the Pitt-Addington Marsh Wildlife Management Area. In total, 85 nursery shrubs and trees were planted, 30 willow stakes were collected and planted and benthic barriers were placed over 160 square metres of invasive vegetation. Our team hosted a Nature Force Boundary Bay cleanup event on October 21. Seventeen Nature Force volunteers attended and removed garbage and debris from approximately 1.3 kilometres of intertidal habitat.


## WHAT'S NEXT

- **More Field Work:** Our team is currently developing the Sustainable Ecosystem Enhancement with Dredged Sediments (SEEDS) initiative. In partnership with the University of British Columbia's Coastal Adaptation Lab, the SEEDS initiative will focus on creating a roadmap in the Fraser Delta to transform dredged sediment and community knowledge into regenerative resources and create paths to develop and implement beneficial sediment reuse projects aimed at restoring impacted tidal habitats.

- **More Research:** We will continue wave attenuation monitoring and maintenance of the Boundary Bay Living Dike. Additionally, we are exploring opportunities for greater Nature Force involvement with the Living Dike. We will conduct ongoing biophysical monitoring at the Sturgeon Bank pilot project following the completion of the fourth year of sediment addition, collecting valuable data to understand the outcomes and impacts of this innovative pilot project.

- **More Events:** We will continue hosting volunteer events during 2026, creating more opportunities for our partners to learn about our work and make a real difference in their community.

***Top:*** *Nature Force volunteers remove garbage from the Boundary Bay WMA near the Boundary Bay Living Dike project in October.* ***Above:*** *DUC staff and the Sturgeon Bank pilot project team from Northwest Hydraulic Consultants Ltd. and BlueDot Environmental celebrate winning the Environmental Manager's Association of British Columbia's 2025 Award for Restoration and Remediation in June.*

# NATURE FORCE IN ONTARIO

In 2024, Southern Ontario experienced massive flooding that closed buildings, put traffic at a standstill, and cost nearly $1 billion in insured losses. Major events like this underscore the importance of building resilience and reintroducing nature into GTA communities so that water has a place to go when extreme weather hits.

We're working with our incredible partners at **Toronto and Region Conservation Authority** (TRCA) to identify strategically located wetland creation and restoration opportunities within urban and suburban areas across the Greater Toronto Area. Revitalization efforts may include topographical grading, clay capping and native plantings to promote infiltration, improved hydrology and enhanced habitat. The re-establishment of wetlands will not only restore the area of the wetland, but also have several positive effects downstream, including improvements to both water retention, filtration and quality, as well as increased wetland connectivity and cover throughout the watershed.

Our work in Ontario not only focuses on restoring wetlands where they're needed most but also conducting critical research on how restoring nature can protect communities, raising awareness for the need for more nature in our cities and suburbs, and welcoming our partners to our projects to learn more about how nature relates to the work they do every day.

***Below:*** *Nature Force volunteers help remove invasive Phragmites plants from a wetland in Tommy Thompson Park.*

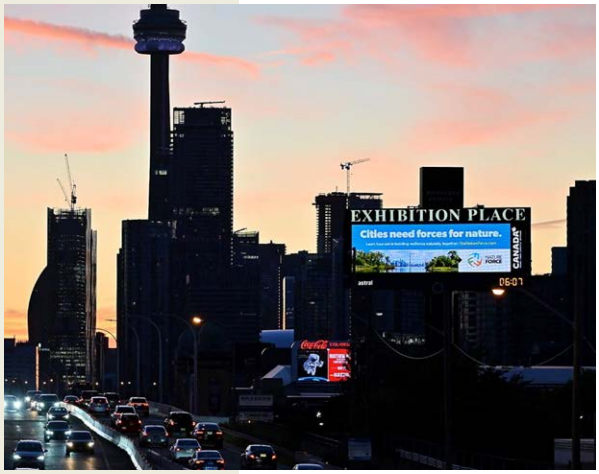
## BIG WINS

- **Strengthening Relationships:** Continued development of partnerships within urban centers that have opportunities to benefit from improved water storage and slower water flows, both key advantages of wetland restoration. This year, we strengthened our relationship with our partners at TRCA and the Town of Ajax.

- **Advancing Key Research:** Last year, we finished our stream monitoring data collection on our Washington Creek projects and began working with our partners at DUC's Institute for Wetland and Waterfowl Research (IWWR) on running scenarios to demonstrate the impact of the projects on key flood attenuation measures. This field season, we completed the scenario analysis and are making progress toward publishing our findings.

- **Raising Awareness:** We recognize that our work in Ontario benefits from being in Canada's largest metropolitan area, which gives us lots of opportunities to raise awareness for the great work our teams are doing and the important role nature must play in keeping communities safe. In August, we took this to the next level, highlighting all the great work Nature Force does on two large billboards in downtown Toronto, reaching 180,000 people.

- **Engaging Our Partners:** Also in August, we welcomed 20 of our colleagues and Nature Force partners to Toronto's Tommy Thompson Park to learn about the wildfire and road safety risks posed by invasive Phragmites and to remove Phragmites from the park.




## WHAT'S NEXT

- **More Partnership:** We will continue working with our conservation partners and landowners to further restoration project planning and monitoring that will assist in the modelling of flood attenuation/volumetric impacts and related metrics.

- **More Engagement:** We will continue to build opportunities for our partners to learn about the work we're doing in their communities and make a meaningful difference through hands-on volunteer days, virtual learning experiences and other engagement activities.

- **More Research:** Building on the momentum from this field season, we will prioritize research and collaboration with our colleagues at IWWR. We will work together with TRCA to evaluate flood mitigation priority areas and how to measure flood attenuation potential in Ontario's urban centres and linked watersheds and continue to make progress toward publishing our Washington Creek flood attenuation research.

***Top:*** *A Nature Force billboard on the Gardiner Expressway, August 2025.* ***Above:*** *Nature Force volunteers from Definity Insurance at August Nature Force Volunteer Day at Tommy Thompson Park.*

# NATURE FORCE IN QUEBEC

The Quebec chapter of Nature Force is focused on flooding in the Lorette River watershed, which runs through Quebec City. Our objective is to help combat frequent flooding in the area by reducing its frequency and severity, as well as to helping to build local communities' resilience to climate change. We do this by leveraging the recognized benefits of natural infrastructure, which in addition to supporting climate resilience, helps maintain or improve biodiversity and enhances environmental and water quality.

We are developing an integrated watershed management approach to optimize our interventions. This approach corresponds to recommendations made by several local stakeholders involved with addressing the challenges the watershed is facing. The local peri-urban and agricultural context guides our interventions: our work complements and reinforces the significant investments made by Quebec City and we tailor our approach to meet the needs of local property owners. The work we do in the field allows us to diversify the set of solutions deployed to support climate resilience and adapt land management to the diverse realities of local communities in the area.

## BIG WINS

- **Community Engagement:** We recognize that the work we do needs to be guided by the community and meet its needs. To make sure we are getting input from community members, we reached out to folks in-person, going door-to-door, sharing information about our work and invitations to join our community engagement sessions. At the sessions, we presented our approach to building climate resilience and our project objectives to community members in the watershed and invited them to participate in our work.

- **Installation of Measuring Devices:** This year, we installed groundwater observation wells at a site of interest for characterization purposes. These will help us better understand the watershed's dynamics and plan for future projects.

- **Soil Characterization Workshop:** We worked with landowners to carry out soil characterization on privately owned agricultural sites, with support of experts from the **Institut de recherche et de développement en agroenvironnement**. This work will help us to better understand the issues related to water management and agricultural practices in the watershed.

- **Study of the Lorette River Watershed by the Institut national de la recherche scientifique (INRS):** The objective of this study is to help us understand the effect of potential approaches on water management in the watershed. We were motivated to do this research to ensure that our planned developments in the area would indeed have a positive effect on flood attenuation. The results of the study indicate that targeted natural developments will allow for a measurable reduction in peak flows at the local level and at the upstream watershed level and demonstrate the technical feasibility of using hydrogeomorphological restoration as a flood management lever in the Lorette River basin.

- **Planting at Three Sites with Volunteers:** Working with local organisations, we planned and carried out planting with the help of around 50 volunteers. More than 900 trees and shrubs have been added in the watershed this year through our initiative.


## WHAT'S NEXT

- **Watercourse Restoration:** This work will be carried out in collaboration with local landowners and Quebec City to jointly optimize water management in the area.

- **Wetland Restoration:** Several wetland sites have disappeared or been degraded in the watershed through time. We will work to restore these natural areas to help create vital habitat, boost biodiversity, and build community flood resilience.

- **New Opportunities:** We recognize that Quebec City is not the only area in the province that faces flood risks or climate change impacts. Next year, we will explore opportunities to support other communities in Quebec to deploy natural infrastructure and adapt to climate change.

- **Planting on New Sites:** We plan to plant more native species in the watershed in spring 2026.

- **Publishing Findings:** We are encouraged by the findings of the research our team conducted with the INRS and are exploring opportunities to share our research with the public and contribute to the literature on this topic.

***Top:*** *DUC staff in Quebec give a presentation on Nature Force projects to local community members.* ***Above:*** *Nature Force volunteers from HUB International's August Nature Force Volunteer Day.*

# ACKNOWLEDGEMENTS

Thank you to our Nature Force partners, without whom the great work our teams accomplished this field season and over the past four years would not have been possible. **We appreciate your support and dedication!**

We are also very grateful for our incredible project teams across the country for the impactful work they've done to make their communities more resilient.

**BRITISH COLUMBIA**

- Chantelle Abma
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- Rachel Weisbeck

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- Joanne Barbazza
- Craig Berga
- Linda Warren

**QUEBEC**

- Suzanne Beaudry
- Simon Lachapelle
- William Verge

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