Animating the Ottawa Riverfront in the Core of Canada's Capital











December 2022

SURP 824 Project Course

School of Urban and Regional Planning

Queen's University

In Partnership with:

National Capital Commission

SCHOOL OF
Urban and
Regional Planning

NATIONAL CAPITAL COMMISSION
COMMISSION DE LA CAPITALE NATIONALE

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Animating the Ottawa Riverfront in the Core of Canada's Capital

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Land Acknowledgement

Our project team acknowledges that we live and learn as students at Queen's University, which is situated on the traditional homeland of the Anishinaabe, Haudenosaunee and the Huron-Wendat. We have also been privileged to have visited the City of Ottawa and Ville de Gatineau, both of which are situated on the unceded Territory of the Anishinaabe Algonquin Nation. In acknowledging these traditional territories, we recognize that the Nations' histories and presence on this land reaches back to time immemorial.

We are grateful to have the opportunity to present to you, our reader, with what we have learned this semester about the *Kichi sipi River*, known to us non-Indigenous people as the Ottawa River. As we look forward to what the future of the river may look like, we recognize and express our gratitude to the Indigenous Peoples for their care and stewardship over land and water. As student planners, we embrace the responsibility to educate ourselves and take meaningful steps toward truth and reconciliation in our own education and practice.



Image: *Canadian Museum of History, designed by Indigenous Architect Douglas Cardinal.*
Photo by: *Barber, Rachel (2022).*

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Queen's University Master of Urban and Regional Planning Course

This report is the culmination of SURP 824: *Animating the Ottawa Riverfront in the Core of Canada's Capital* project course at the School of Urban and Regional Panning at Queen's University. This studio style course is designed to give second year students experience in preparing a plan under conditions that simulate those they will experience in professional practice. For this project the School of Urban and Regional Planning partnered with the Capital Planning Branch of the National Capital Commission (NCC) to develop a plan to animate the Ottawa Riverfront in the Core Area of the National Capital Region.

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Executive Summary

SURP 824: Animating the Ottawa Riverfront in the Core of Canada's Capital—Project at a Glance

This project is the result of a one-semester workshop from nine students in the School of Urban and Regional Planning at Queen's University. The National Capital Commission asked the team to propose animations for the Ottawa riverfront in the Core of Canada's Capital. Through stakeholder interviews, a design charrette, precedent analysis, and a thorough analysis of existing conditions of the site, the team prepared a catalogue of animations for the river and riverfront, demonstrations of animations, and additional recommendations crucial to the implementation of the project.

This report presents a vision for the future of the Ottawa River in the Core of Canada's Capital. A comprehensive and coordinated approach was used to examine the unique social and physical characteristics of the study area, informing a list of interactive animations to encourage both residents and visitors of the Capital Region to engage with the river in new and exciting ways.

Riverfront Background

The Ottawa River in the Core of Canada's Capital is an iconic location, acting as both a municipal and provincial border between the City of Ottawa, ON and Ville de Gatineau, QC. The Ottawa River has always been bustling with activity. Located on unceded Anishinabe Algonquin territory, the river was once a prominent Indigenous trading and portage route. It was also home to many mills and logging companies on which the cities of Bytown (Ottawa) and Gatineau were built.

With the Parliament Buildings standing tall on their escarpment to the south, while the great wilderness of the Gatineau Hills frames the view to the north, the study area communicates the past, present, and future of where we as Canadians are going and what we as a nation value.



Map 0.1: *Core area boundary of Canada's capital.*

Existing Conditions

Prior to the COVID-19 pandemic, over 9,000 pedestrians and cyclists, as well as 150,000 vehicles crossed the interprovincial bridges within the study area on a daily basis. Despite many people passing through the study area, it is rarely their final destination. This can be explained by many factors identified in the team's existing conditions analysis, including fast-paced pathways, limited wayfinding, a lack of viewpoints and resting places, and a lack of public amenities.

Another important consideration in the existing conditions of the study area is its unique environmental characteristics. Notably, the Ottawa River is prone to flooding, with extreme flooding becoming more frequent over the past five years. Proposed animations had to feature a certain degree of resilience to flooding, erosion, and slope failure, while posing minimum disruptions to existing biodiversity.

Precedents Research

Through team meeting, stakeholder interviews, and guidance from the project coordinator, 44 waterfronts from around the world were selected that would provide beneficial learning opportunities and best practices for riverfront planning and animation. The team then short-listed the 20 most relevant precedents (see below) and extracted a set of principles for evaluating riverfront animations. The precedent analysis assisted the team in creating a list of best practices to guide recommendations for Ottawa's riverfront.

Table 0.1: *List of 20 best waterfront precedents.*

The Forks, *Winnipeg, MB, Canada*	**Samuel De Champlain Promenade,** *Ville de Québec, QC, Canada*
Vieux Port de Québec, *Ville de Québec, QC, Canada*	**Touch The Water Promenade,** *Edmonton, AB, Canada*
Dufferin Terrace, *Ville de Québec, QC, Canada*	**Market Square,** *Helsinki, Finland*
Vieux Port de Montréal, *Montréal, QC, Canada*	**Aker Brygge & Oslo Harbor Promenade,** *Oslo, Norway*
Danube Promenade, *Budapest, Hungary*	**Marina Bay,** *Singapore*
West Harbour, *Hamilton, ON, Canada*	**Harbourfront, *Toronto,*** *ON, Canada*
St. Charles Linear Park, *Ville de Québec, QC, Canada*	**Granville Island, *Vancouver,*** *BC, Canada*
100 St. Funicular & Frederick G. Todd Lookout, Edmonton, AB, Canada	**Waterfront Nyhavn,** *Copenhagen, Denmark*
Spree River Waterfront Promenade, *Berlin, Germany*	**Damrack Waterfront,** *Amsterdam, Netherlands*
Seine River Waterfront Promenade, *Paris, France*	**The Wharf, *Washington,*** *DC, USA*

Vision and Planning Principles

The following vision was informed by the existing conditions research, stakeholder analysis, precedent research, and design charrette, and was selected as a representation of the team's aspirations for the Ottawa Riverfront in the Core of Canada's Capital:

"A dynamic riverfront that provides opportunities for all people to create new experiences on historic waters."

The selected planning principles were informed by the best practices identified from the precedent analysis, in addition to the results of the design charette. The planning principles served as a foundation for the proposed animations, animation designs, and general recommendations for the study area.

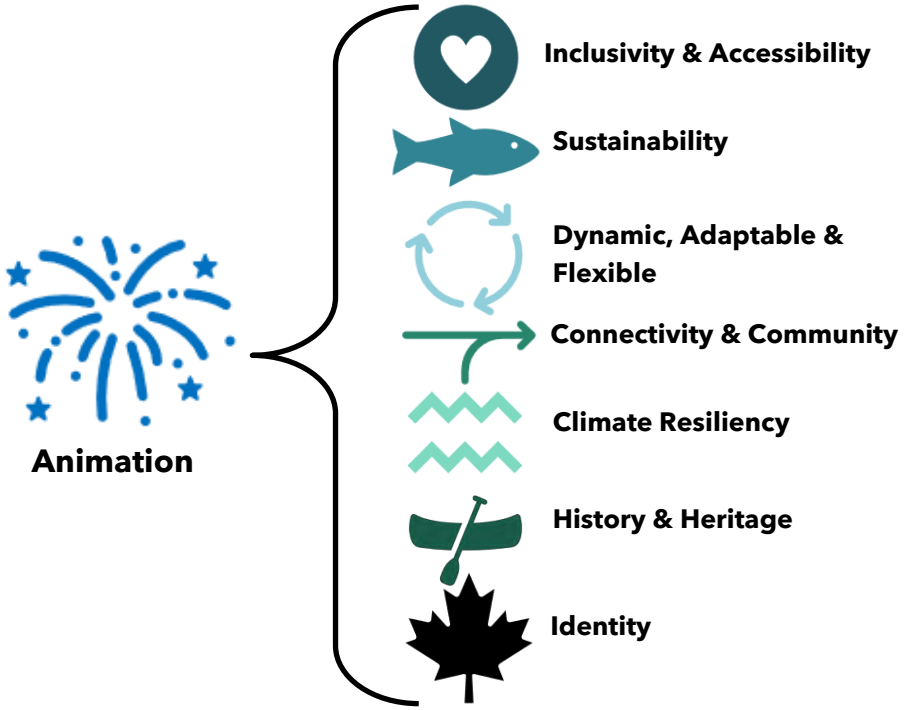


Figure 0.1: *Planning principles*

Strengths, Weaknesses, Opportunities and Challenges of the Site

Table 0.2: *Site-wide SWOC analysis.*

	STRENGTHS	WEAKNESSES
INTERNAL	• Scenic views and natural beauty. • Established pathway network. • Historic riverfront with heritage value. • Established tourist destination. • Naturalized landscape with unique biodiversity. • A large publicly-owned waterfront.	• River is fragmented by Chaudière Dam. • Insufficient access to the riverfront. • Limited connection between north and south shores. • Lack of public amenities surrounding riverfront. • Indigenous identity has been erased. • Varied topography and lack of uniformity. • Incompatible industrial uses. • Limited canopy and shelter from the elements.
	OPPORTUNITIES	CHALLENGES
EXTERNAL	• Animation that fosters dialogue across the river. • Improving infrastructure and access to water-based uses and activities. • Facilitate sustainable revenue generation. • Central location contributes to making the river a destination within the region.	• Multiple stakeholders, unclear jurisdiction, and lack of communication and coordination. • Negative public perceptions towards the river. • Fast-paced river and riverfront. • Provincial boundary between Ontario and Québec. • Seasonal weather challenges and flooding. • Ongoing climate crisis and constantly evolving river.

The results of the SWOC informed the proposed animations by identifying strengths that could be reflected and weaknesses that could be addressed through the animations, as well as highlighting opportunities and challenges to consider throughout the project.

Animation Demonstrations

The study area was separated into five character areas based on both physical and human factors that shape them. Then, the team selected animations from our catalogue of animations to demonstrate them in locations across the study area. Examples of animation demonstrations that were prepared are displayed below and on the next page.

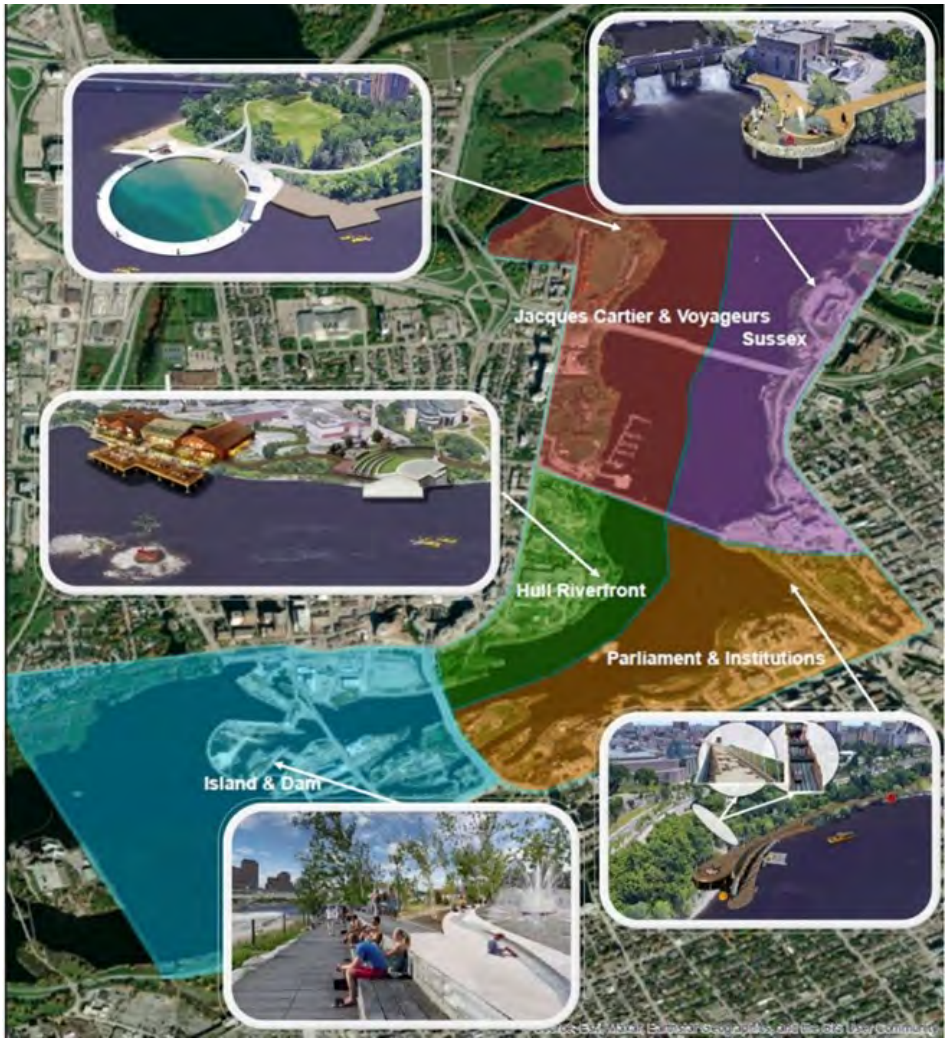


Figure 0.2: *Animation demonstrations in each character area.*

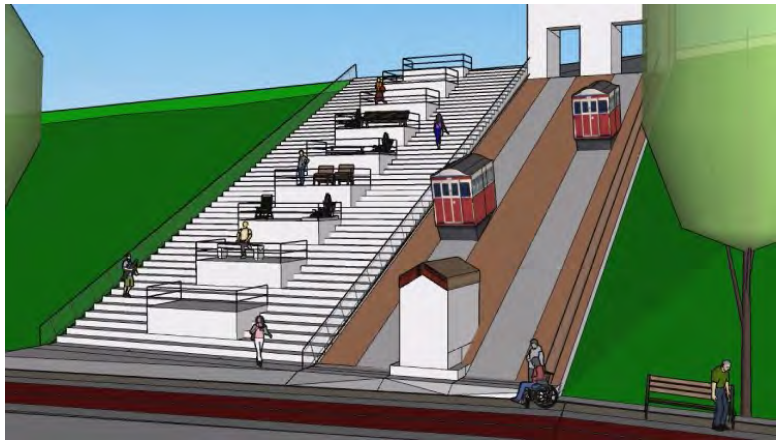


Figure 0.3: *Bytown Wharf animation demonstration.*



Figure 0.4: *Chaudière Falls animation demonstration.*

Additional Recommendations

For the animations to successfully meet the vision, goals, and objectives of the study area, additional design features must be considered. Therefore, the team proposed site-wide design recommendations to complement the proposed animations. These include accessibility, wayfinding, connectivity, animations that are not site-specific, architectural style and building materials, and environment.

High-Level Implementation Matrix by Character Area

An implementation framework of these recommendations and design features has been designed to guide future animations. This framework classifies different locations for animations against a matrix comparing both ease of implementation and impact of implementation.

Table 0.3: *High-level implementation matrix.*

		Ease of Implementation		
		High (Easy)	Medium	Low (Difficult)
Impact	Low	-	-	-
	Medium	-	• Jacques Cartier Park (South)	-
	High	• Public Amenities • Programming animations	• Jacques Cartier Park (North) • Island & Dam	• Parliament and Institutions • Sussex • Hull Riverfront

Conclusion

From time immemorial, the Ottawa River has played an invaluable role to in the lives of those living near it. While the experiences and memories of the riverfront are highly personal to the individual, it is clear that the Ottawa River, especially in the Core of our Nation's Capital, should be inclusive and accommodating to all. This specific portion of the river represents an important meeting place historically, presently, and hopefully extending into the future. The idea that the riverfront should be a meaningful, vibrant, dynamic, and dynamic meeting place for all, fuelled the project team's work throughout the semester.

Résumé

SURP 824: Animer le bord d'eau de la rivière des Outaouais dans le coeur de la capitale nationale—Projet en un coup d'oeil

La Commission de la capitale nationale a demandé aux étudiants du cours SURP 824 de l'école d'urbanisme à l'Université Queen's de proposer des animations pour le bord d'eau de la rivière des Outaouais dans le cœur de la capitale nationale. À travers d'entretiens avec des parties prenantes, une charrette de conception, des recherches précédentes et une analyse de conditions existantes du site, l'équipe a préparé un catalogue d'animations pour la rivière et le bord d'eau, des démonstrations d'animations et des recommandations additionnelles primordiales à la mise en œuvre du projet.

Ce projet présente une vision pour l'avenir de la rivière des Outaouais dans le cœur de la capitale nationale. Une approche compréhensive et coordonnée a été utilisée afin d'examiner les caractéristiques uniques de la zone d'étude, informant une liste d'animations interactives afin d'encourager les résidents et les visiteurs de la région de la capitale d'engager avec la rivière de nouvelles façons.

Contexte du bord de rivière

La rivière des Outaouais dans le cœur de la capitale nationale est un endroit iconique, agissant à la fois comme frontière municipale et provinciale entre la ville d'Ottawa, ON et la ville de Gatineau, QC. La rivière des Outaouais a toujours été remplie d'activité ; située sur le territoire non cédé de la Première Nation Anishinabe Algonquin, la rivière était une route de portage et d'échange autochtone proéminente. Des moulins et des entreprises forestières étaient également répartis sur la rivière. C'est en raison de ceux-ci que les villes de Bytown (Ottawa) et Gatineau ont été fondées.

Avec les édifices du parlement sur l'escarpement au sud et les collines de Gatineau au nord, la zone d'étude communique le passé, le présent et l'avenir de ce que nous valorisons en tant que nation.



Map 0.1: *Limites du coeur de la capitale nationale*

Conditions existantes

Avant la pandémie de la COVID-19, plus de 9000 piétons et cyclistes, ainsi que 150 000 véhicules traversaient les ponts interprovinciaux dans la zone d'étude quotidiennement. Bien que plusieurs personnes passent à travers la zone d'étude, ce n'est que rarement leur destination finale. Cela peut être expliqué par plusieurs facteurs identifiés dans l'analyse des conditions existantes, tels que des pistes à haute vitesse, un montant limité de signalisation, un manque de lieux de repos, et un manque d'aménités publiques.

Une autre considération importante dans les conditions existantes de la zone d'étude est ses caractéristiques environnementales uniques. Notamment, la rivière des Outaouais est prédisposée à l'inondation, avec l'inondation extrême devenant plus fréquente depuis les cinq derniers ans. Les animations proposées devaient inclure une certaine résilience à l'inondation et l'érosion, tout en posant des perturbations limitées à la biodiversité existante.

Recherche de précédents

À travers de rencontres, d'entretiens avec des parties prenantes et le soutien du coordonnateur du projet, 44 bords d'eau à travers le monde ont été sélectionnés. Par la suite, l'équipe a créé une liste des 20 meilleurs précédents (voir ci-dessous) et a extrait un ensemble de principes pour des animations de bords d'eau révolutionnaires. L'analyse de précédents a assisté l'équipe dans la création d'une liste de meilleures pratiques afin de guider les recommandations pour le bord d'eau de la rivière des Outaouais.

Tableau 0.1: *Liste des 20 meilleurs précédents.*

The Forks, *Winnipeg, MB, Canada*	**Samuel De Champlain Promenade,** *Ville de Québec, QC, Canada*
Vieux Port de Québec, *Ville de Québec, QC, Canada*	**Touch The Water Promenade,** *Edmonton, AB, Canada*
Dufferin Terrace, *Ville de Québec, QC, Canada*	**Market Square,** *Helsinki, Finland*
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Seine River Waterfront Promenade, *Paris, France*	**The Wharf, *Washington,*** *DC, USA*

Vision et principes d'aménagement

La vision suivante a été informée par la recherche de conditions existantes, les entretiens avec des parties prenantes, la recherche de précédents et la charrette de conception, et a été sélectionnée comme une représentation des aspirations de l'équipe pour le bord d'eau de la rivière des Outaouais dans le coeur de la capitale nationale du Canada:

"Un bord d'eau dynamique qui fournit des occasions pour tous de créer de nouvelles expériences sur des eaux historiques."

Les principes d'aménagement sélectionnés ont été informés par les meilleures pratiques identifiées par l'analyse de précédents, ainsi que les résultats de la charrette de conception. Les principes d'aménagement ont servi comme une fondation pour les animations proposées, les conceptions d'animations et les recommandations générales pour la zone d'étude.

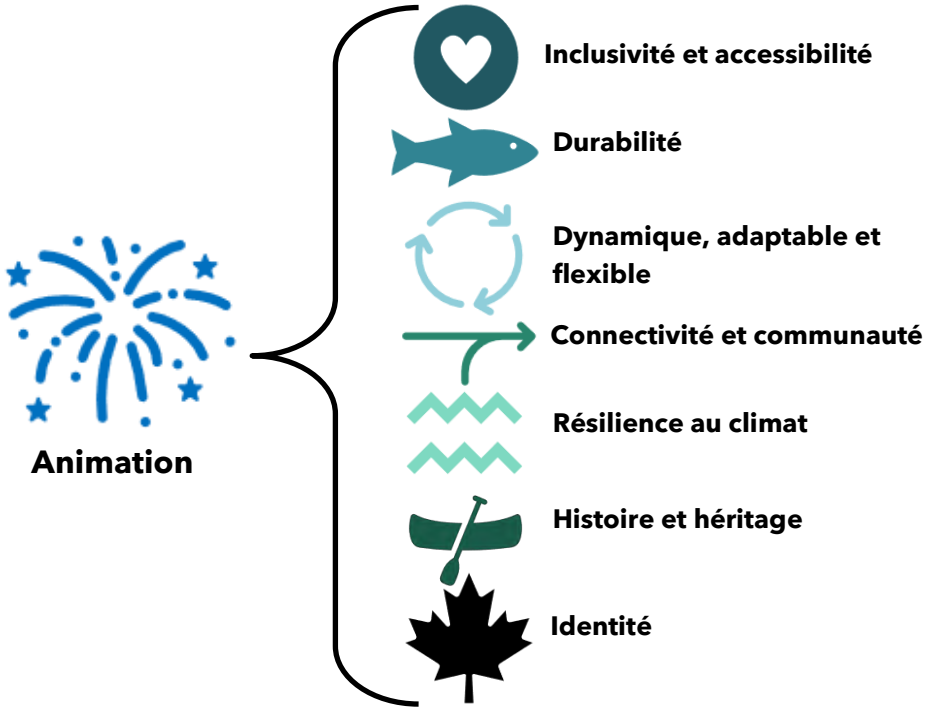


Figure 0.1: *Principes d'aménagement.*

Forces, faiblesses, opportunités et menaces du site

Tableau 0.2: *Analyse FFOM du site entier.*

	FORCES	FAIBLESSES
INTERNE	• Vues scéniques et beauté naturelle. • Réseau de pistes établi. • Bord d'eau historique avec de la valeur en héritage. • Destination touristique établie. • Paysage naturel avec une biodiversité unique. • Propriété publique.	• Rivière fragmentée par le barrage Chaudière. • Accès insuffisant au bord d'eau. • Connexion limitée entre la rive nord et sud. • Manque d'agréments près du bord d'eau. • L'identité autochtone a été effacée. • Topographie variée et un manque d'uniformité. • Zones industrielles incompatibles. • Canopée et abri des éléments limités.
	OPPORTUNITÉS	**MENACES**
EXTERNE	• Animation qui favorise un dialogue entre les deux côtés de la rivière. • Améliorer l'infrastructure et l'accès aux activités aquatiques. • Faciliter la génération durable de revenues. • Endroit central contribue à la promotion de la rivière comme destination.	• Plusieurs parties prenantes, juridiction incertaine et manque de communication et de coordination. • Perceptions négatives sur la rivière. • Rivière et bord d'eau rapide. • Frontière provinciale entre l'Ontario et le Québec. • Défis climatiques saisonniers et l'inondation. • Crise de climat et une rivière en évolution.

Les résultats de la FFOM ont informé les animations proposées en identifiant les forces qui pouvaient être reflétées et des faiblesses qui pouvaient être adressées à travers les animations, ainsi qu'en soulignant les opportunités et les menaces à considérer à travers le projet.

Démonstrations d'animations

La zone d'étude a été divisée dans cinq aires à caractère distinct basées sur les facteurs physiques et humains qui leur forment. Ensuite, l'équipe a sélectionné des animations de notre catalogue d'animations afin de les démontrer dans des endroits variés dans la zone d'étude. Des exemples de démonstrations d'animations qui ont été préparées sont présentés ci-dessous et sur la prochaine page.



Figure 0.2: Démonstrations d'animations dans chaque aire à caractère.

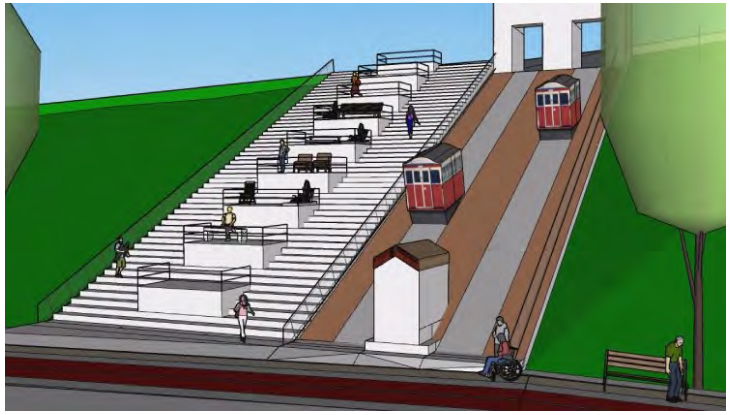


Figure 0.3: *Démonstration d'animation du quai Bytown.*



Figure 0.4: *Démonstration d'animation aux chutes de la Chaudière.*

Recommandations additionnelles

Afin que les animations puissent atteindre la vision, les buts et les objectifs de la zone d'étude, d'autres traits de conception doivent être considérés. Donc, l'équipe a proposé des recommandations de conceptions pour le site entier afin de complimenter les animations proposées. Celles-ci incluent l'accessibilité, le signalement, la connectivité, des animations qui ne sont pas spécifiques à un endroit, le style architectural et les matériaux de construction, et l'environnement.

Matrice de mise en oeuvre à haut niveau par aire à caractère

Un cadre de mise en oeuvre des recommandations et des traits de conception a été conçu afin de guider les animations. Le cadre évalue différents endroits pour les animations contre une matrice comparant la facilité de la mise en oeuvre et l'impact de la mise en oeuvre.

Tableau 0.3: *Matrice de mise en oeuvre à haut niveau.*

		Facilité de la mise en oeuvre		
		Haute (Facile)	Moyenne	Basse (Difficile)
Impact	Bas	-	-	-
	Moyen	-	• Parc Jacques Cartier (Sud)	-
	Haut	• Agréments publics • Animations de programmation	• Parc Jacques Cartier (Nord) • Île & barrage	• Parlement et institutions • Sussex • Bord d'eau de Hull

Conclusion

Depuis des temps immémoriaux, la rivière des Outaouais a joué un rôle inestimable dans la vie de ceux qui vivent près de celle-ci. Bien que les expériences et les souvenirs du bord d'eau sont uniques à l'individu, il est clair que la rivière des Outaouais, particulièrement dans le coeur de la capitale nationale, devrait être inclusive et accommodante pour tous. Cette portion de la rivière représente une place de rencontre importante historiquement, présentement, et s'étendant dans l'avenir. L'idée que le bord d'eau devrait être significatif, vibrant et dynamique a alimenté le travail de l'équipe à travers le semestre.

Table of Contents

Executive Summary ..... Pg. vi

Chapter 1: Introduction

1.1: Purpose of Report ..... Pg. 1.1
1.2: Introduction to Study Area ..... Pg. 1.1
1.3: Defining Animation ..... Pg. 1.2
1.4: Report Outline ..... Pg. 1.3

Chapter 2: Context

2.1: Geographical Context ..... Pg. 2.1
2.2: Historical Context ..... Pg. 2.1
2.3: Examples of Historical Animation ..... Pg. 2.3
2.4: Summary ..... Pg. 2.5

Chapter 3: Existing Conditions

3.1: Environmental Conditions ..... Pg. 3.1
3.2: Land Use ..... Pg. 3.3
3.3: Landmarks along the Ottawa River ..... Pg. 3.4
3.4: Transportation and Mobility ..... Pg. 3.6
3.5: Summary ..... Pg. 3.6

Chapter 4: Plan & Policy Analysis

4.1: The Plan for the National Capital (1950) ..... Pg. 4.1
4.2: NCC's Plan for Canada's Capital,2017- 2067 ..... Pg. 4.2
4.3: The City of Ottawa's Official Plan (2021) ..... Pg. 4.2
4.4: Ville de Gatineau's Plan d'urbanisme (2020) ..... Pg. 4.3
4.5: RVCA's Strategic Plan (2020) ..... Pg. 4.3
4.6: Rockcliffe Park Landscape History (1996) ..... Pg. 4.3

Chapter 5: Stakeholder Analysis

5.1: Overview ..... Pg. 5.1
5.2: Summary of Stakeholder Meeting ..... Pg. 5.1
5.3: Implications ..... Pg. 5.2
5.4: Design Charette ..... Pg. 5.4
5.5: Summary ..... Pg. 5.5

Chapter 6: Precedents & Best Practices

6.1: Overview of Criteria ..... Pg. 6.1
6.2: Best Practices ..... Pg. 6.2

Chapter 7: SWOC Analysis

7.1: Strengths ..... Pg. 7.2
7.2: Weaknesses ..... Pg. 7.2
7.3: Opportunities ..... Pg. 7.3
7.4: Challenges ..... Pg. 7.4
7.5: Summary ..... Pg. 7.5

Chapter 8: Vision, Goals, Principles & Planning Approach

8.1: Goals & Objectives ..... Pg. 8.1
8.2: Planning Approach ..... Pg. 8.4

Chapter 9: Character Areas

9.1: Island & Dam ..... Pg. 9.2
9.2: Parliament & Institutions ..... Pg. 9.4
9.3: Sussex ..... Pg. 9.6
9.4: Jacques Cartier & Voyageurs ..... Pg. 9.8
9.5: Hull Riverfront ..... Pg. 9.10

Chapter 10: Animation Demonstrations

10.1: List of Animations and Catalogue of Ideas ..... Pg. 10.1
10.2: Introduction to Animation Demonstrations ..... Pg. 10.1
10.3: Islands & Dam Character Area Animation ..... Pg. 10.2
10.4: Parliament & Institutions Character. Area Animation ..... Pg. 10.6
10.5: Sussex Character Area Animation ..... Pg. 10.11
10.6: Jacques Cartier & Voyageurs Character Area Animation ..... Pg. 10.16
10.7: Hull Riverfront Character Area Animation ..... Pg. 10.21

Chapter 11: Recommendations & Implementation

11.1: Recommendations ..... Pg. 11.1
11.2: Implementation ..... Pg. 11.4

Chapter 12: Conclusion

Appendices

Appendix A: Plan & Policy Analysis Table

Appendix B: Precedents

Appendix C: Field Work & Interview Materials

Appendix D: Stakeholder Analysis & Design Charette

Appendix E: Character Area Analysis

Appendix F: List of Animations

Appendix G: Catalogue of Ideas

Appendix H: Design Illustrations & Posters

Appendix I: Final Presentation Photos, Posters, and Q&A

List of Figures, Tables, and Maps

List of Figures

Executive Summary

Figure 0.1: Planning Principles .....Pg. vii

Figure 0.2: Defining Animation .....Pg. viii

Figure 0.3: Bytown Wharf animation demonstration .....Pg. ix

Figure 0.4: Chaudière Falls animation demonstration.....Pg. ix

Chapter 1

Figure 1.1: Aerial photo of the National Capital Region's Core Area, which contains the Project Teams study area .....Pg. 1.2

Chapter 2

Figure 2.1: Lumber piles and sawmills west of Parliament Hill, 1876 .....Pg. 2.2

Figure 2.2: A timber slide on Ottawa River near Parliament Hill, late 1880s .....Pg. 2.3

Figure 2.3: Lovers' Walk .....Pg. 2.4

Figure 2.4: Portage Along the Ottawa River, 1836-1842 ...Pg. 2.4

Figure 2.5: A group skating on the Ottawa River, in front of the Rideau Falls, 1901 .....Pg. 2.5

Figure 2.6: Bytown's wharf, circa 1836.....Pg. 2.5

Chapter 3

Figure 3.1: Flooded pathway network behind Parliament Hill ..... Pg. 3.1

Figure 3.2: The Voyageurs Pathway on the North Shore .. Pg. 3.6

Chapter 4

Figure 4.1: Proposed Open Spaces Plan for the Ottawa- Hull region which creates continuous greenspaces along all the Ottawa River in the core area ..... Pg. 4.1

Figure 4.2: Plan for Canada's Capital cover page ..... Pg. 4.2

Figure 4.3: A view of Parliament Hill and the Ottawa River in 1950 ..... Pg. 4.2

Chapter 5

Figure 5.1: Matrix summarizing the findings of the Stakeholder Analysis Matrix Chart ..... Pg. 5.3

Figure 5.2: NCC CEO Tobi Nussbaum speaking after the final design charrette presentations at the NCC's Urbanism Lab on Oct. 18, 2022 ..... Pg. 5.4

Figure 5.3: Participants in groups for the design and visioning exercise at the NCC's Urbanism Lab on Oct. 18, 2022 ..... Pg. 5.4

Figure 5.4 Graydon Simpson conducts a presentation on the SWOC analysis of the Ottawa Riverfront ..... Pg. 5.5

Figure 5.5: A participant explains their group's ideas for the Ottawa Riverfront ..... Pg. 5.5

Chapter 6

Figure 6.1:Ville de Québec Dufferin Terrace sledding which utilizes the change in topography and provides year-round animation ..... Pg. 6.1

Chapter 8

Figure 8.1: Goals within the Strategic Framework: The Plan for Canada's Capital 2017 – 2067 ..... Pg. 8.1

Figure 8.2: Planning approach diagram ..... Pg. 8.4

Chapter 9

Figure 9.1: A simplified version of the PPS diagram used to evaluate character areas ..... Pg. 9.1

Chapter 10

Figure 10.1: Chaudière Falls lookout existing conditions ……. ..... Pg. 10.3

Figure 10.2: Cross-section for the Chaudière Falls lookout area ..... Pg. 10.3

Figure 10.3: Illustration containing an interactive water feature and a boardwalk with built-in seating ..... Pg. 10.4

Figure 10.4: The 3D renderings for Chaudière Falls lookout area illustrating the proposed animations and views ..... Pg. 10.5

Figure 10.5: Typical cross-section for the Parliament & Institutions character area ..... Pg. 10.7

Figure 10.6: Illustration containing riverside bistro with an extended wharf and interpretation point ..... Pg. 10.7

Figure 10.7: Parliament & Institutions area existing conditions . ..... Pg. 10.8

Figure 10.8: Illustration containing a funicular and wharf landing platform ..... Pg. 10.8

Figure 10.9: Illustration containing another landing area in proximity to the Rideau Canal Locks ……. ..... Pg. 10.9

Figure 10.10: The 3D renderings for Bytown Wharf area illustrating the proposed animations and views ..... Pg. 10.10

Figure 10.11: Lady Grey Drive existing conditions ..... Pg. 10.12

Figure 10.12: Cross-section for animation ideas for Lady Grey Drive location ..... Pg. 10.12

Figure 10.13: Illustration containing a pedestrianized Lady Grey Drive with animation ideas for the Lady Grey Drive location … ..... Pg. 10.13

Figure 10.14: The 3D renderings for Lady Grey Drive area illustrating the proposed animations and views ..... Pg. 10.14

Figure 10.15: Cross-section for animation ideas at the NRC location..... Pg. 10.15

Figure 10.16: Illustration containing a viewing platform with sightlines to the Rideau Falls ..... Pg. 10.15

Figure 10.17: Jacques-Cartier Park north of Macdonald-Cartier Bridge existing conditions …..... Pg. 10.17

Figure 10.18: Cross-section for the Jacques Cartier Park North area ..... Pg. 10.17

Figure 10.19: Illustration containing a circular jetty, fishing pier and wharf. ..... Pg. 10.18

Figure 10.20: The 3D renderings for Jacques-Cartier Park North area illustrating the proposed animations and views .... Pg. 10.19

Figure 10.21: Illustration containing an extended marina with additional seating for pop-up experiences, as well as a landscaped open space and picnic pavilion in the park…… .....Pg. 10.20

Figure 10.22: Cross-section for the Jacques Cartier South area .....Pg. 10.20

Figure 10.23: Hull Riverfront Character Area existing conditions .....Pg. 10.22

Figure 10.24: Cross-section of the Hull Riverfront character area .....Pg. 10.22

Figure 10.25: Illustration containing a viewing platform and of animation ideas for the location .....Pg. 10.23

Figure 10.26: Illustration containing a raised public market with a boardwalk connecting to an amphitheatre .....Pg. 10.24

Figure 10.27: The 3D renderings for the Kruger Lots area illustrating the proposed amphitheatre, public market, and views .....Pg. 10.25

Chapter 11

Figure 11.1: Existing wayfinding example in Jacques Cartier Park .....Pg. 11.1

Figure 11.2: Wetland on the periphery of Jacques Cartier Park .....Pg. 11.3

Figure 11.3: Graphic of Recommendations .....Pg. 11.3

List of Tables

Executive Summary

Table 0.1: List of 20 best waterfront precedents .....Pg. vii

Table 0.2: Site Wide SWOC analysis .....Pg. viii

Table 0.3: High-level implementation matrix .....Pg. ix

Chapter 3

Table 3.1: Overview of key landmarks along Ottawa River's north and south shores .....Pg. 3.4

Chapter 5

Table 5.1: Lists of agencies consulted and not consulted for the purposes of stakeholder analysis.....Pg. 5.1

Table 5.2: Summary of responses provided by agencies during the stakeholder interview process. .....Pg. 5.2

Chapter 6

Table 6.1: The top 20 scoring waterfront evaluated which are presented in Appendix C .....Pg. 6.2

Chapter 7

Table 7.1: SWOC Analysis .....Pg. 7.1

Chapter 8

Table 8.1: List of planning principles and their statements .....Pg. 8.3

Chapter 9

Table 9.1: SWOC Analysis of the Islands & Dam Character Area ..... Pg. 9.2

Table 9.2: Existing conditions and proposed animations for the Islands & Dam Character Area ..... Pg. 9.3

Table 9.3: SWOC Analysis of the Parliament & Institutions Character Area ..... Pg. 9.4

Table 9.4: Existing conditions and proposed animations for the Parliament & Institutions Character Area ..... Pg. 9.5

Table 9.5: SWOC Analysis of the Sussex Character Area .. Pg. 9.6

Table 9.6: Existing conditions and proposed animations for the Sussex Character Area ..... Pg. 9.7

Table 9.7: SWOC Analysis of the Jacques Cartier & Voyageurs Character Area ..... Pg. 9.8

Table 9.8: Existing conditions and proposed animations for the Jacques Cartier & Voyageurs Character Area ..... Pg. 9.9

Table 9.9: SWOC Analysis of the Hull Riverfront Character Area ..... Pg. 9.10

Table 9.10: Existing conditions and proposed animations for the Hull Riverfront Character Area ..... Pg. 9.11

Chapter 11

Table 11.1: Animation implementation matrix ..... Pg. 11.4

List of Maps

Executive Summary

Map 0.1: Core area boundary of Canada's capital .....Pg. vi

Chapter 1

Map 1.1: Map of the National Capital Region's Core Area, which contains the Project Teams' study area. .....Pg. 1.2

Chapter 2

Map 2.1: The Ottawa River .....Pg. 2.1

Chapter 3

Map 3.1: Map showing the Ottawa River's floodplain (in red) in Gatineau, QC .....Pg. 3.2

Map 3.2: Map showing the Ottawa River's floodplain (blue hash marks) in Ottawa, ON .....Pg. 3.2

Map 3.3: A map of the land uses in the Ottawa River Study Area. .....Pg. 3.3

Map 3.4: Landmarks, focal points, and main shoreline pathways, in the National Capital Region's core area.....Pg. 3.5

Chapter 7

Map 7.1: SWOC Map. Perceived strengths , weaknesses, and challenges across the study area .....Pg. 7.5

Chapter 9

Map 9.1: A map created in ArcGIS outlining the five-character areas and their respective areal extents ..... Pg. 9.1

Map 9.2: Map of the Island & Dam Character Area ..... Pg. 9.2

Map 9.3: Map of the Parliament & Institutions Character Area ..... Pg. 9.4

Map 9.4: Map of the Sussex Character Area. ..... Pg. 9.6

Map 9.5: Map of the Jacques Cartier & Voyageurs Character Area ..... Pg. 9.8

Map 9.6: Map of the Hull Riverfront Character Area. ..... Pg. 9.10

Chapter 10

Map 10.1: Map of concept plan for the Chaudière Falls Lookout ..... Pg. 10.2

Map 10.2: Map of concept plan for Rideau Canal Locks and Bytown Wharf ..... Pg. 10.6

Map 10.3: Map of concept plans for Lady Grey Drive and the National Research Council Riverfront .....Pg. 10.11

Map 10.4: Map of concept plans for Jacques-Cartier Park North and South .....Pg. 10.17

Map 10.5 Map of concept plan for the Riverfront Inlet and the Kruger Lots .....Pg. 10.21

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1 Introduction

1.1 Purpose of Report

This report presents the results of the SURP 824 Land Use Planning Project Course at the School of Urban and Regional Planning at Queen's University. The project course is taken by students in their final year of the Queen's University Master of Urban and Regional Planning program. As such, the work conducted during the course has provided the authors (herein "the project team") with invaluable experience in hands-on planning and has helped prepare them for future careers as professional planners and academics.

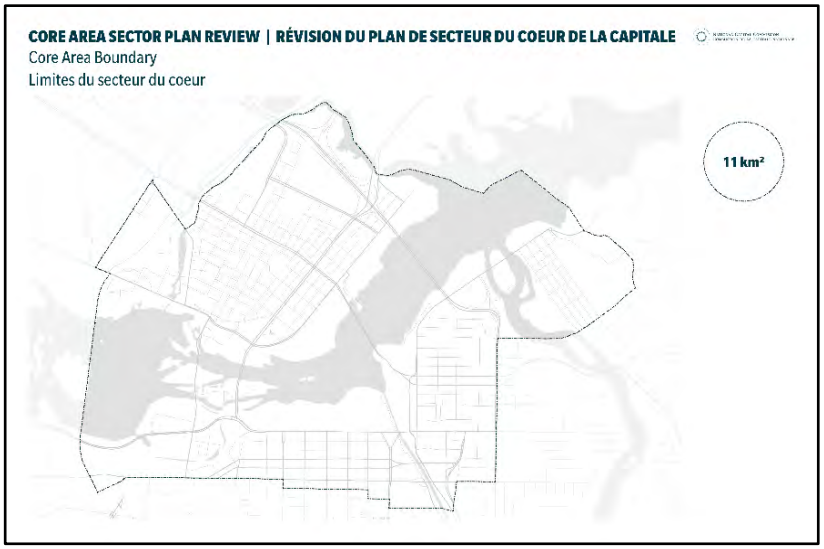
The client is the National Capital Commission's (NCC) Capital Planning Branch. The NCC is the steward of most of the shorelines along the Ottawa River in the National Capital Region's Core Area. However, animation of and access to these shorelines is limited. Meanwhile, public organizations, community groups, and business enterprises are requesting more opportunities to access the river. The NCC wishes to further animate the Capital by creating iconic animation points along the riverfront that help define the characteristics of the region.

A vision for the future of the Ottawa Riverfront in the Core of Canada's Capital is the centrepiece of this report. It provides a comprehensive and coordinated examination of the unique social and physical characteristics of the study area and provides a list of interactive animations that engage both residents and visitors with the Ottawa River in new and exciting ways.

1.2 Introduction to Study Area

The study area discussed in this report is the Ottawa River in the Core of Canada's Capital. As an iconic location, the river not only acts not only as a provincial border, but it also delineates the City of Ottawa, ON to the south and Ville de Gatineau, QC to the north. Prior to the COVID-19 pandemic, over 9,000 pedestrians and cyclists along with 150,000 vehicles crossed the interprovincial bridges within the study area daily (NCC, n.d.). Furthermore, the Ottawa River has always been a place that is in constant motion. Located in the Algonquin heartland, since time immemorial the river has been used as a prominent Indigenous trading route. The river was also home to many mills and logging companies on which the cities of Bytown (Ottawa) and Gatineau were built. In addition, the Ottawa River in the Core of Canada's Capital represents the home of Canadian democracy. With the Parliament buildings standing tall on their escarpment to the south, while the great wilderness of the Gatineau Hills frames the view to the north, the study area communicates the past, present, and future of Canada and its array of people and values.

In terms of geographic context, the study area is comprised of the Ottawa River and its riverfront within



***Map 1.1**: The National Capital Region's Core Area, which contains the project teams' study area.*



***Figure 1.1:** Aerial photo of the National Capital Region's Core Area, which contains the project teams study area.*

the National Capital Region's Core Area. The Core Area itself has a total area of 11km^2 (see Figure 1.1). Within the Core Area, the Capital Realm represents a total of 3km^2. The study area extends from the easternmost end of Lemieux Island and follows the natural bends of the river up to the end of Sussex Dr. in Ottawa, and the eastern tip of Jacques-Cartier Park in Gatineau. The study area includes the entirety of the Ottawa River's channel within the Core Area. Although the study area extends well beyond the riverfront, the project team considers the boundaries for animation to be the Sir John A. Macdonald Parkway (to the west), Wellington St. (to the east), and Sussex Dr. (to the north) in Ottawa. The boundaries in Gatineau have been decided as Alexandre-Taché Blvd. (to the west), Laurier St. (to the east), and Rue Dussault (to the north).

In summary, the study area is a place of historical, cultural, and environmental significance; therefore, all attempts to animate it should enhance and build on the character-defining elements already present with the area.

1.3 Defining Animation

As this report will largely focus on animating the riverfront in the core of Canada's Capital, it is first necessary to define what is meant by the term "animation". Following the definition outlined by Glover

(2020), "[t]o animate means to bring something to life, so its application to public space represents an intentional effort to boost urban vitality" (414). Furthermore, the project team is interested in how the animation of the Ottawa River in the Core of Canada's Capital will help to "inject public spaces with new functions and meanings" (Hou, 2010: 2).

With this definition in mind, the project team is pleased to present within this report a new vision and suite of ideas for the Ottawa River and its riverfront.

1.4 Report Outline

Part One of this two-part report will focus on the Ottawa River's history and existing conditions and will encapsulate:

- The context of the study area, including an analysis of its geographical and historical context, along with a summary of surrounding animation outside of the study area;
- An overview of the existing conditions within the study area, paying special attention to the environment, surrounding land uses, and connectivity to the broader urban context;
- An analysis of existing plans and policies relating to the river and/or the surrounding lands – this analysis includes plans produced by the NCC, the City of Ottawa, Ville de Gatineau, various conservation authorities, and historic capital plans;
- An analysis and summary of stakeholders with a vested interest in animating of the Ottawa River;
- A review of waterfront animation precedents that identified criteria for best practices relating to waterfront animation; and
- A SWOC analysis detailing the strengths, weaknesses, opportunities, and challenges present in the study area.

The second part of this report envisions the future of the Ottawa River, including:

- Vision, goals, objectives, planning principles, and planning approach to guide the animation of the riverfront;
- An overview of character areas within the study area;
- A list of animations and a catalogue of ideas organizing all possible ideas for animation;
- Demonstration plans of proposed animations in pre-identified key locations within the character areas;
- An overview of recommendations for successful animation; and
- A high-level implementation strategy to guide the animation of the riverfront, aligned with the planning horizon set out in *The Plan for Canada's Capital, 2017-2067*.

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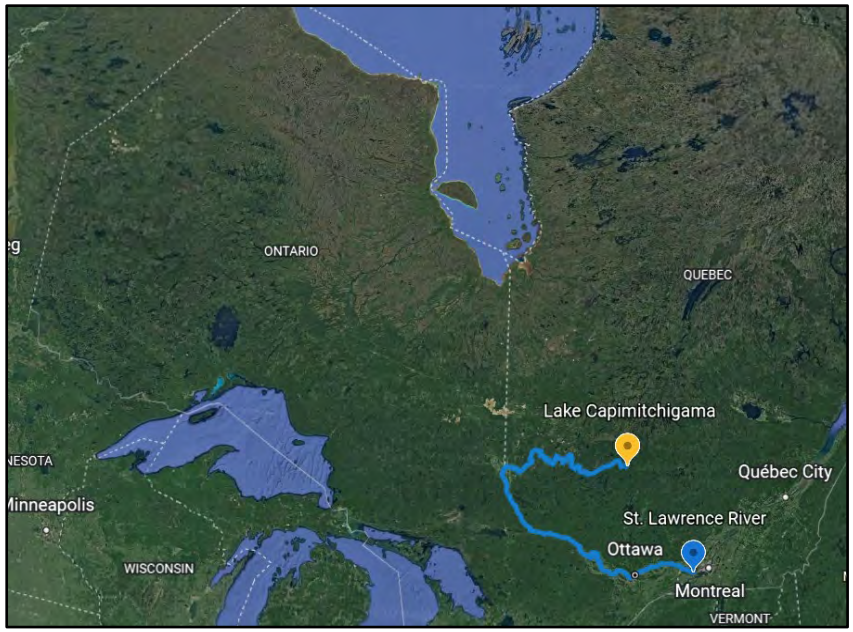
2 Context

To appropriately plan for the animation of the Ottawa Riverfront for current and future generations, it is important to acknowledge the rich history of the Ottawa River, dating back to time immemorial. This section outlines the geographical and historical context of the river in Canada's Capital, while also presenting animations that were historically present.

2.1 Geographical Context

The Ottawa River is the largest exclusively Canadian river in eastern Canada (Haxton & Chubbuck, 2002) and the eighth-largest river in Canada (Marsh & Baker, 2018). The Ottawa Valley was sculpted during the retreat of the Wisconsin glacier approximately 11,000 years ago. The valley was once flooded by the Champlain Sea, which populated the river with fish from the Mississippian refugium, the Great Lakes, the Mattawa Outlet, and the Atlantic Coastal Plain (Haxton & Chubbuck, 2002).

The Ottawa River is approximately 1,130km long. It originates at Lake Capitmitchigama in Québec and is the chief tributary of the St. Lawrence River (Haxton & Chubbuck, 2002). While most of the river lies entirely within the province of Québec, 590km of the river forms a natural border between Ontario and Québec (Marsh & Baker, 2006).



Map 2.1: *The Ottawa River. Source: Google Earth.*

2.2 Historical Context

2.2.1 Ottawa river & The Anishinabek (Algonquin)

The history of the Ottawa River is one that is closely tied to the Algonquin People; the entire length of the Ottawa River is situated within the Algonquin heartland. The river's Algonquin name *Kichi sipi*, meaning "big river", refers to the lower portion of the river in Ottawa (Morrison, 2005). The bands that occupied the riverbanks were often referred to as the *Kichesipirini* or "big river people" by explorers and early settlers (Morrison, 2005). The name "Ottawa" comes from the Algonquin word *adawe*, meaning "to trade" (Semande,

2014). The Ottawa River was used as a significant trade route that connected communities to one another while flowing 1,300km to the St. Lawrence River (Semande, 2014). The trade route's origins can be traced back over 6,000 years, and it has been demonstrated that the route connected the Ottawa River with various tributaries (Semande, 2014; Morrison, 2005). The original method of transportation used by the Algonquin to carry goods for trade along the Ottawa River was the birch bark canoe (Marsh & Baker, 2006).

It's important to note that in Ottawa and Hull almost none of the original Algonquin place names have survived. Names such as Chaudière reflect French exploration and settlement of the Ottawa Valley (Morrison, 2005).

2.2.2 Early Industries and the Ottawa River

After being established by Indigenous Peoples as a transportation and trading route, the Ottawa River was utilized by explorers, voyageurs, fur traders, and missionaries in the 17th century to connect with other European settlements on the St. Lawrence River (Taylor, p.11). The old fur trade route to Ottawa, which followed the Ottawa-Lake Huron Waterway, presented challenges to traders due to its 35 portages and limited carrying capacity along the route between Michilimackinac (present day Mackinac Island) and Montréal (Taylor, pp. 11-25). Despite this, Bytown (Ottawa's former name) became the provisioner, retailer, and servicer to the timber trade in the 19th century, with timber travelling



Figure 2.1: *Lumber piles and sawmills west of Parliament Hill, 1876 (Brosius, 1876).*

year-round along the Ottawa River via steamboat or sled train (Taylor, p. 26). The over-extraction of old-growth white pine in the upper Ottawa Valley led to the decline of the timber trade in the region, which prompted the switching of production from square timber to sawn timber and, between the 1860s and 1880s, the shifting to serving U.S. markets instead of British markets (Gordon, 2015, pp. 90-92).

The timber trade altered the waterscape of the Ottawa River and the surrounding landscape as it resulted in stacks of dry lumber on either side of the river, with sawdust and waste being dumped from the mills into the river (Gordon, 2015, p. 93). The dry lumber also posed a fire hazard to the surrounding communities, which led to fires in Hull and Ottawa between 1880 and 1933 (Gordon, 2015, pp. 93-94). The 20th century saw both cities make efforts to reduce sources of air and water

pollution by investing in urban infrastructures, such as water filtration plants, and through environmental remediation, such as the closure of mills and the removal of log drives (Gordon, 2015, p. 258).

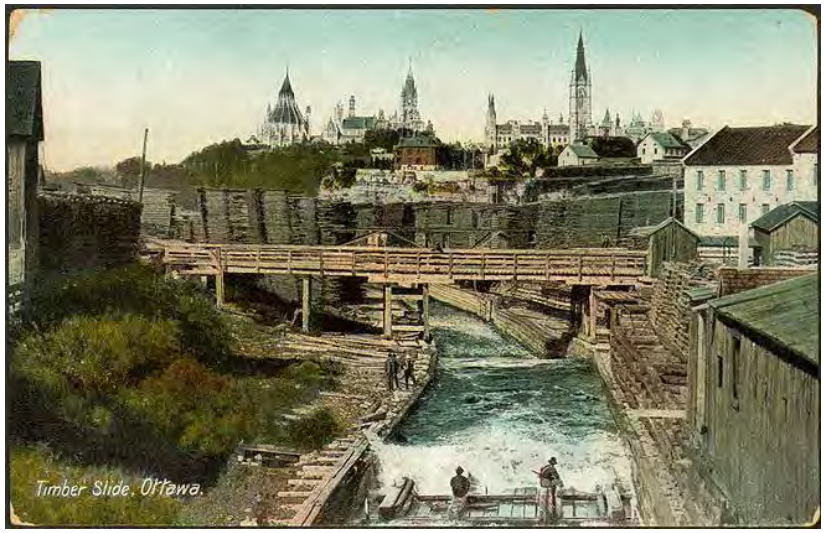


Figure 2.2: *A timber slide on Ottawa River near Parliament Hill, late 1880s (MacFarlane, 1910).*

2.3 Examples of Historical Animation

2.3.1 Timber Slide

Timber slides are among the first public works in Canada. Created to facilitate the transportation of logs along the Ottawa River and its tributaries, Ruggles Wright built the first timber slide in 1829 (QLF Canada, 2005). This chute was used to transport large sections of rafts around the Chaudière Falls, which was originally a major obstacle for the log drive. The slide improved transportation speed reduced the risk of a jam and reduced damage to the timber by spreading the river's fall over at least a kilometre (Wynn, 2020).

While timber slides played an important role in the logging industry, they were also a vital form of animation along the Ottawa River. Visitors would watch rafts descend the river and, on occasion, were able to ride them. Many royals had this opportunity, such as the Prince of Wales in 1860 and the Duke and Duchess of Cornwall and York in 1901 (Wynn, 2020; QLF Canada, 2005).

2.3.2 Lovers Walk

Lovers' Walk was a pathway along the Ottawa River that became a popular tourist destination in the 19th and 20th centuries. While it is hard to pinpoint the exact date of its creation, it is believed the path was originally used by Indigenous Peoples travelling along the southern banks of the Ottawa River, and by raftsmen travelling to and from their homes and the timber chutes (Powell, 2019). The pathway was improved after 1867 through widening and the installation of iron railings and staircases. Due to safety concerns, a lack of maintenance, and rising repair costs, Lovers' Walk was permanently closed in 1938 (Powell, 2019).

Lovers' Walk was mentioned in *Picturesque Canada* (Grant, 1875), an illustrated monograph of Canadian landmarks, while being showcased in an illustration on

the volume's front cover. In the 1920s, the pathway was the second most popular tourist destination in Ottawa and appeared in guidebooks (Powell, 2019).

2.3.3 Portages

The rapids and falls on the Ottawa River make water-based navigation challenging. Indigenous Peoples who originally engaged in trade with other groups on the river built and used birch bark canoes to navigate the river. When waters were impassable, men were forced to disembark before the obstacle and carry their cargo and canoes through the forest along the river until the waters were calm enough to continue their journey (Gordon, 2015, p. 8). Taking heed of existing First Nations portage routes, the French explorers enlarged the portages around these obstacles to facilitate the fur trade (QLF Canada, 2005, p. 106).

Victoria Island, which is the area located below the Chaudière Falls in the study area, was an example of a place of rest for Indigenous Peoples, voyageurs, and explorers before making the portage around Chaudière Falls (QLF Canada, 2005, p. 52).

2.3.4 Ice Skating

Historically, the Ottawa River was used by residents for ice skating. However, the river water's conditions made skating on this surface dangerous. An account of the danger can be linked to former prime minister William Lyon Mackenzie King. In 1901, Mackenzie King's housemate, Bert Harper, was skating with a friend on the

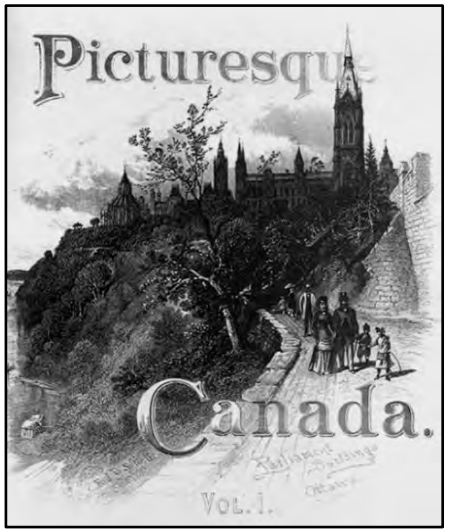


Figure 2.3: *Lovers' Walk front cover (Grant, 1875).*

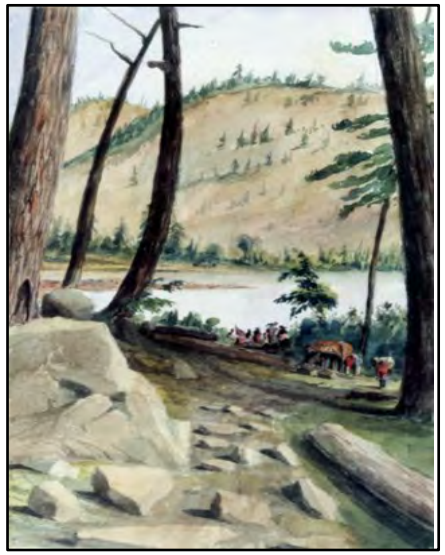


Figure 2.4: *Portage Along the Ottawa River, 1836-1842 (QLF Canada, p. 65).*



Figure 2.5: *A group skating on the Ottawa River, in front of the Rideau Falls, 1901 (Topley, 1901).*

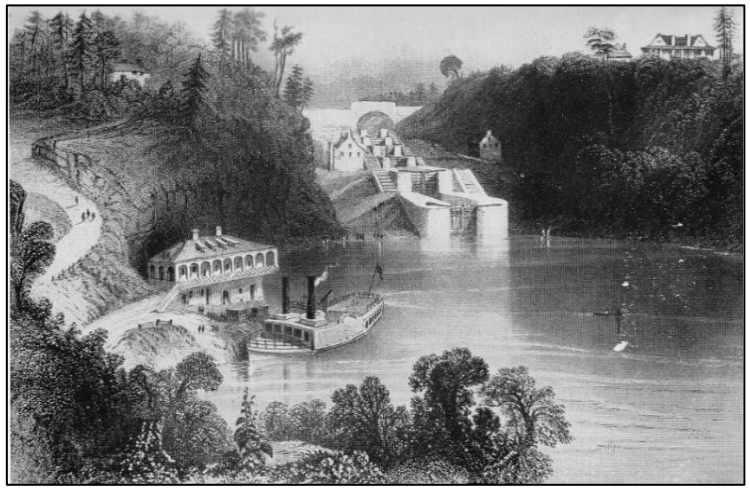


Figure 2.6: *Bytown's wharf, circa 1836 (Bartlett, 1836).*

Ottawa River when she fell through the ice. Harper attempted to save her but, tragically, they both drowned (Duffy, 2017). On this day, there were accounts of at least five other people having fallen through ice on the Ottawa River, all of whom survived (Deachman, 2020). At the time of writing, ice skating on the Ottawa River remains highly discouraged

2.3.5 Bytown's Wharf

Conveniently located beside the Rideau Canal, Bytown's Wharf was a stop for passenger steamboats on the Ottawa River. Travelers were met with Sterling's Brewery at the water's edge, with the Royal Engineers' Office and the Commissariat Store facing each other across the Rideau Canal locks (Osborne, 1983). Boat travel was a popular mode of transportation until the railway was constructed (QLF Canada, 2005).

2.4 Summary

Historically, the Ottawa Riverfront in the Core of Canada's Capital was a vibrant place used for transportation, commercial, and recreational activities. The historical context of the river inspired the project team to create animations that would speak to its unique history while providing new opportunities for people to interact with the water.

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3 Existing Conditions

Analyzing the existing conditions of the Ottawa Riverfront in the Core of Canada's Capital was a crucial step in determining what animations could and should be proposed for the study area, by allowing the project team to discover its strengths, as well as challenges or features that could be improved. The following section outlines the environmental conditions and existing amenities within the study area, which were discovered through fieldwork conducted on September 9th, 2022, and through literature.

3.1 Environmental Conditions

3.1.1 Flooding and Erosion

Flooding of the Ottawa River is a natural phenomenon that occurs annually; however, extreme flooding has become more frequent within recent years. Flooding is thus a safety concern for riverbank users and for flooding's capacity to lead to bank and cliff erosion. The Ottawa River reached its 100-year flood level in both 2017 and 2019, the former event of which led to the NCC spending approximately $6 million in repairs and thus closing some riverfront pathways for several months (Canadian Broadcasting Corporation ("CBC"), 2019). Severe flooding of the Ottawa River and associated soil erosion are likely to increase over time due to the ongoing climate crisis, putting people and property at risk of harm and damage. As such, riverfront animations must be designed to withstand flooding and soil erosion. See Figure 3.1 for example of flooding conditions in 2019. Maps 3.1 and 3.2 illustrate the Ottawa River's floodplain in the Ottawa-Gatineau region.

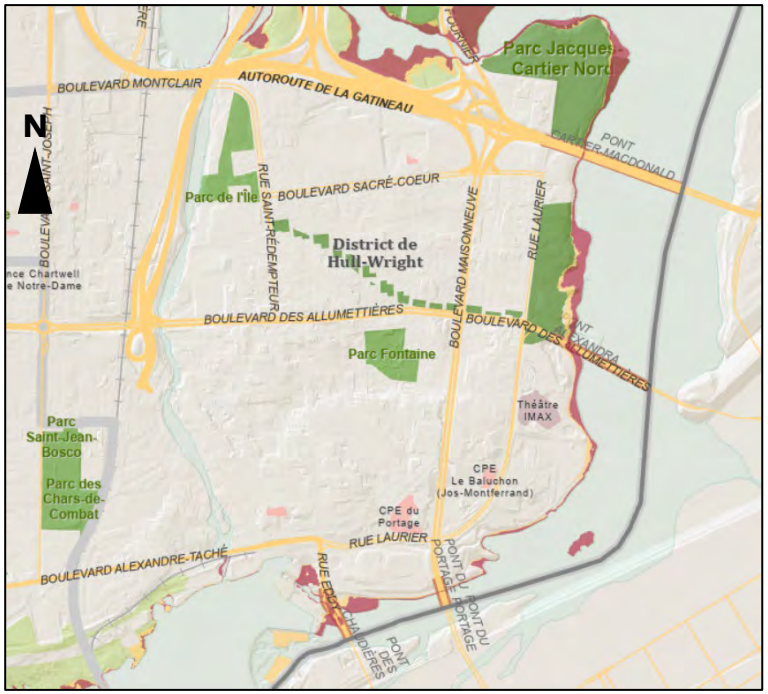
3.1.2 Flora and Fauna

The Ottawa River watershed features numerous species of flora and fauna, both terrestrial and aquatic (Ottawa River Keeper, 2022). Maintaining biodiversity is vital so that local and regional ecosystems remain resilient to change. While the study area likely features only a fraction of all species that have been observed throughout the Ottawa River watershed, it is still important to build and maintain an inventory of flora and



Figure 3.1: *Flooded pathway network behind Parliament Hill. (CBC, 2019).*

fauna to better understand the effects of development on a given area's ecosystem.



Map 3.1: *Map showing the Ottawa River's floodplain (in red) in Gatineau, QC (Ville de Gatineau, n.d.).*

3.1.3 Implications of Existing Environmental Conditions on Riverfront Animation Project

Existing floral and faunal species, the incidents of flooding and soil erosion, and the characteristics of the river's water are all attributes that dictate the types of activities that may occur on the riverbanks or on/in the water itself. Activities and animations must feature a certain degree of resilience to flooding, erosion, and slope failure, while the speed of the river's currents and the variations in water depth dictate the locations of



Map 3.2: *Map showing the Ottawa River's floodplain (blue hash marks) in Ottawa, ON (City of Ottawa, 2022).*

water-based animations and the specific nature of water-based activities.

While this project is not tasked with suggesting land use changes along the riverbanks, sensitive floral and faunal species should be taken into consideration when, for example, setting up/tearing down impermanent infrastructure that facilitates animation. Similarly, invasive

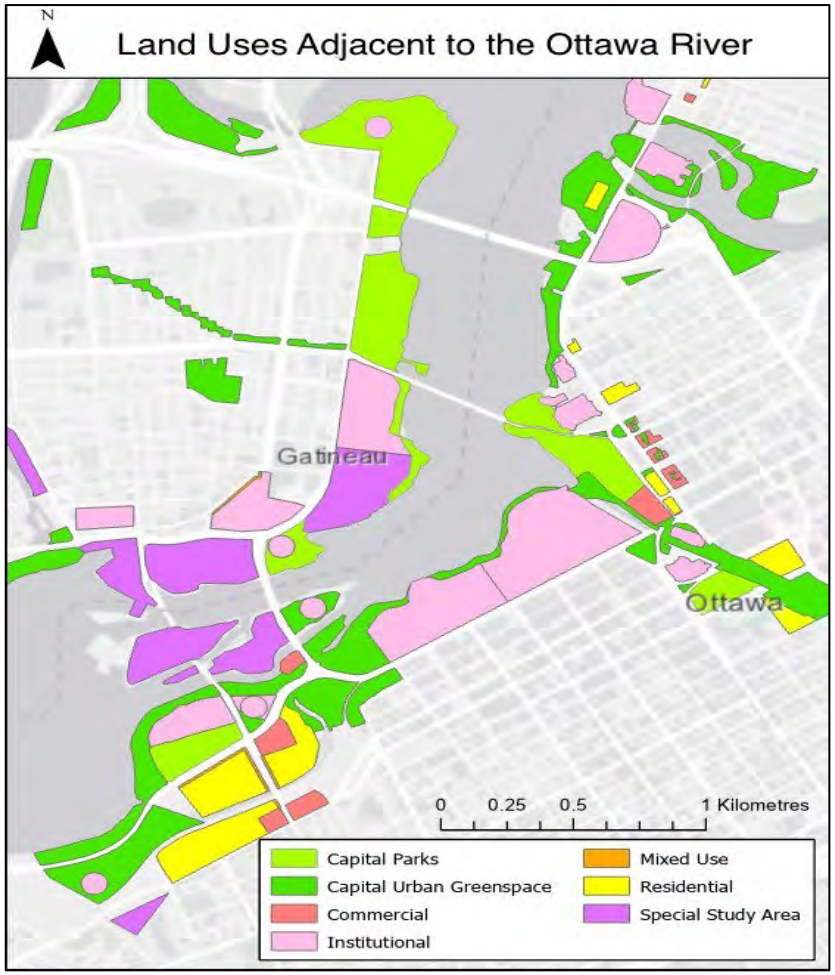
plant species should also be considered, in that they are not actively spread during setting up/tearing down of infrastructure. On the other hand, the presence of any sensitive and/or invasive species provides an opportunity to raise awareness through interpretive plaques along the Ottawa River's banks. Furthermore, natural variations in channel depth and variations in current velocity caused by landforms (such as rapids, falls, and secluded pools alongside the river's edge) need to be taken into consideration when deciding on

3.2 Land Use

Several types of land use exist along the Ottawa River's banks within the study area. These include capital parks; capital urban green space; and institutional (i.e. parliamentary and judicial) precincts (Map 3.3). It is important to take into consideration the types of land use adjacent to the Ottawa River when developing and deciding upon animation recommendations, so that animations can be supported by adjacent land uses. For example, riverfront eateries could very well draw people year-round if positioned adjacent to office buildings.

3.2.1 Implications of Adjacent Land Uses On Riverfront Animation Project

Land use types adjacent to the Ottawa River do not have a substantial influence over the types of riverfront animation that may occur nearby, but efforts to ensure riverfront animations and adjacent land uses are complementary can lead to a more seamless landscape.



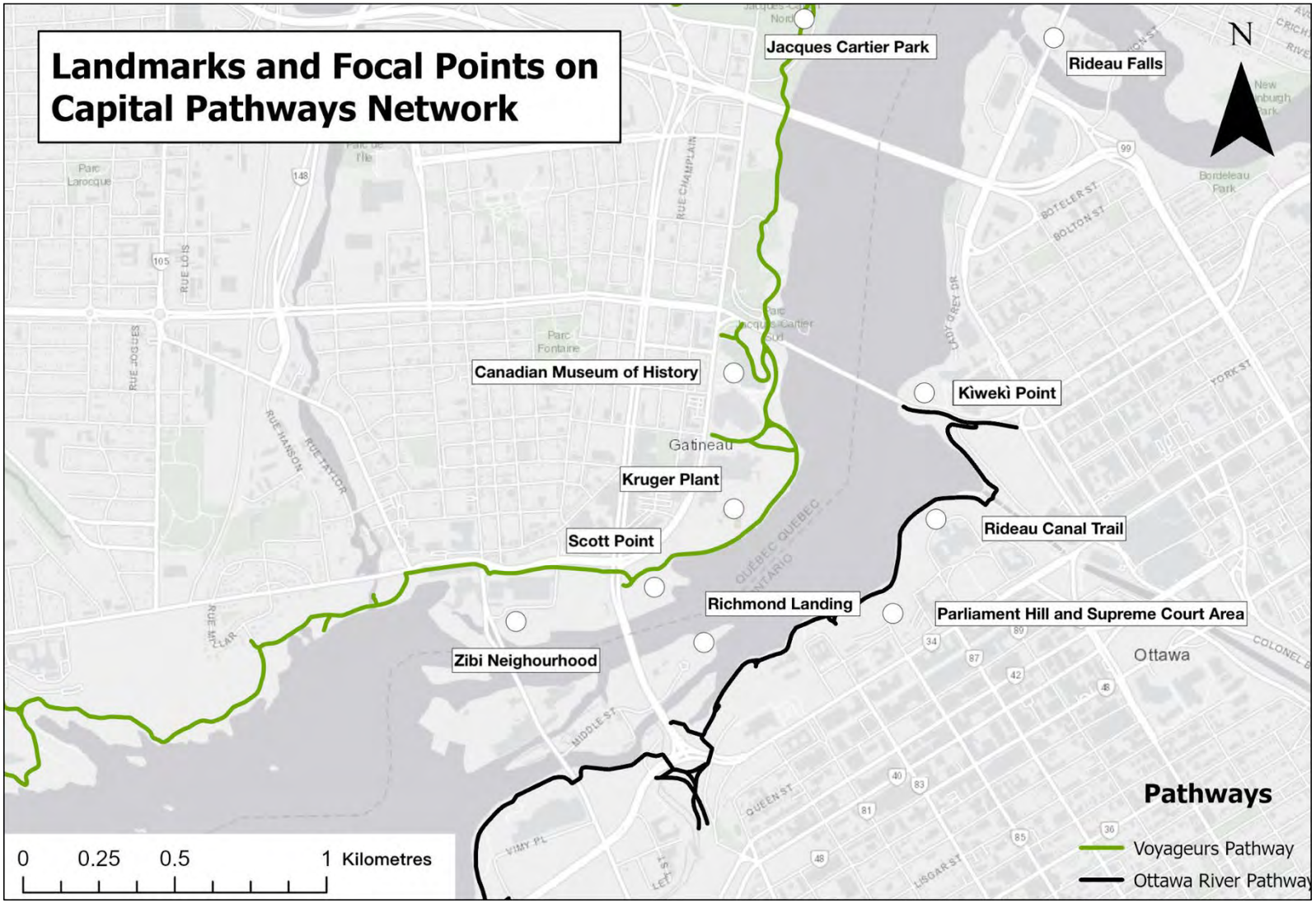
Map 3.3: *A map of the land uses in the Ottawa River Study Area. Each land use has a dedicated color. Map data provided by the NCC.*

3.3 Landmarks and Focal Points Along the Ottawa River's North and South Shores

The south shore of the Ottawa River along Confederation Boulevard has many sites and symbols of national significance, parks, heritage sites, and monuments. This section will detail these landmarks, presented from east to west along the pathway (Table 3.1). Each of these landmarks and focal points will be presented by its animations and connection to the overall path. See Figure 3.3 for locations of north and south shore landmarks in the National Capital Region's core area.

Table 3.1: *Overview of key landmarks along Ottawa River's north and south shores.*

North Shore		South Shore	
Area	**Notable Features**	**Area**	**Notable Features**
Jacques-Cartier Park & Area	Site of Canada Day and Winterlude celebrations; features a large open space; Trans Canada Trail; Voyageurs Pathway	*Rideau Falls Park & Green Island*	Scenic and historically-significant waterfalls; tourist attraction
Canadian Museum of History	Voyageurs Pathway close to riverbank; vistas of downtown Ottawa and Parliament Hill	*Kiweki Point*	Vistas of the Ottawa River and of downtown Gatineau; steep cliff at river's edge
Area around Kruger, Inc. Plant	Voyageurs Pathway close to riverbank; vistas of downtown Ottawa and Parliament Hill; industrial site reduces public access to riverfront	*Rideau Canal Trail*	UNESCO World Heritage Site adjacent to Parliament Hill; location of tour boat docks; tourist attraction
Scott Point & Portage Park	Poor public access to riverfront; vistas of downtown Ottawa and Parliament Hill	*Parliament Hill & Area*	Historicall-significant site; panoramic views of Ottawa River and downtown Gatineau; tourist attraction
Zibi Neighbourhood	Site currently under development to create a mixed-use neighbourhood	*Richmond Landing*	Vistas of the Ottawa River and of downtown Gatineau



Map 3.4: *Landmarks, focal points, and main shoreline pathways, in the National Capital Region's core area.*

3.4 Transportation and Mobility

The Ottawa Capital Pathways is an extensive pathway network that includes offroad, multi-use pathways. It is a series of unique discovery routes passing through the city centre, the suburbs, the countryside, and wooded areas. It offers a safe and fun way to spend time outdoors, and a safe route for commuting (National Capital Commission, 2020). See Map 3.4 for the locations of the Ottawa River's two main shoreline pathways.

3.4.1 Ottawa River's North Shore – Voyageurs Pathway

On the north shore of the study area, the Voyageurs Pathway is a route that follows the northern shoreline of the Ottawa River, between Aylmer and Pointe-Gatineau. The pathway passes through various riparian landscapes, offering views and access to rapids, public beaches, parks, and public spaces. The pathway offers some of the most dramatic views of Parliament Hill and the escarpment (National Capital Commission, 2020).

3.4.2 Ottawa River's South Shore – Ottawa River Pathway

On the Ottawa south shore of the study area, the Ottawa River Pathway is a route that follows the south shoreline of the Ottawa River, from Andrew Haydon Park at Holly Acres Road to the outflow of Green's Creek at the Sir George-Étienne Cartier Parkway. This pathway, one of the longest in the pathway network, offers people an experience of the Ottawa River shoreline. The total length of the pathway is nine kilometres, with a portion passing through the Capital Core Area below the Parliament Hill escarpment (National Capital Commission, 2020).



Figure 3.2: *The Voyageurs Pathway on the north shore.*

3.5 Summary

The existing conditions analysis revealed that animations are dispersed throughout the study area, with transportation networks and various landmarks being observed. Before improving these animations and implementing others, the NCC must consider the current physical and urban landscape, such as environmental conditions and land use, to understand their influence on future programming and animation design.

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4 Plan & Policy Analysis

The study area is governed by municipal, provincial and national plans that outline the desired future of the Ottawa Riverfront and surrounding areas. The project team analysed 20 of these plans to identify an overarching vision for the study area, an essential step in producing a project-specific vision, goals and objectives.

4.1 The *Plan for the National Capital* (1950)

The 1950 *Plan for the National Capital* represents a significant turning point for Ottawa and Hull. Prepared by French architect Jacques Gréber, the plan guides the transformation of the area from an industrial town into a modern and attractive capital city (Gréber, 1950; Gordon, 2001). The plan, largely done to Gréber's Beaux Arts and City Beautiful style, has been partially implemented, yet it continues to play an indispensable role in shaping the capital more than 70 years after its publication.

The 1950 *Plan for the National Capital* is one of the most comprehensive plans that has been prepared for the national capital to date. Despite partial implementation, the plan's effect can be seen throughout Ottawa, and it still contains sound recommendations for the planners of today. For example, Gréber gives direction on what animations are best suited for the riverfront. Furthermore, the plan honours the history of the Ottawa River by telling its story from the perspectives of the Indigenous Peoples who portaged the river and of early settlers' logging rafts. (Gordon, 2001)

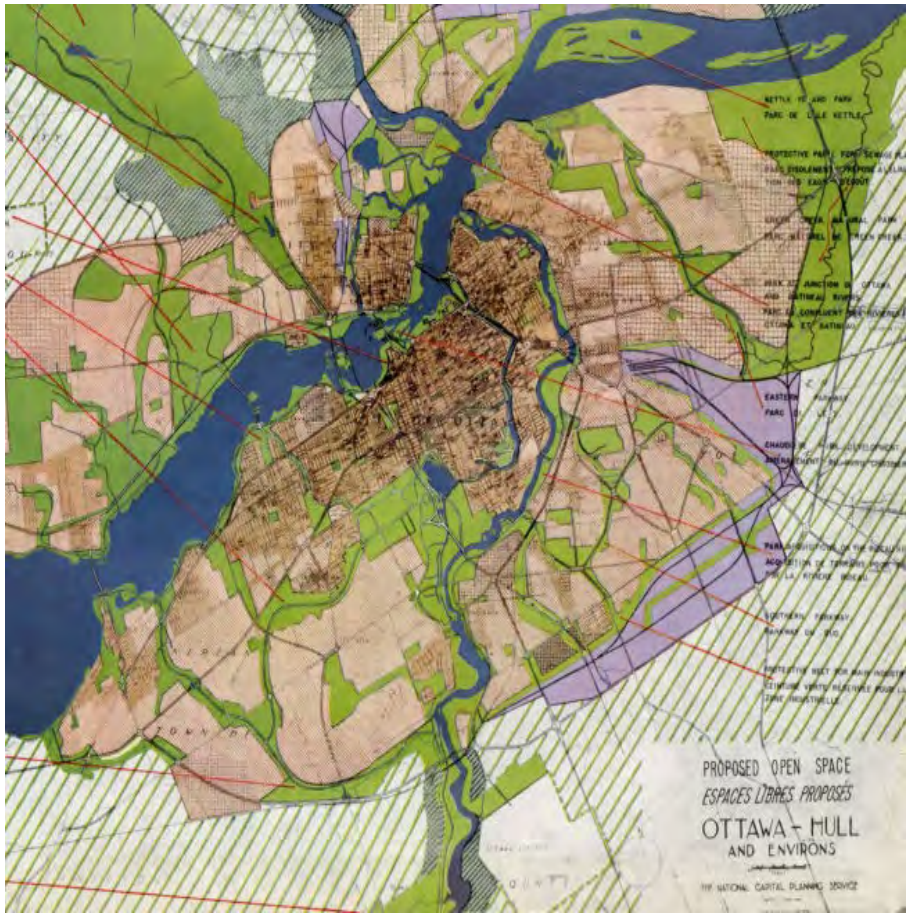


Figure 4.1: *Proposed Open Spaces Plan for the Ottawa- Hull region which creates continuous greenspaces along all the Ottawa River in the core area. (Greber, 1950).*

4.2 The National Capital Commission's (NCC) *Plan for Canada's Capital, 2017-2067*

The *Plan for Canada's Capital, 2017-2067* outlines the NCC's plan for the National Capital Region as Canada approaches its bicentennial year in 2067. The plan is rooted in nation-wide civic discussion, allowing Canadians of all backgrounds and experiences to lend their opinion on the direction of the National Capital Region.

The *Plan for Canada's Capital, 2017-2067* is a high-level document that approaches planning issues in broad terms. The plan contains key policy directions that call for greater public access to the Ottawa River along with increased animation of the river itself through water-based activities. Yet, the plan does not go into detail regarding these policy directions.

The plan is rich in broad themes that can be applied directly to riverfront animation projects. For example, two of the *Plan*'s overarching themes serve as guideposts to which riverfront animation recommendations should adhere. The *Plan* also mentions the NCC's plans to enhance and/or create riverfront parks, for example in Jacques-Cartier Park and overlooking the Chaudière Falls; however, the *Plan* does not discuss these ideas in detail (NCC, 2017).

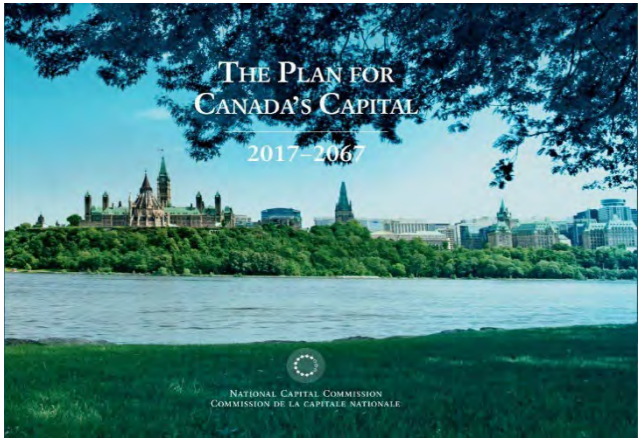


Figure 4.2: *Plan for Canada's Capital cover page (NCC, 2017)*

4.3 The City of Ottawa's *Official Plan* (2021)

The City of Ottawa's *Official Plan* (OP) provides a vision for future growth of the city and outlines policies to guide the development of the city until 2046. It sets forth a policy framework for managing growth and recognizes the City's importance as the National Capital. It projects that in the next 25 years, Ottawa's population will surpass 1.4 million, while the Ottawa-Gatineau region's population is expected to exceed 2 million.

Ottawa's OP features goals that revolve around making Ottawa the most liveable mid-sized city in North America by focusing on its neighbourhoods and cultural communities; parks and green spaces; a diverse economy; and educational and health systems. The OP also emphasizes adapting to climate change by finding novel approaches (health, environmental, or economic) to ensuring the city's resilience. It also emphasises

supporting local economic development by harnessing rapid technological change; improving quality of life; and supporting urban and rural neighbourhoods as healthy, inclusive, and vibrant places.

The OP provides a set of principles that guide intensification, urban design, development, sustainability, and designations for activities. Thus, the OP plays a crucial role in regulating activities, and in influencing waterfront animation and development in proximity to the Ottawa River (City of Ottawa, 2022).

4.4 Ville de Gatineau's *Plan d'urbanisme 530-2020* (2020)

The *Plan d'urbanisme 530-2020* is a planning mechanism that applies to the entirety of the Ville de Gatineau. The document provides guidelines for the spatial and physical organization of the city by presenting an overarching vision for the municipality. The plan discusses opportunities and limitations for development, preservation, and protection, while providing planning intentions for its various neighbourhoods. The *Plan d'urbanisme* puts additional focus on the city's vision for their downtown core through a site-specific plan (Ville de Gatineau, 2020).

4.5 Rideau Valley Conservation Authority's (RVCA) *Strategic Plan, 2020*

The RVCA's *Strategic Plan, 2020* strives to protect the Rideau River watershed, which covers a geographic area that contains the National Capital Region and features a diverse suite of biomes. According to Ontario's *Conservation Authorities Act*, conservation authorities are responsible for furthering the conservation, restoration, development, and management of natural resources within a given conservation authority's watershed. Conservation authorities are also responsible for protecting people and property from natural hazards, such as flooding and soil erosion (Rideau Valley Conservation Authority, 2020).

4.6 Plan & Policy Analysis Summary

The plans we have reviewed reaffirm the importance of the Ottawa River to the cities of Ottawa and Gatineau by outlining the historical importance of the river itself to the development of the National Capital Region. The vision for the city going forward were identified and detailed in the Official Plans for both Ottawa and Gatineau. The plans also outline precedents for waterfront animations taking inspiration from previous plans such as the Ottawa River North and South shore plans. Furthermore, environmental considerations were also identified and incorporated into the proposed designs from the RVCA's strategic plan and the Capital Pathway Strategic Plan.

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5 Stakeholder Analysis

5.1 Overview

The scale associated with animating the Ottawa River and the number of stakeholders involved make it important to undertake a stakeholder analysis. The project team, under the guidance of Dr. David Gordon, attended a stakeholders meeting held on September 9, 2022, at the National Capital Commission (NCC) Office in Ottawa. This meeting included representatives from multiple departments at local, provincial, and federal levels. A table of agencies that were consulted for the project is provided below.

Table 5.1: *Lists of agencies consulted and not consulted for the purposes of stakeholder analysis.*

Consulted	Not consulted
• Municipal Planning Departments • NCC • Municipal City Councils (Ottawa & Gatineau) • Parks Canada • RVCA • Ottawa Riverkeeper • Ottawa Police • PSPC	• Federal Government • Provincial Governments • Ottawa River Regulation Planning Board • Hydro Ottawa • Organized Community Groups • Business Interests • Indigenous Groups

If time were not a constraint, stakeholders who were not contacted would have been contacted to attend another stakeholder meeting such that interviews could occur in person. In-person interviews would allow for faster responses and the opportunity to utilize follow-up questions to gather further details about topics.

Once the stakeholder meeting had concluded, the project team interviewed representatives from the stakeholder agencies to gather more information regarding the project site, the stakeholders' interests, and how to best incorporate their needs and interests into the riverfront animation project. Appendix C2 provides an example of the interview questions that were posed to interviewees. The information gathered from the interviews also helped to inform the SWOC analysis that was undertaken by the project team.

5.2 Summary of Stakeholder Meeting

Results from stakeholder interviews were used to identify key points for the SWOC analysis while providing leads on examples of animated waterfronts. This information was further used to identify each stakeholder's influence on the riverfront animation project and their desired outcomes. Due to the constraints of the project, Indigenous Peoples were not consulted but the NCC's Indigenous People's engagement division was consulted to devise tactics for meeting the needs of Indigenous Peoples. The needs of the Indigenous groups are considered in this analysis through recognition of unceded land and the right to self-governance regarding lands on the Ottawa Riverfront.

5.3 Implications

Below is a chart listing the overview of the findings from the stakeholder interviews conducted on September 9, 2022, which can be found in Table 5.2.

The stakeholder interviews provided the project team with an opportunity to engage with agencies that have a vested interest in the Ottawa River. The interviews provided a better understanding of the issues posed and opportunities created by the riverfront. The findings of the stakeholder interviews also helped inform the overall vision for the project and aided in identifying key strategies for recommending riverfront animations.

Table 5.2: *Summary of responses provided by agencies during the stakeholder interview process. This list has been generalized from the array of responses provided to the project team.*

Summary of Stakeholder Interview Responses
• Animating the waterfront such that it provides a range of activities • The preservation and showcasing of picturesque views of natural landscapes and vistas of Parliament Hill • Multi-use pathways with separation of cyclist commuting and leisure cycling • Preservation of historic and natural elements • Keen interest in a high return on investment • Facilitation of water activities, accessible to *all* people. For example, canoe rental; SUP (Stand Up Paddle) rental; canoe/portage tours • Seasonal "passive" animations. For example, pop-up beer gardens; pop-up fire pits; art exhibits; etc. • Emphasis on sustainability and establishing infrastructure in harmony with nature and natural weather cycles. For example, alternative flood routes during the flooding season; designing infrastructure to be flood-resilient • Creation of connections and access points to the Ottawa Riverfront • Exclude cars from the riverfront for both the safety and security of walkers and rollers • Reintroduce naturalized vegetation into the area where possible • Implement safety standards in areas with water animations to prevent water-related accidents • Provide people with designated areas to cool off as this prevents dangerous informal water access • Provision of free life jacket loaning programs should be in every area where people are directly going in the water • Provision of more watercraft launching points, watercraft rentals, and active transit along the river pathway

5.3.1 Stakeholder Analysis Chart

The stakeholders were analyzed using the Stakeholder Analysis Matrix Chart (see Appendix D.1), a tool that analyzes the relative power and influences each stakeholder has on the project. The stakeholders were analyzed by their standing within the project and the influence they have on other stakeholders. The findings were then arranged into an Influence–Involvement/Interest Matrix (see Figure 5.1) that outlines the correct management strategy for each stakeholder (Smith, 2000; Pichler, 2015).

5.3.2 Strategies for the Influence-Interest Matrix

- To engage, consult and manage actively in partnership
    - Work with them through all stages of the project and do not proceed if they are unwilling to give support.
- To understand and satisfy their needs (i.e., keep satisfied)
    - Do not concern them with finer details but ensure that the result meets their expectations.
- To consider and keep informed
    - Routinely consult the stakeholders and ensure that they have the space to provide input for the project.
- To monitor and inform occasionally
    - Monitor their actions to observe the results of the project and make changes based on findings.

Sources: (Hoory & Bottorff, 2022), (Mendelow, 2006), (Pichler, 2015), (Smith, 2000).

5.3.3 Influence – Involvement / Interest Matrix

Figure 5.1: *Matrix summarizing the findings of the Stakeholder Analysis Matrix Chart. A detailed explanation of each stakeholder can be found in Appendix D.1.*

		Degree of Involvement: Low	Degree of Involvement: High
Extent of Influence: Low		**Monitor** • Organized community groups • B2C Companies • B2B Companies	**Keep Informed & Consider** • Local Residents • Ottawa Riverkeeper • OPS - Ottawa Drowning Prevention Coalition
Extent of Influence: High		**Understand & Keep Satisfied** • Provincial Governments • Federal Government • Parks Canada • Hydro Ottawa • ORRPB • PSPC	**Engage, Consult, & Partner** • Municipal Planning Departments • NCC • Municipal City Councils • RVCA

5.4 Design Charette

On October 18, 2022, the project team conducted a design charrette at the NCC's Urbanism Lab in Ottawa. The purpose of the charrette was to present the history and existing conditions of the study area; provide examples of precedents and design characteristics; as well as incorporate input from stakeholders and professionals. The charrette built upon the results of a stakeholder workshop hosted by the NCC on September 9, 2022. The objectives of the charrette were to:

- Provide participants with background and analysis to inform their vision and design for the Ottawa Riverfront;
- Review parkway precedents to draw upon best practices in terms of waterfront animations, shoreline design, and recreational amenities; and
- Provide participants with an opportunity to participate in exercises where design ideas and a vision for the riverfront could be generated.

During the design charette exercise, the participants identified a wide range of ideas and visions for specific areas of the riverfront along with overall design concepts. At the end of this exercise, one participant from each table presented their group's designs along with summarizing the discussion and ideas of their group. Overall, these short presentations revealed shared animation ideas and design visions for the Ottawa River within the study area. The findings from the



Figure 5.2: *NCC CEO Tobi Nussbaum speaking after the final design charette presentations at the NCC's Urbanism Lab on Oct. 18, 2022.*



Figure 5.3: *Participants in groups for the design and visioning exercise at the NCC's Urbanism Lab on Oct. 18, 2022.*



Figure 5.4: *Graydon Simpson conducts a presentation on the SWOC analysis of the Ottawa Riverfront.*

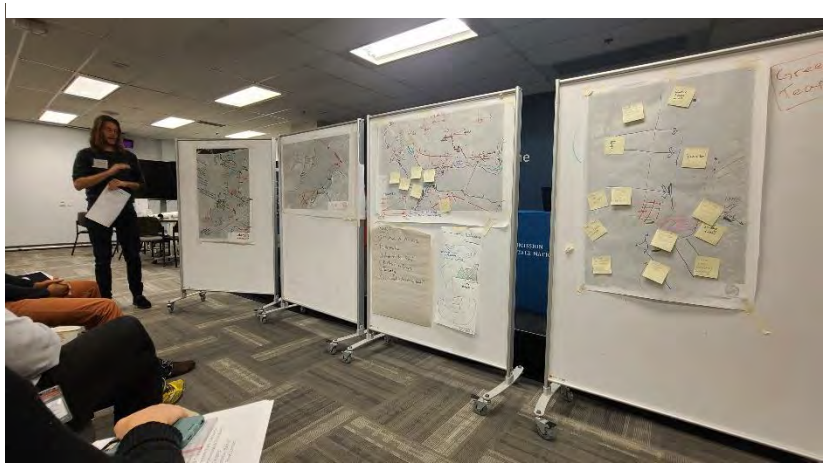


Figure 5.5: *A participant explains their group's ideas for the Ottawa Riverfront.*

charrette were used by the project team to inform the final character areas, design concepts, animation ideas, and recommendations. The charrette served as an opportunity to gather invaluable input from the workshop participants. See Appendix D.2-7 for more details about the charrette and charrette findings.

5.5 Summary

The stakeholder analysis revealed that the interested parties support the animation of the Ottawa Riverfront and are willing to cooperate to yield positive results. The key players identified in the report are the NCC, the Municipal Planning Departments and City Councils, as well as the Rideau Valley Conservation Authority who have all expressed interest in cooperating to animate the riverfront. The stakeholders desire a mixed-use waterfront built for pedestrians and cyclists that encourage water-based activities while keeping the preservation of Ottawa's and Gatineau's natural and built heritages alive. The findings are utilized to devise ideas for animating the waterfront later in this report.

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6 Precedents & Best Practices

6.1 Overview of Criteria

To determine the key waterfront cities around the world that provide examples of best practices for waterfront planning and animation, the project team first identified 44 waterfronts from around the world. This list was obtained through interviews with key stakeholders, through project team meetings, and with guidance from the Project Coordinator, Dr. David Gordon, by asking: "what are your favourite waterfronts?".

The project team then created a list of criteria used to evaluate waterfronts, based on the NCC's needs and the project's scope. The evaluation criteria comprise 11 distinct categories:

- Waterfront classification
- Capital city
- Tourist destination
- Winter programming
- Viewpoints
- Active transportation
- Former industrial lands
- Flood prevention and mitigation
- Naturalized landscape
- Mixed-use - recreational and commercial
- Heritage and history

The evaluation matrix as seen in Table B.1, Appendix B illustrates the significance of each criterion to the project, along with how each criterion will be scored, which ranges from 0-2 points for each criterion. Generally, a score of 2 is the highest score and indicates that that waterfront exceeds expectations in each category; a score of 1 meets some of the requirements, but improvement in the given category is possible; and a score of 0 indicates that the given waterfront did not meet expectations in the given category. Once each waterfront precedent was evaluated, the 20 highest scoring waterfronts were researched further to identify their history and context, and the best practices applied to the waterfronts (see Table 6.1). Scrutinizing these 20 waterfronts further informed the project team's decision-making around animation design. The final evaluations of all 44 waterfronts can be seen in Table B.2, Appendix B.



Figure 6.1: *Ville de Québec Dufferin Terrace sledding which utilizes the change in topography and provides year-round animation.*

Table 6.1: *The top 20 scoring waterfront evaluated are presented in Appendix B.*

1. The Forks, *Winnipeg, MB, Canada*	**11. Samuel De Champlain Promenade,** *Ville de Québec, QC, Canada*
2. Vieux Port de Québec, *Ville de Québec, QC, Canada*	**12. Touch The Water Promenade,** *Edmonton, AB, Canada*
3. Dufferin Terrace, *Ville de Québec, QC, Canada*	**13. Market Square,** *Helsinki, Finland*
4. Vieux Port de Montréal, *Montréal, QC, Canada*	**14. Aker Brygge & Oslo Harbor Promenade,** *Oslo, Norway*
5. Danube Promenade, *Budapest, Hungary*	**15. Marina Bay,** *Singapore*
6. West Harbour, *Hamilton, ON, Canada*	**16. Harbourfront,** *Toronto, ON, Canada*
7. St Charles Linear Park, *Ville de Québec, QC, Canada*	**17. Granville Island,** *Vancouver, BC, Canada*
8. 100 St Funicular & Frederick G. Todd Lookout, Edmonton, AB, Canada	**18. Waterfront Nyhavn,** *Copenhagen, Denmark*
9. Spree River Waterfront Promenade, *Berlin, Germany*	**19. Damrack Waterfront,** *Amsterdam, Netherlands*
10. Seine River Waterfront Promenade, *Paris, France*	**20. The Wharf,** *Washington, DC, USA*

6.2 Best Practices

An in-depth analysis and evaluation of each waterfront precedent revealed eight key best practices in relation to waterfront animations:

- Animations that function year-round
- Multi-use spaces
- Socially inclusive spaces that welcome everyone
- Family-friendly spaces
- Showcasing of arts and history
- Placemaking elements
- Aspects that increase the region's sustainability
- Animations that stem from public-private partnerships

These eight best practices inform animation design, further recommendations, and the proposed animations catalogue for the Ottawa Riverfront.

These best practices were chosen because they embody the guiding principles of the *NCC Core Area Plan for Canada's Capital, 2075*. Additionally, these best practices embody the key points highlighted in stakeholder interviews, the design charette, and client meetings.

7 SWOC Analysis

After determining the existing conditions of the Ottawa River, analyzing relevant plans and policies, conducting stakeholder interviews, and determining the best practices of riverfront animations based on precedent research, the project team completed a SWOC (strengths, weaknesses, opportunities, challenges) analysis. The SWOC analysis was used throughout the duration of the project to guide the development of animation proposals for the study area. The SWOC analysis is summarized below and examined in greater detail in the proceeding section.

Table 7.1: *SWOC analysis.*

	STRENGTHS	WEAKNESSES
INTERNAL	• Scenic views and natural beauty. • Established pathway network. • Historic riverfront with heritage value. • Established tourist destination. • Naturalized landscape with unique biodiversity. • A large publicly owned waterfront.	• River is fragmented by Chaudière Dam. • Insufficient access to the riverfront. • Limited connection between north and south shores. • Lack of public amenities surrounding riverfront. • Indigenous identity has been erased. • Varied topography and lack of uniformity. • Incompatible industrial uses. • Limited canopy and shelter from the elements.
	OPPORTUNITIES	CHALLENGES
EXTERNAL	• Animation that fosters dialogue across the river. • Improving infrastructure and access to water-based uses and activities. • Facilitate sustainable revenue generation. • Central location contributes to making the river a destination within the region.	• Multiple stakeholders, unclear jurisdiction, and lack of communication and coordination. • Negative public perceptions towards the river. • Fast-paced river and riverfront. • Provincial boundary between Ontario and Québec. • Seasonal flooding and ongoing climate crisis.

7.1 Strengths



Scenic Views & Natural Beauty

The winding river, the steep changes in elevation, and the naturalized landscape create views of the National Capital Region that are world-renowned.



Established Pathway Network

The established pathway network provides access to the river's edge and allows for travel parallel to the riverfront.



Navigable River

The portion of the Ottawa River in the study area can be navigated by motorized and non-motorized watercraft alike.



Historic Riverfront with Heritage Value

The Ottawa River is significant to the heritage and culture of the region's Indigenous Peoples, while the river also played a vital role in the development of the National Capital Region via the logging industry.



Established Tourist Destination

Being a national capital region, Ottawa-Gatineau enjoys an established tourism industry that brings potential users to the Ottawa River.



Naturalized Landscape

The Ottawa River's verdant shores host a variety of flora and fauna species. Natural variations in topography and naturalized landscapes meet the gothic parliamentary buildings to create a world-renowned view of the nation's capital.



Largely Publicly Owned Riverfront

Having one public owner (the NCC) of most of the riverfront lands minimizes issues with connectivity between parcels of land along the river.

7.2 Weaknesses



River Fragmented by Chaudière Dam

The Ottawa River is fragmented in the southwest section of the study area due to the presence of the Chaudière Dam, which was expanded in 1908 to operate the hydroelectric generating capacity of the Chaudière Falls.



Insufficient Access to Riverfront

The Ottawa River currently features few formal access points to its shores. People have created informal access points due to few existing formal access points, in turn, raising concern over safety and potential

negative effects on the environment and local ecosystem.



Limited Connection Between North and South Shores

Within the study area, there are few existing water-based connections between the north and south shores of the Ottawa River. Due to the narrow range of uses and activities occurring on the river, people would require means of transportation, in addition to the existing aqua-taxi service, to move between the City of Ottawa and the Ville de Gatineau.



Lack of Public Amenities

The lack of public amenities, such as public washrooms, limits the functionality of the Ottawa River from the perspective of riverfront animation. It compels users of the riverfront to pass by rather than linger at points along the riverfront, thus diminishing the desire to return to these points.



Incompatible Industrial Uses

Incompatible industrial uses are located along the riverfront. For example, a manufacturing plant of Kruger Inc., a manufacturer of tissue paper products, is located on the north shore of the Ottawa River. Kruger Inc. has recently renewed its lease of the land until 2053 (P&PC Staff, 2019). The location of this manufacturing plant is opposite Parliament Hill.



Limited Shelter from the Elements

The limited tree canopy along the riverfront may prevent people from lingering along the river, even though there are also a few other features, either naturally occurring or human-made, that provide shade.



Varied Topography

Geomorphological variation, in terms of river channel depth and steepness and height of shoreline cliffs, dictates where certain types of animation may occur.

7.3 Opportunities



Animation that Fosters Dialogue Across the River

Currently, few connections between Ottawa and Gatineau result in a perceived dialogue between the two cities. This presents an opportunity to create animations that better connect the two cities, in turn fostering dialogue.



Improving Infrastructure and Access to Water-Based Uses and Activities

The Ottawa River shoreline presents several opportunities for animation thanks to its central location within the National Capital Region. The existing infrastructure surrounding the river can be improved with the addition of new animation points focused on waterfront activities that allow users to take full advantage of the river.



Facilitate Sustainable Revenue-Generation

The river's natural features can provide better opportunities for revenue generation. Sustainable commercial uses along the riverfront that encourage usage of the riverfront and the river's water will increase tax revenue and expand the region's tourism industry.



Central Location Makes the River a Destination

The Ottawa River's central location within the National Capital Region provides opportunities to further develop and animate the river as a feature that draws people to the Core Area.

7.4 Challenges



Multiple Stakeholders, Unclear Jurisdiction, and Lack of Communication and Coordination

The presence of multiple stakeholders in the National Capital Region's core area may hamper the implementation and acceptance of riverfront animation project recommendations. Overlapping jurisdictional boundaries and stakeholders' conflicting goals will require thoughtful animation recommendations.



Negative Public Perceptions Towards the River

As with the presence of multiple stakeholders in the study area, negative public perception towards the Ottawa River may impede the acceptance of recommended riverfront animation projects. Public opinion of the river's waters being unclean and dangerous may result in some hesitation to embrace recommended animation projects.



Fast-Paced River and Riverfront

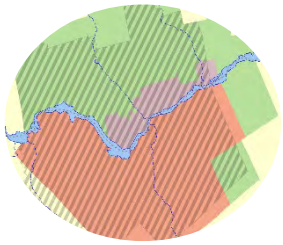
The Ottawa River's swift currents along with the high-speed activities that are currently

popular along the shorelines (such as cycling and jogging) mean that the river and its shorelines are not necessarily perceived as spaces used for lingering and low-speed, leisurely pursuits. "Low-speed" animation projects may thus require time to be accepted by locals who currently use the space for high-speed activities.



Seasonal Flooding and Ongoing Climate Crisis

The climate crisis, while an anthropogenic phenomenon, affects naturally occurring processes that in turn affect people and infrastructure. For example, an increased frequency of high-volume rainfall events can lead to increased flooding of the Ottawa River. As such, recommended riverfront animations should be resilient to foreseeable climate crisis-related phenomena.

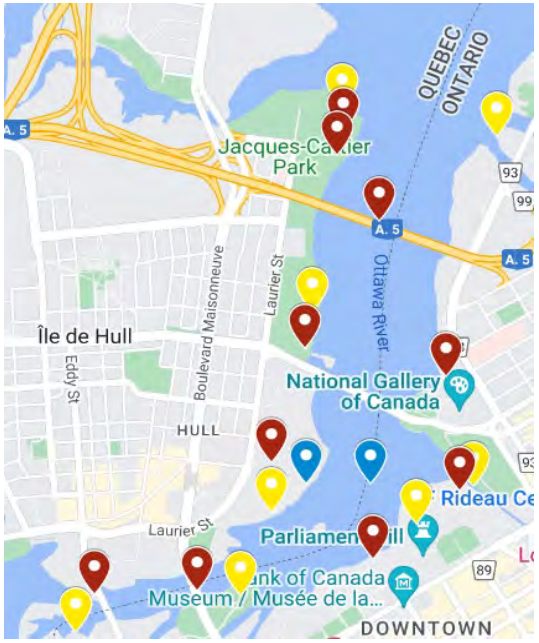


Provincial Boundary

The Ottawa River serves as a provincial boundary between the provinces of Ontario (to the south) and Québec (to the north). This can pose a challenge as the provinces have different laws, regulations, languages, etc.

7.5 Summary

The results of the SWOC informed the proposed animations by identifying strengths that could be reflected and weaknesses that could be addressed through the animations, as well as highlighting opportunities and challenges to consider throughout the project. The SWOC also assisted the project team in reflecting on the heterogeneity of the study area, which prompted the division of the study area into character areas (see Chapter 9).



Map 7.1: *SWOC Map. Perceived strengths (yellow), weaknesses (red) and challenges (blue) across the study area (Made using Google Maps).*

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8 Vision, Goals, Principles & Planning Approach

The analyses presented in the previous chapters of this report informed the discussions that occurred during the project team's visioning exercise. The findings from the existing conditions research, stakeholder analysis, precedent research, and design charrette were synthesized to develop a vision statement, which subsequently guided the creation of goals, principles, and designs for the study area.

The following vision represents the project team's aspirations for the Ottawa River in the Core of Canada's Capital:

"A dynamic riverfront that provides opportunities for all people to create new experiences on historic waters."

8.1 Goals & Objectives

The plan and policy analyses identified various plans that will have a long-term influence on the study area. The project team was particularly inspired by the NCC's *Plan for Canada's Capital, 2017-2067*, as the values described through the plan's goals and objectives will be critical to implementing animations on and along the Ottawa River. Drawing from the three goals identified in the *Plan*, the project team created site-specific objectives to inform the remainder of the project. As the project is implemented, the objectives should be updated to include a measurable element, which will allow the NCC to assess if the objectives are being met.

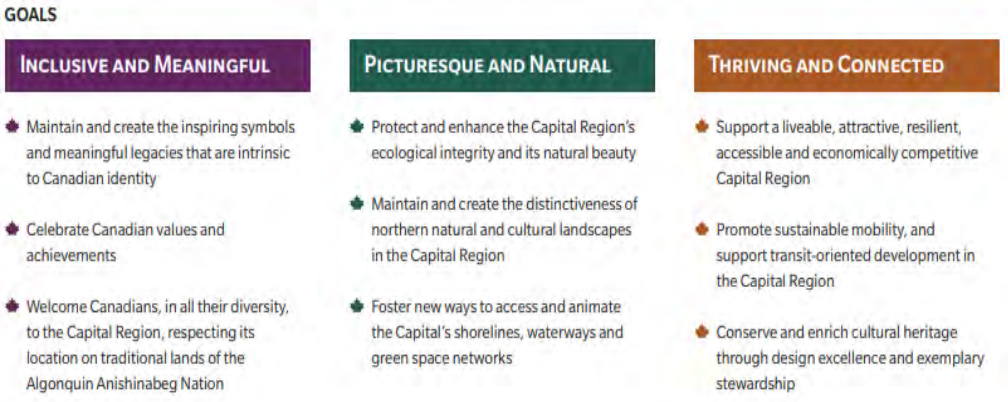


Figure 8.1: *Goals within the Strategic Framework: The Plan for Canada's Capital 2017 – 2067 (NCC, 2017, p. 20).*

Goal 1: Inclusive and meaningful

- Design a riverfront environment that is welcoming to all
- Erect animations that celebrate Canadian values and honour Indigenous heritage
- Foster new experiences on the riverfront through a diverse range of animation types





Goal 2: Picturesque and natural

- Provide additional opportunities to embrace the riverfront's scenic landscape
- Propose animations and designs that will create minimal disruption to natural ecosystems
- Enhance the riverfront's multi-seasonal experiences while being mindful of seasonal challenges, such as flooding





Goal 3: Thriving and connected

- Animate the riverfront to bolster the connection between Ottawa and Gatineau
- Propose a riverfront environment that is accessible to people of all degrees of mobility and all ages
- Design a riverfront that contributes to the National Capital Region's status as an international destination





8.2 Planning Principles

The following planning principles were informed by the best practices identified from the precedent analysis, in addition to the results of the design charette. The planning principles served as a foundation for the proposed animations, animation designs, and general recommendations for the study area.

Table 8.1: *List of planning principles and their statements.*

	Principle	Statement of Principles		Principle	Statement of Principles
	Animation (Guiding Principle)	To animate the Ottawa River in the Core Area of Canada's Capital in a way that speaks to the experiences of all Canadians.		Connectivity & Community	To be a riverfront that is connected to surrounding communities on both sides of the river.
	Inclusivity & Accessibility	Be an inclusive and accessible riverfront for all ages and all abilities.		Sustainability	Be a landmark for environmental, economic, and social sustainability within the National Capital Region.
	Climate Resiliency& Longevity	To be a climate-resilient riverfront that will serve the National Capital Region for decades to come.		History & Heritage	To respect and facilitate reflection on the history and evolution of the National Capital Region.
	Dynamic, Adaptable, & Flexible	Create a dynamic riverfront that is adaptable to challenges and flexible in its use.		Identity	Reflect the unique identity of the National Capital Region through the riverfront.

8.3 Planning Approach

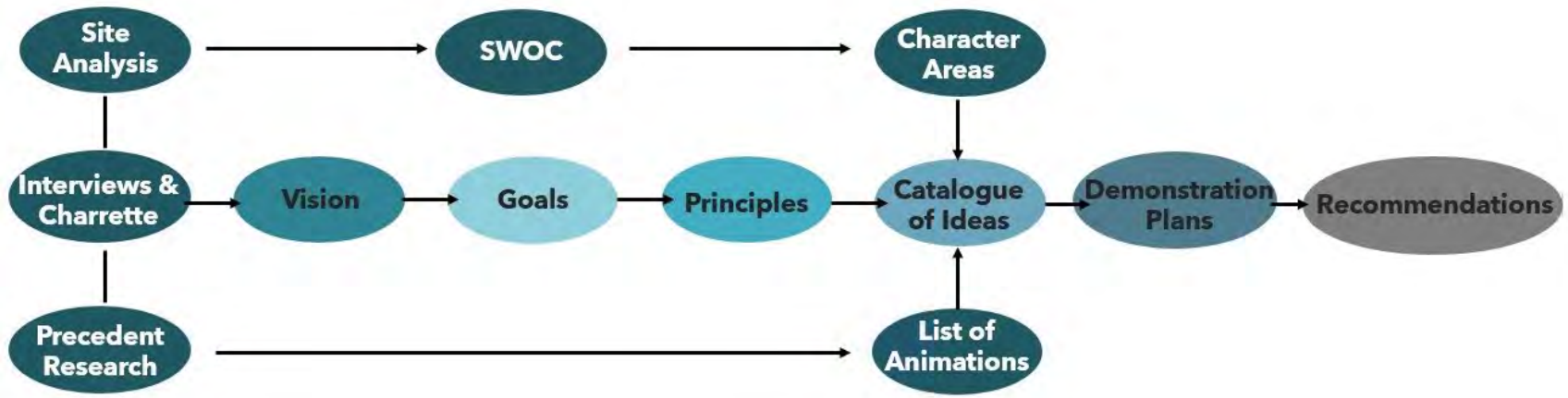


Figure 8.2: *Planning approach diagram.*

The large scope of the project required the project team to develop a comprehensive planning approach. The site analysis, SWOC, precedent research and design charrette assisted the project team in creating our vision, goals, and principles for the project. These, along with the defined character areas and the list of animations created by the project team, informed the catalogue of ideas. The project team then applied the catalogue of ideas to the riverfront and produced demonstration plans and general recommendations for the Ottawa Riverfront in the Core of Canada's Capital.

References

NCC. (2017). Plan for Canada's Capital – 2017-2067. NCC (National Capital Commission).

9 Character Areas

The Project Team's field observations of existing conditions and background research on the river was used to create a set of character areas within the study area. These character areas were formed based on the different environmental conditions in each area, these were primarily topography, surrounding land uses, and the speed of the river. Each character area is unique, thus specific animations will differ based on suitability to environmental conditions. The following forms of analysis have been applied to assess the conditions of each character area: SWOC; Existing Conditions; User Profile; and Existing Animation. In addition, the Project Team used the Project for Public Spaces (PPS) assessment tool to identify the needs and shortcomings of each character area. Overall, the result is a detailed assessment of the current conditions and future potential for animation in each character area.

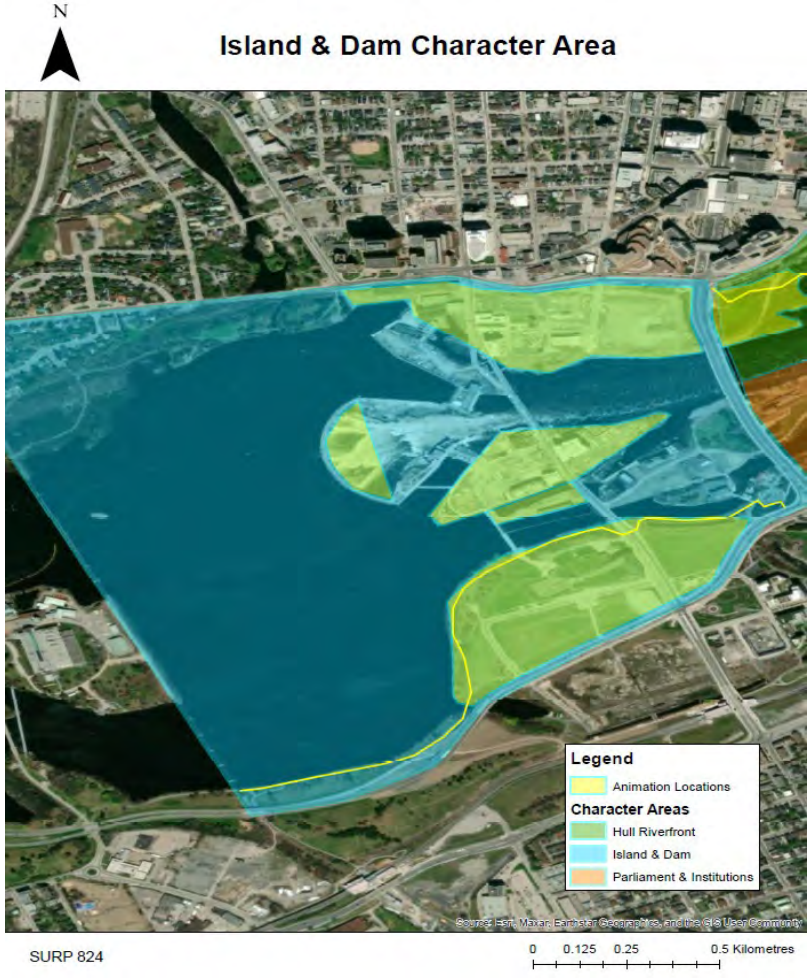


Figure 9.1: *A simplified version of the PPS diagram used to evaluate character areas (PPS, 2020).*



Map 9.1: *A map created in ArcGIS outlining the five-character areas and their respective borders.*

9.1 Islands & Dam



Map 9.2: *Map of the Islands & Dam Character Area.*

Table 9.1: *SWOC Analysis of the Islands & Dam Character Area.*

Strengths	• Significant Indigenous area. • Established pathway network. • Scenic views of Chaudière Falls.
Weaknesses	• Surrounding industrial uses. • River fragmented by dam. • Erasure of Indigenous identity.
Opportunities	• Foster a dialogue across river. • Historical storytelling animation. • Educational and programming animations.
Challenges	• Fastest moving portion of the river. • Variety of landowners.

Project for Public Spaces Assessment

- ***Access and linkages*:** Ottawa Riverfront Pathway along riverfront; accessibility to portions of the pathway is limited.
- ***Comfort and image*:** Benches along pathway; the Chaudière Dam gives the area an industrial feel; scenic views of Parliament looking south.
- ***Uses and activities*:** The Chaudière Dam and fast-moving current inhibits direct water-based animation; new residential development has added new users to the area.
- ***Sociability*:** Little to no spaces designed to facilitate the congregations of people; few existing features encourage lingering in the area.

Table 9.2: *Existing conditions and proposed animations for the Islands & Dam Character Area.*

Topography & Existing Conditions	• Varied topography. • River fragmented by the Chaudière Dam. • Fast river current. • Dramatic seasonal water-level changes. • Area of high development with the creation of Zibi.
User Types	• Pedestrians, runners, cyclists, etc. • Interprovincial commuters. • Residents.
Proposed Animations	• Interactive water animation. • Enhanced seating areas and viewpoints. • Public amenities. • Repair and recharge areas.

The Islands & Dam character area is an area in constant motion. Animations in this area should enhance this movement by directing, engaging, educating, and inspiring those passing through.

Existing Animation within Islands & Dam



Richmond Landing: *Located on the Ottawa River on the eastern side of the Portage Bridge, Richmond Landing hosts the Royal Canadian Navy Monument. It can be reached by foot and boat as it includes a docking facility (NCC, n.d.(a)).*



Interzip Zibi: *The first interprovincial zipline in the world, Interzip Zibi zips riders across the Ottawa River 120 feet above the water at the speed of 40 km/h (Interzip, n.d.).*

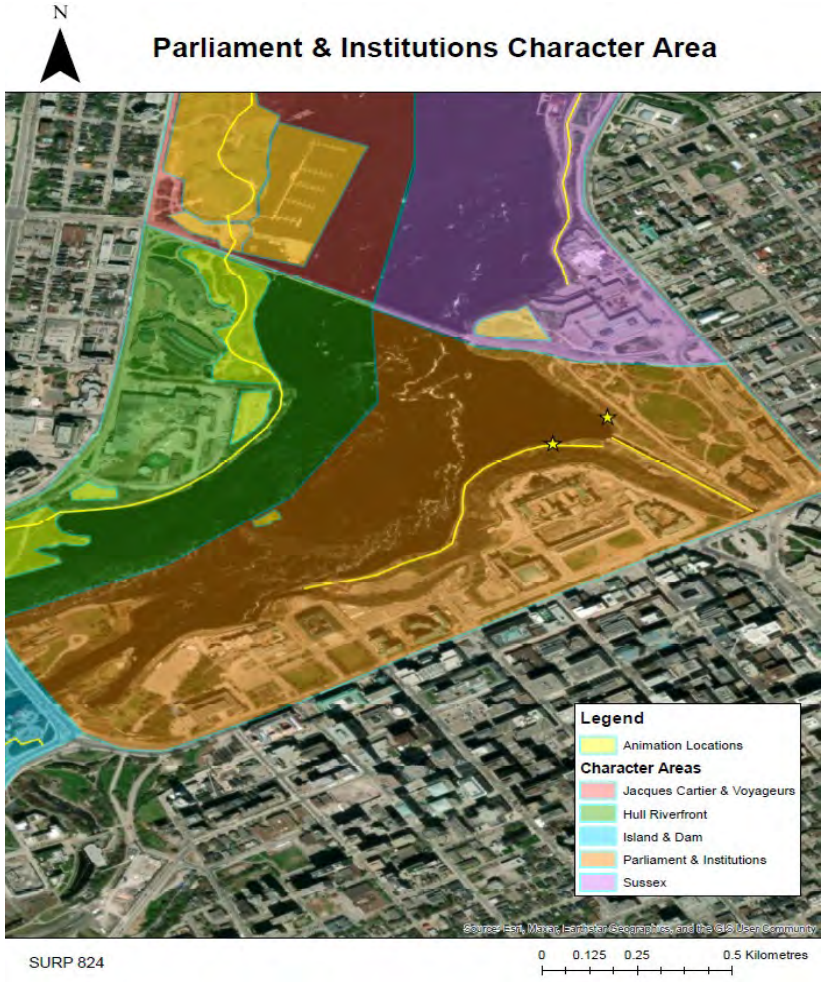


Tesasini Park: *A planned waterfront park located on the north bank of the Ottawa River by the Chaudière Bridge. The park is set to open in spring 2023 (NCC, n.d. (b)).*



Kabenishinân Minitig: *A master plan for what is currently known as Victoria Island will be known as the Kabenishinân Minitig Plan. It will be developed in partnerships with the Algonquin Anishinabeg Nation and establish a place of special significance for Indigenous Peoples in the Capital. (NCC, 2017).*

9.2 Parliament & Institutions



Map 9.3: *Map of the Parliament & Institutions Character Area.*

Table 9.3: *SWOC Analysis of the Parliament & Institutions Character Area.*

Strengths	• Tourist destination. • Established pathway network. • Scenic views and natural beauty. • Publicly owned riverfront.
Weaknesses	• Varied topography. • Limited tree canopy. • Few public amenities. • Erasure of Indigenous identity.
Opportunities	• Improving infrastructure and access to water-based uses and activities. • Facilitate sustainable revenue generation.
Challenges	• Fast-paced water to the west. • Seasonal flooding. • Erosion of riverfront.

Project for Public Spaces Assessment

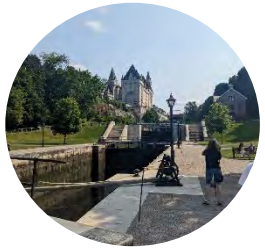
- ***Access and linkages:*** Trail along much of the riverfront; few clearly marked access points to the Trail from street level; limited accessibility to Trail.
- ***Comfort and image*:** few benches and some lighting along Trail; vistas of Ottawa River, downtown Gatineau; views of downtown Ottawa's institutional buildings.
- ***Uses and activities*:** Trail facilitates walking and rolling; accessing Trail is difficult if on wheels; mouth of Rideau Canal and locks a tourist destination.
- ***Sociability*:** no spaces specifically designed to facilitate people congregating; few existing features encourage lingering.

Table 9.4: *Existing conditions and proposed animations for the Parliament & Institutions Character Area.*

Topography & Existing Conditions	• Mostly high elevation. • Lower portions lay within the floodplain. • Large institutional presence with federal buildings. • Few viewpoints.
User Types	• Tourists. • Residents and families. • Federal workers. • Boaters.
Proposed Animations	Rideau Canal Locks • Bistro with boardwalk and balustrade Bytown Wharf • Funicular

An iconic Canadian landscape, animations in this area should compliment existing animation, foster connections, and create new and innovative ways to experience the riverfront.

Existing Animation within Parliament & Institutions



Rideau Canal Locks: *The Rideau Canal lock station at the foot of Parliament contains a flight of eight locks and is the largest slight on the canal. In addition, it is animated by the Bytown Museum and a water taxi station (UNESCO, n.d.).*



Capital Pathway: *A key part of the National Capital Region's active mobility network the Capital Pathways connects pedestrians to the river and surrounding institutions in this area (NCC, n.d.(b)).*

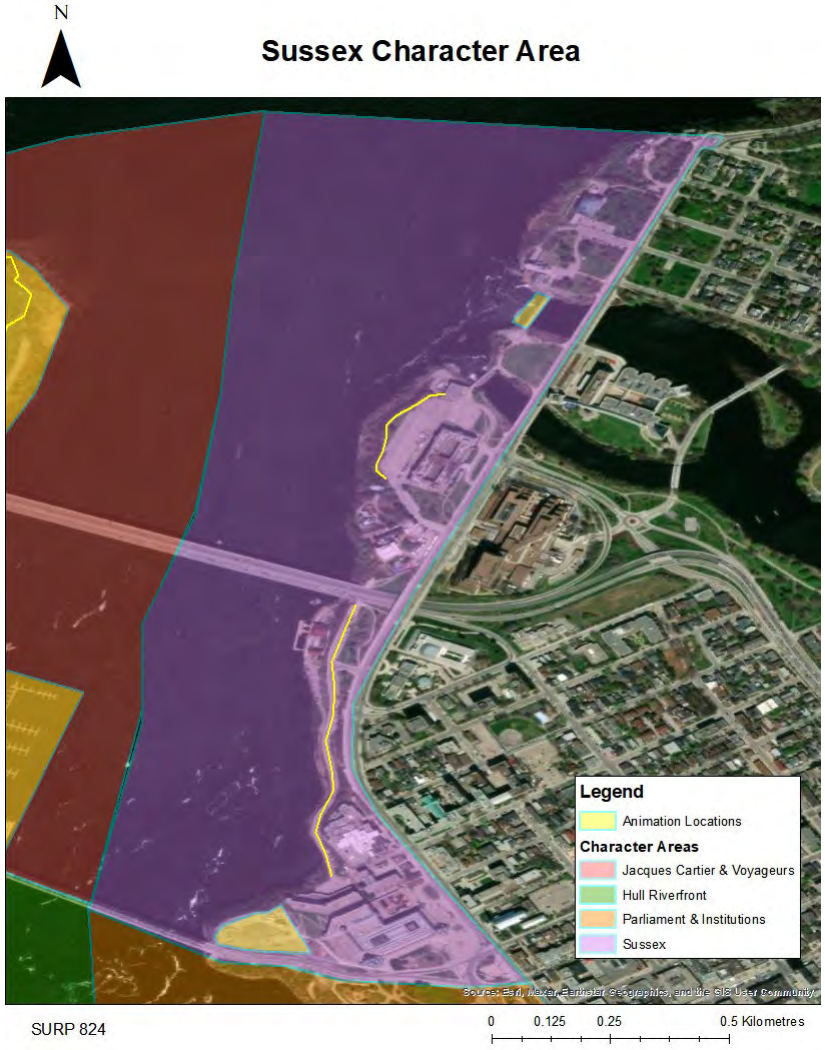


Parliament Hill Escarpment: *The Parliament Hill Escarpment is one of the most significant heritage assets in the region and it animates the river by showcasing the Parliament Buildings on a natural pedestal (PSPC, n.d.).*



Parliament Hill Escarpment Stairway: *The Escarpment Stairway connecting Parliament Hill to the Ottawa River is designed to provide user with stunning views of the Ottawa River (CSLA, n.d.).*

9.3 Sussex



Map 9.4: *Map of the Sussex Character Area.*

Table 9.5: *SWOC Analysis of the Sussex Character Area.*

Strengths	• Tourist destination. • Scenic views and natural beauty.
Weaknesses	• High elevation escarpment. • Little to no tree canopy. • Insufficient access to riverfront. • Erasure of Indigenous identity.
Opportunities	• Improving access to and usability of existing riverfront facilities. • Animation that fosters dialogue across the river. • Facilitate sustainable revenue generation.
Challenges	• Fragmented pathway network. • Security challenges.

Project for Public Spaces Assessment

- ***Access and linkages*:** Pathway fragmented by institutions and private residences in area; limited accessibility to existing pathways with unclear access points.
- ***Comfort and image*:** Little to no benches along existing pedestrian paths; Lady Grey Dr. primarily used for surface parking; scenic views of the Gatineau Hills at specific locations.
- ***Uses and activities*:** The steep escarpment inhibits access to the riverfront; Ottawa Rowing Club brings people to the area for water recreation; pathways facilitate some cyclist and pedestrian activity.
- ***Sociability*:** Tavern on the Falls functions serves as a destination within the area; few public spaces for people to congregate.

Table 9.6: *Existing conditions and proposed animations for the Sussex Character Area.*

Topography & Existing Conditions	• High elevation. • Fragmented pedestrian pathways. • Largely inaccessible. • Underutilized portion of the riverfront. • Slower moving current.
User Types	• Pedestrians. • Residents. • Tourists. • Federal workers and government officials.
Proposed Animations	• Pedestrian connection to Kìwekì Point through Lady Grey Drive. • Public art and outdoor gallery spaces. • Seating looking across the river. • Multi-level pedestrian promenade. • Boardwalk with lookout and deck at the river level with an extension under Rideau Falls.

The high elevation of the area creates unique opportunities for multi-level animations that straddle the side of the escarpment and create unparalleled viewpoints and restore historic connections.

Existing Animation within Sussex



Ottawa Rowing Club: *The Ottawa Rowing Club was established in 1867 and is Canada's oldest rowing club. It has called this location off Sussex Dr.. it's home since 1890 (Ottawa Rowing Club, n.d.).*

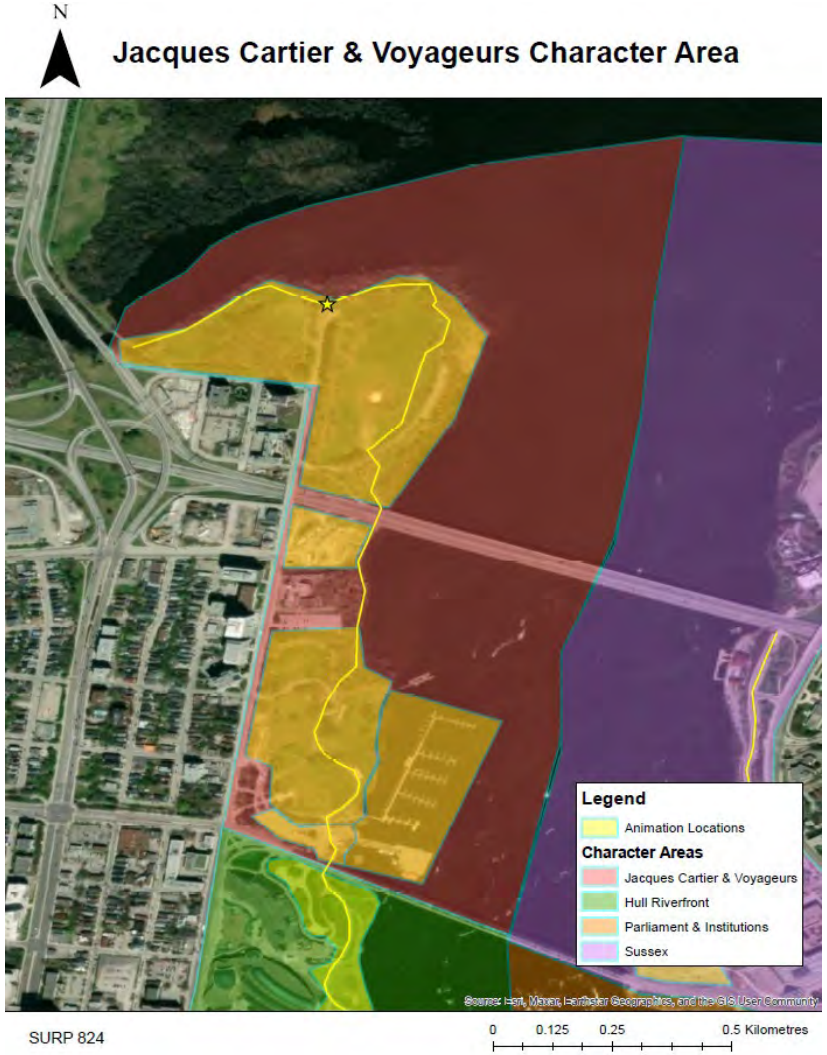


Tavern on the Falls: *Located at the Rideau Falls along Sussex Dr. Tavern on the Falls is an outdoor patio that provides an incredible view of where the Rideau River meets the Ottawa River (Tavern on the Falls, n.d.).*



Kìwekì Point: *Kìwekì Point (formerly Nepean Point) is a popular lookout in the National Capital Region. The site is currently being redeveloped and is set to open again to the public in summer 2023 (NCC, n.d.(c)).*

9.4 Jacques Cartier & Voyageurs



Map 9.5: *Map of the Jacques Cartier & Voyageurs Character Area.*

Table 9.7: *SWOC Analysis of the Jacques Cartier & Voyageurs Character Area.*

Strengths	• Established pathway network. • Naturalized landscape. • Scenic water views. • Slower moving portion of the river.
Weaknesses	• Little to no public amenities. • Limited shelter from the elements. • Low lying topography. • Limited access to riverfront.
Opportunities	• Improving availability of water-based activities. • Facilitate sustainable revenue generation. • Vibrant recreational destination within the region.
Challenges	• Extreme seasonal flooding. • Environmental remediation. • Protection of habitats.

Project for Public Spaces Assessment

- ***Access and linkages*:** Voyageurs Pathway directly adjacent to river; river not visible throughout many portions along the pathway; riverfront features some connectivity with adjacent areas; largely inaccessible riverfront.
- ***Comfort and image*:** Benches along the Pathway; scenic views of Ottawa River and downtown Ottawa.
- ***Uses and activities*:** Jacques-Cartier Park features large open green spaces however these

spaces appear to lack biodiversity and animation; the pathway facilitates cycling and walking.
- ***Sociability*:** In the absence temporary event animation the area does not facilitate lingering.

Table 9.8: *Existing conditions and proposed animations for the Jacques Cartier & Voyageurs Character Area.*

Topography & Existing Conditions	• Vast green spaces. • Largely naturalized riverfront. • Very low elevation. • Within floodplain. • Pedestrian pathways.
User Types	• Pedestrians, runners, cyclists, etc. • Tourists. • Interprovincial commuters. • Residents, families, pet owners, etc. • Boaters.
Proposed Animations	• Swimming area. • Urban beach. • Boardwalks and docks. • Fishing pier. • Year-round commercial animation. • Emergency services water access point. • Recreational water animation.

Animations in this area should aim to bring people right to the river's edge. Transforming it into a destination in the National Capital Region for animated waterfront recreation.

Existing Animation within Jacques Cartier & Voyageurs



Jacques-Cartier Park: *Built in the 1930s, Jacques-Cartier Park often hosts national events and festivals such as Canada Day and Winterlude (NCC, n.d.(e)).*



Voyageurs Pathway: *Stretching 30 km of the north shore of the Ottawa River the Voyageurs Pathway follows the route of the historic voyageurs of the river (Outaouais, n.d.).*



Port de Plaisance: *This wharf provides important access to the Ottawa River offering a docking location for private and commercial boats (NCC, n.d.(d)).*

9.5 Hull Riverfront



Map 9.6: *Map of the Hull Riverfront Character Area.*

Table 9.9: *SWOC Analysis of the Hull Riverfront Character Area.*

Strengths	• Established pathway network. • Best viewpoints of Parliament Hill.
Weaknesses	• Surrounding industrial uses. • Insufficient access to riverfront • Lack of public amenities.
Opportunities	• Enhancing views of Parliament Hill through animation. • Sustainable revenue generation.
Challenges	• Fast moving portion of river. • Seasonal flooding. • Erosion of riverfront.

Project for Public Spaces Assessment

- ***Access and linkages*:** Voyageurs Pathway directly adjacent to the riverfront; Kruger Plant fragments connection from Laurier St.; few connections with adjacent areas; limited accessibility to riverfront.
- ***Comfort and image*:** Canadian Museum of History architecture and throughway design enhances riverfront; scenic views of Parliament Hill; resting points concentrated on Canadian Museum of History grounds.
- ***Uses and activities*:** Voyageurs Pathway is primarily used by cyclists and pedestrians and constitutes the main riverfront activity in this area.

- ***Sociability*:** Canadian Museum of History riverfront park is the only space that encourages lingering within the area.

Table 9.10: *Existing conditions and proposed animations for the Hull Riverfront Character Area.*

Topography & Existing Conditions	• Low to medium elevation. • Within floodplain. • Mix of greenspace, institutional, and industrial land. • Pathway network.
User Types	• Pedestrians, runners, cyclists. • Commuters. • Tourists.
Proposed Animations	• Amphitheater. • Public market and food vendors. • Water taxi-location. • Boat launch (for advanced boaters). • Viewpoints and lookouts. • Public art and wayfinding signage. • Programming animation.

Removable, resilient, flexible, and temporary uses are essential in this area to adapt to seasonal changes in water levels.

Existing Animation within Hull Riverfront



Museum of History Riverfront Park: *For decades this park has served as a vibrant riverfront destination in the region hosting a variety of festivals, performances, and activities (Canadian Museum of History, n.d.).*



Voyageurs Pathway: *Stretching 30 km of the north shore of the Ottawa River the Voyageurs Pathway follows the route of the historic voyageurs of the river. This portion offers spectacular views of Parliament (Outaouais, n.d.).*

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10 Animation Demonstrations

10.1 List of Animations and Catalogue of Ideas

Before proposing any location-specific animations, the project team created a list of 59 possible animations that could be applied to a riverfront capital. The list was then examined to understand the characteristics of the animations, their features, and what qualities they possess that make them successful. Each animation was categorized based on its seasonality and theme. The result was a mass list to be referenced and reviewed when seeking ideas for animations and deciding whether they are appropriate for a given location. The full list of animations is available in Appendix F.

Once a list of animations was produced, it was possible to create the catalogue of ideas, a synthesis of the list of animations, and the character areas. The purpose of this catalogue is to provide pre-identified animations according to location. Once a location becomes available, available animations can be implemented. This allows for flexible, yet site-specific implementation of these animations. The catalogue of ideas can be reviewed in Appendix G.

10.2 Introduction to the Animation Demonstrations

Multiple potential locations for riverfront animations within the five character areas were identified by the project team. Using the Project for Public Spaces (PPS) assessment tool, the project team selected one or two underutilized locations in each character area to develop concept-plans.

Inspiration was obtained, in part, through the design charette and is reflected in the project team's graphics of how riverfront animation may be used to enhance areas along the Ottawa River. Other forms of inspiration and influence include analyses of existing conditions, SWOC, and each character area's current users. The project team developed the following conceptual plans that may be implemented to match the character of the given location and serve to enhance the existing character area.

It is important to note that the animations presented in this chapter are intended to work in harmony, rather than compete, with existing and other proposed animations.

10.3 Islands & Dam Character Area Animation



Map 10.1: *Map of concept plan for the Chaudière Falls Lookout*

10.3.1 Chaudière Falls Lookout & Dam

The Chaudière Falls lookout is currently an underutilized place that overlooks the Chaudière Falls and Ring Dam. The Chaudière Falls is a historically significant landmark, serving as a meeting place and portage site for First Nations, and a key location for Ottawa's (Bytown's) lumber industry. The Chaudière Ring Dam regulates the flow of water that passes over the Chaudière Falls and generates power for use by both sides of the river.

The lookout area is not connected to the Trans Canada Trail or the Capital Pathway network and has few existing features, such as benches, that encourage visitors to linger. The PPS assessment tool for this location has led the project team to propose an interactive water feature and additional features that would attract visitors to stay and admire the falls. The project team drew inspiration from existing fountains that allow people to dip their toes in, and from wide boardwalks with built-in seating. These animations strive to meet the project team's planning principles by integrating this location into the Trans Canada Trail and Capital Pathway network by incorporating water features that are designed to encourage lingering.



Figure 10.1: *Chaudière Falls lookout existing conditions.*

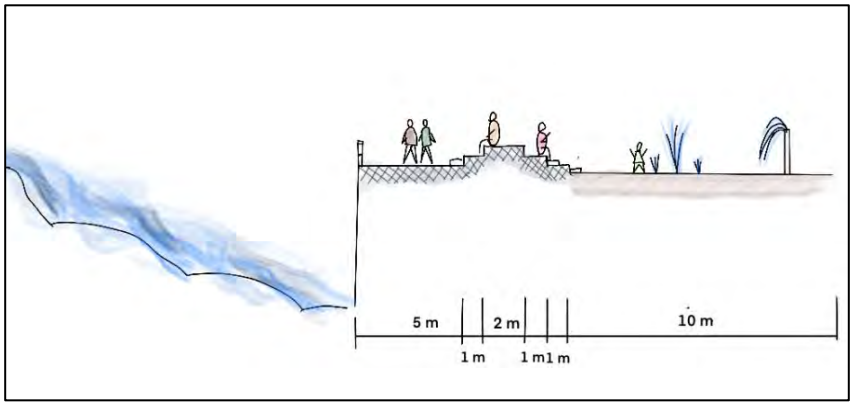


Figure 10.2: *Cross-section for the Chaudière Falls lookout area.*



Figure 10.3: *(Before - After) Illustration containing an interactive water feature and a boardwalk with built-in seating*



Figure 10.4: *The 3D renderings for Chaudière Falls lookout area illustrating the proposed animations and views.*

10.4 Parliament & Institutions Character Area Animation



Map 10.2: *Map of concept plan for Rideau Canal Locks and Bytown Wharf.*

10.4.1 Rideau Canal Locks

The Rideau Canal Locks is an established tourist destination and World Heritage Site. The Locks are situated along the Trans Canada Trail and is also one of three aqua-taxi embarkation points located within the study area. Visitors wanting to use the aqua-taxi service are required to radio the boats from the embarkation point since there is no fixed schedule for aqua-taxis service. In addition, although the Trans Canada Trail offers a well-connected pathway along the riverfront, it currently lacks resting areas for visitors to stop and admire the views of the Ottawa River from the river's edge.

Based on the PPS assessment tool for this location, the project team proposes a riverside bistro with an extended wharf that will act as a gathering place for nourishment and rest. In addition to this design, a boardwalk can also facilitate the expansion of aqua-taxi services, along with complementary features such as wayfinding and/or interpretative signage.

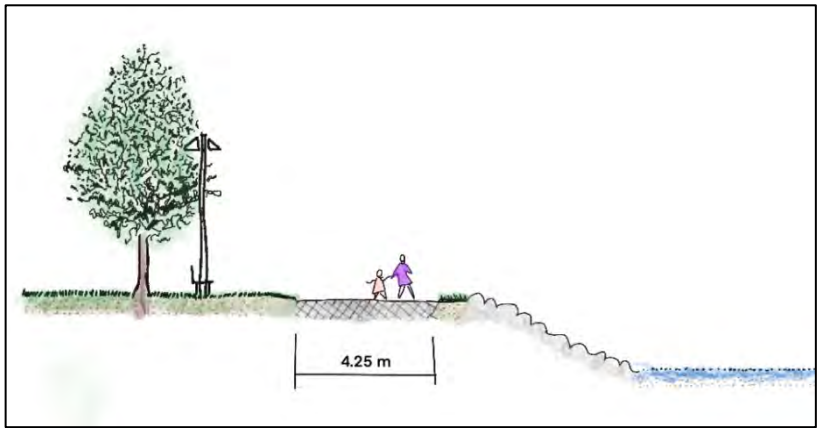


Figure 10.5: *Typical cross-section for the Parliament & Institutions character area.*



Figure 10.6: *(Before-After) Illustration containing riverside bistro with an extended wharf and interpretation point.*

10.4.2 Bytown Wharf

The Parliament & Institutions character area is unique due to the riverfront escarpment between the Parliament Hill and the Trans Canada Trail. Currently, both the Rideau Canal Locks and the Bytown Wharf locations are only accessible via the stairs from the Fairmont Château Laurier and from the Trans Canada Trail. The steep gradient along the Trail leading to these locations is restrictive due to a lack of accessibility (see Figure 10.7), thus dictating the range of people that could experience the riverfront in this area.

The importance of accessibility was discussed during the design charrette, particularly with this character area in mind. The idea of placing a funicular in this area improves accessibility to the riverfront, especially for people with mobility concerns. This animation also provides another option for accessing the riverfront Trail besides walking or rolling up and down the steep slope. The funicular's lower terminal can also function as a wharf, thus providing a seamless connection to the Trans Canada Trail, while additional space on the wharf may be used for temporary seasonal features. The design within this location can mirror the design along Major's Hill Park, which includes balustrades along the Fairmont Château Laurier's frontage. In addition to the funicular landing platform, another landing area near the Locks is recommended to function as a formalized viewing deck that embraces the riverfront scenic landscape (Figure 10.8). This location has sightlines to Parliament Hill and provides visitors with the infrastructure to initiate water-based activities in calmer waters present at this site.



Figure 10.7: *Parliament & Institutions area existing conditions.*



Figure 10.8: *Illustration containing a funicular and wharf landing platform.*

Figure 10.9. illustrates the idea of formalizing the existing informal paths that bring people along the water's edge in the Parliament & Institutions character Area. Which can be achieved through an interactive staircase and a dock that allows for views of the Parliament as well as artistic programming.



Figure 10.9: *(Before-After) Illustration containing another landing area in proximity to the Rideau Canal Locks.*

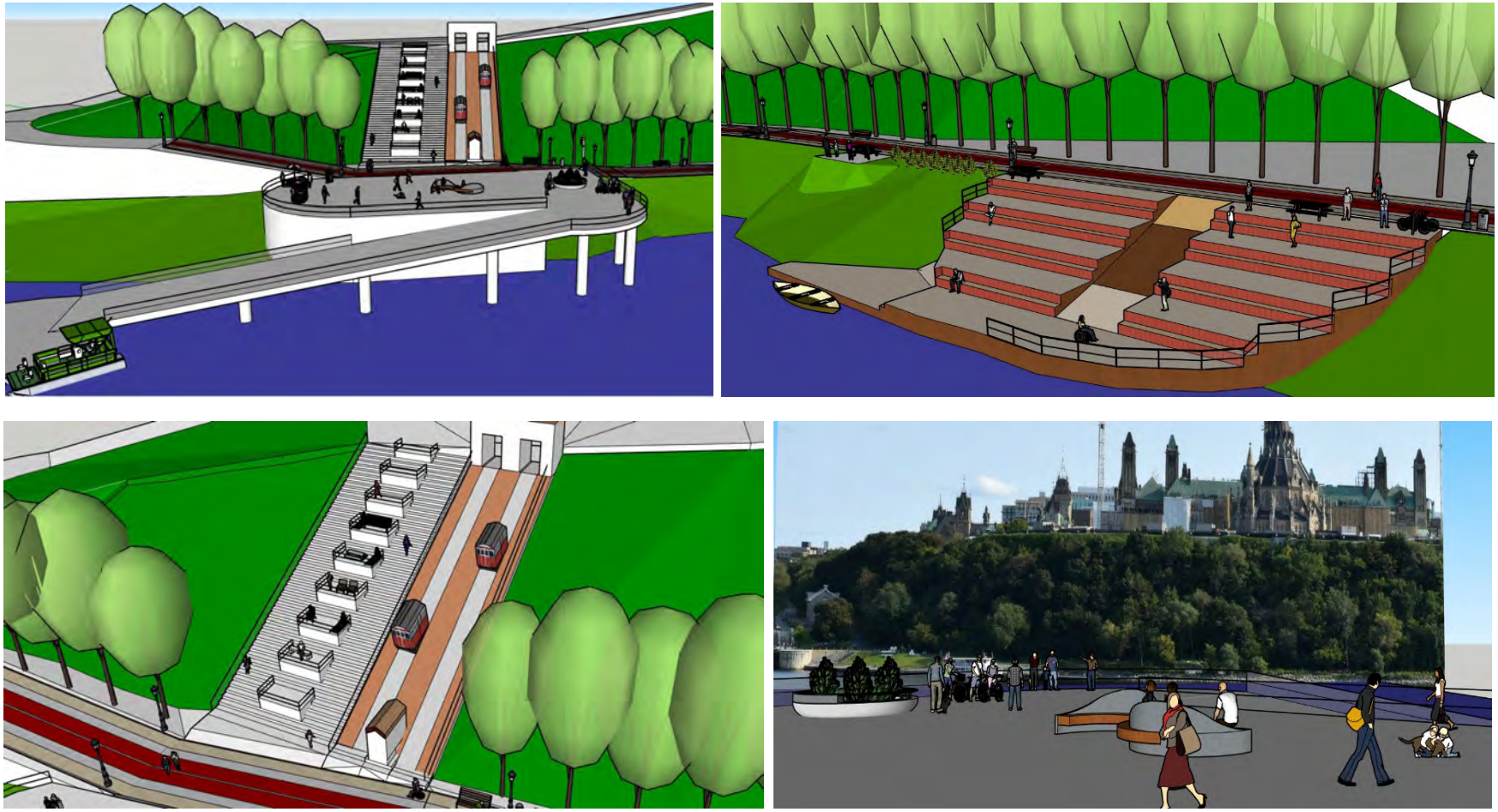


Figure 10.10: *The 3D renderings for Bytown Wharf area illustrating the proposed animations and views.*

10.5 Sussex Character Area Animation



Map 10.3: *Map of concept plans for Lady Grey Drive and the National Research Council Riverfront.*

10.5.1 Lady Grey Drive

The section of Lady Grey Drive south of the Ottawa Rowing Club presents an opportunity for increased connectivity to other points of interest, such as Kìwekì Point, by transforming the street to allow visitors a continuous view of the riverfront. The project team proposes pedestrianizing Lady Grey Drive along with incorporating features that would provide visitors with resting areas with a view, such as bar stool-style seating that faces the river. Programming at this location can include, for example, food trucks, thus drawing more people north of Alexandra Bridge.

In addition to pedestrianizing Lady Grey Drive, the project team also draws inspiration from the location's former riverfront animations, such as Queen's Wharf and Ketchum's boathouse, which used to serve as a dock for steamboat travel. Figure 10.12. demonstrates the extension towards the riverfront from Lady Grey Drive. The extension can be connected to other roads, which would expose existing commercial establishments, such as the Ottawa Rowing Club, to more pedestrian traffic.



Figure 10.11: *Lady Grey Drive existing conditions.*

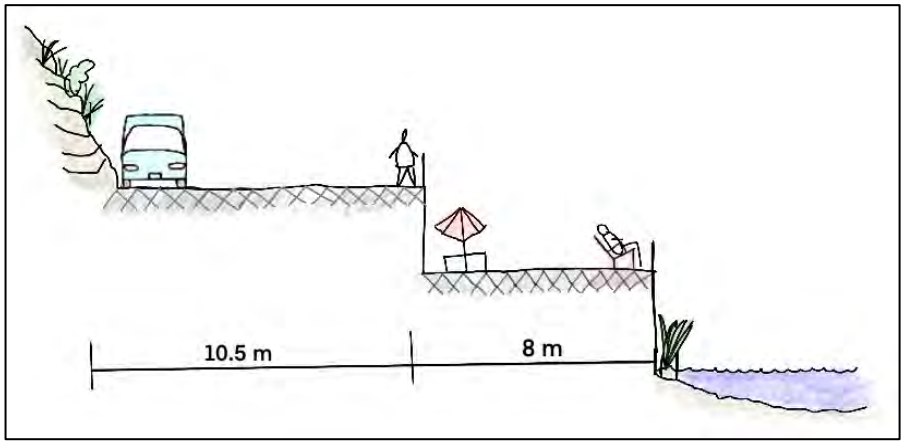


Figure 10.12: *Cross-section for animation ideas for Lady Grey Drive location.*



Figure 10.13: *(Before-After) Illustration containing a pedestrianized Lady Grey Drive with animation and programming ideas for the location.*



Figure 10.14: *The 3D renderings for Lady Grey Drive area illustrating the proposed animations and views.*

10.5.2 National Research Council

The riverfront pathway and space behind the National Research Council is an example of a fragmented riverfront pathway. Visitors may not be persuaded to visit this area given that the entrance to the pathway is hidden between an institutional building's parking lot and a central heating and cooling plant. However, this location is adjacent to the bridge that goes over the Rideau Falls, which creates another viewing opportunity on the other side of the Falls, across from the eatery Tavern on the Falls. The project team's assessment for this location capitalizes on the location's setting by proposing a Rideau Falls lookout that extends into the river. Programming for this location could include public art installations on the viewing platform or as projections on the Falls. The project team notes that although this location presents a great viewing opportunity at a low grade, the viewing platform should not extend too far into the river, since that increases difficulty of navigating the waters close to the Falls. Therefore, instead of proposing a floating dock for human-powered vessels, a boardwalk is proposed to run along the riverfront and end north of the Earnscliffe National Historic Site of Canada.

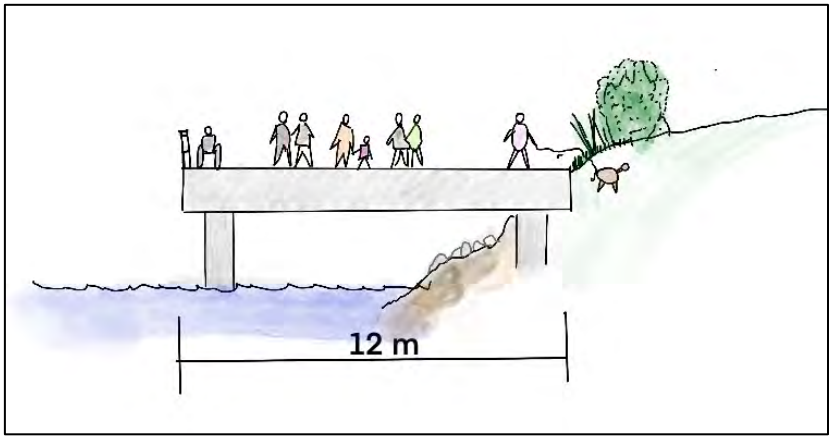


Figure 10.15: *Cross-section for animation ideas at the NRC location.*

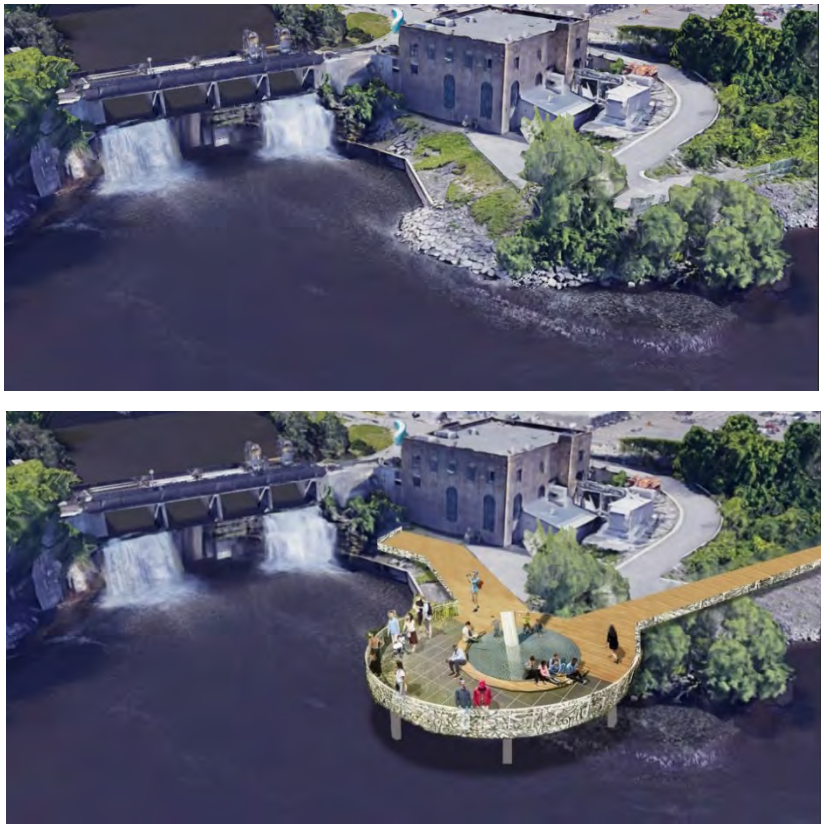
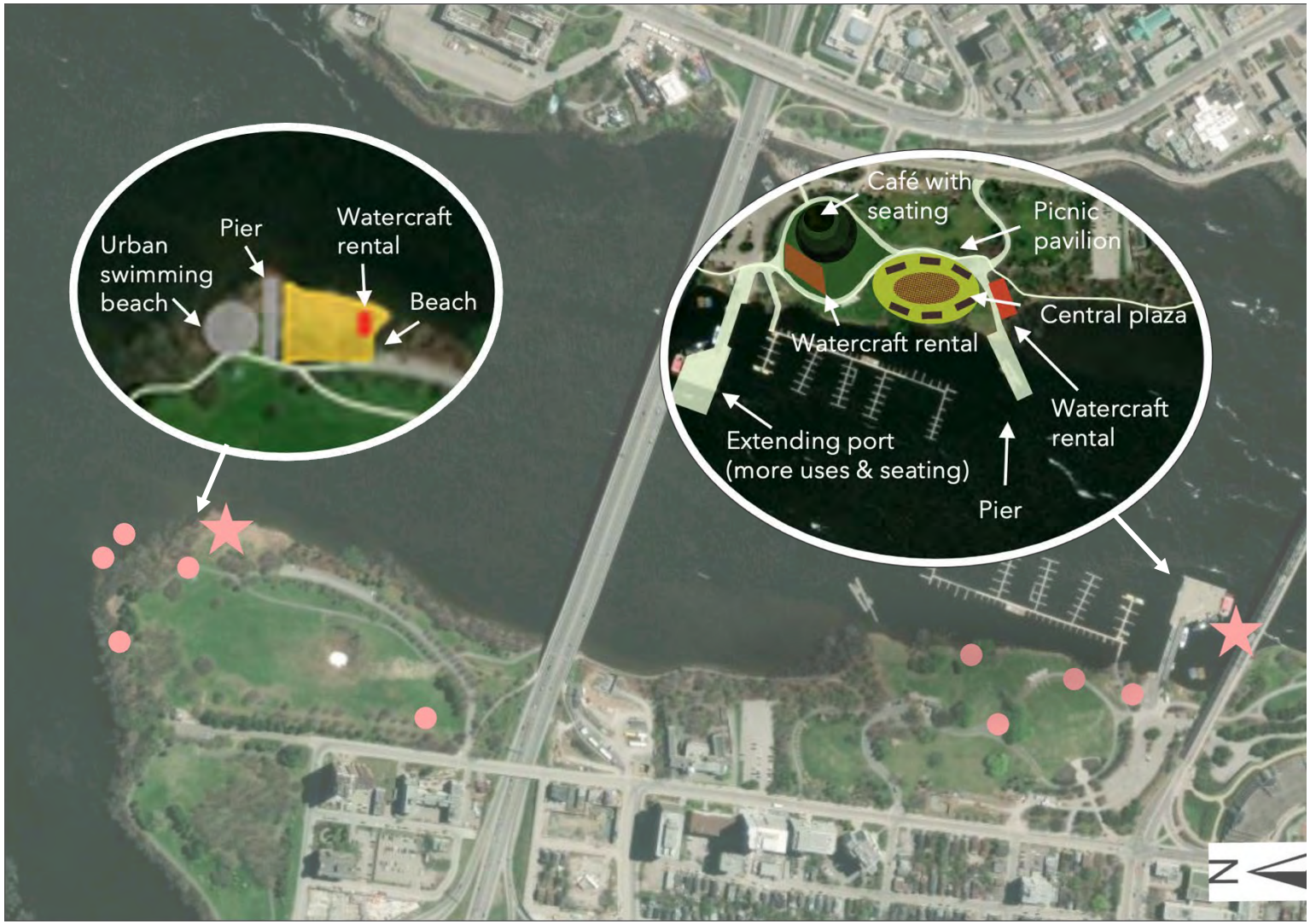


Figure 10.16: *(Before-After) Illustration containing a viewing platform with sightlines to the Rideau Falls.*

10.6 Jacques Cartier & Voyageurs Character Area Animation



Map 10.4: *Map of concept plans for Jacques-Cartier Park North and South.*

10.6.1 Jacques Cartier Park North

Jacques-Cartier Park north of Macdonald-Cartier Bridge is a large naturalized green space with minimal topographical variation that hosts informal recreational activities. Based on the project team's assessment of the location and the opportunities it presents for multiple water-based activities, the project team proposes an urban beach that also integrates other water-based activities. The purpose of this animation is to formalize and create a safe environment for activities that are already occurring in this location.

Existing activities observed by the project team in this location include kayaking, fishing, and informal camping. Figure 10.18 demonstrates a proposed pathway through the park that leads to a circular jetty, pier, and urban beach. The circular jetty creates a sheltered swimming area in the summer months which can also be converted into a skating rink if the water freezes over during the winter. There is also an opportunity to expand the aqua-taxi service to the park, as well as provide accessible launching points for human-powered vessels because of calmer waters within the creek west of the site. This proposed animation also includes complementary land-use features such as a community garden, playground, and amenities located within the park that would draw a variety of users to the location.



Figure 10.17: *Jacques-Cartier Park north of Macdonald-Cartier Bridge existing conditions.*

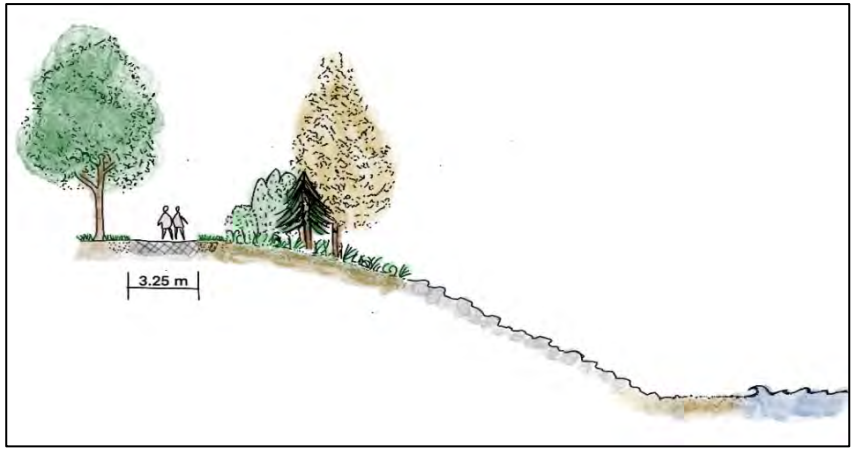


Figure 10.18: *Cross-section for the Jacques Cartier Park North area.*



Figure 10.19: *(Before-After) Illustration containing a circular jetty, fishing pier and wharf*



Figure 10.20: *The 3D renderings for Jacques-Cartier Park North area illustrating the proposed animations and views.*

10.6.2 Jacques Cartier South

The existing conditions for the Marina de Hull, located in Jacques-Cartier Park south of Macdonald-Cartier Bridge, reflect a space that is currently underutilized due to the lack of seating and shelter from the elements, along with public amenities and small businesses that would attract people to this location. Given the existing infrastructure at this location and its connectivity to established pathways along the riverfront, the project team proposes enhancement of the marina so that more people would feel invited to use the space. The project team proposes to extend the marina to create a larger space for the docking of watercraft. Additionally, the marina could serve as another embarkation point for aqua-taxis, thus increasing connectivity between both sides of the river.



Figure 10.21: *Illustration containing an extended marina with additional seating for pop-up experiences, as well as a landscaped open space and picnic pavilion in the park*

To encourage lingering in this area, the project team proposes adding more sources of shelter and seating along with space for cafes and/or pop-up experiences. Complementary land uses for this location may include a sheltered picnic pavilion or food hall with flexibility for year-round use.

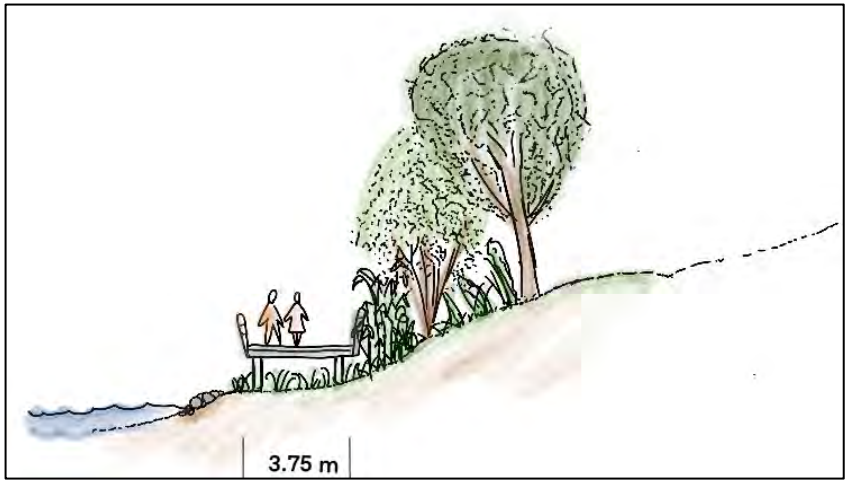
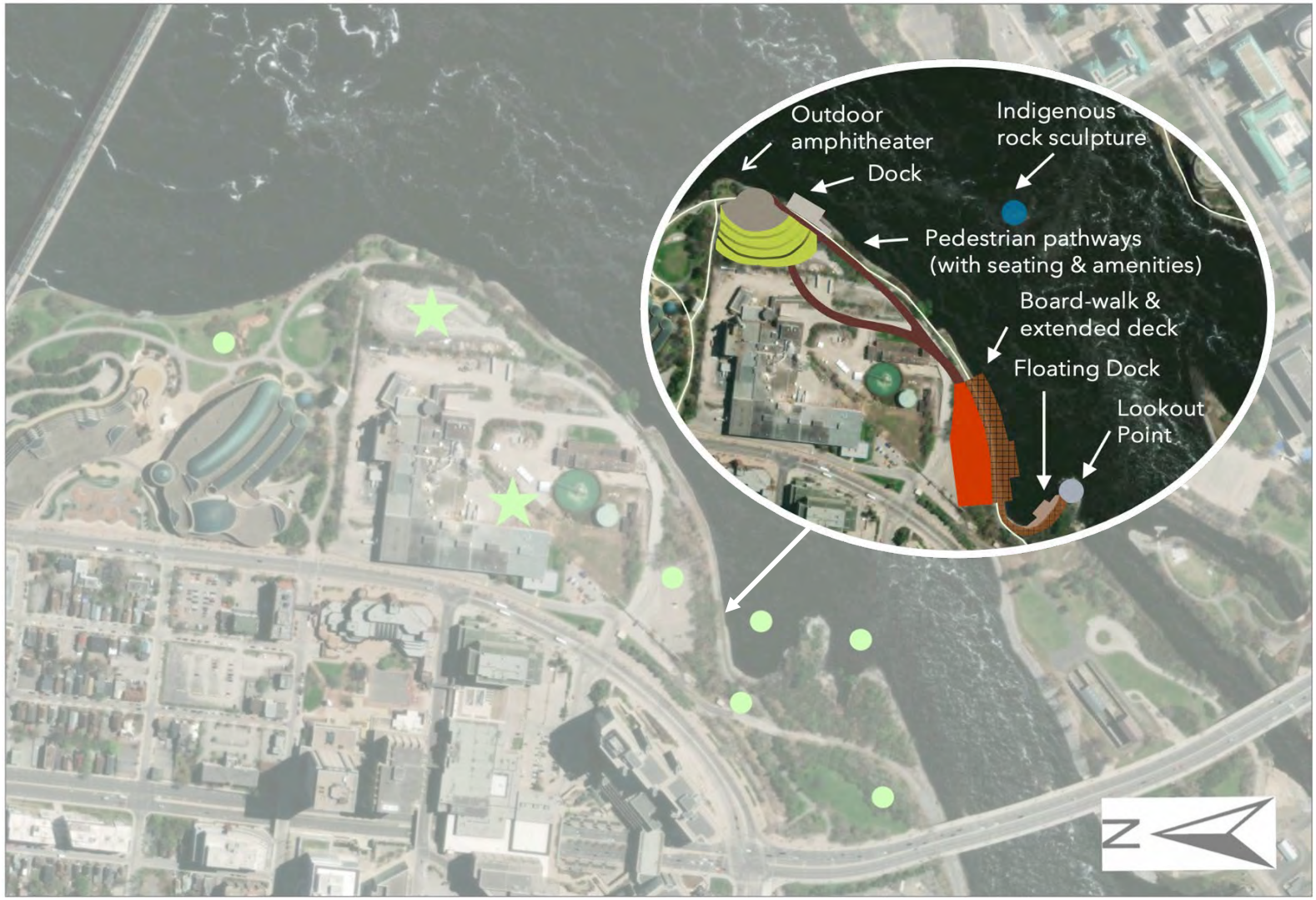


Figure 10.22: *Cross-section for the Jacques Cartier South area.*

10.7 Hull Riverfront Character Area Animation



Map 10.5: *Map of concept plan for the Riverfront Inlet and the Kruger Lots.*

10.7.1 Riverfront Inlet & Greenspace east of Portage

The riverfront inlet and green space located east of Portage Bridge is a noteworthy rock formation with a surrounding escarpment and green space. Based on the field survey conducted by the project team, informal recreational activities that take place in this location are fishing, swimming, and jumping off the rock formation into the river. Since the location offers a direct sightline to Parliament Hill, the project team proposes a viewing platform atop the escarpment with a design that mimics the natural form of the rock, along with food outlets and public amenities in the surrounding green space. Establishing a viewpoint across the river from Parliament Hill would attract visitors from the Ottawa side of the river.

The food outlets located in the green space can provide a range of food options for anyone in or near the area. In addition, the sheltered inlet creates a safer environment to embark on human-powered vessels, which in turn provide users with additional experiences on the river.



Figure 10.23: *Hull Riverfront Character Area existing conditions.*

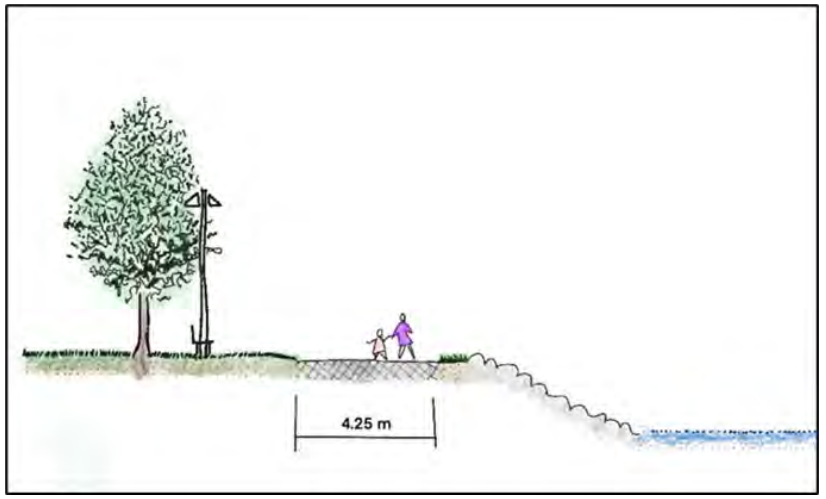


Figure 10.24: *Cross-section of the Hull Riverfront character area.*



Figure 10.25: *(Before-After) Illustration containing a viewing platform and of animation ideas for the location.*

10.7.2 Kruger Lots

Keeping in mind that the Kruger, Inc. manufacturing plant will remain onsite until 2053, the existing parking lots on either side of the facility have been identified as potential areas for riverfront animation. Based on the PPS assessment tool, the project team proposes an amphitheater at the eastern parking lot's location and a public market with an extended wooden deck at the western parking lot's location. The amphitheater would capitalize on its location to provide outdoor entertainment that also showcases views of Parliament Hill. The public market would feature a deck that would extend over the river and serves as space for open-air artisan/farmers markets and for buskers during summer months. During the winter, the market space could be enclosed and continue operating as a marketplace/event space. Given the lack of formal and informal food outlets in this industrial/business area of Hull, a public market would not only complement the economic character of the area, but it would also help revitalize the area and reform its public image. The project team also proposes rock sculptures to be located on Gull & Twin Pine Islands that can be animated by the flow of the river's waters.



Figure 10.26: *Illustration containing a raised public market with a boardwalk connecting to an amphitheatre.*

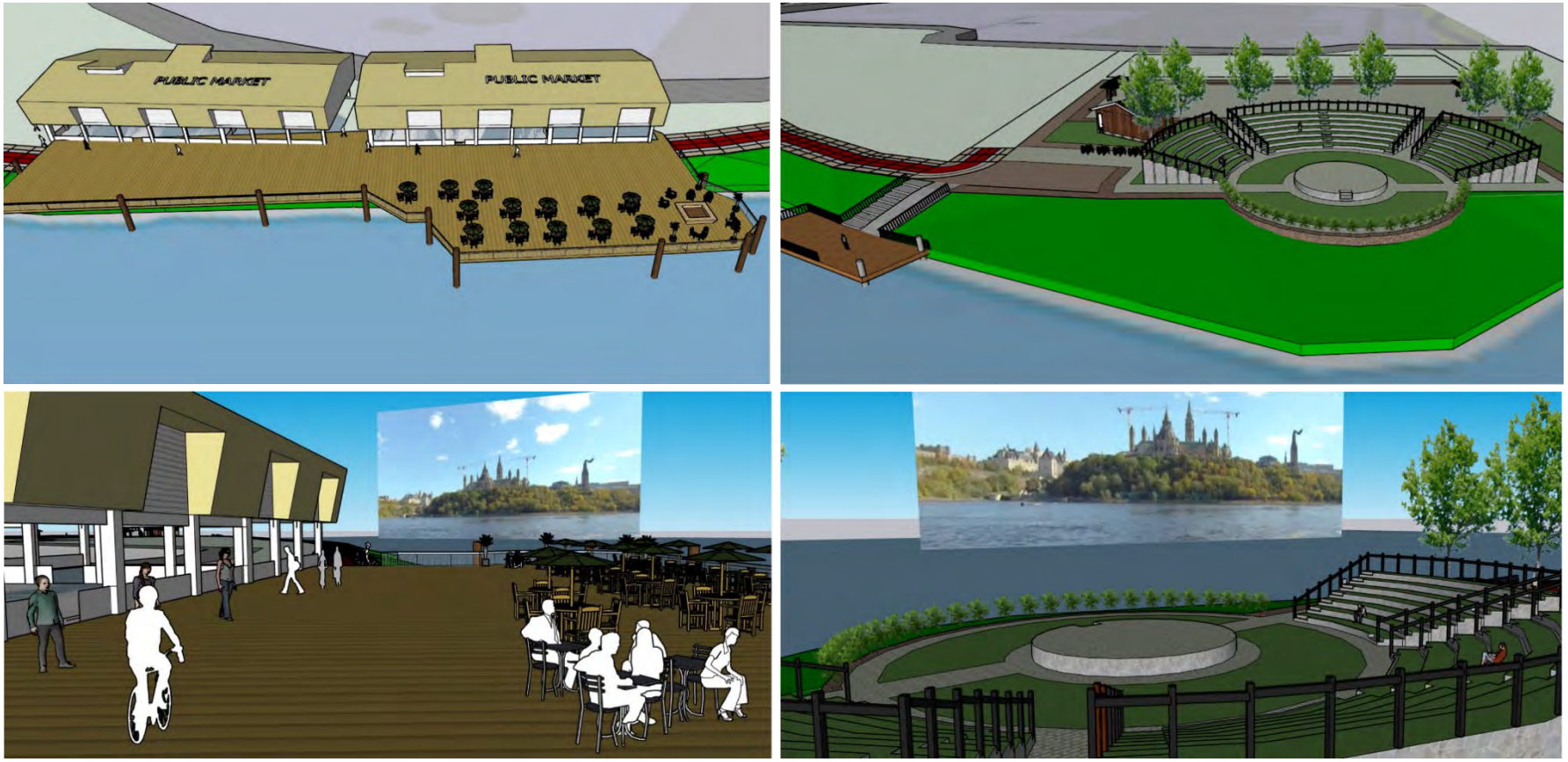


Figure 10.27: *The 3D renderings for the Kruger Lots area illustrating the proposed amphitheatre, public market, and views.*

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11 Recommendations & Implementation

11.1 Recommendations

The previous chapter demonstrated animations that the project team believes are appropriate for specific locations across the study area. For the animations to successfully meet the project team's vision, goals, and objectives, additional design features must be considered as noted below.

11.1.1 Accessibility

The riverfront animations must be accessible so the Ottawa River can be enjoyed by all. To achieve this, the designs should adhere to the City of Ottawa's Accessibility Design Standards (2015), a comprehensive document that outlines recommendations to ensure developments follow universal design principles. The designs should consider how people are accessing the animations and should maintain the same level of accessibility throughout the study area. Design considerations include walkway width, gradual slopes, tactile infrastructure, accessible rest areas, and consistent lighting throughout the riverfront.

11.1.2 Wayfinding

Wayfinding signage is crucial to ensuring residents and visitors of the National Capital Region can easily locate animations at the river's edge. An accessible, unified



Figure 11.1: *Existing wayfinding example in Jacques Cartier Park.*

signage system identifies safe routes to access animations while encouraging exploration. The NCC should draw inspiration from the City of Brampton's comprehensive Outdoor Master Wayfinding Program (2008) to create a trilingual unified signage system (English, French, and Anicinabemowin). Given the importance of the Voyageurs Pathway to cyclists, the North Vancouver District's Cycling Wayfinding Signage Planning (n.d) document, which outlines best practices specific to cycling wayfinding, should also be consulted to ensure adequate wayfinding signage is created for pedestrians and cyclists alike.

11.1.3 Connectivity

To ensure the success of the proposed riverfront animations, efforts should be made to improve permeability between the river's north and south shores and their adjacent lands. Not to be confused with

accessibility, connectivity could involve measures such as, for example, strategically-placed public transit stops that bring people closer to the banks of the Ottawa River; design schemes at street level that alert people of and guide them to the riverfront; and wayfinding signage within the urban cores of Ottawa and Gatineau that indicates the location of and direction to the river, while also serving as modest advertisements for riverfront activities and animations.

11.1.4 Animations That Are Not Site-Specific

Some recommended riverfront animations are non-site-specific and can either be distributed throughout the riverfront and/or be implemented regardless of differing environmental conditions. For example, environmental stewardship programs and landscape photography, drawing or painting classes are animations that may occur at any point along either shore of the Ottawa River, depending on what infrastructure is required to support the animation (ex. Seating for painting and recreational, classes). The design of wayfinding signage and infrastructure required for universal access to the riverfront must also be incorporated.

The project team recommends animations that are non-site specific to provide additional ways for people to interact with and learn about the Ottawa River. Environmental stewardship programs could include activities such as tree planting; manual eradication of invasive floral species along the riverfront; and removal of litter found along the riverfront. Landscape photography/drawing/painting classes can occur year-round while providing a unique perspective on the Ottawa River.

11.1.5 Architectural Style and Building Materials

It is recommended that any structures associated with the proposed animations adhere to an architectural style to lend consistency to the riverfront. Additionally, the architectural style should match that which is already employed at other NCC properties or adopt a historically informed style. Furthermore, all building materials should be derived from local sources, or mimic those derived locally, to create continuity between the built form and the natural environment.

11.1.6 Environmental Protection

The Ottawa River and its riverfront are home to a large diversity of flora and fauna. As the riverfront is modified to incorporate new animations, it is important to consider the short-term and long-term impact of these changes on the natural landscape. The *Ottawa River South Shore Riverfront Park Plan* (2018) and the *Ottawa River North Shore Parklands Plan* (2018) offer some environmental considerations for the animation of the riverfront. However, the installation of the proposed animations would benefit from an Environmental Protection Plan, such as the one produced by Waterfront Toronto (2022). This document would outline

environmental concerns within the study area, specific requirements to follow over the course of the implementation of the project, and monitoring procedures for the site at large.



Figure 11.2: *Wetland on the periphery of Jacques Cartier Park.*



Figure 11.3: *Graphic of recommendations.*

11.2 Implementation

A rough implementation framework of the project team's recommendations and design features has been designed to guide future animations. This framework ranks different locations for animations against a matrix that compares the ease of implementation with the impact of implementation. The locations in the matrix were selected as they are the locations exhibited in Chapter 10 for animation demonstrations.

Ease of implementation is defined by animations that may face greater financial barriers, involve large collaborative efforts between multiple levels of government or interprovincial government, and may already have pre-existing land uses that would require soil remediation. The impact of implementation is defined by animations that have high versus low potential to attract economic and social investment to the area. By evaluating key placemaking animations according to impact and ease of implementation, Table 11.1 acts as a guide when considering which animation to implement at what point in time.

In summary, the project team understands the variety of factors and influences that will determine the timeline for animation implementation. However, this matrix can help provide some context as to which animations should be prioritized.

		Impact		
		High	Medium	Low
Ease of Implementation	Low (Difficult)	• Parliament and Institutions animation. • Sussex animation. • Hull Riverfront animation.	-	-
	Medium	-	• Jacques Cartier Park (South) animation.	-
	High (Easy)	• Public Amenities (i.e. public washrooms, water stations, etc.). • Programming animations.	• Jacques Cartier Park (North) animation. • Island & Dam animation.	-

Table 11.1: *Animation implementation matrix.*

12 Conclusion

The task of animating the Ottawa River in the Core of Canada's Capital presented challenges but even greater opportunities.

Since time immemorial, the Ottawa River has played a vital role in the lives of those living near or on its waters. Interviews with stakeholders involved asking what the Ottawa River meant to them, what feature they liked most about the existing riverfront, and/or what animations they would like to see on the river. Stakeholders' answers confirmed what the project team had suspected: experiences and memories of the Ottawa River are greatly individual. However, one common uniting feature amongst interview responses was that the Ottawa River, especially within the Core Area of the Capital should be inclusive and accommodating to all people. The idea that the riverfront should be a meaningful, vibrant, and dynamic meeting place for all fueled the project team's work for the duration of the project course.

Without a doubt, one of the largest challenges of the project was the size of the study area. Spanning provinces, cities, jurisdictions, and topographies, a comprehensive vision proved difficult to conceive. Yet the team's greatest challenge was also its greatest strength: the large study area acted as a canvas on which the project team could experiment with ideas, introduce new animations, and shape what the future of the river could look like. However, given the scope of the project and the brief period the project team had for creating animations, this report adopted a high-level comprehensive approach. This approach to animation allowed for idea generation on a large spatial scale. Yet the project team acknowledges that defining and shaping appropriate animations is a collaborative and iterative process. Furthermore, the project team recognizes the importance of engaging and working with Indigenous Peoples to create meaningful animations reflective of their close relationship with the river.

In summary…

The Ottawa River has the potential to be a unifying force in the National Capital Region.

Rather than being seen as the edge, the river can serve as the centrepiece in the Core of the Capital.

Thoughtful animation has the power to attract people back to the riverfront and on these historic waters in new and exciting ways.

Thus, creating a riverfront that is ready for whatever the future may hold.

Thank you. Merci. Miigwech.

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Appendix A: Plan & Policy Analysis

Table A.1: *Summaries of all the plans and policies that the project team analyzed in conjunction with the Ottawa River animation project.*

Plan Jurisdiction	Plan/Policy	Summary of Plan	Application to Project
Federal	The Plan for Canada's Capital, 2017-2067 (NCC, 2017)	The primary guiding document for the project team's recommendations. While it does not explicitly discuss a strategy to animate the riverfront, it contains principles and goals that the project team has applied to their animations.	Without directly discussing riverfront animations, the project team has ensured that their recommendations adhere to this plan's goals and principles.
	The Preliminary Report to the Ottawa Improvement Commission (Frederick G. Todd, 1903)	Outlines a general scheme for open spaces to improve the city; does not explicitly recommend specific uses of given locations.	Report does recommend a waterfront-based animation: public bathing areas. Todd also stresses the importance of retaining vistas toward Parliament Hill.
	The Report of the Federal Plan Commission on a General Plan for the Cities of Ottawa and Hull (Edward H. Bennett, 1915)	Bennett's recommendations surrounding water transportation and terminal facilities provide context on ideal locations within the study area for these forms of animation.	Bennett stresses the natural beauty that the Ottawa River lends to the National Capital Region; the opportunity that the river provides for bolstering dialogue between Ottawa and Gatineau; the opportunity that the river provides for water-based transportation; and the potential for more public terminal facilities (e.g., wharfs) along the river's shores.
	The Plan for the National Capital (Jacques Gréber, 1950)	One of the most comprehensive plans that have been prepared for the national capital to date, although it has not been fully implemented. Gréber gives direction on animations best suited for the riverfront, by highlighting contemporaneous strengths (e.g., scenic beauty and rich history) and weaknesses (e.g., widespread private ownership of the riverfront).	Gréber notes the Ottawa River's lack of public accessibility. Gréber also highlights the importance of honouring the history of the Ottawa River and the region's Indigenous Peoples.
	Capital Urban Lands Plan (NCC, 2015)	Focusing on land development, this plan guides developers and government officials toward ensuring that Ottawa's	Despite its focus on land development, this plan provides guidance on how to make the National Capital Region more liveable,

Plan Jurisdiction	Plan/Policy	Summary of Plan	Application to Project
		Capital Core Region provides multiple ways for people to live, by allowing residents access to the network of parkways that connect natural spaces, and by ensuring that infrastructure is sustainable enough to meet the needs of future residents.	specifically through connecting parkways and greenways with sites of national importance.
	NCC Parkways Policy (NCC, 2020)	This plan contains a framework on how to reclaim the natural beauty of the Capital Region's parkways.	Despite its focus on land use, this plan's seven guiding principles are applicable to the project team's work. These principles include distinct cultural landscapes; green and resilient; connectivity and permeability; livability and sustainability; a collaborative approach to design; public safety; and preservation of cultural heritage.
	Ottawa River North Shore Parklands Plan (NCC, 2018)	This plan functions as a guide on how to manage the Ottawa River's north shore along Hull Island. The plan aims to have these riverfront lands used for a series of interconnected public spaces, thus increasing permeability to the shoreline while providing a range of experiences, reinforcing the symbolism of the Capital Region, and conserving natural features.	This plan stresses the following points to incorporate into riverfront animation projects: environmental protection; enhancing sites and vistas of capital significance; honouring and representing history and heritage; increasing public access to the river's waters; providing recreational opportunities and attractions; and ensuring that the riverfront can be used year-round.
	Ottawa River South Shore Parklands Plan (NCC, 2018)	This plan functions as a guide on how to manage the Ottawa River's south shore, from LeBreton Flats to Pinecrest Corridor. Special focus is given to planning for climate change; shoreline erosion and flooding are addressed through policy suggestions and guidelines.	The plan stresses the following points that should be considered when designing riverfront animations: the natural environment; stormwater management; cultural elements; views and vistas; public open space; mobility, access, and connections; year-round use of the riverfront.
	Capital Pathways Strategic Plan (NCC, 2020)	This plan seeks to improve the existing capital pathway network that connects national landmarks of interest via a multi-modal approach to transportation. Through 19 policies, the plan will make a	This plan emphasizes strategic directions that can be applied to riverfront animations projects: an integrated and resilient network of sites; safe and user-friendly; year-round use; high standards of design and

Plan Jurisdiction	Plan/Policy	Summary of Plan	Application to Project
		pathway network with increased accessibility while becoming more climate resilient.	maintenance; accessibility; and improving the public realm.
	Canada's Capital Views Protection (NCC, 2007)	This plan provides insight into the urban design guidelines required to ensure that the visual integrity of Canada's Capital Region is preserved for future generations. The plan acknowledges the role that the Ottawa River plays in creating the iconic views of Canada's Capital Region.	This plan provides guidelines on how to preserve iconic vistas that may influence the design of riverfront animation projects: hierarchy of importance (i.e., the Peace Tower is considered the most important national symbol, and so views of it should be retained); and defining viewpoints in terms of the subject, the foreground, and the background.
	Sustainable Development Strategy (NCC, 2018-2023)	This plan focuses on environmental leadership and on improving the health and well-being of everyone in the National Capital Region. A total of 36 actions are identified in this plan. and are to be fulfilled by 2023	This plan relates to riverfront animation projects through discussion of climate-resilient infrastructure, and through protection of natural environments, particularly bodies of water and riparian zones.
	Long-Term Integrated Interprovincial Crossings Plan for the National Capital Region, 2022 (NCC, 2022)	This plan outlines a vision for the movement of people and goods across the provincial border in the National Capital Region. The plan's purpose is to inform interprovincial decisions in ways that are sustainable, equitable, and environmentally sensitive, in turn creating a region that is more livable and prosperous.	This plan is concerned exclusively with terrestrial forms of transportation. However, this focus allows opportunity to envision how water-based transportation across the Ottawa River may satisfy some of the goals outlined in the plan (e.g., as a form of commuting).
	Capital Illumination Plan, 2017-2027 (NCC, 2017)	This plan outlines a high-level approach in illuminating and showcasing the nighttime landscape of the Capital Core Area on both sides of the Ottawa River. The plan considers the Ottawa River as a dark zone to maintain the river's natural environment, while illumination along the river is limited to feature sites and, in certain cases, sites that support water-based tourism.	The following points outlined in this plan are of pertinence to riverfront animation: the Ottawa River as a dark zone to protect natural habitats; dedicated illumination zones and specific illumination guidelines; feature sites along the Ottawa River considered as key nighttime landmarks and are thus exempt from minimum illumination levels.

Plan Jurisdiction	Plan/Policy	Summary of Plan	Application to Project
	Canada's Capital Core Area Sector Plan (NCC, 2005)	This plan serves as a guide to the policy framework for long-term planning and development of the federal lands within the Capital Core Area. The plan aims to work collaborative with First Nations, all levels of government, and stakeholders.	As outlined in this plan, the priorities for the Ottawa River include creation and promotion of better connections to the river and between its north and south shores; to preserve and enrich the river's historical, cultural, and natural character; to enhance use, enjoyment, animation, and safety by encouraging riverside development that also promotes a diversity of year-round activities along the Ottawa River.
Regional	Plan d'urbanisme 530-2020 (Ville de Gatineau, 2020)	This plan provides guidelines for the spatial and physical organization of downtown Gatineau. The plan discusses opportunities and limitations for development, preservation, and protection, while providing planning intentions for its various neighborhoods. The Plan d'urbanisme puts additional focus on the city's vision for their downtown core through a site-specific plan.	This plan discusses the importance and preservation of natural environments while highlighting the importance of protecting rivers. The plan also includes a site-specific plan for Lièvre River riverfront, which may be adapted for other rivers.
	Strategic Plan, 2020 (Rideau Valley Conservation Authority (RVCA), 2020)	This plan outlines RVCA's approach to protecting and enhancing the natural features of the Rideau River watershed, which contains the National Capital Region, while also protecting people and property from naturally occurring hazards such as floods and erosion.	The RVCA's goals of retaining existing natural features in the Rideau River watershed, while protecting people and property from natural hazards, work in tandem with the NCC's similar goals regarding the Ottawa River within the National Capital Region.
	Rockcliffe Park Landscape History (Edwinna von Baeyer and Julie Mulligan, 1996)	This document provides a look at historical approaches taken to animate the Ottawa River's shorelines.	The historical precedents for animation discussed by von Baeyer and Mulligan may serve as inspiration for future riverfront animation projects or, conversely, demonstrate what attempts at animation did not suit the Ottawa-Gatineau context.
	The Official Plan (City of Ottawa, 2021)	This plan highlights the importance of sustainability and environmental integrity, while aiming to meet the challenges of	This plan emphasizes, in part, the identification and implementation of new ways to animate accessible and safe sections

Plan Jurisdiction	Plan/Policy	Summary of Plan	Application to Project
		population growth and subsequent development. Through sustainability and an improved public realm, this plan aims to make Ottawa the most livable mid-sized city in North America.	of the Ottawa River waterfront. It also highlights the challenges associated with planning in multi-jurisdictional regions.
	The Ottawa Greenspace Master Plan (City of Ottawa, 2006)	This plan expresses the City of Ottawa's vision for green space in its urban area. The plan aims to increase the quality, quantity, and accessibility of green space in Ottawa.	This plan contains strategies to acquire and protect green spaces along the Ottawa River, such as creating an effectively interconnected riverfront pathway network while ensuring that such a network is accessible to all. The presence and retention of green space immediately adjacent to the Ottawa River can enhance existing and future forms of riverfront animation.
	Counting on Culture: Impacts and Indicators Report (Ottawa Culture Research Group, 2018)	This report presents analysis of economic data related to the culture sector in Ottawa-Gatineau.	This report has implications for animating the Ottawa River since it states the importance of fully integrating art and culture into the fabric of the Capital's riverfront. The Ottawa River's unique cultural identity can be celebrated by providing access to arts and culture for all, while the river is ideal for various expressions of arts, heritage, and culture within the public realm.

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Appendix B: Precedents

Table B.1: *A description of each of the waterfront criteria and how they will be scored.*

Criterion	Significance	2 Points	1 Point	0 Points
Waterfront Classification	Waterfront classification demonstrates how or if the potential precedent matches the conditions of the National Capital Region's waterfront which is located on a riverfront as it poses unique challenges and opportunities in comparison to oceanfronts, or lakefronts.	Waterfront is located adjacent to a river.	Waterfront is located adjacent to a Lake or Bay.	Waterfront is located adjacent to an ocean.
Capital City	Given the Region's status as the capital of Canada, it often represents the image of Canada as such.	Waterfront is located within a national capital city.	Waterfront is located within a Provincial or State capital city.	Waterfront is not located in a National or Provincial capital city.
Tourism Destination	The National Capital Region is a major tourist destination; therefore tourism is a priority in the design criteria that potential precedents also address the needs of tourists.	The waterfront creates an attractive realm for tourists that is heavily used and occupied.	Waterfront is moderately used by tourists.	Waterfront is underutilized and is not occupied by tourists.
Winter Programming	Winter programming is essential to fully utilize the potential of the Ottawa River and Riverfront for year-round usage, therefore cities with similar winter climates and animation will be identified.	Waterfront provides an extensive network of winter activities that promotes year-round usage.	Waterfront provides some winter activities, however, significantly less than summer peaks.	Waterfront provides no winter programming events and shares a similar winter climate to the National Capital Region (i.e., snow and freezing temperatures) *OR* Due to the geographical location of the waterfront, there is no winter season.
Viewpoints	Viewpoints along the waterfront help create a unique sense of place while framing many significant landmarks or	Waterfront provides access to important viewpoints and landmarks in the city that	Waterfront provides some access to viewpoints; however, they are restricted by	Waterfront does not provide any access to viewpoints.

Criterion	Significance	2 Points	1 Point	0 Points
	views that can animate the water's edge and increase usage.	have no limitations and are publicly accessible from a monetary perspective and physical infrastructure perspective.	the built environment or cost.	
Active Transportation	Waterfront design encourages and facilitates sustainable modes of transportation, for pedestrians, cyclists, and those who choose to rollerblade or scooter.	Waterfront design places a high importance and emphasis on active transportation that provides opportunities for multiple forms of active transportation (walking, biking, rollerblading, scooter).	Waterfront design does not permit multiple forms of active transportation.	Minimal emphasis on active transportation.
Former Industrial Lands	The Ottawa River was key in allowing Ottawa and Gatineau to be an industrial hub that was facilitated by the river with properties adjacent to the river used for industrial purposes that have in cases been partially revitalized, however, many are still heavily contaminated or underutilized for the public.	Waterfront includes areas that have been redeveloped / revitalized from former industrialized lands for public use.	Waterfront includes some areas that have been redeveloped from former industrialized lands.	Waterfront does not have any former industrialized lands *OR* Waterfront still has industrial land use.
Flood Prevention/ Mitigation	Given the current issues with flooding in the National Capital Region, addressing this and addressing the impacts climate change will continue to have on waterfronts is imperative for its longevity and safety.	Waterfront design places a high importance on longevity with respect to impact from climate change with flood mitigation incorporated into the design.	Some use of flood mitigation techniques that address the impact of climate change.	No mention of flooding or the impacts of climate change in the design.
Naturalized Landscape	The Ottawa River creates connections to naturalized landscapes, which varies significantly in topography with significant changes in elevation and rugged landscapes which provides many challenges and limitations.	Landscape includes naturalized areas that vary in topography similar to the National Capital Region.	Landscape includes some variation in topography and naturalized features.	Landscape includes no variation in topography *OR* Landscape is in a highly urban environment with

Criterion	Significance	2 Points	1 Point	0 Points
	Therefore, cities with similar topographies and physical environments provides an excellent learning opportunity.			minimal naturalized features.
Mixed-Use Recreational and Commercial	An engaging and animated waterfront combines various opportunities for users' entertainment that vary from commercial opportunities (coffee shops, boat tours etc.) and active and passive recreation.	Waterfront provides commercial and recreational activities that enhance the waterfront and create highly utilized spaces.	Waterfront provides some variation of commercial and recreational activities that could be enhanced.	Waterfront does not provide for commercial and recreational activities.
Heritage & History	The National Capital Region has a unique history and heritage that should be celebrated and told to residents and tourists.	Waterfront includes educational and historical features to enhance experience, provide interactions for users.	Waterfront includes some educational and historical features; however, it could be improved.	Waterfront does not highlight any historical features /places.

Table B.2: *The evaluation of all 44 precedent cases identified.*

No.	Case Study	Waterfront Classification	Capital City	Tourism Destination	Winter Programming	Viewpoints	Active Transportation	Former Industrial Lands	Flood Prevention & Mitigation	Naturalized Landscape	Mixed Use Recreational and Commercial	Heritage & History	Total
1	***The Forks***, *Winnipeg, MB, Canada*	2	1	1	2	1	2	1	1	1	2	2	16
2	***Vieux Port du Québec***, *Ville de Québec, QC, Canada*	2	1	2	2	1	1	1	1	1	1	2	15
3	***Dufferin Terrace***, *Ville de Québec, QC, Canada*	2	1	2	2	2	1	0	0	2	1	2	15
4	***Vieux Port de Montréal***, *Montréal, QC, Canada*	2	0	2	2	1	2	1	1	0	2	1	14
5	***Danube Promenade***, *Budapest, Hungary*	2	2	2	1	2	1	1	0	0	1	2	14
6	***West Harbour***, Hamilton, ON, Canada	1	0	1	1	1	2	2	1	1	2	1	13
7	***St. Charles Linear Park***, *Ville de Québec, QC, Canada*	2	1	1	2	1	2	0	1	1	1	1	13
8	***100 St. Funicular & Frederick G. Todd Lookout***, *Edmonton, AB, Canada*	2	1	1	1	2	1	0	1	2	1	1	13
9	***Spree River Waterfront Promenade***, *Berlin, Germany*	2	2	2	0	2	1	1	1	0	1	1	13
10	***Seine River Waterfront Promenade***, *Paris, France*	2	1	2	0	2	1	0	1	0	1	2	12
11	***Samuel De Champlain Promenade***, *Ville de*	2	1	1	1	1	2	1	1	1	0	1	12

No.	Case Study	Waterfront Classification	Capital City	Tourism Destination	Winter Programming	Viewpoints	Active Transportation	Former Industrial Lands	Flood Prevention & Mitigation	Naturalized Landscape	Mixed Use Recreational and Commercial	Heritage & History	Total
	Québec, QC, Canada												
12	***Touch The Water Promenade**, Edmonton, AB, Canada*	2	1	1	0	1	1	0	2	1	1	2	12
13	***Market Square**, Helsinki, Finland*	0	2	2	2	1	1	1	0	0	2	1	12
14	***Aker Brygge & Oslo Harbor Promenade**, Oslo, Norway*	0	2	2	2	1	1	1	0	0	2	1	12
15	***Marina Bay**, Singapore*	1	2	2	0	2	1	0	1	1	1	1	12
16	***Harbourfront**, Toronto, ON, Canada*	1	1	2	0	1	1	1	1	0	2	1	11
17	***Granville Island**, Vancouver, BC, Canada*	0	0	2	0	1	1	2	1	0	2	2	11
18	***Nyhavn Waterfront**, Copenhagen, Denmark*	0	2	2	0	1	1	1	1	0	2	1	11
19	***Damrak Waterfront**, Amsterdam, Netherlands*	0	2	2	0	1	1	1	1	0	2	1	11
20	***The Wharf**, Washington, D.C., USA*	2	2	2	0	0	2	1	0	0	2	0	11
21	***The Commonwealth Park**, Canberra, Australia*	2	2	1	0	1	1	0	1	1	1	1	11
22	***Bow River Waterfront Promenade**, Calgary, AB, Canada*	2	0	1	2	1	2	0	1	1	0	0	10

No.	Case Study	Waterfront Classification	Capital City	Tourism Destination	Winter Programming	Viewpoints	Active Transportation	Former Industrial Lands	Flood Prevention & Mitigation	Naturalized Landscape	Mixed Use Recreational and Commercial	Heritage & History	Total
23	***Halifax Harbour Waterfront***, *Halifax, NS, Canada*	0	1	2	0	1	1	1	1	0	2	1	10
24	***Thames River***, *London, England*	2	2	2	0	1	1	0	0	0	1	1	10
25	***Clarke Quay***, *Singapore*	2	2	2	0	0	1	1	0	0	1	1	10
26	***Dow's Lake***, *Ottawa, ON, Canada*	1	2	1	2	0	1	0	0	0	2	0	9
27	***Navy Pier***, *Chicago, IL, USA*	1	0	1	0	1	1	2	0	0	2	1	9
28	***Stockholm Waterfront***, *Stockholm, Sweden*	0	2	2	0	1	1	1	0	0	1	1	9
29	***River Walk***, *Detroit, MI, USA*	2	0	0	1	1	1	1	0	0	1	1	8
30	***Lake Ontario Park***, *Kingston, ON, Canada*	1	0	0	1	1	1	0	2	1	1	0	8
31	***Stanley Park & Sea Wall Walk***, *Vancouver, BC, Canada*	0	0	2	0	1	1	0	1	1	1	1	8
32	***Darling Harbour, Cockle Bay Wharf & Circular Quay***, *Sydney, Australia*	0	0	2	0	1	1	1	0	0	2	1	8
33	***French Quarter***, *New Orleans, LA, USA*	2	0	2	0	1	1	1	1	0	0	0	8
34	***Marine & Walk Yokohama***, *Yokohama, Japan*	0	2	1	0	1	0	0	1	0	2	0	7
35	***Silver Coast Lakeshore Promenade***, *Zurich, Switzerland*	2	0	2	0	1	1	0	0	1	0	0	7
36	***Dubai Marina***, *Dubai*	0	1	2	0	1	1	0	0	0	2	0	7
37	***Siloso Beach Walk***, *Singapore*	0	2	1	0	1	1	0	0	1	1	0	7

No.	Case Study	Waterfront Classification	Capital City	Tourism Destination	Winter Programming	Viewpoints	Active Transportation	Former Industrial Lands	Flood Prevention & Mitigation	Naturalized Landscape	Mixed Use Recreational and Commercial	Heritage & History	Total
38	***The Queensway - Humber Bay***, *Toronto, ON, Canada*	1	1	0	0	1	1	0	1	0	1	0	6
39	***Belle Isle Park***, *Detroit, MI, USA*	1	0	2	0	1	0	0	0	1	1	0	6
40	***Eastern Portland Promenade***, *Portland, OR, USA*	0	0	1	0	1	1	1	1	1	0	0	6
41	***Bosphorous Waterfront Karokoy***, *Istanbul, Turkey*	1	1	2	0	1	0	0	0	0	1	0	6
42	***Rambla of Montevideo***, *Montevideo, Uruguay*	0	2	1	0	0	1	0	1	1	0	0	6
43	***Fisherman's Wharf & Embarcadero***, *San Francisco, CA, USA*	0	0	2	0	1	0	1	0	0	1	0	5
44	***Quai Des Artistes, Quai Des Cageux & Quai des Légendes***, *Ville de Québec, QC, Canada*	2	0	0	0	0	1	0	1	0	0	0	4

1.The Forks

Location: Winnipeg, MB, Canada

Relevance:

- Special district governed by a board of stakeholders that is self-sustaining with no reliance on government funding
- Strong community stewardship and involvement in historic preservation and education of western and Indigenous histories and culture
- Designated as a National Historic Site with a cultural landscape

History & Context:

The Forks, named after the geographical location, where the Assiniboine River flows into the Red River, has played a significant role in Aboriginal settlement, the fur trade, the railway, and the industrial age when Winnipeg was known as the "Gateway to the West". The abandoned rail yards are now a meeting place that contributes over $126 million to the local economy, and 1200 jobs, and is financially self-sufficient with no reliance on government funding to operate.

Best Practices & Lessons Learnt:

Given the significance of The Forks as a meeting place, redevelopment has focused on integrating these historical roots. This district is governed by The Forks North Portage Partnership, their 10-person board is comprised of individuals from the civic, provincial, and federal governments that work together to achieve common goals. The area established a Heritage Advisory Committee in 1988 which has been key in identifying and preserving resources, promoting the rich history of the area, and fostering community involvement. This is highlighted across the district and waterfront that educates the public through attractions such as the Oodena Celebrations Circle, The Forks National Historic Site, Broadway Promenade, Peace Meeting Site, Riverwalk, The Forks Historic Port, Wall through Time, and many more. These attractions focus on the relationship and significance that Indigenous communities have had on The Forks over time and continue to educate visitors on Indigenous heritage, culture, and history.

Further Reading:

Keshavjee, S. (2018). The forks: A meeting place transformed. *Manitoba History,* (86), 39-40.



Figure B.1: *Wall Through Time noting the history of Winnipeg and the Forks over the past 6000 years that curves from the waterfront up to the Forks Market Plaza ("Attractions", n.d.)*



***Figure B.2**: Peace Meeting Site along the Pedestrian pathway ("Peace Meeting Site", n.d.)*



***Figure B.3:** The Forks Historic Port where you can dock your canoe or boat, hop in the Splash Dash Water Bus and cruise through the city or in the winter bring your skates or skis along the Manitoba 150 River Trail ("The Forks Historic Port", n.d.)*



***Figure B.4:** Niimaamaa meaning "my mother" is an art sculpture representing motherhood, Mother Earth, and new beginnings with 7 strands which represent the seven sacred teachings. ("Niimaamaa", n.d.)*

"The Forks shall be developed as a meeting place a special and distinct, all-season gathering and recreational place at the junction of the Red and Assiniboine Rivers, through a mixed-use approach including recreational, historical, and cultural institutional and supportive commercial uses" ("The Forks North Portage Partnership", n.d.)

2.Vieux Port de Québec

Location: Ville de Québec, QC, Canada

Relevance:

- Winter programming makes the Vieux Port neighbourhood utilized year round
- Escarpment includes multi-level development for variation in views and experiences for both tourists and residents

History & Context:

When the redevelopment of the Vieux Port was first launched, their primary objective was to restore access to the St Lawrence River for both residents and tourists in the 1980s. This redevelopment had focal points of connectivity to surrounding areas, that also prioritized pedestrian connections and experiences and included diversification of the port's activities.

Best Practices & Lessons Learnt:

The streets surrounding the waterfront encourage users to linger as they stroll along the St. Lawrence River through the marina, cruise terminal, and picturesque neighbourhoods adjacent to the waterfront. Similarly, there are many winter activities that encourage users to come down to the waterfront through the winter carnival like ice fishing, snow sculptures, ice palaces, ice skating, interactive games, sleigh rides, and food.

Ville de Québec has a similar topography to the National Capital Region which provides unique views up the escarpment and similar Gothic-style buildings that are significant to the history of Québec. Development and year-round activities have been prioritized at each level with, the top of the escarpment near the Dufferin Terrace, and the lower level of the escarpment adjacent to the waterfront by the Vieux Port that provides users with a unique experience to the view of the Québec Capital.

Further Reading

https://www.portQuébec.ca/en/projects/a-propos-du-port/developpement/projets-davenir/bassin-louise



Figure B.6: *Vieux Port de Québec pictured in the summer ("Old Port", n.d.)*



Figure B.5: *Vieux Port de Québec in the winter showing Village Nordik ("Village Nordik du Port de Québec", n.d.)*



Figure B.7: *An image of Ville de Québec from the water ("Old Port", n.d.)*



Figure B.8: *Place des Canotiers is an urban park that provides users with a place to sit and reflect on the views and experiences within the lower Vieux Port de Québec area. ("Place des Cantioers", n.d)*



Figure B.9: *Views from the Old Port looking up to the city showing the change in topography and unique views the lower basin provides of the old city. (Wikipedia)*

3.Dufferin Terrace

Location: Ville de Québec, QC, Canada

Relevance:

- Winter programming provides for year-round usage
- Increased connections between the escarpment improve connectivity and usage with a funicular
- Public access to world-renowned views and historic locations

History & Context:

Dufferin Terrace is located within one of the oldest districts in Ville de Québec, commonly referred to as the Old Town, which is designated as a UNESCO World Heritage site. With over 400 years of history, the Old Town & Dufferin Terrace is home to historic landmarks such as the Chateâu Frontenac and Place Royale.

Best Practices & Lessons Learnt:

Dufferin Terrace provides some of the best views in Ville de Québec. Its high elevation provides unique views into the St Lawrence River basin year-round. Dufferin Terrace was initially on private lands; however, it was inaugurated for public access in 1838; this scenic boardwalk provides users with an up-close view of the Chateâu Frontenac which is often a symbol of Québec City. In the summer this is animated with many street musicians and performers while the unique topography allows for a tobogganing run to be integrated into the slopes for year-round animation. Ville de Québec has integrated a funicular into its cityscape to provide improved connectivity between the two drastic elevations between the Old City and the Vieux Port. While the steep gradation and changes in topography is often seen as a challenge in creating successful public places, Dufferin Terrace has created an iconic landscape for Ville de Québec that is recognized around the world.

Further Reading:

Broudehoux, A. M. (2004). The Château Frontenac in Québec City: The Social History of an Icon. *The Journal of the Society for the Study of Architecture in Canada*. https://dalspace.library.dal.ca/bitstream/handle/10222/70812/vol29_3-4_51_62.pdf?sequence=1



Figure B.10: *A photograph of the Dufferin Terrace looking out along the escarpment (Coward-Yaskiw, 2020)*



Figure B.11: *A photograph of the Dufferin Terrace in 1908 (McCord Museum, 1908)*

"Dufferin terrace is a magnificent promenade, but something too modern – too much what hotel-keepers term "an attraction" during the daytime. But at night it assumes a mysterious charm from its height, and seems almost to hang in the air, for the old town beneath is ill-lighted and recedes into the darkness." (Moorhouse, 1904)



Figure B.12*: The tobogganing ride along the Ville de Québec escarpment down to the Dufferin Terrace. Airtransat, 2018)*

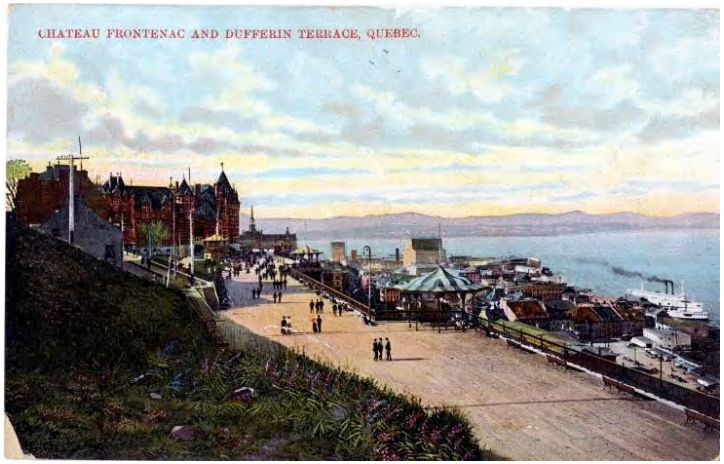


Figure B.13: *Postcard of the Chateâu Frontenac and Dufferin Terrace (Chateâu Frontenac and Dufferin Terrace, 2013)*

4.Vieux Port de Montréal

Location: Montréal, QC, Canada

Relevance:

- Commercial activation and animation at the water's edge
- Highly utilized event spaces
- Year-Round usage with winter events

History & Context:

The Vieux Port de Montréal is a recreational tourism site which hosts more than 6 million visitors annually with a variety of family, nautical, and other leisure activities. Managed by The Old Port of Montréal Corporation, their goal is to develop and hold activities in the old port dedicated to tourism, recreation, and culture.

Best Practices & Lessons Learnt:

Vieux Port de Montréal provides an excellent variety of commercial and more passive recreation for both tourists and residents showcasing the St Lawrence River. Users can spend an afternoon on Le Petit Navire, an eco-friendly and silent electric boat tour to see Montréal from a new perspective; relax on Bota Bota Spa located in a repurposed 5-deck ferry boat for a sauna with a view, or wet and wild immersive experience traversing the rapids with Jet Boating Montréal. Similarly, along the waterfront promenade, there is a variety of event spaces and small commercial activities such as the Container Market which features small local businesses. In the winter the area features outdoor skating rinks with lights, music, an ice fishing village with heated ice shanties, and events such as Nuit Blanche to draw people down to the waterfront. The Vieux Port de Montréal provides an excellent mix of commercial and recreational opportunities for users, that focuses on unique experiences accessed by pedestrians through the waterfront pathway network.

Further Reading:

Poulin, S. (2006). Montréal. https://www.authentikcanada.com/uploads/destination_sheets/CA/en_US/optimized/1.pdf



Figure B.14: *An image of the Vieux Port pedestrian pathway where the local boutique shops are located ("Summer boutiques", n.d.)*



Figure B.15: *The Summer boutiques that are along the waterfront ("Summer boutiques", n.d.)*



Figure B.16: *Bota Bota Spa, a repurposed barge which is one of the commercial activations along the waterfront ("Relaxing Massage Spa", 2022).*



Figure B.17: *Ice Fishing in the Vieux Port de Montréal ("Montréal's Ice Fishing Village Is Returning to The Old Port In 2015", 2014)*



Figure B.18: *The Montréal waterfront at night with the Cirque de Soleil tents on the pier ("The return of Cirque du Soleil's Alegría – a perfect corporate activity", 2019)*



Figure B.19: *Vieux Port de Montréal painting from 1893 ("The Port of Montréal", 1830)*

5. Danube Promenade

Location: Budapest, Hungary

Relevance:

- Access to key viewpoints across the city
- Unrestricted access to sites of national significance
- UNESCO World Heritage Site along the Danube River

History & Context:

The Danube Promenade is located within the historic city center of Budapest along the eastern side of the Danube River stretching from the Elizabeth Bridge to the Chain Bridge in Pest, which was first opened in 1896. The shoreline of the Danube is designated as a UNESCO World Heritage Site that highlights the historic architecture and design that can be viewed from the water. More recently Budapest residents have rediscovered the shorelines of their city with restaurants, temporary beaches, and venues popping up to draw people in.

Best Practices & Lessons Learnt:

This riverfront walk allows residents and tourists up-close and unobstructed access to neogothic national sites of importance like the Hungarian Parliament Buildings, picturesque views of the Buda Castle, Gresham Palace, the Citadella, and the Danube River. The ability for visitors to enter these historic sites without barriers provides a variety of views and experiences that helps build connections to these symbols for both tourists and residents of the city. Additionally, these places are often free to visit, however, complimentary activities, like walking tours, provide more in-depth knowledge of local history and add to users' experience.

Further Reading:

SzabÛ, P., & Gordos, T. (2015). The effects of changing possibilities of urban development on the waterfront development in Budapest. *Studia Regionalia*, *41*. https://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.oai-journals-pan-pl-98250/c/oai-journals-pan-pl-98250_full-text_f8c5e530-6a05-4651-a772-cbf3563cf7ae.pdf



Figure B.20: *View of the Danube and Castle from the promenade at night. ("Danube Promenade", n.d.)*



Figure B.21: *A view of the Danube River showing the parliamentary buildings, note the Promenade pathway is closest to the river. (Kay, 2019)*



Figure B.22: *Shoes on the Danube, where a trail of iron footwear stands to commemorate those executed along the riverbank by the Arrow Cross ("Shoes on the Danube Promenade", n.d.)*



Figure B.23: Boat tours with a view along the Danube Riverfront in Budapest. *("Budapest – the elegance of Paris and magic of St. Petersburg", 2014)*

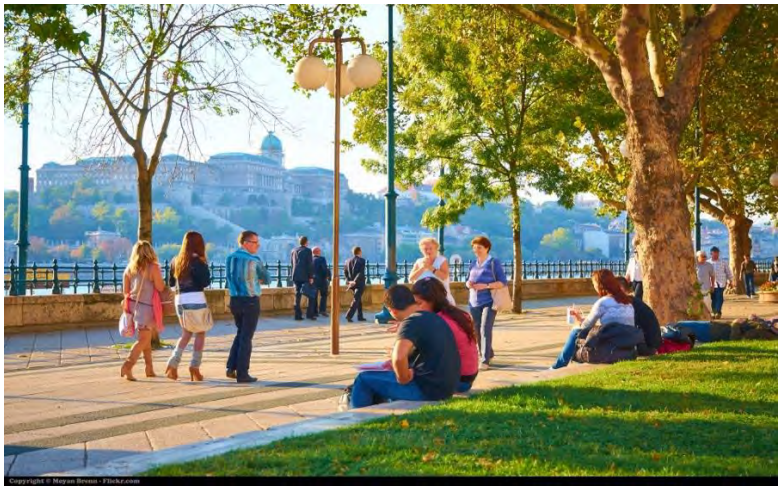


Figure B.24: *People enjoying the sunset along the Danube Promenade (Wikimedia, 2012)*

6.West Harbour

Location: Hamilton, ON, Canada

Relevance:

- Redevelopment of industrial lands for public use
- Active transit

History & Context:

The Hamilton Waterfront Trust creates public benefit through its goals of developing facilities and activities to bring the public to the waterfront and enhance their access and enjoyment of it. Historically, Hamilton Harbour has been dominated by industrial uses as deep water is ideal for shipping, thus leading to the expansion of "the steel city". However, pollution led to unsafe water conditions unfit for recreational use in the 1950s. With the improved knowledge of water quality and remediation and improved pollution controls, the conditions improved in the 1980s. Over the past 20 years, there have been significant improvements to the West Harbour Area in remediating lands for public use. ("About the Bay", n.d.)

Best Practices & Lessons Learnt:

The deindustrialization of the waterfront and remediation of the adjacent properties have proven to be a worthwhile investment for not only increasing the value for residents but are also successful at transforming the social connotations of Hamilton's waterfront and creating a new destination for all. The current waterfront redevelopment places high importance on active transportation and creates a pleasant pedestrian realm as users can visit the many waterfront attractions with wide interconnected pathways, supportive shoreline activities, and infrastructure. The ability for residents and tourists to have a waterfront that showcases the natural beauty of Hamilton, and the Great Lakes play a significant role in creating and fostering communities and stewardship.

Further Reading:

Wakefield, S. (2007). Great expectations: Waterfront redevelopment and the Hamilton Harbour Waterfront Trail. *Cities*, *24*(4), 298-310. https://doi.org/10.1016/j.cities.2006.11.001

http://www.harbourwest.ca/waterfront/west-harbour-development/



Figure B.25: *The Hamilton West Trolley provides a unique experience to view the 12km-long waterfront trail, complete with rest stops, cafes, and restaurants for a full day of fun ("Down by the Bay – A Guide to Hamilton's West Harbour", n.d.)*



Figure B.26: *An image showcasing animation along the waterfront trail where users can stop and relax for a bite to eat and enjoy the waterfront ("Restaurants", n.d.)*



Figure B.27: *Hamilton's industrial harbour in the early 1950's dominated by the steel industry (Port of Hamilton Celebrates 100 Years, 2012)*



Figure B.28: *Map view of the Hamilton West Harbour redevelopment plan (Harbour West, n.d.)*



Figure B.29: *Guided boat tours aboard the "Hamilton Harbour Queen" (Harbour West, n.d.)*

7.St Charles Linear Park

Location: Ville de Québec, QC, Canada

Relevance:

- Linear Park with significant recreational opportunities for year-round usage
- A high emphasis on active transit options for users
- Designation of smaller subsections within the park that provides key information to users

History & Context:

The Saint-Charles Linear Park is a 32 km-long stretch that follows the St. Charles Riverfront and the Vieux Port to St. Charles River, with numerous recreation opportunities. This route includes the Cartier-Brébeuf National Historic Site where Jacques Cartier wintered in 1535-1536 and where Father Jean de Brébeuf established the first residence of the Jesuit missionaries in Québec. This river was one of the areas within Ville de Québec that were part of the restoration of the river's edge which provided not only ecological benefits but also numerous social and financial benefits to the community.

Best Practices & Lessons Learnt:

This linear park provides a high-quality design for active transportation for both pedestrians and cyclists. To improve safety for pedestrians there are 2 separate pathways for those walking and those who are rolling (cyclists, rollerblading, scootering etc.). To protect some of these re-naturalized sensitive areas there are boardwalks that go over the water for pedestrians to use, which also provide a unique experience for users. Additionally, the park is divided into 13 sectors and each sector has a description of the activities, environment, public art, and facilities which helps with trip planning. Currently, this park provides an excellent example of recreational activities for year-round usage with areas for fishing, canoeing, portage, hiking, sports fields, and in the winter sledding, skating, snowshoeing, and cross-country skiing. These allow users with alternatives and various ways to engage with the natural environment.

Further Reading:

Brun, A. (2015). The "Renaturation" of Urban Rivers: The Case of the St Charles River in Québec. In: Grafton, Q., Daniell, K., Nauges, C., Rinaudo, JD., Chan, N. (eds) Understanding and Managing Urban Water in Transition. Global Issues in Water Policy, vol 15. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-9801-3_24



Figure B.30: *Note the separation of the bike lanes and pedestrian pathways ("Parc linéaire de la Rivière-Saint-Charles", n.d.)*



Figure B.31: *Tobogganing is a frequent winter use in Québec ("Parc linéaire de la Rivière-Saint-Charles", n.d.)*



Figure B.32: *Boardwalks are frequently used to protect environmentally sensitive areas while providing a unique experience for pedestrians ("Parc linéaire de la Rivière-Saint-Charles", n.d.)*



Figure B.33: *Ice skating along St Charles Linear Park (Découvertes Magazine, n.d.)*



Figure B.34: *Snowshoeing along the river in St Charles Linear Park (Ville de Québec, n.d.)*

8.100 St. Funicular & Frederick G. Todd Lookout

Location: Edmonton, AB, Canada

Relevance:

- Extensive parks system
- Funicular viewpoints of the river valley
- Funicular Year in Review

History & Context:

The parks system in Edmonton is often referred to as the Ribbon of Green or the River Valley Parks, which is a continuous stretch of parks that follow the North Saskatchewan River and includes more than 160km of pathways through 20 parks ("River Valley Parks", n.d.). This proposal highlighting the importance of the river valley and parks system was first proposed by Frederick G Todd in 1907, who noted that with swift growth park space may be a limiting factor in Edmonton's expansion.

Best Practices & Lessons Learnt:

Since the parks systems are located within the river valley, a significant barrier to accessing them is the change in gradation between the upper city limits and these naturalized areas. However, the 100 Street Funicular and the stairs have increased access for residents and visitors to access the trail system and the Frederick Todd Lookout. For those interested in walking down the escarpment, they can use the stairs which also function as a place to sit with concrete benches to enjoy a fantastic view of the river valley. The city produces annual reports called "Funicular Year in Review" which note the usage, maintenance requests, emergency calls, operational costs, and public engagement with the project. They found that 22% of people use the funicular as part of their commute, 35% have been using the funicular for over 6 months, and 31% use it to access the river valley (City of Edmonton, 2019). This indicates that mechanized access points help contribute to increasing active transit options and altering people's habits while simultaneously increasing the usage of the park's spaces overall.

Further Reading:

Ellis, D., & Schwartz, R. (2016). The roles of an urban parks system. *World Urban Parks*. https://worldurbanparks.org/images/Documents/The-Roles-of-an-Urban-Parks-System.pdf

"A crowded population, if they are to live in health and happiness, must have spaces for the enjoyment of that peaceful beauty of nature" (Todd, 1907)

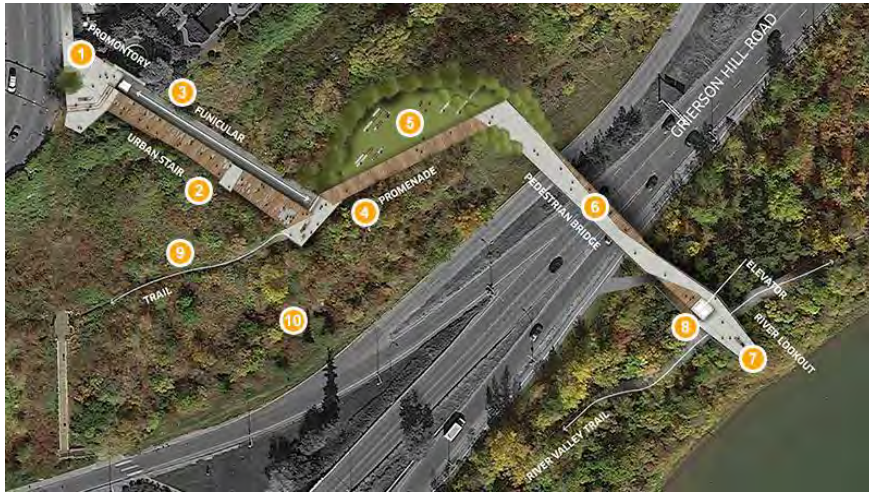


Figure B.35: *An image of the new funicular and lookout in the river valley ("The 100 Street Funicular", n.d.)*



Figure B.36: *The new stairs that also function as a resting spot for users ("Dialog projects win two international awards", 2019)*



Figure B.37: *An image of the North Saskatchewan River valley with the 100 Steet Funicular and Frederick Todd Lookout (Klein, 2019)*



Figure B.38*: View from the top of the stairs beside the funicular in winter (Dialogue Design, n.d.)*

9. Spree River Waterfront Promenade

Location: Berlin, Germany

Relevance:

- Waterfront viewpoints
- Historic capital city

History and Context:

The Spree River traverses through Berlin and is the main river through the capital, with many of the historic buildings and sights along the Spree River's banks, including the Chancellery, Palast de Republik, Schloss Bellevue, and Schloss Charlottenburg.

Best Practices & Lessons Learnt:

The Spree River waterfront promenade demonstrates the advantages a city has with condensed historic sites situated around a waterfront. The positioning of the waterfront pathway allows all users to enjoy walking along the river with a winding and ever-changing view of these historic buildings and bridges in an area that prioritizes the pedestrian experience. Alternatively, the riverfront cruises allow users an alternative perspective to admire the city and learn even more about its history and culture. Like the Danube River in Budapest, Berlin is also experiencing an increase in waterfront usage to foster connections to the riverfront with pop-up animations.

Further Reading:

Park, J.-K. (2017, June 30). A Study on the Berlin Waterfront Development for Urban Regeneration: Focused on the case of Wasserstadt Berlin-Oberhavel, Berlin, Germany. KIEAE Journal. Korea Institute of Ecological Architecture and Environment. https://doi.org/10.12813/kieae.2017.17.3.023



Figure B.39: *Users relaxing in the sun at Capital Beach Bar close to the central station and government district is a popular spot for both residents and tourists ("Capital Beach", n.d.)*



Figure B.40: *Spree River boat tours are a popular way to see the waterfront ("River Cruise: "Historic City Cruise"", n.d.)*



Figure B.41: *Given the pollution, and existing frequent use of the Spree River as a shipping passage, swimming is not safe in the Spree; however, the Baderschiff swimming pool is built inside a hollowed-out hull to give users a unique Spree River swimming experience ("Badeschiff, the Floating Swimming Pool in Berlin", n.d.)*



Figure B.42*: Nighttime boat cruise along the Spree River during Berlin's October Light Festival (Berlin, n.d.)*

10.Seine River Waterfront Promenade

Location: Paris, France

Relevance:

- Heritage and history dating back to the Romans as a UNESCO World Heritage Site
- Interconnectivity between the two sides of the river

History & Context:

Since Roman times Paris has always been known as a river city. The banks of the Seine River have been foundational in creating and sustaining the city, from both a defensive and economic perspective. Now designated as a UNESCO World Heritage Site, the banks of the Seine River have been built up with historic monuments and buildings dating back to the Middle Ages whose evolution can be seen from the river Seine.

Best Practices & Lessons Learnt:

While the architecture and history along the Seine River are one of the richest in the world, another key component to their riverfront is the vast number of connections between the two sides which occurred in the 17th century to relieve traffic. However, most of the bridges seen today are in their original forms and significantly contribute to the architecture along the waterfront. For example, looking at the region of Ile Saint Louis, and Ile de la Cité, these 2 small islands have 13 bridges connecting the two sides with an additional two pedestrian footbridges (Figure B.40). The City of Paris includes 37 bridges over the 13km length of the Seine River.

This interconnected design allows for a seamless transition between the two sides of the river to create a unified capital, as many river cities have evolved with different jurisdictions on either side.

Further Reading:

https://whc.unesco.org/en/list/600/



Figure B.43: *The Seine riverside waterfront promenade ("Seine riverside walk - Paris tourist office", n.d.)*



Figure B.44: *Pont des Arts was the first iron bridge built in Paris in the early 1800s that is now a pedestrian-only footbridge with the 17th century Mazarine Library in the background ("Seine riverside walk - Paris tourist office", n.d.)*



Figure B.45: *Pont Alexandre III, which was unveiled in 1900 at the Paris Exposition, the World Fair which was essential in connecting the two pavilions on either side of the Seine (Bonnell, 2018)*



Figure B.46: *Ile de la Cité and Ile Saint Louis ("Paris, Banks of the Seine", n.d.)*

11.Samuel de Champlain Promenade

Location: Québec City, QC

Relevance:

- Provincial capital
- Winter Programming
- Tourist destination
- Viewpoints
- Active Transportation

History & Context:

Historically, the city's access to the St. Lawrence River was used for the logging industry – much like in other parts of Québec. The Samuel de Champlain Promenade was a gift from the province to its provincial capital as a present for its 400th anniversary in 2008. The promenade was designed to create a coherent landscape by connecting both the river and the cliff while honouring the social history of Québec City and the river. This was achieved through the creation of four distinct thematic areas: Station des Cageux, Station des Sports, Boisé de Teqnenonday, and Station des Quais. Each of these thematic areas honours specific elements of the local history in unique ways.

The Station des Cageux is an area that is situated on rehabilitated industrial lands and honours the logging history of the area.

Station des Sports is an athletics area with two full-size soccer fields and additional flexible greenspace for various recreational uses.

Boisé de Tequenonday is a wooded area with prehistoric archaeological remains, a small lookout, and trees up to 100 years old.

Station des Quais is the cultural focal point of the promenade with a variety of themed gardens that all reflect different moods of the river.

Best Practices & Lessons Learnt:

Like the National Capital Region's Core Area riverfront, the Samuel de Champlain Promenade is a naturalized area with highly varied topography. The Samuel de Champlain Promenade expertly utilizes the changes in topography to its advantage, through the creation of four distinct zones with a pedestrian-focused pathway connecting them all. This site also optimizes viewpoints while ensuring local and tourist appreciation for the site's social and natural history. Above all else, this space is entirely free and open to the public with programming all throughout the year, including the winter months.

Further Reading:

Promenade Samuel de Champlain Master Plan



Figure B.47: *lookout at La Station des Cageux (Wikipedia, 2012)*



Figure B.48: *Site Map of the Samuel de Champlain Promenade (Daoust Lestage, n.d.)*



Figure B.49: *lookout at Boisé de Tequenonday (Commission de la Capitale National de Québec, n.d.)*



Figure B.50: *View of the staircase at night leading to the water's edge with floodproofing, boardwalk, and lighting (Québec Cité, n.d.)*

12.Touch the Water Promenade

Location: Edmonton, AB, Canada

Relevance:

- Flood prevention/mitigation
- Heritage and Indigenous histories

History and Context:

The Touch the Water Promenade is a redevelopment plan currently underway in the Central Edmonton downtown riverfront area. The site is along the north bank of the North Saskatchewan River, where there are also traditional Indigenous burial grounds and the Fort Edmonton Cemetery. As part of the redevelopment plan, the Touch the Water Promenade aims to improve current cyclist and pedestrian access to the waterfront while showcasing the stories of the people who have called the area home throughout history. The plan aims to do this through public art installations as well as a focus on balance to preserve the natural wild elements of the riverfront. The plan hopes to do this through the re-naturalization of the riverfront, and the implementation of barrier-free placemaking elements to attract people to the riverfront year-round.

Best Practices & Lessons Learnt:

Although this plan has yet to be developed, there are still some key takeaways of note. First is the naturalized environment and the emphasis on maintaining the natural elements. In the Ottawa-Gatineau context, this is very important as it will maintain the local biodiversity and aquatic life of the river. Second is the celebration of Indigenous cultures, stories, and voices. As Canada's Capital, Ottawa should be the leader in collaboration with Indigenous groups for the development of such an important natural heritage site.

Further Reading:

River Crossing Heritage Interpretive Plan

Rossdale Heritage Interpretation Plan



Figure B.51: *rendering of the proposed Touch the Water Promenade (Dub Architects, n.d.)*



Figure B.52: *site view of the proposed Touch the Water Promenade (Dub Architects, n.d.)*



Figure B.53: *view of the Touch the Water Promenade from the water (Stoss, n.d.)*

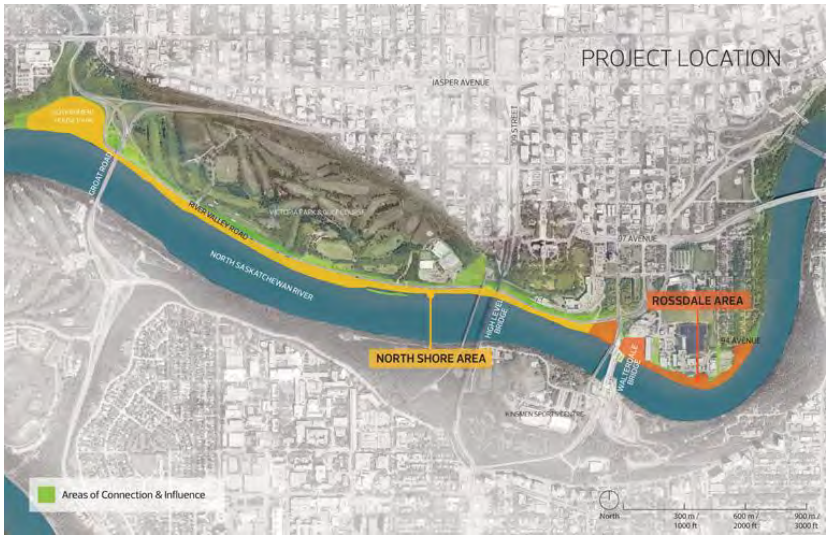


Figure B.54: *Plan view of the proposed Touch the Water Promenade (Edmonton, n.d.)*



Figure B.55: *Rendering of the view from the bridge over the Edmonton River at the proposed Touch the Water Promenade (Holmes, 2022)*

13.Market Square

Location: Helsinki, Finland

Relevance:

- National capital
- Tourism destination
- Winter Programming
- Mixed-use recreational and commercial

History and Context:

The Market Square was first built in the 19th century and since then has housed a local market which has grown to be enjoyed by both residents as well as tourists. The main market building first opened in 1897 just before Christmas, but there has been a yearly Baltic Herring Market at the square since 1743. To this day, the Baltic Herring Market and Christmas Market are two staple events that attract both tourists and residents. Further to these key events, the Market Square also offers public walking space, ferry service to the Suomenlinna Fortress year-round, and docks at the harbour where people can park their boats.

Best Practices & Lessons Learnt:

The Market Square is entirely pedestrian-friendly and free to access for all, making it virtually barrier-free for general use. The market also makes use of full-year programming by offering heated café tents in the winter, to patio service in the summer.



Figure B.56: *Helsinki Market Square fish market in front of City Hall (Encircle Photos, n.d.)*



Figure B.57: *Ferries in front of Helsinki Market Square (culture trip, 2019)*



Figure B.58: *Christmas Market at Market Square in Helsinki Finland (European Best Destinations, n.d.)*

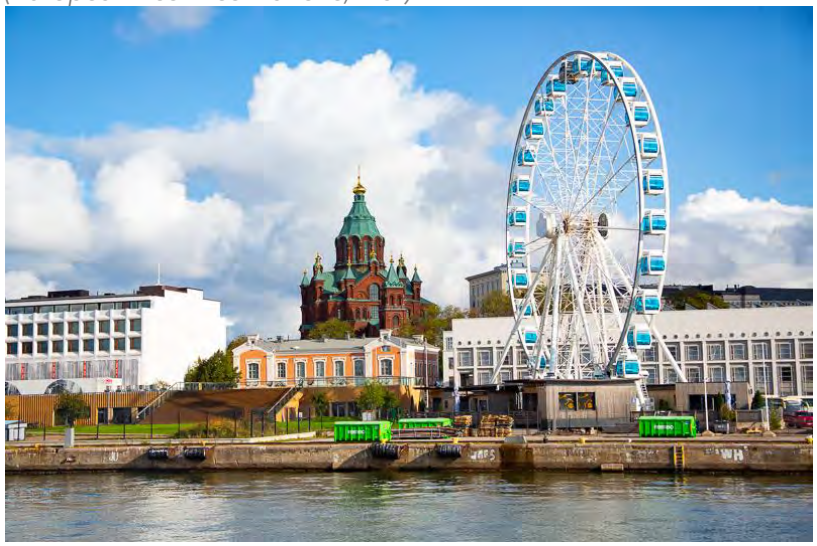


Figure B.59*: Ferris wheel near market square (MomJunky, 2012)*



Figure B.60: *Fishing boats docked at Market Square for the annual Helinski Baltic Herring Fair (Palonkorpi, n.d.)*

14. Aker Brygge & Oslo Harbor Promenade

Location: Oslo, Norway

Relevance:

- National Capital
- Tourism destination
- Winter programming
- Mixed-use recreational and commercial

History and Context:

Aker Brygge is a neighbourhood in central Norway that was transformed from a former shipyard into a point of connection between the rest of Oslo and the waterfront. Each year the 12km-long publicly accessible promenade is visited by roughly 12 million people, both tourists and residents. Since its redevelopment, Aker Brygge and the Oslo Harbor Promenade have become hubs for public transportation, trams, buses, and boat tours to neighbouring islands.

Best Practices & Lessons Learnt:

The Oslo Harbor Promenade is an excellent example of mixed uses through opportunities for shopping, dining, entertainment, and housing. Additionally, the promenade was reconfigured and widened to promote lingering to create a space for life and socialization in the area. The spaces designed for lingering are also fully flexible for both passive and active uses depending on the day or season. All along the promenade, there are also wayfinding poles designed so that visitors and locals can be sure that they are following the correct path as they explore the area. The harbour is also home to a 300m-long lit kayaking tunnel for all to enjoy. Overall, the promenade showcases arts, history, food, and local culture in a fun and accessible way for all to enjoy.

Further Reading:

https://landezine-award.com/aker-brygge-the-city-floor/



Figure B.61: *Pedestrian walkway connecting downtown Oslo with the Harbour (PORTUS, n.d.)*



Figure B.62: *Sørenga Seawater pool being enjoyed by patrons (outdooractive, n.d.)*

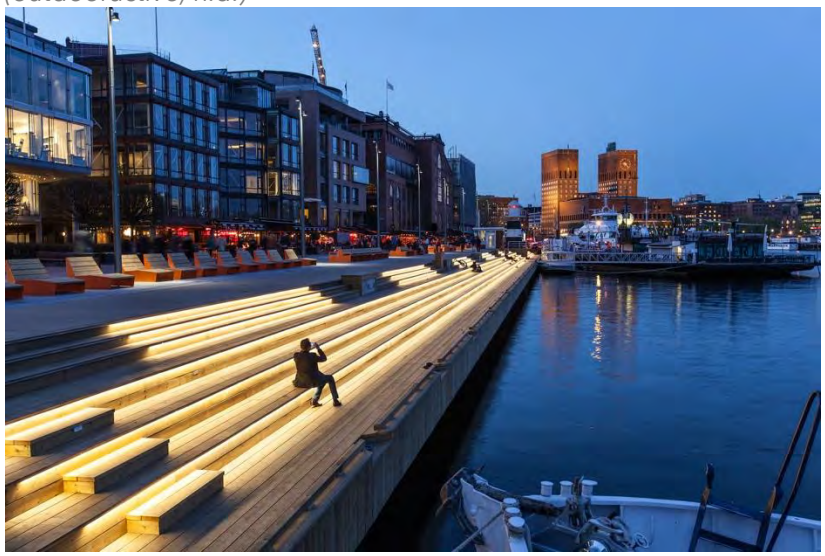


Figure B.63: *Aker Brygge at night (architizer, n.d.)*



Figure B.64: *Map of Oslo Harbor Promenade with wayfinding (Visit Oslo, n.d.)*



Figure B.65: *Public art and wayfinding totem along the Oslo Harbour Promenade (Visit Oso, n.d.)*

15.Marina Bay

Location: Singapore

Relevance:

- National capital
- Tourism destination
- Viewpoints

History and Context:

Marina Bay was historically the original point of entry into Singapore by ship for newcomers and visitors. It was also the site for Cargo ships docking and unloading. Today, Marina Bay has been converted into a hub for cultural, social, and economic activity. The government's process of reclaiming the land and revitalizing it as a place that people would want to visit started in 1971 and did not finish until 1994. Since the final piece of land was reclaimed in 1994, Marina Bay has taken form. In its current form, Marina Bay is made up of a 3.35 km-long waterfront promenade featuring civic art, various bridges for foot traffic, The Float, and the Marina Barrage.

Best Practices & Lessons Learnt:

The standout elements of this waterfront start with the astounding civic art that draws people in and sparks delight in the built environment. The two most notable artworks are *Metamorphosis I* and *Stamford*. The Marina Barrage, similar to the Chaudière Dam, serves as a barrier to prevent flooding and manage water. The key difference between these two man-made entities is that the Marina Barrage provides a grand landscaped roof that is used for a wide variety of activities. Some of these activities include kite flying, picnics, weddings, and urban photography of the skyline. Marina Bay is also home to a yearly light festival called the iLight Marina Bay, which attracts artists from all over the globe for a sustainable light show. The Bay also houses the world's largest and first floating stage, initially engineered as a temporary solution while their main stage was under construction but has since taken up semi-permanent residency.

Further Reading:

https://www.ura.gov.sg/Corporate/Get-Involved/Shape-A-Distinctive-City/Explore-Our-City/Marina-Bay.aspx



Figure B.66: *Marina Barrage, a freshwater reservoir connected to the downtown core through Marina Bay (PUB, n.d.)*

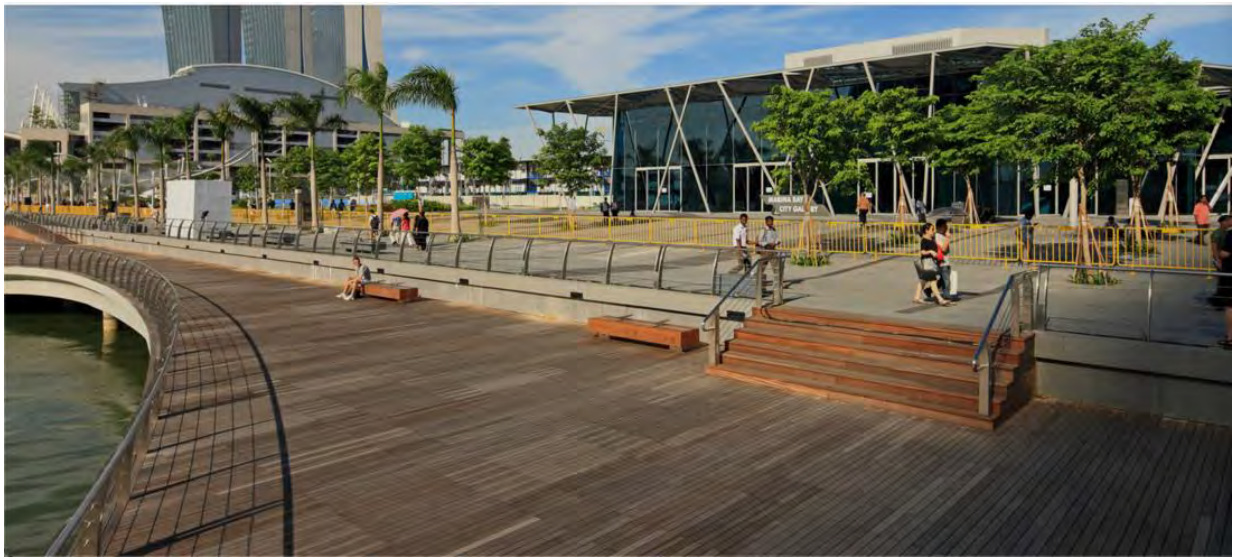


Figure B.67: *Waterfront pedestrian promenade with flexible spaces, seating, and shade (ARUP, n.d.)*



Figure B.68: *Nightly fountain show telling Singapore's History using lights and water (Viator, n.d.)*



Figure B.69: *Gardens by The Bay Park lit up at night (Planet of Hotels, n.d.)*

16.Harbourfront

Location: Toronto, ON

Relevance:

- Provincial capital
- Tourism destination
- Mixed-use recreational and commercial

History and Context:

In the 1850s Toronto ran out of industrial land to develop on, so the city began infilling the lake to create more space for more industry. This landfilling continued until the 1950s. In the early 1970s, people started to want to move back to the waterfront as industrial uses dissipated. As a result, the waterfront redevelopment plan was sparked and fully took form in 2001 when all three levels of government came together to reimagine Toronto's waterfront as a social hub for residents and tourists.

Best Practices & Lessons Learnt:

Through the reimagining of the Toronto Harbourfront and the conversion of industrial lands into residential, recreational, and retail spaces, there are a few key elements to note. First is the extensive establishment of flexible outdoor spaces that can be used to showcase a variety of festivals and activities along the Toronto waterfront. The Harbourfront Centre hosts a wide variety of uses that add character and animation to the area. In the winter months, the Harbourfront houses ice skating and a festive Nordic light display. In the warmer months, the Harbourfront has public access marinas where visitors can look at the boats up close or dock their boats if needed. Visitors can also enjoy the water by chartering a boat, taking a water taxi, sailing, or renting their own boat for the day. Not only that but the Habourfront Centre has a marine department that manages its dock walls and marina in addition to hosting the Toronto Marine Police Station. Overall, the Harbourfront has changed dramatically from an industrial district to a vibrant social gathering place.

Further Reading:

https://harbourfrontcentre.com



Figure B.70: *Nordik Lights display at Harbourfront Toronto (Harbourfront Centre, n.d.)*



Figure B.71: *People enjoying music at the Music Garden in Harbourfront Toronto (Harbourfront Centre, n.d.)*



Figure B.72: *People skating in winter on the rink at the Harbourfront Centre (BlogTO, 2021)*

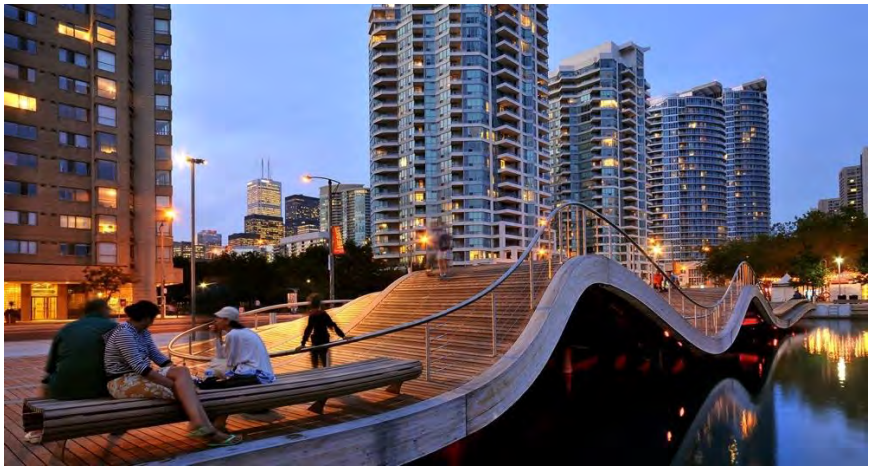


Figure B.73: *The Simcoe WaveDeck, part of the Waterfront Promenade (DTAH, n.d.),*

17.Granville Island

Location: Vancouver, BC

Relevance:

- Tourism destination
- Former industrial lands
- Mixed-use recreational & commercial
- Heritage & Indigenous histories

History and Context:

Historically a gathering place for fishing by the Musqueam, Squamish, and Tsleil-Waututh Nations, Granville Island became a federal site for industrial development in the 1890s. Granville Island was used for sawmills and other industrial uses from the 1890s until the 1960s when there was a massive sawmill fire that caused people to pause and reconsider what they really wanted the Granville Island land to be used for. In 1977, because of the dissipating logging industry and the desire for different use of space, the transformation from industrial to mixed-use commercial began. Today, owned and operated by the Canada Mortgage and Housing Corporation (CMHC), the fully operational self-sustaining Granville Island is home to 300-plus businesses and employs over 3000 people.

Best Practices & Lessons Learnt:

Like the National Capital Region Core Area riverfront, Granville Island is fully owned by the federal government. This makes it a good example of how infrastructure, when maintained, can be self-sustaining and provide jobs for the local communities while being managed by the federal government. Not only that, but Granville Island is a hub of food, entertainment, and water activities that draw residents and tourists to the area. This high usability of the area means that the market is open every single day of the year, presenting ample opportunities for entertainment and programming both formally and informally within the space. The site is also home to many Indigenous art galleries that celebrate the Indigenous claim to the land and heritage on the site.

Further Reading:

https://granvilleisland2040.ca/wp-content/uploads/2017/05/Granville-Island-2040-Report_digital_Eng.pdf



Figure B.74: *Photo of the industrial buildings that were retrofitted to become the Granville Island Public Market as it is today (Granville Island, n.d.)*



Figure B.75: *Granville Island Public Market at dusk (Like a Local, n.d.)*



Figure B.76: *Overhead view of the Granville Island public market with downtown Vancouver in the background (Granville Island, n.d.)*



Figure B.77: *False Creek ferries operate as water taxis from the downtown area to Granville Island (DailyHive, 2022)*



Figure B.78: *patio at bridges restaurant overlooking the harbour at Granville Island (Bagsort, 2020)*

18.Nyhavn Waterfront

Location: Copenhagen, Denmark

Relevance:

- National capital
- Tourism destination
- Mixed-use recreational & commercial

History and Context:

The Nyhavn Waterfront historically was the center for all trade in Copenhagen. It was initially established in 1670 as a gateway from the sea to the city. Along the quay, some of the designated heritage buildings are up to 350 years old. The port was used as a trading post as well as a docking station for ships, so the surrounding houses and buildings catered to the sailors. This lent itself to some less-than-desirable business uses such as bordellos and illegal drug activity. As the city has worked to revitalize the area, they have begun enforcing rules to weed out illegal business activity. With this, the quay turned into a pedestrianized street in the 1970s with many of the historic ships on display docked in the harbour. Today, the harbour is still intact with colourful historic buildings framing the harbour.

Best Practices & Lessons Learnt:

A key lesson to learn from this site is that there are ways to encourage less-than-desirable land uses from relocating so long as there are policies in place to do so. When there's a grand vision for a space, it is much easier to convince locals and business owners to support that vision. Not only that but there are minimally invasive ways to preserve local history through protecting heritage buildings from being demolished or developed and instead maintaining them to maintain their historical character and charm. Furthermore, Copenhagen capitalizes on the charm of the neighbourhood with its yearly Christmas market that livens up the streets in the middle of winter. Furthermore, Waterfront Nyhavn manages the dock wall access to ensure that the most interesting boats are moored near pedestrian nodes and cafes. Waterfront Nyhavn is a success story in the making of an old naval port that was able to rebrand and turn itself into a tourism destination for years to come.



Figure B.79: *Canal boat tour in front of the market and historic buildings that frame the Nyhavn Canal (Travel Caffeine, n.d.)*



Figure B.80: *People enjoying the various restaurants and cafes that overlook the Nyhavn waterfront (Wikipedia, n.d.)*



Figure B.81: *Christmas market shops at the Nyhavn waterfront (Drever, n.d.)*

19.Damrak Waterfront

Location: Amsterdam, Netherlands

Relevance:

- National capital
- Tourism destination
- Mixed-use recreational & commercial

History and Context:

Damrak was Amsterdam's busiest canal until 1672 when most of the canal was filled due to a lack of need for it. In the present day, the canal is the main street that leads from Central Station to Dam Square. It is an essential connecting corridor between the two key locations. Along the corridor, there are 23 buildings designated as Royal Monuments and an iconic Victorian hotel.

Best Practices & Lessons Learnt:

Given its proximity to the water and the vast historical architecture in the area, boat tours are very popular and depart frequently. Amsterdam has also started a rebranding campaign to help bring better tourist activity to the area through its "Red Carpet Route", which showcases various historic districts around the city via a walking or cycling tour. Above all else, the area is accessible, with no financial cost to access and is entirely walkable or bikeable.



***Figure B.82**: historic houses lining the Damrak Canal lit up at night (freepik, n.d.)*



***Figure B.83:** Canal boat tours along the Damrak Canal. (Amsterdam Canal Cruises, n.d.)*

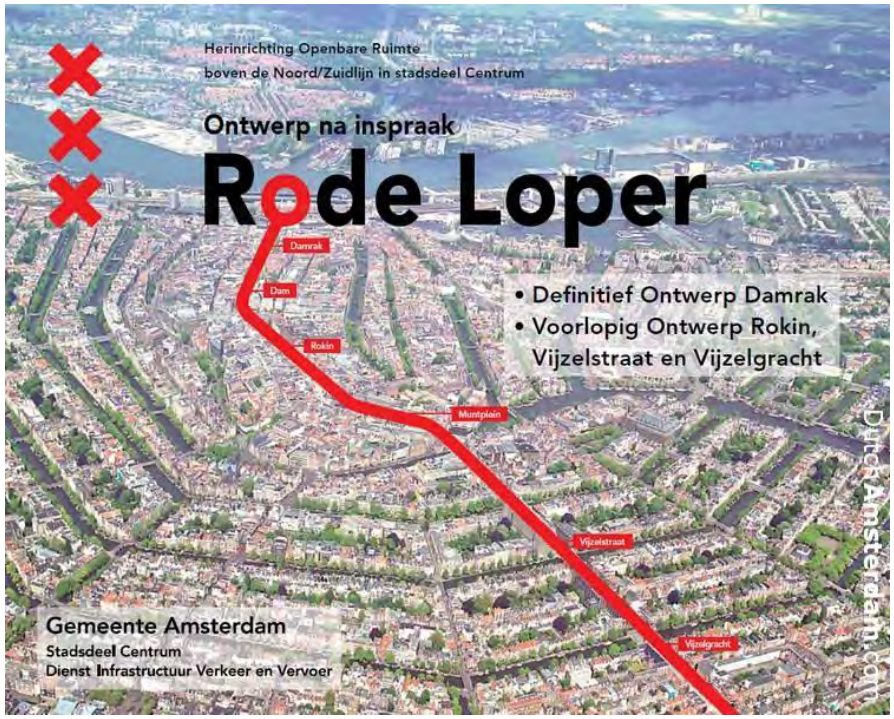


Figure B.84: *Map of the 'red carpet route' wayfinding tour that brings people around Amsterdam to the Damrak Canal and other significant historical sites (Dutch Amsterdam, n.d.)*



Figure B.85: *The historic Victoria Hotel (Amsterdam Travel Guide, n.d.)*

20.The Wharf

Location: Washington, DC, USA

Relevance:

- National capital
- Tourism destination
- Active Transportation
- Mixed-use recreational & commercial

History and Context:

The district was first established in 1791 by President George Washington. In the year 1805, the oldest fish market was opened and is still fully operational today. Due to its propensity for flooding, the river was dredged in 1882. Many years later in the post-war era, in response to the love for cars, Water Street was turned into a boulevard in 1938 and the district was later divided by a freeway in 1945. Since then, people have realized that they long for the connection to the water that was removed, so The Wharf was established to reinvent the district and bring it back to the water's edge.

Best Practices & Lessons Learnt:

The first key lesson to be learnt here is that it is very possible to bring people back to the water even when the connection seems severed. The Wharf has achieved this by continuing to offer the fish market in the same location after all these years, in addition to adding more amenities to the area to encourage people to sit down and stay a while. This is evident through the three different event piers that have been erected to facilitate pedestrian use and gathering in social and formal ways while making land to use on the water when there was no more land available at the water's edge. These three piers are the District Pier, the Transit Pier, and the Recreation Pier. The Wharf also makes use of different distinct zones that follow different themes but are all connected in a path network that is marked for wayfinding purposes. Not only this, but in the winter months, the Wharf also offers a floating ice rink open to the public. Whereas in the summer months people can rent boats, dock their own boats, and partake in a wide variety of other water-based activities at little to no cost.

Further Reading:

https://www.wharfdc.com



Figure B.86: *people enjoying a show at the Wharf outdoor theatre (Washington DC, n.d.)*



Figure B.87: *People skating on the floating ice rink at the Wharf at dusk (Wharf DC, n.d.)*



Figure B.88: *The Holiday boat parade at the Wharf (Wharf District, n.d.)*



Figure B.89*: 'The Torch' - a 14-foot-tall gas-powered flame that stands at the mouth of the harbor welcoming in boats and people as a modern take on a lighthouse beacon (Washington DC, n.d.)*

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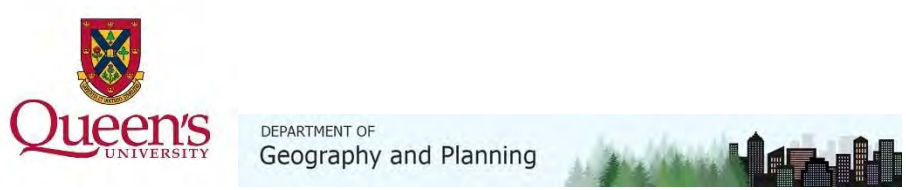
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C.1: Letter of Information & Consent Form

Below is a copy of the Letter of Consent that was provided to each stakeholder present at the meeting and to be signed by the interviewee:



SURP 824: Urban Planning Project

Animating the Ottawa Riverfront in the Core of Canada's Capital

Queen's University

Course-Based Research Project

LETTER OF INFORMATION

Preamble: Second-year Graduate Urban and Regional Planning students at Queen's University are taking a course called *SURP 824: Urban Planning Project – Animating the Ottawa Riverfront in the Core of Canada's Capital*, taught by Dr. David Gordon and adjunct professors Patrick Bunting and Monica Belliveau. The primary assignment is to carry out a group-based qualitative research project on "Animating the Ottawa Riverfront in the Core of Canada's Capital". **You are being invited to participate in this course-based research because you are the representative of a planning organization central to the Ottawa Riverfront in the National Capital Region's Core Area.**

Dr. Gordon has designed this research, tasking students to develop a plan that will support recreational and business opportunities along the river's shorelines, while ensuring quality design and persistence of iconic landscapes in the Capital Region's Core Area. This will be achieved through the identification of water-based activities and sites that could support tourism and enhance visitor experience while ensuring the protection of sensitive environmental features and the scenic qualities of the riverfront landscape. You have experience navigating planning proposals and development goals for the site, and as such can offer insight into how your organization is considering and/or implementing animation along the Ottawa River.

Thank you for considering the invitation to voluntarily participate in this research study. Please review this letter of information and discuss any questions you have with Dr. Gordon or one of the student researchers before consenting to participate.

Research Purpose: The purpose of this research is three-fold: 1) develop a plan that will support recreational and business opportunities along the shorelines while ensuring quality design and persistence of iconic landscapes in the Capital Region's Core Area; 2) identify water-based activities and sites that could support tourism and visitor experience, while ensuring the protection of sensitive environmental features and the scenic qualities of the riverfront landscape; and 3) develop strategies to provide sites for recreational and commercial services along riverfront lands and on water, as well as docking and launching locations for personal and commercial watercraft, while considering the support infrastructure(s) required.

Procedures: If you agree to take part in this voluntary study, a student researcher will interview you for approximately 30 minutes in person. During your conversation, you can share as much or as little as you like. The interview will be audio-recorded and later transcribed.

While Dr. Gordon and the student researchers will be the only ones with access to the audio recording of your interview, the transcript will be analyzed by the class as part of a collaborative analysis process. We would be happy to return the transcripts of your interview to you, to verify the accuracy of the transcript. We ask that you complete this review within 72 hours of receipt. Given the tight timelines of this course, we will not be able to send you a preliminary analysis or how we may use quotes from your interview in the context of students' graded assignments.

We will not be quoting participants by name or by institution, but there is always a small chance that any quote may be attributed correctly/incorrectly to you. We will do our utmost best to remove any identifiers to quoted materials. If we

move forward with a publication, and if we use quotes from your interview, you will have the option of reviewing how these quotes are used in context.

Permission: If you wish to volunteer to take part in this research project, we will go over the formal consent process before we begin the interview. At that point, we will clarify any questions you may have and, if you wish to participate, we will ask for your verbal consent.

Who Will Know: You can share as much or as little as you would like, and you may withdraw any part of what you have shared at any time until the final analysis stage of the project. As noted above, Dr. Gordon and the student researcher who interviews you will be the only people who will hear your audio recording, while all classmates will be able to see your transcript. All students in this class have obtained the TCPS2 Course on Research Ethics (CORE) Certificate, and all will adhere to maintaining strict confidentiality for the duration of this research project.

Your Choice: It is your choice to participate in this research. Participation is voluntary and there is no need to participate if you do not want to. There are no repercussions for declining to participate. If you do decline, it would be helpful to know why you are declining as this is often included in reports in qualitative inquiry.

Potential Benefits: There are no direct benefits to you as a participant, but you and your organization may benefit from reading the aggregate plan for animating the Ottawa Riverfront. As noted above, it is our intention to publish the findings of our research in a plan for animating the Ottawa Riverfront at the Core of Canada's Capital.

Potential Risks: There is some risk associated with your participation in this research project. We will be quoting participants without reference to an individual or organizational names but there is always a small chance that any quote may be attributed correctly/incorrectly to you. We will do our utmost best to remove any identifiers to quoted materials.

Withdrawal: You may withdraw from the project at any time within 72 hours of the conclusion of your interview without any repercussion and without needing to provide a reason or explanation. After this time, your transcript will be anonymized. If you request to review your transcript, you will have 72 hours within receipt of your transcript to withdraw from the study. If you wish to withdraw from the project, please contact the course instructor/supervisor (Dr. David Gordon): gordond@queensu.ca.

Compensation: You will not be remunerated for participating in this course-based assignment.

You have not waived any legal rights by consenting to participate in this study. You are free to ask any questions you may have about your rights as a participant. The Queen's General Research Ethics Board (GREB) may request access to study data to ensure that the researcher(s) have or are meeting their ethical obligations in conducting this research. GREB is bound by confidentiality and will not disclose any personal information. If you have any ethics concerns, please contact the General Research Ethics Board (GREB) at 1-844-535- 2988 (toll free in North America) or chair.GREB@queensu.ca. Call 1-613-533-2988 if outside North America. Please note that GREB communicates in English only.

Thank you for your interest!

C.2: Interview Questions

Below is the series of questions asked to the representatives of the City of Ottawa. The focus of the interview centered around learning more about the waterfront and the surrounding circumstances.

City of Ottawa

(11:30 –12:00 in Room 324)

1. We will be developing a plan to animate the waterfront and increase water access along the Ottawa River in the City's Core Area. As precedents to this study what other national, international, or local waterfront redevelopment projects would you suggest and why?
    a. Follow up: do you think these projects could be improved, or would you change anything now?
2. What are the key strengths and features within the waterfront corridor along the north and south shore of the Ottawa River (from the Chaudière Islands to the Sir George Etienne Cartier Parkway)?
3. What would you say are some of the challenges with the waterfront corridor?
    - Especially in terms of public use, accessibility, and connectivity?
    - Additional follow-up question: are there any underutilized areas that you feel would be well suited for this project?
4. In your opinion what are some (design/land use/development) measures that are important to ensure flood resiliency along the waterfront?
5. Special projects in and around the area that we should research (see potential question below on this topic)?
6. Are there any additional projects, either within the Core Area or beyond that you think demonstrate one or more key aspects that you would like to see reflected in the study area such as connectivity, an animated waterfront, sustainable design, a key viewpoint, etc.?
7. In your opinion, what are some of the existing noteworthy animation points/entryways to the river in the Core Area? (Follow up: what are their strengths, or do you think they could be improved?)
8. Should there be a focus on enhancing the views and access from the waterfront to the existing capital, cultural and scientific institutions?
9. What important waterfront design considerations would you suggest in this corridor?
10. Are there any areas within the study area that you think should remain naturalized, and why?

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Appendix D: Stakeholder Analysis Table & Design Charette Ideations

Appendix D.1: Stakeholder Analysis Table

Table D.1: *Stakeholder table that identifies key stakeholders in the project and the appropriate management strategy for each stakeholder. Indigenous Peoples and Nations have claim to this land above everyone else and as such need to be collaborated with on a nation-to-nation basis. For this reason, Indigenous Peoples and Nations do not fit the definition of a stakeholder and are not listed in the following table.*

Stakeholder	Interests	Methods of Influence	Management Strategy
National Capital Commission (NCC)	• Engage in long-term planning of significant public places in the National Capital Region. • Encourage creative solutions that enhance Canada's cultural heritage in the National Capital Region. • Protect, preserve, and enhance the natural features of the National Capital Region.	• Owns and manages a significant portion of federally owned land and adjacent properties • Hosts public consultations • Guides development undertaken on federal lands via development guidelines • Has the influence over animation ideas in future design guidelines	**High Influence & Involvement**
City of Ottawa; Planning Infrastructure and Economic Development Department	• Controlling the growth and development of Ottawa's built form • Create and ensure compliance with the official plan, secondary plans, urban design guidelines, and zoning bylaws • Ensure that developments alongside the waterfront are consistent with the identity of Ottawa as a whole	• Develop policies and guidelines for developers to follow • Coordinate and Collaborate with the City Councils and developers • Enforce compliance with developments within the Ottawa Official Plan • Approve plans for building, developing, and repairing infrastructure • Has some authority to approve/reject waterfront	**High Influence & Involvement**

		animation projects	
Ville de Gatineau; Department d'Urbanisme	• Create and enforce the Plan d'urbanisme de la Ville de Gatineau, Plan Particulier d'urbanisme, and Règlement de Zonage. • Develop and maintain the identity of Gatineau (i.e. focusing on the Gatineau side of the Ottawa River)	• Develop policies and guidelines for developers to follow • Provide insight to City Council and developers on what is desired by Ville de Gatineau • Approve plans for building, developing, and repairing infrastructure • Has some authority to approve/reject waterfront animation projects	**High influence & Involvement**
Rideau Valley Conservation Authority (RVCA)	• Manage the health of the Rideau Watershed (and by extension, the Ottawa River) • Provide environmental stewardship by observing and controlling both natural and human activity in the watershed • Activities and developments along the Ottawa River may influence other areas of the watershed	• Provide reports that influence council decisions • Provide consultation and partnerships with the public and private sector • Reviews development policies and building permits for sewage disposal systems • Wants to work with waterfront animation development projects by ensuring animations meet their standards	**High influence & Involvement**
Parks Canada	• Protect the natural and cultural heritage of Canada through the conservation of Canada's natural assets • Research and recall stories of influential natural sites in Canada	• Research and maintain records of human history in Canada • Manage commemoration programs • Identify historical sites and	**Low influence & High Involvement**

	• Identify natural heritage areas within the waterfront and provide a strategy for managing said areas	devise strategies for managing sites • Protect and manage existing natural heritage sites • Can approve or deny developments surrounding Rideau Locks, including commercial establishments and private boat companies	
Other Stakeholders			
Government of Canada and other related organizations	• Conducts operations on Parliament Hill and other federally owned and operated lands • Maintain the image of Canada's capital for national and international purposes, including preserving the landscapes of the Ottawa River • Utilize tax revenues generated by tourism and local business	• Develop Acts that control how provinces operate from legislation and policy • Provides political influence and guides the amount of funding granted to other stakeholders • Can seek out private developers to construct buildings for federal purposes • Can approve or reject animation based on how well it fits with the image and revenue potential	**High Influence & Low Involvement**
Ottawa River Regulation Planning Board (ORRPB)	• Interprovincial governmental organization that studies, manages, and controls flow of the Ottawa River • Works with other reservoir managers to reduce the risk of flooding through water	• Releases forecasts that indicate expected flooding levels and strategies to mitigate flooding in the Ottawa River • Can restrict and/or approve uses of water based on strategies to reduce flooding along the river	**High Influence & Low Involvement**

	management • Limited by provincial and federal legislation that overrides suggestions made by the Board	• Can reject animations that are likely to interfere with the flow of the Ottawa River	
Public Services and Procurement Canada (PSPC)	• Acts as central purchasing agent for a variety of assets owned by the Federal Government • Assets include real estate, machinery, labour, and infrastructure projects • Owns and manages federal land surrounding the Ottawa River	• Finances projects undertaken by the NCC by purchasing necessary materials and equipment on their behalf, granting them influence on the outcome of riverfront animations • Will push for naturalization of indigenous vegetation • Will deny any animation that allows for car access to the waterfront	**High Influence & Low Involvement**
Hydro Ottawa	• Owns all six hydroelectric generating stations at Chaudière Falls in both Ontario and Quebec • Aims to produce clean, renewable energy in an environmentally responsible way; create an open public space to be enjoyed by all; and serve as a place of recognition and celebration of First Nations culture and Ottawa's industrialist past	• Made the hydroelectric station open to the public • Provided new viewing platforms, a pedestrian bridge across the intake canal, a revitalized park space that pays homage to its Indigenous roots and colonial past, and proposed that the site be used for ceremonies and celebrations • Can approve or deny animation on the dam and surrounding areas	**High Influence & Low Involvement**
Provincial Stakeholders			

Government of Ontario	• Collects and receives tax revenue from the City of Ottawa to fund provincial duties • Owns and manages provincial infrastructure within the southern region of the National Capital Region (transit, bridges, schools, hospitals, Ontario Provincial Police, etc.) including areas along the Ottawa River	• Distributes funding and sets guidelines on how funding is to be used for services • Sets Planning Policies and manages the development of infrastructure under the *Provincial Policy Statement* • Develops provincial infrastructure • Provincial agencies also manage inter-municipal relations • Can utilize funding to influence desired animations within Ottawa	**High Influence & Low Involvement**
Gouvernement du Québec	• Collects and receives tax revenue from Ville de Gatineau to fund provincial duties • Owns and manages infrastructure within the northern region of the National Capital Region (transit, bridges, Sûreté du Québec, etc.) including those by the Gatineau waterfront	• Distributes funding and sets guidelines on how funding is to be used for services • Manages development under the *Act Respecting Land Use Planning and Development* • Develops provincial infrastructure • Provincial agencies also manage inter-municipal relations • Can utilize funding to influence desired animations within Ottawa	**High Influence & Low Involvement**
Other Municipal Stakeholders			

Ottawa City Council	• Evaluating and assessing community needs for the waterfront • Passes municipal laws that affect the management of municipal parks and services	• Distribute funding for municipal services • Influences local developers to contribute to Ottawa's economy • Developers must seek approval from Ottawa City Council departments • Consults residents to get opinions on projects • Can hold town halls and evaluate development applications for the Ottawa River's banks	**High Influence & Low Involvement**
Conseil Municipal de Gatineau	• Evaluating and assessing community needs for the waterfront • Passes municipal laws that affect the management of municipal parks and services	• Distribute funding for municipal services • Influences local developers to contribute to Gatineau's economy • Developers must seek approval from Conseil Municipal de Gatineau agencies • Consults residents to get opinions on projects • Can hold town halls and evaluate development applications for Gatineau's shoreline	**High Influence & Low Involvement**
Ottawa Police Service - Ottawa Drowning Prevention Coalition	• Protects the safety of local community by enforcing laws • Educates community on dangers of	• Ensures animations that interact with water meet safety standards as required by law	**Low influence & High Involvement**

(OPS)	drowning in bodies of water and safe water activity practices		
Private Stakeholders			
Residents	• End users of Ottawa's waterfront projects • Desire to see Ottawa's waterfront remain beautiful and usable • May also want to show it off to friends/family from out of the city	• Pay taxes toward municipal services • Partake in consultation meetings to suggest ideas • Can become councillors to drive change • Can protest future waterfront animations but can also attend town hall meetings to suggest changes	**Low influence & High Involvement**
Ottawa Riverkeepers	• Charitable organization centered around protecting the health of the river • Identifies issues present in the river and designs solutions to preserve health of river	• Organizes meetings of stakeholders to discuss issues • Utilizes findings from reports to lobby for solutions that resolve issues facing the Ottawa River	**Low influence & High Involvement**
Organized Community Groups	• Utilizes Ottawa's waterfront for recreational activities such as rowing	• Pay taxes toward municipal services • Indirectly influences use of waterfront • Can utilize existing animations as intended or ignore them entirely	**Low Influence & Low Involvement**

Business-to-Consumer Companies (B2C) Includes but is not limited to: • Tourism industry • Hospitality industry • Retail establishments	• Seek profit by conducting business operations in area • Alter built form to meet the needs of their business • Serve the end users of the animations directly through provision of goods and services to individual consumers	• Drive people to visit the area and spend time there through advertising • Submit applications to change/develop lands • Can also leave if area is unprofitable due to high costs or not enough revenue, rendering animation unprofitable • Enhance existing animations by meeting the needs of people utilizing the animations	**Low Influence & Low Involvement**
Business-to-Business Companies (B2B) Includes but is not limited to: • Developers • International Companies • Crown Corporations	• Seek profit by conducting business operations in area • Alter built form to meet the needs of their business • Frequently work with the government to operate a business within the area and negotiate contracts through an RFP process • Provide goods and services to other businesses so they can serve their consumers • Also provide construction and manufacturing for development on government lands	• Can respond to proposals for waterfront animation with own resources • Can negotiate the development and costs associated with land development • Can modify existing waterfront animation plans as needed during the process of the project based on remaining resources • Can also provide advertising and support for animation projects should they succeed in securing the contract	**Low Influence & Low Involvement**

Appendix D.2: Visioning & Design Workshop Notes

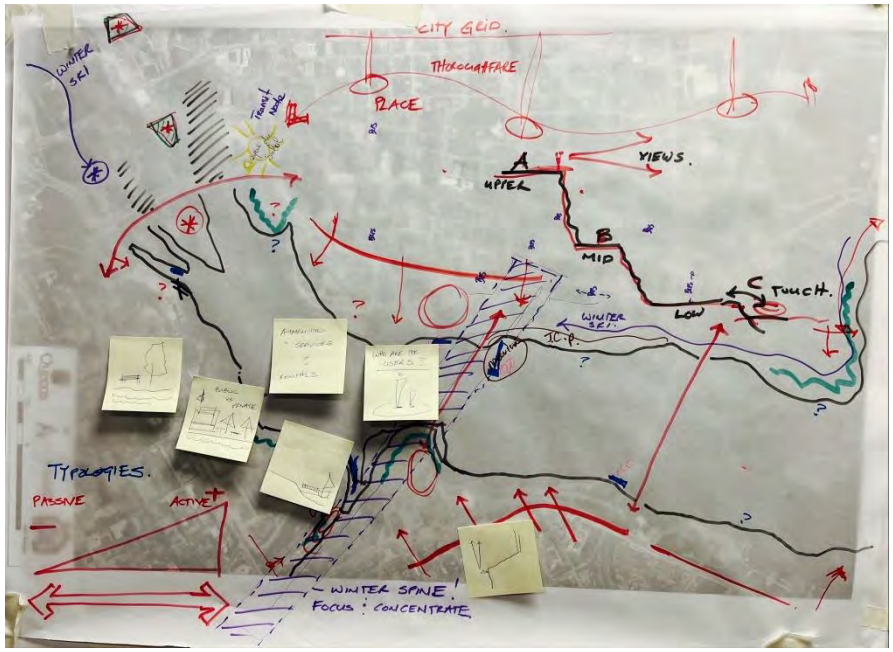
Table D.2: *Table detailing the findings from each of the four design charette teams.*

Group	Findings
Yellow	• The importance of creating a high-quality public realm through the process of placemaking • Design that showcases Indigenous language and culture • Consider who the current riverfront users are, and how animations could change users • Facilitate winter animation by linking the Rideau Canal to Gatineau • Ensure that animations are sustainable and suited to the existing topography • Riverfront should be made accessible despite topography
Blue	• An emphasis on using the river to facilitate alternative modes of transit and improve connectivity between the north and south shores • Improving water taxi stations to function as a transit link with Lyon and Pimsi (south), and Kruger (north) • A funicular to improve connectivity between the river and the upper level on the Ottawa side and improve accessibility to the lower level • Adaptive reuse of the Kruger, Inc. manufacturing plant into a modern culture and innovation hub • A sheltered pedestrian walkway at MacDonald Cartier Bridge
Red	• The area around the Kruger, Inc. plant toward the water can be animated by an outdoor amphitheater • Preserve and enhance views by demolishing the Kruger, Inc. plant • Bennett-inspired observation deck off Bank Street with stairs down to the lower level, which features a barge • A bridge connecting the Ottawa River Pathway to Richmond Landing • Small-scale commercial service buildings and amenities help create a natural view of the south shore and attract people to the river • Funiculars to replace stairs behind the parliament buildings

Green	• Create a Bank Street access point to the riverfront • Facilitate a water taxi or "canoe-ber" service on the river • Use streetscapes to guide people towards riverfront attractions • Reducing the heightened majesty of the Ottawa riverfront and incorporating the 'grit' of its history • Incorporate winter uses throughout riverfront pathways • Public art installations that are animated by the flow of the river • Convert of as much parking as possible into public spaces

Appendix D.3: Design Charrette Ideations

Yellow Team



Red Team

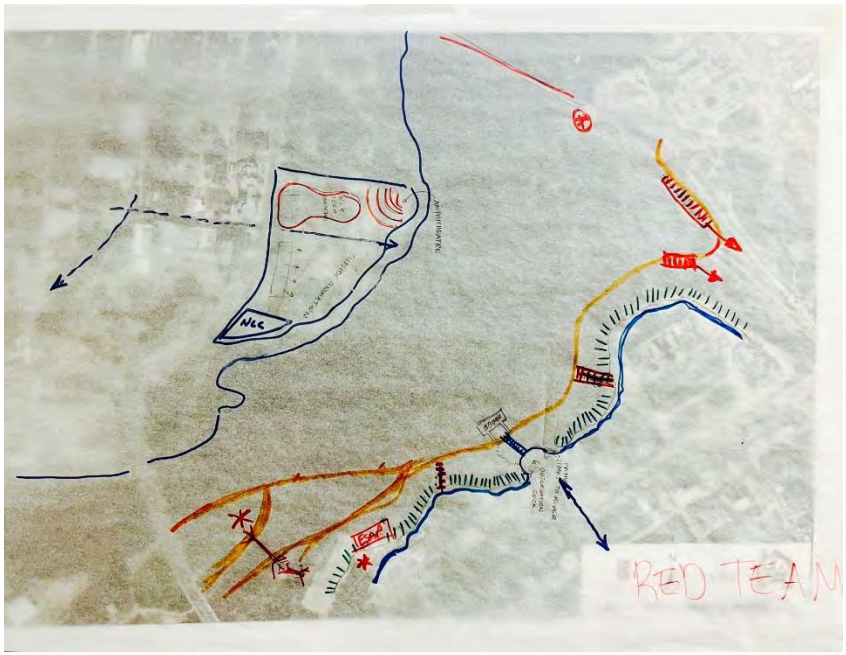
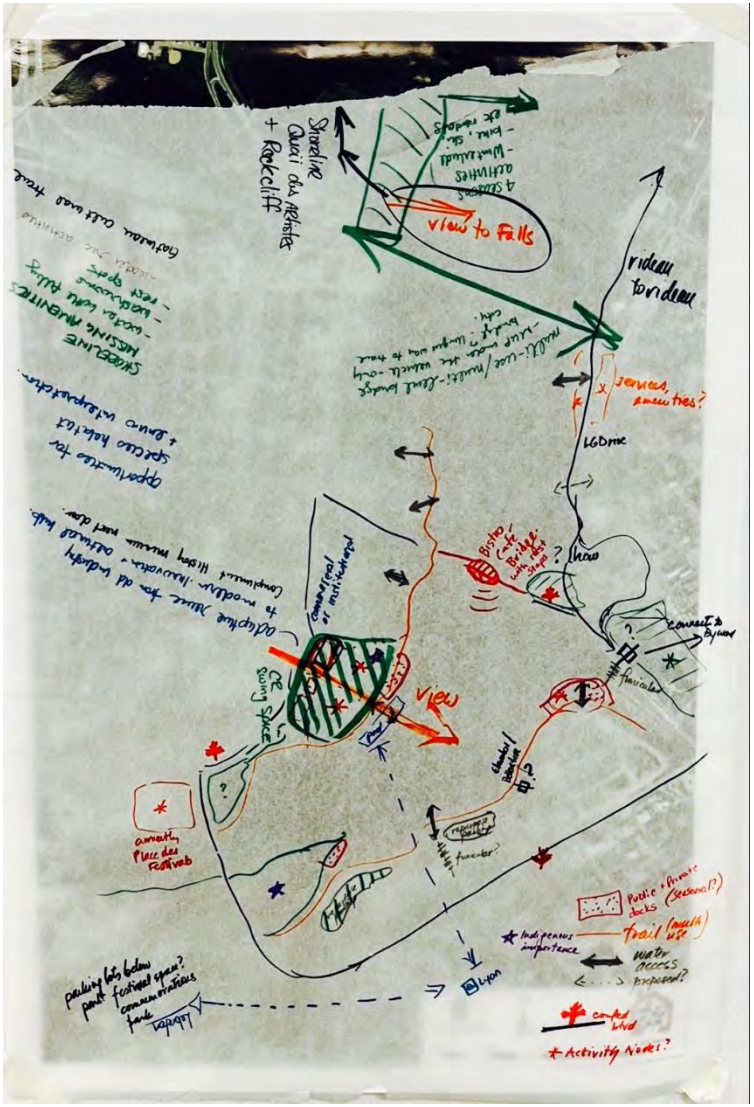
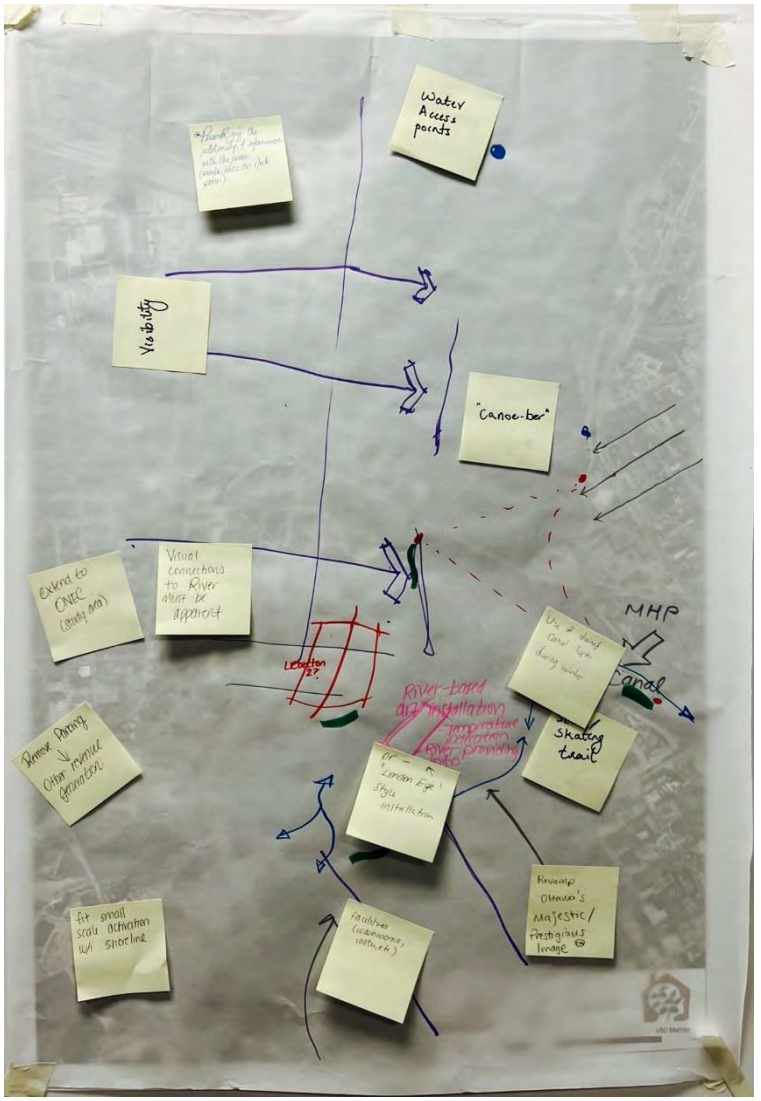


Figure D.1: *A series of drawings showcasing animation ideas from the attendees at the Design Charrette*

Blue Team



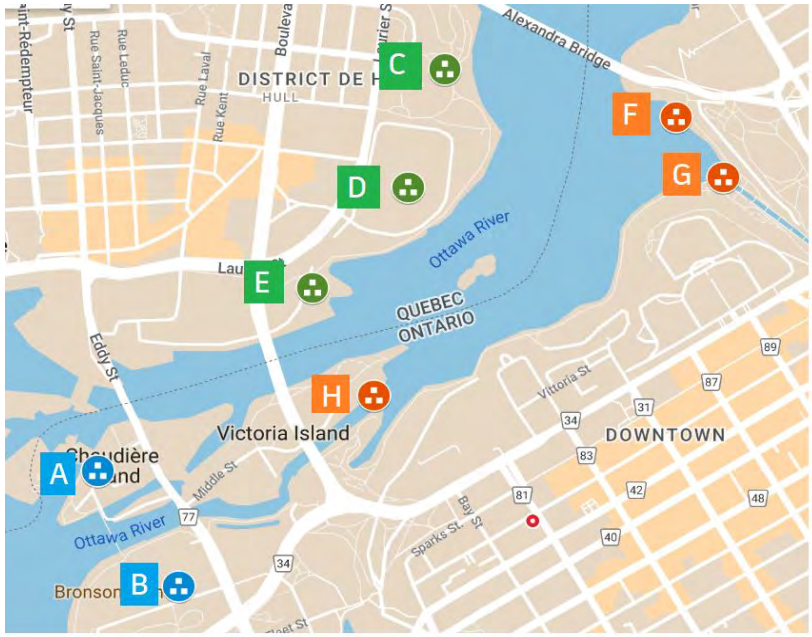
Green Team



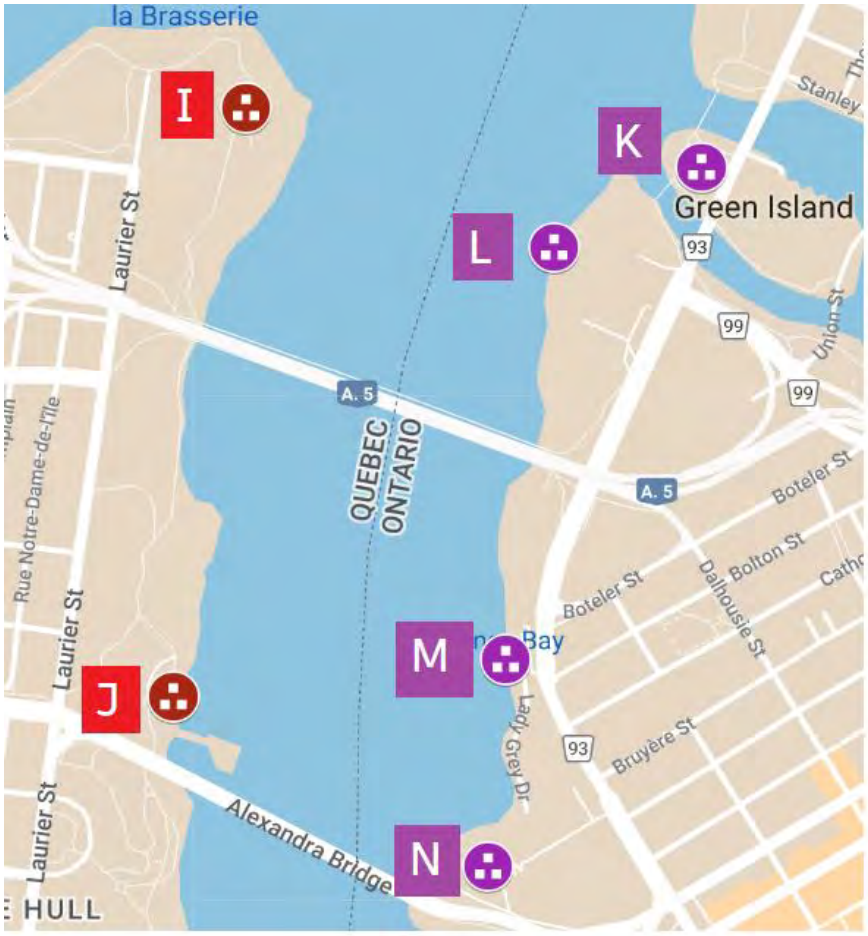
Appendix E: Character Area Analysis

Appendix E.1: Nodes

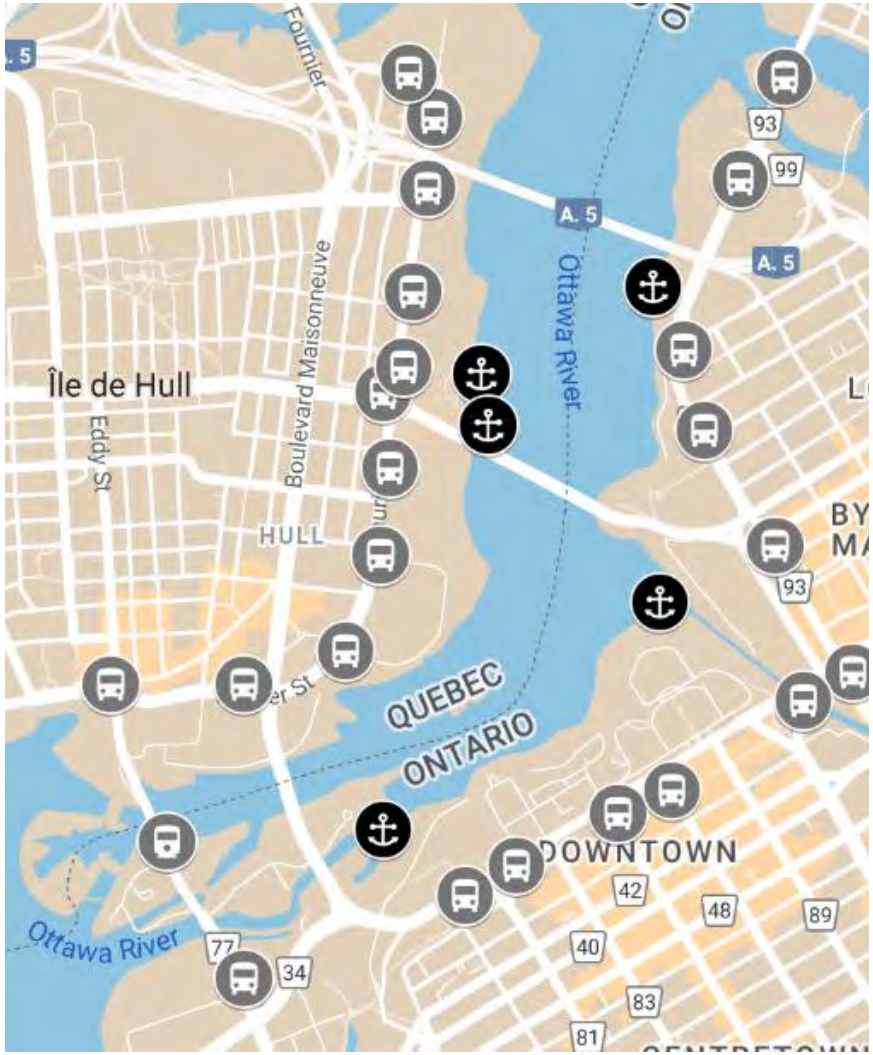
Maps were created using the Google MyMaps application. Each node is marked by the ∴ symbol.



Map E.1: *Locations of existing nodes in the south portion of the study area (Ibid).*



Map E.2: *Locations of existing nodes in the north portion of the study area (Ibid).*



Map E.3: *Locations of transit access points in study area. Bus stops are marked in grey while formal water access points are marked in black with marina symbols (Ibid.).*

Tables

Table E.1: *Descriptions of nodes as marked in Maps E.1 and E.2.*

Letter On Map	Node Name	Existing Uses
South Study Area Locations		
A	Chaudière Island & Dam	• Tourist destination with viewpoints overlooking the dam • Also used as an industrial/institutional zone undergoing construction
B	LeBreton Flats	• Institutional node with Canadian War Museum, Holocaust Memorial, and green space
C	Educational/Museum	• Institutional node with Canadian Museum of History and additional green space showcasing Indigenous monuments
D	Kruger Lots	• Industrial node utilized by the Kruger, Inc. with Voyageurs Pathway along the Ottawa River
E	Riverfront Inlet	• Green space with Voyageurs Pathway throughout the area; dense vegetation
F	Bytown Wharf	• Green space with existing Trans-Canada Trail leading to Alexandra Bridge and the Rideau Canal Locks
G	Rideau Locks	• Major tourist destination with aqua-taxi landing area and multiple connections via the Trans Canada Trail and canal lanes
H	Richmond Landing	• Aqua-taxi access point with Royal Canadian Navy monument and walking trails that lead to the Mill St. Pub commercial establishment
North Study Area Locations		
I	Jacques-Cartier Park	• Green space with unofficial urban beaches and historic sites such as the Gilmour Steel Mill Ruins and the La Maison du Vélo
J	Jacques-Cartier Marina	• Green space with access to the public Jacques-Cartier/Hull Marina and the private Portage Champlain Yacht Club for water access
K	Green Island	• Green space with Commonwealth Air Force Memorial overlooking the Rideau Falls and the Tavern on the Falls commercial establishment

L	National Research Council Shoreline	• Private parking lot with walking trail that oversees the Ottawa River and is relatively isolated from the public
M	Lady Grey Drive	• Public road that is used as a parking lot/access road to the National Art Gallery's loading docks
N	Kìwekì Point	• A green space with historical statues and a vista overlooking Alexandra Bridge and the Ottawa River

References

Google. (n.d.). [Google Map of the Ottawa River Study Area]. Retrieved November 9, 2022, from https://www.google.com/maps/@45.4316143,-75.7076756,15.2z

Appendix F: List of Animations

Before proposing any location-specific animations, the project team came up with a list of all the possible animations that could be found within a riverfront city, and then analyzed the environmental considerations of these animations along with their intended use, users, and physical environment requirements. Additionally, they have also been categorized based on their seasonality as either year-round animations, or seasonal animations limited to either winter or summer use. They have also been categorized based on four key categories that helped the project team determine potential users and use: (1) recreational, (2) commercial, (3) arts and culture, and (4) Indigenous culture. It is important to note that each animation is not limited to only one of these categories as their potential for animation can be multi-faceted.

Seasonal	**Symbol**
Summer Use	
Winter Use	
Year-Round Use	

***Table F.1**: A list of all the potential animations the project team considered within the study area, along with their categorization and environmental considerations.*

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
Amphitheatre		Commercial	Complementary land use feature that should be located adjacent to the riverfront for scenic views of the capital region.	Locations with elevations that can accommodate a dome shape with an incline.	Materials chosen should withstand seasonal flooding.
BBQ areas		Recreation	Complementary land use feature that should be located adjacent to the riverfront in an area where there is adequate space for gatherings of groups.	Within an open area to reduce fire risk; however, they should be grouped with other complementary animations, like picnic tables/pavilions and open recreational spaces to enhance overall user experience within a location.	Minimal infrastructure required. Designated spaces can also be provided for visitors to bring their own seats.
Beach		Recreation	Located in an area that would be conducive for swimming of all levels with an emphasis on water safety and an expansive shoreline for relaxation and recreation.	Should be in an area that is easily accessible for all visitors by providing direct access to the river. Preferably in areas with sandy shorelines and shallow waters.	Beneficial to co-locate with other complementary features (e.g., picnic areas, pavilions, public amenities).
Bike share stations		Recreation & Commercial	Bike share stations should be in proximity to biking trails.	Should be located on a flat area of land that is accessible by all visitors of different biking abilities.	Potential animations should be co-located with additional services like warming huts, public amenities, and other outdoor activities.
Bistro & café		Commercial	Complementary feature located near the rivers edge to capitalize on views and experience of users.	Best suited in shoreline areas with less vegetation. Flexible according to the elevations of the land/water.	Need to be mindful of how the bistro and café will complement the surrounding area and experience.

Animations	Season	Category	Environment		
			Water	Topography & Physical Environment	Other Considerations
Boardwalk		Recreation Arts & Culture	Located along the water's edge, boardwalks can provide access to and views along the river. There can also be additional animations along the boardwalk such as public art and/or balustrades that attract people to the river, providing a platform for arts and culture.	Best suited in shoreline areas with less vegetation (i.e., vegetation that is directly at the water's edge). Boardwalk flexible according to the elevations of the land/water. Also suited to areas of environmental sensitivity as users have fewer negative impacts while still benefitting from waterfront access.	Need to be mindful of reducing impact on vegetation and wildlife, especially north of Jacques-Cartier Park. Natural materials should be used (e.g., wood for boardwalks, woodchips for trails) and litter containers should be provided at appropriate locations.
Boat launch		Recreation & Commercial	Should be in areas with direct riverfront access, with public access, and access for emergency services.	Should be located away from environmentally sensitive areas like wetlands.	Should be located within an area that is accessible by car, with areas for turning and maneuvering with a trailer.
Boat restaurants / barge bistro		Commercial	Located along the water's edge as a destination along the river and to provide nourishment or experiences with river views.	Best suited in shoreline areas with less vegetation. Flexible according to the elevations of the land/water.	Need to be mindful of how boat or barge restaurants will complement the surrounding area and complementary animations within a location.
Boating		Recreational & Commercial	Animations should have docks or launches specifically for boating experiences. Commercial rentals should require users to hold a PCOC or sign a liability form and watch a short "rules of the road" instructional video.	Boat launches are best suited in areas closest to the riverfront shoreline.	All boats should have mandatory safety equipment, which follows the "Safe Boating Guide" issued by Transport Canada.
Canoe		Recreational & Commercial	Animations must be geared toward potential users and their experience levels.	Direct water access is required, best suited in sheltered water with calmer waters which can	There should be considerations to limit canoe-usage close to

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			Rental experiences should be in a location that is suitable for entry-level. Multiple canoe animation points are flexible to provide a range of experiences for all users.	accommodate an accessible boat launch or dock. Informal entry locations for canoeing should only be promoted to experienced users.	Chaudière Falls/Dam during spring.
Cliff jumping		Recreation & Commercial	Must be done in an area where there is sufficient water depth for safe jumping, and slow currents.	Can only be implemented in an area with a change in elevation as well as sufficient water depth.	Warning signs should be in place regarding risks because of the changing water/weather conditions in the area. Unknown objects may also be drifting below the surface of the water.
Cross-country skiing		Recreation & Commercial	Should be proposed in areas that provide multiple experiences and trail connections to users to enhance cross-country trail network.	Best suited in shoreline areas with less vegetation. Marked paths can be provided to make sure visitors present fewer negative environmental impacts from this winter activity.	Potential animations could include both land and river trails where there is sufficient ice thickness.
Cycling		Recreation & Commercial	Should be in areas where users can also experience the riverfront. Rental and bike share locations should be placed around the study area in locations safe for beginners.	Best suited in shoreline areas with less vegetation. Existing designated pathways should be used with additional rest stops along the pathways to allow spaces to enjoy the riverfront views.	Should be in areas where there will be minimal negative interactions with other users, like pedestrians. Experience could be improved by co-locating services like repair stations, places to rest, amenities, and bike lock stations.
Docks		Recreation & Commercial	Should be in areas with direct access to river front and designed for intended users with considerations of	Should be located away from environmentally sensitive areas (e.g., wetlands) and in sheltered waters.	Docks should be designed with materials that are conducive to their use and scale with permanent

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			watercraft size, required depth of water, and permanent or semi-permanent installations.		installations made from materials that can withstand flooding and winter (e.g., concrete), or semi-permanent installations (e.g., floating wooden docks).
Dog park		Recreation	Complementary land use feature that can be located close to pathways to enhance pathway network connecting to different experiences.	Best suited in areas that are compatible to having dogs on or off leash. Pet waste receptacles should be located within the park for safe disposal of pet waste.	Review of criteria for dogs-in-parks designation policy to ensure dog compatible features in potential dog parks.
Emergency boat launch		-	Should be in areas adjacent to the river and clear of obstructions.	Can be in areas close to marinas/docks/piers that have existing docking infrastructure or require an emergency boat launch.	Markings should be visible to indicate an area used as an emergency boat launch for first responders.
Fat biking		Recreation	Fat biking trails should be designed for users and their experience levels that provide a variation in views, potential changes in elevation, and length or difficulty.	Proposed animations should connect and build off existing trail systems to provide increased diversity in trail options, or alternative fat bike animations such as a winter bike park.	Potential animations should be co-located with additional services like warming huts, public amenities, and other outdoor winter activities.
Ferris wheel		Recreation & Commercial	Animation best suited for areas adjacent to the riverfront to provide a commercial attraction that provides multiple viewpoints of the river.	Requires an area that has unobstructed views of the riverfront and away from environmentally sensitive areas.	Located in an area that is beyond the floodplain.
Fishing		Recreation & Commercial	Requires direct riverfront access in areas where there is sufficient distance from	Locations require some vegetation with a gently sloping riverbank that has shallow water.	Could be applied to both formal and informal animation with designated

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			pedestrians and the pathway system.		fishing areas or along the large areas of the riverfront. Users must also hold a recreational fishing license or deemed license.
Food trucks		Commercial	Located in areas in proximity to the water for riverfront users.	Requires areas that are accessible by vehicle with space for people to order and congregate to eat their food.	Would be beneficial to co-locate with picnic areas, or additional amenities and services.
Funicular		Commercial	Animation best suited in locations with big elevation changes. Landing platform can be in proximity to the water and connected to pathway system.	Requires an area with a steep slope to connect two points. Area should also allow for scenic sightseeing within the study area.	Should take into consideration the best views for commercial purposes as well as most accessible points to board the platforms.
Gazebo/picnic area		Recreation	Located in an area adjacent to the riverfront for scenic views.	Location must be spacious to account for large pavilion and potential roof for shade to not block existing views. Gazebos should also be equipped to allow for heating during the winter months.	Located in an area outside of the flood plain with complementary infrastructure for complementary amenities (e.g., water fountains, bathrooms, lighting)
Gondola/cable car		Commercial	Animation suited to traverse the river perpendicular to shoreline to provide alternative views and experiences for users.	This animation would be best suited to an area where there is a change in elevation as well as an area that can provide a unique scenic sightseeing opportunity.	Should take into consideration the best views for commercial purposes as well as the most accessible points to board the platforms.
Historical models		Arts & Culture	Complementary animation suited close to museums located within the study area. Animation can provide connection	Requires an area close to significant museums within the study area. It should also be adaptable to seasonal changes and potentially flexible for any changing exhibits in museums.	It should take into consideration areas that are beyond the floodplain, especially for temporary outdoor models.

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			between the River and Canada's history.		
Ice cream shops		Commercial	Located in proximity to the water for riverfront users.	Requires areas that are accessible by different modes of transportation with spaces for people to order and congregate to eat.	It would be beneficial to co-locate with other complementary features (e.g., picnic areas and pavilions, amenities, and services).
Ice fishing		Recreation & Commercial	Located in areas that are designated as safe ice surfaces during the winter.	Ice covering the body of water for ice fishing should be at least 4 inches to support a person and at least 12 inches to support a mid-size pick-up truck.	Users must also hold a recreational fishing license or deemed license and should consider reviewing limitations around catching.
Kayaking		Recreational & Commercial	Direct water access is required and should be geared towards potential users and their experience levels. Rentals should be in locations best suited for entry-level.	Best suited for low-lying areas in shallow waters. Areas should allow for an accessible boat launch or dock. Informal entry locations should also be permitted to experienced users.	There should be considerations to limit kayak usage close to Chaudière Falls/Dam during spring.
Light shows		Arts & Culture	Located in proximity to the water that also provides adequate seating for groups to enjoy the experience.	Should consider the environmental sensitivity of the area with regards to illumination.	Light shows along the water can be used as a form of storytelling through water jets, visual projections on water mists, and music. The programming of stories can be found from local/national artists.
Lookout		Recreation Arts & Culture	Animations must be accessible to people of all ages and abilities to provide water access, resting, and	It should be flexible according to elevation. However, it is best suited at slightly elevated locations along the shoreline. The location should be mindful of reducing impact on	Need to be mindful of Indigenous culture and heritage (in how the lookout is designed and positioned) in locations such as Kabenishinân

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			interaction/viewing space at the riverfront.	vegetation and wildlife, in locations such as Jacques-Cartier Park North.	Minitig and Chaudière Island. Additional ramps, seating, shade, and waste receptacles should be provided at appropriate locations.
Marina		Recreation & Commercial	Located in areas with direct access to the river and design for intended users with considerations for watercraft size, required depth of water, and permanent or semi-permanent installations.	Should be located away from environmentally sensitive areas (e.g., wetlands) and in sheltered waters.	Marinas should be designed with materials that are conducive to their use and scale with permanent installations, and made of materials that can withstand flooding and winter (e.g., concrete), or semi-permanent installations (e.g., floating docks)
Multi-use barges		Recreation Arts & Culture Commercial	Animations must be geared toward potential users and their experience levels.	Can be used as a temporary animation to remove any negative impacts from the natural environment. However, swimming barges should be located away from environmentally sensitive areas (e.g., wetlands).	The towing of a swimming barge allows it to be temporary/adaptable at different locations. It will also require drydock inspections for any necessary maintenance.
Multi-use greenspace		Recreation	Located in areas adjacent to the riverfront to provide views and a range of experiences for users.	Located in areas that are accessible by different modes of transportation with spaces for people to congregate and access a range of experiences within one space.	It would be beneficial to co-locate with other complementary features (e.g., picnic areas and pavilions, amenities, and services).
Outdoor gym		Recreation	Located in areas adjacent to the riverfront to provide	Located in areas that are accessible by different modes of transportation with spaces for	It would be beneficial to co-locate with other complementary features

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			views and range of experiences for users.	people to congregate and access a range of outdoor fitness equipment.	(e.g., picnic areas and pavilions, amenities, and services).
Stand-up paddle boarding (SUP)		Recreational & Commercial	Located in areas where water is calm, and current is slow. Multiple SUP features provide a difference in experience and views within the study area.	Direct water access is required. Best suited for low-lying areas that have accessible boat launches or docks. Informal entry locations for canoeing should only be offered to experienced users.	There should be considerations to limit paddle boarding usage close to Chaudière Falls/Dam during spring.
Pedal boat		Recreational & Commercial	Animations must be geared toward potential users and their experience levels. Rental experiences should be in a location that is suitable for entry-level where the water is calmer.	Direct water access is required. It is best suited for low-lying areas with accessible boat launches or docks.	There should be considerations to limit paddle boat usage close to Chaudière Falls/Dam during spring.
Pedestrian bridges		Recreation	Should be located along the riverfront to increase connectivity and improve users' experience.	Best suited for areas that will offer users access to natural features (e.g., long-range view of the river). Should be in areas that would provide access to existing pathways.	Should be designed to be accessible to all users. Materials should be able to withstand seasonal flooding.
Pier/wharf		Recreation & Commercial	Located in areas that would provide great riverfront views for users.	To be in areas that allow for raised structures that extend out from the shore and raised above the water.	Piers should be designed with materials that are conducive to their use and scale. It should be made from materials that can withstand seasonal flooding in the area.
Playground		Recreation	Located in areas adjacent to the riverfront to provide views and range of experiences for users,	Located in areas that are accessible by different modes of transportation with spaces for visitors, especially families, to	Materials and design can vary to complement surrounding uses. Naturalized playgrounds

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
			especially families with children.	congregate and access a range of experiences within one space.	can blend with surrounding areas and provide a variety of activities while protecting vistas.
Pop-up shops		Commercial	Located in areas adjacent to the riverfront to provide views and a range of experiences for all users.	Located in areas that are accessible by different modes of transportation with spaces for residents and visitors alike to congregate and access a range of experiences.	It would be beneficial to co-locate with other complementary features (e.g., seating and public amenities).
Portage routes		Recreation Arts & Culture	Both formal and informal portage routes should be identified within the study area adjacent to the riverfront to bypass the dam and other obstacles, like fast rapids or fast-moving water for beginners.	Located in areas that offer low-lying portage sites where visitors can dock their canoes.	Formal routes should be identified with wayfinding. Historical or art animations, as well as storytelling, can be included in river tours. Collaboration with Indigenous Peoples needed to identify routes.
Public amenities		-	Should be adjacent to riverfront animations that attract big groups of users to linger.	Located in areas that are close to riverfront pathways and in areas where visitors will congregate to access other riverfront animations.	It would be beneficial to co-locate with other complementary features (e.g., picnic areas and pavilions, and other riverfront animations that allow people to congregate).
Public art		Arts & Culture	Animation that can be used to reflect existing water conditions, or historical uses or Indigenous relations to water. Additionally, can be used as an interactive or moving feature (e.g., mill, water features, fountains).	Public art can come in different forms. Installations should be complementary to surrounding uses/features and be scaled appropriately as to not interfere with vistas helping create identity in placemaking. Illuminated and interactive	Public art provides a range of opportunities to highlight conditions, significant features, and/or histories of the area. It can also be a form of storytelling that can be amplified by multiple installations like art walks,

Animations	Season	Category	Environment		
			Water	Topography & Physical Environment	Other Considerations
				installations should adhere to requirements of environmentally sensitive areas.	murals, or multiple individual installations.
Restaurants		Commercial	Located in areas adjacent to the riverfront that provide unique views and experiences for users.	Locations with high elevations could provide unique views and access to municipal services not found in some of the low-lying areas.	Permanent installations should be located outside of the flood plain.
Self-guided walks		Recreation Arts & Culture	Animation that should focus on the narrative of the riverfront with multiple options to choose from to highlight different features and provide users with alternate experiences.	Minimal physical infrastructure required. However, seating areas at specific points of interest should be created so as not to impede with the pathway system. This would allow visitors to stop and listen to narratives, read, or simply enjoy the riverfront views.	Provide active recreations for users which would benefit for improvements to way finding or could be combined with public art to provide an immersive experience.
Skating		Recreation & Commercial	Located in areas that are designated as safe ice surfaces during the winter.	Ice covering the body of water for skating should be at least 20cm thick to support groups of skaters.	Can be co-located with other complementary features and amenities, as well as commercial businesses (e.g., rentals, food stalls).
Snowshoeing		Recreation & Commercial	Should be proposed in areas that provide multiple experiences and trail connections to users to enhance the trail network.	Best suited in shoreline areas with less vegetation. Marked paths should be provided to make sure visitors present fewer negative environmental impacts from this winter activity.	Potential animations could include both land and ice trails where there is sufficient ice thickness.
Splash pad		Recreation	Located in an area adjacent to the riverfront to provide an alternate water-related experience.	Should be located within an area that is out of the flood plain or designed to be adaptable to sustain seasonal flooding.	Complementary use close to the riverfront that can be used by people of all abilities. It would be

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
					beneficial to co-locate with other complementary features (e.g., picnic areas, pavilions, playgrounds).
Sports fields		Recreation	Located within the linear park system adjacent to the waterfront.	Located in large expansive areas that are flat.	Would be a low-cost intervention that could be used within low lying floodplain areas that could double as multi-use open space.
Swimming		Recreation	Animation must be geared toward potential users and their experience levels.	Direct water access required. Entry points should start from areas that have shallow and calm waters and should be located away from environmentally sensitive areas to avoid negative human impacts.	Considerations for swimming abilities: beginners should swim within limits (i.e., buoys) provided from formal access points. Experienced swimmers wanting to go beyond the safety buoys should wear tow floats and swim in proximity to the shoreline so that they remain visible to other river users.
Swimming barge		Recreation	Animations must be geared toward potential users and their experience levels.	Can be used as a temporary animation to remove any negative impacts from the natural environment. However, swimming barges should be located away from environmentally sensitive areas (e.g., wetlands).	The towing of a swimming barge allows it to be temporary/adaptable at different locations. It will also require drydock inspections for any necessary maintenance.
Tours		Recreation Arts & Culture	Tours should feature the natural beauty and history of the riverfront.	Environmental considerations should be assessed based on	Tours must be designed for all levels of accessibility. Commercial tours and self-

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
				the mode of transportation used for the tours.	guided tours can offer different experiences depending on specific themes. Tours should provide a variety of different tour options and experiences based on distance, time, and topic.
Tubing/ sledding		Recreation & Commercial	Historically, tubing was done from the land going onto the frozen river which would require sufficient ice thickness for safety, along with large open areas. The animation can utilise the change in topography to slide along the slope as opposed to perpendicular to the slope.	Animation requires a change in elevation along with large spaces for tubing with no potential interference from cars, pedestrians, or other riverfront users.	Can be co-located with other complementary features and amenities, as well as commercial businesses (e.g., rentals, food stalls).
Urban beach (human-made and above water)		Recreation Commercial	Located directly adjacent to the riverfront and could be placed in an area that would otherwise be unsuitable for swimming or beach recreation.	Should be in an area that is near low-lying lands to simulate a natural beach where visitors are at the water's edge.	Should be located beyond the floodplain with materials that can withstand flooding with minimal rehabilitation.
Warming huts		Recreation	Located in an area adjacent to the riverfront for scenic views and rest.	Location must be spacious to account for large groups of visitors. Animation should allow for a heating source to be added for the winter months.	Located in an area beyond the floodplain with complementary infrastructure for complementary amenities (e.g., water fountains, bathrooms, lighting).

Animations	Season	Category	Environment		
			Water	**Topography & Physical Environment**	**Other Considerations**
Water biking		Recreation & Commercial	Located in an area where water is calm, and current is slow.	Best suited for low-lying areas that have docks.	There should be considerations to limit water biking usage close to Chaudière Falls/Dam during spring.
Water fountain		Arts & Culture	Located in an area adjacent to the riverfront for scenic views. Feature can also include seating for visitors to rest.	Located in areas that are accessible by different modes of transportation with spaces for people to congregate and access a range of experiences within one space.	It would be beneficial to co-locate with other complementary features (e.g., picnic areas and pavilions, amenities, and services).
Water inflatables		Recreation & Commercial	Should be implemented in an area with minimal motor craft use and calm waters for safety, with a wide water entry-point for users.	Direct water access required. Entry points should be on vast shorelines where waters are shallow and calm. Potential animation location should avoid environmentally sensitive areas to avoid negative human impacts to the environment.	Could be implemented in a variety of ways as a seasonal installation in one permanent location, or a variety of locations within the Core Area. Would be complementary to other recreational areas with additional swimming features.
Water taxis		Commercial	Water taxi stations should be located by the riverfront and connected to the pathway system as well as to other points of interest.	Should be located away from environmentally sensitive areas (e.g., wetlands) and in sheltered waters.	Water taxis should have fixed regular schedules and should promote accessibility (open to visitors with mobility issues, families with baby prams, pets, and scooters/bikes).
Ziplining		Recreation & Commercial	Animation best suited in locations across the river. Landing platforms should be in proximity to the water and connected to pathway system.	Should be in areas that support platforms at a higher elevation to provide a unique experience across the river.	Beneficial to co-locate in proximity to other points of interest, to provide users with access to other services and amenities.

Appendix G: Catalogue of Ideas

The project team identified locations within each of the five character areas that could be potentially enhanced with riverfront animations. The project team used the List of Animations to inform the pairing of potential riverfront animations to specific locations based on the character areas' features. To provide flexible implementation of different riverfront animations, multiple riverfront ideas were identified for each location. The lists of animations offer a combination of an anchoring feature that was chosen as the main riverfront animation for the location, along with other complementary features that would also draw more visitors to the locations. The following symbols are used to indicate the order of ideas for each location:

Feature Uses	Symbol
Anchoring animation	
Complementary animation	

***Table G.1**: A list of all the potential animations the project team considered within the study area, along with their categorization and environmental considerations.*

<table>
<tr><th>Identified Locations</th><th>Catalogue of Ideas for Each Identified Location</th></tr>
<tr><th colspan="2">Character Area: Islands & Dam</th></tr>
<tr><td>Chaudière Falls Lookout & Dam</td><td>
Interactive water features
An interactive water feature, like the Princess Diana Memorial Fountain in London, UK, can provide visitors of all ages of the Chaudière Falls lookout area with another purpose to visit this location, along with the opportunity for bigger groups to congregate because of the built-in seating.

Figure G.1: Princess Diana Memorial Fountain, Hyde Park, United Kingdom.
Public Art/Mural
The ring dam would allow for artistic expression. Local or national artists and Indigenous artists could be commissioned to produce a piece of work that reflects a theme that aligns with the history or futures of Canada's Capital.

Figure G.2: Wellington Dam near Collie, Western Australia.
Pedestrian bridge
A pedestrian bridge across the dam presents visitors with a different point of view of the Chaudière Falls. Visitors would be allowed to appreciate the beauty of the falls from a different viewpoint.

Figure G.3: Milne Dam Bridge, Markham, Ontario, Canada.
Bike share station
In addition to having bicycle racks for visitors riding their personal bikes to the lookout area, a bike share station can also be situated in the lookout area so that visitors are not rushed to leave and continue their ride along the pathway.

Figure G.4: BIXI bike program, a bicycle-sharing program, on Ottawa.
</td></tr>
</table>

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Islands & Dam	
Chaudière Island	⚓ ***Portage*** Kabenishinân Minitig (formerly known as Victoria Island), which is part of the Caudière Island, was a First Nations portage site and was previously the location for an Indigenous business called "Aboriginal Experiences". It can be suitable for a portage site and can be used as part of programming on Kabenishinân Minitig.  ***Figure G.5:*** *Portage Route Signage.*
Kabenishinân Minitig	*****Historically, Kabenishinân Minitig was used as a portage site and a meeting place for trade and cultural exchange. The Indigenous-owned business "Aboriginal Experiences" was previously situated on the site.  ***Figure G.6:*** *Indigenous business, Aboriginal Experiences, located on Kabenishinân Minitig (Victoria Island).*
Ottawa River Pathway	⚓ ***Cross-country skiing trail/snowshoe trails*** The Ottawa River Pathway could be transformed into cross-country skiing and snowshoe trails during the winter, providing users with another mode of active transportation along the pathway. ***Public amenities*** Although this animation has been identified as essential across the study area, public amenities such as water filling stations and public washrooms should be installed in different sections along the pathway to allow visitors to spend more time outdoors all year round.  ***Figure G.7:*** *Snowshoeing in Montréal, Québec, Canada*  ***Figure G.8:*** *Water refill station.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Islands & Dam	
Ottawa River Pathway	***Warming stations*** Warming stations could be set up during the winter in proximity to public amenities to provide spaces for shelter during the winter months. ***Pop-up vendors/stalls*** This temporary animation can be used as a programming tool during the different seasons to bring visitors towards the Pathway. Visitors can walk along the Pathway and extend their time at pop-up stalls while admiring riverfornt views. ***Bike rental/bike share stations*** Bike rental shops/bike share stations can be located along the pathway to allow visitors opportunities to dismount from their bikes and pause for riverfront views.
LeBreton Flats	***Emergency boat launch*** An emergency boat launch for search and rescue vessels would be necessary in anticipation of an increase in recreational water activities along the Ottawa River. ***Dog beach*** A designated dog beach and exercise area would allow visitors with their pets to visit a section of the Pathway.



Figure G.9: *Warming station in Québec City, Québec, Canada.*



Figure G.10: *Vendors in parks in Calgary, Alberta, Canada.*



Figure G.11: *Canadian Coast Guard IRB crew during a training exercise.*



Figure G.12: *Designated dog park in Ottawa, Ontario, Canada.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Islands & Dam	
LeBreton Flats	**Outdoor small-scale display related to Canada's Military History (including Indigenous history)** An outdoor display like that at the National Museum of the Pacific War in Texas, USA, can be presented in the park close to the War Museum. It will provide all visitors a preview of the of the displays inside the Canadian War Museum.  ***Figure G.13:*** *Outdoor display in front of the National Museum of the Pacific War, located in Fredericksburg, Texas, USA*
Character Area: Parliament & Institutions	
Rideau Canal Locks	***Bistro (with extended boardwalk structure)*** Based on the illustration in Chapter 10, the bistro west of the Rideau Locks presents an opportunity to enhance the existing water-taxi station to include a boardwalk and bistro which will provide a bigger capacity for people to stop for rest and nourishment.  ***Figure G.14:*** *Old Wharf Restaurant, in Tasmania, Australia.* ***Indigenous interpretation point*** In addition, an Indigenous interpretation point could be located to point out the importance of the Ottawa River to the Indigenous Peoples. It can also be a point to identify other key locations, such as Kìwekì Point.  ***Figure G.15:*** *Interpretation point on the saltwater people of the Macleay Valley, New South Wales, Australia.* ***Small-scale food stands*** Temporary food stands can be located along the boardwalk close to the bistro, as an additional food options close to the Pathway. These can be local pop-up food stalls during different times of the year.  ***Figure G.16:*** *Outdoor food stand.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Parliament & Institutions	
Bytown Wharf	⚓ ***Funicular*** Like the 100 Street Funicular in Edmonton, a funicular in this location will increase connectivity and provide an accessible option for people with mobility issues to get down to the Trans Canada Trail. The connection can be located on an above-grade platform south of the lookout before Alexandra bridge, with a landing platform on a wharf. ***Boat docking*** The wharf landing at the bottom of the funicular presents an opportunity for visitors to connect to the Trans Canada Trail along the riverfront. In addition, it also provides a location for visitors to launch and disembark from their watercrafts. ***Photography/drawing/painting classes*** An additional to the funicular landing platform connected to the wharf, another landing platform can be installed south of the landing wharf for the funicular. Formerly an informal lookout point, this location can be an option for arts programming, since it provides good views of Parliament Hill.
Richmond Landing	⚓ ***Water taxi stop*** This location is currently one of the three water taxi stops within the study area. Formalizing this water taxi location and creating a regular schedule for water taxi services can increase connectivity across the river as well as to the Islands & Dam character area.



Figure G.17: *The 100 Street Funicular, located in the City of Edmonton, Alberta, Canada.*



Figure G.18: *Observation landing/platform looking over Quilotoa Lake, a volcano in the Ecuadorian Andes.*



Figure G.19: Outdoor painting classes in the Town of Cavan, Ontario, Canada.



Figure G.20: *Aqua-taxi in Ottawa, Ontario, Canada.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Parliament & Institutions	
Richmond Landing	***Terraced stairs*** There are currently informal spaces within this location that attracts small groups of people to picnic in shaded areas close to the water's edge. Terraced stairs can provide a wider area for more people to visit the location via water taxi and walk around the islands. ***Amphitheatre (smaller scale outdoor stage)*** This complementary land use feature offers a small space for outdoor entertainment. Its proximity to the shoreline will attract foot traffic from visitors walking along the Ottawa River Pathway, as well as visitors using the water taxi service. ***Shaded seating area*** ***(Tree canopy in summer/gazebo in winter)*** This complementary land use feature can provide temporary shelter from the elements during different seasons.
Parliamentary Pathways	***Cross-country skiing trail/snowshoe trails*** The Parliamentary Pathways could be transformed to a cross-country skiing and snowshoe trail during the winter to create a seamless connection across the pathways along the Ottawa River. ***Pop-up vendors/stalls*** This temporary animation can be used as a programming tool during the different seasons to encourage visitors to spend more time along the pathways. Visitors can extend their time spent along the pathways at the pop-up stalls while admiring riverfront views.



Figure G.21:

Terraced amphitheatre in Waterfront Seattle



Figure G.22: Lakeside Amphitheatre in Flower Mound, Texas, USA.



Figure G.23: Shaded seating area in William F. Sheffield Park in Jacksonville, Florida, USA.



Figure G.24: *Cross-country skiing inn Montréal, Québec, USA.*



Figure G.25: *A waterfront restaurant in Helsinki, Finland.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Parliament & Institutions	
Parliamentary Pathways	***Public amenities (Water filling stations, public washrooms, and resting areas)*** Public amenities should be installed in different sections along the pathway to encourage visitors to spend more time in the outdoors all year round. The current lack of public amenities forces visitors to depart from the Pathways in search for amenities elsewhere. ***AR-guided (history) walking tours*** An augmented reality walking tour can encourage visitor exploration of the study area at their own pace. In addition, this digital tour can provide an outlet for digital artworks of local artists to come alive in different locations along the riverfront. ***Balustrades of Fairmont Château Laurier*** The historic hotel gives a unique character to the area with the balustrades lining its terraces and staircases. Any complementary land use ideas for this area should consider the opportunity of extending the same design to other animations. ***Cable car (Bet. Kreuger Lots/Riverfront Inlet)*** Like the IFS Cloud Cable Car in London, UK, this complementary feature would be best to connect two locations of different elevations, to provide a unique view of the river and its surrounding shorelines.



Figure G.26: *Public washrooms in Whistler, British Columbia, Canada.*



Figure G.27: *Augmented reality public art project in Grand Island, New York, NY, USA.*



Figure G.28: *Fairmont Château Laurier in Ottawa, Ontario, Canada.*



Figure G.29: *IFS Cloud Cable Car in London, United Kingdom.*

Identified Locations	Catalogue of Ideas for Each Identified Location
	Character Area: Sussex
Lady Grey Drive	***Pedestrianized road*** Pedestrianizing Lady Grey Drive can attract programming prospects, such as food trucks or busker performances, and bring more p eople towards a riverfront location that would otherwise be used solely for parking. ***Pedestrian bridge*** A pedestrian bridge like the Capilano Suspension Bridge Park in British Columbia would connect the end of the Lady Grey Drive (behind the National Gallery of Canada) around the escapement, connecting the Drive to Kìwekì Point. This would create a seamless connection from Sussex to Parliament Hill. ***Public art/other programming*** Programming along the Lady Grey Drive can include seasonal interactive art displays, performances, and food trucks. ***Bar stool seats along Lady Grey Drive*** Like the tall bar stools located on Pier 35 in New York City, US, similar complementary features can be installed along Lady Grey Drive to provide resting spots for visitors along the road. ***Public amenities*** With increased foot traffic along Lady Grey Drive, public amenities such as water filling stations and public washrooms should be available for visitors.



Figure G.30: *Pedestrian Street in West Loop, Chicago, Illinois, USA.*



Figure G.31: *Capilano Suspension Bridge, Vancouver, British Columba, Canada.*



Figure G.32 : *Public Art in Chicago, Illinois, USA.*



Figure G.33: *Tall bar stools located on Pier 35 in New York City, NY, USA.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Sussex	
National Research Council Riverfront	***Lookout point with extended boardwalk along the river*** A lookout point like that by the Iguazu Falls in Argentina will attract visitors to this location. It will provide visitors with another viewing opportunity of the Rideau Falls. In addition, a boardwalk from the lookout point extending along the riverfront would allow for visitors to linger in this location.
Rideau Falls	***Colourful bridge*** Similar to the interactive lighting concept for the Jacques Cartier Bridge in Montréal, the bridge across the twin falls can be used as an interactive illuminated bridge. ***Light show*** The idea for this animation comes from music and light shows similar to the Niagara Falls Light Show, which provides a unique display of waterfall illumination. The illumination displays can follow a schedule to allow for different groups of visitors to view the animation at different times in the evening.
Kìwekì Point	***Pedestrian connection to Lady Grey Drive*** Connecting Lady Grey Drive to Kìwekì Point will increase connectivity between different locations within two character areas.



Figure G.34: *Lookout point by Iguazu Falls, Argentina.*



Figure G.35: *Rainbow-coloured illumination for the Jacques Cartier Bridge, Montréal, Québec, Canada.*



Figure G.36: *Illumination on Niagara Falls, Ontario, Canada.*



Figure G.37: *Boardwalk along* Parramatta River, Sydney, New South Wales, Australia.,

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<tr><th>Identified Locations</th><th>Catalogue of Ideas for Each Identified Location</th></tr>
<tr><th colspan="2">Character Area: Sussex</th></tr>
<tr><td>Kìwekì Point</td><td>
Picnic stations
The idea took inspiration from Little Island in New York City, which provides seating areas, greenspaces, and interactive art displays. Areas such as picnic stations will allow for visitors to linger and explore the area, learn more about the redevelopment and about action visitors can take towards the Truth and Reconciliation Commission's Calls to Action. The project team notes that Kìwekì Point is significant in highlighting Algonquin voices and culture.

Figure G.38: Little Island, New York, NY, USA.
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<tr><th colspan="2">Character Area: Jacques Cartier & Voyageurs</th></tr>
<tr><td>Jacques-Cartier Park North</td><td>
Circular jetty with urban beach
Inspiration for this idea comes from Mandurah, Australia's estuary pool. The shallow pool within the circular floating jetty allows for safe swimming. The concept can also be used to provide a safe swimming area during the summer, and potentially a protected skating rink if the water around the location freezes in the winter.

Figure G.39: Kwillena Gabi Pool, Mandurah, Western Australia, Australia.
Swimming barge
A floating swimming pool like the one floating on the Danube Canal in Vienna, can provide visitors of all swimming capacities the experience of swimming in proximity to the river without worrying about river currents.

Figure G.40: Floating swimming pool on the Danube Canal, Vienna, Austria.
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Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Jacques Cartier & Voyageurs	
Jacques-Cartier Park North	***Pop-up community garden*** A community garden within the park would be considered a complementary land use feature that will bring members of the local community to the park. ***Watersport rentals*** Due to the calmer waters around the creek north of Jacques-Cartier Park, the location provides a safe area for visitors of all levels to launch their watersport equipment. This location offers a commercial opportunity for renting watersport equipment. ***Fishing piers*** The location has existing informal locations for fishing. Formalizing it by including an extended pier for fishing would allow for the continuation of this water activity. ***Interpretation point*** Observation binoculars could be installed in this location as it provides an unobstructed view of Rideau Falls from across the river. An Interpretation Point can be installed to inform visitors of the history of Rideau Falls. ***Winter activity rentals*** During winter, this location can also accommodate outdoor winter activities such as cross-country skiing and snowshoeing. A seasonal commercial opportunity can be situated to accommodate winter activity equipment rental.



Figure G.41: *Pop-up community garden in the City of Edmonton, Alberta, Canada.*



Figure G.42: *Kayak rentals.*



Figure G.43: *Fishing pier.*



Figure G.44: *Observation binoculars from the U.S. side of Niagara Falls.*



Figure G.45: *Winter activity rentals.*

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<tr><th colspan="2">Character Area: Jacques Cartier & Voyageurs</th></tr>
<tr><td>Jacques-Cartier Park North</td><td>
Naturalized playground
This complementary land use feature can be located close to the jetty, encouraging visitors, especially families with young children, to linger in the location.
Public amenities
With increased services within this location, public amenities such as water filling stations and public washrooms should be available for all visitors.

Figure G.46: Fairwinds Park in Mississauga, Ontario. Canada.
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<tr><td>Jacques-Cartier Park South</td><td>
Enhanced marina
(with more shelter/seats/water taxi station)
There is an opportunity to build on the existing infrastructure on the marina and enhance it by increasing seats and coverage from natural elements. In addition, expanding the marina can increase the space for more water taxi/boat tour traffic, as well as space for temporary pop-up experiences.
With an existing boat launch west of the marina, space should be allotted for safer maneuvering and turning of cars/trucks with trailers.

Figure G.47: Sub Base Platypus recreation hub in North Sydney, New South Wales, Australia.
Swimming barge
A floating swimming pool can provide visitors the experience of swimming in proximity to the river without worrying about the river currents.

Figure G.48: Floating swimming pool on River Spree, Germany.
Non-motorized watercraft rental
There is an opportunity for watercraft rental due to the calmer waters surrounding the marina.

Figure G.49: Kayak rentals.
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<tr><th colspan="2">Character Area: Jacques Cartier & Voyageurs</th></tr>
<tr><td>Jacques-Cartier Park South</td><td>
Boat tours
As a complementary feature to the marina, promoting and expanding existing boat tours would give visitors another option to experience and learn more about the river.
Waterfront café/pop-up experiences
The area within the marina can be transformed to accommodate a range of services, such as pop-up patios during the summer, to fun experiences such as synthetic ice curling in the winter. The purpose of this programming is to get visitors to keep coming back for different experiences in a location.
Outdoor gym (for all ages)
This complementary land use feature can be located close to the marina, encouraging people of all ages and abilities to keep active.
All-season picnic pavilion (with tables, BBQ spots, splash pad, etc.)
In addition to the animations mentioned above, an all-season picnic pavilion would bring groups of people towards this location. Visitors would linger to explore the other features this location has to offer.
Public amenities
With increased services within this location, public amenities such as water filling stations and public washrooms should be available for all visitors.
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Figure G.50: *Boat cruise in Ottawa, Ontario, Canada.*



Figure G.51: *Curling at Stacktmarket in Toronto, Ontario, Canada.*



Figure G.52: *Outdoor Fitness Equipment in a Park in British Columbia, Canada.*



Figure G.53: *Picnic pavilion at the City of Lethbridge, Alberta, Canada.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Jacques Cartier & Voyageurs	
Parking lot west of MacDonald-Cartier Bridge	***Extension of boardwalk*** The boardwalk along the river can be extended to increase connectivity and create a seamless connection between the parking lot, the Trans Canada Trail, and the MacDonald-Cartier Bridge. This will encourage visitors to spend more time along the trail, while providing options to explore other locations. ***Multi-use greenspace*** A multi-use greenspace can be a complementary land-use feature that can host a range of seasonal events in conjunction with the city. ***Public art*** Programming in this area can include seasonal interactive art displays and local performances. ***Beach recreation*** Taking inspiration from Robert C. Valade Park in Detroit, the beach recreation in the lot can host a range of experiences from water playscapes, pavilions, an urban beach and playground. ***Skating*** The relatively flat area offers an opportunity for winter use such as ice skating. This would provide visitors with access to other experiences along the Trans Canada Trail.



Figure G.54: *Providence River Pedestrian Bridge in Rhode Island, USA.*



Figure G.55: Concept for *Rouge National Urban Park in Ontario, Canada*



Figure G.56: *Robert C. Valade Park in Detroit, Michigan, USA.*



Figure G.57: *Outdoor skating in Toronto, Ontario, Canada.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Hull Riverfront	
Riverfront Inlet and Greenspace East of Portage Bridge	***Lookout area on top of escarpment*** Like the viewpoint animation at the Museum of Art, Architecture and Technology in Lisbon, Portugal, the lookout area structure can blend in with the rock formation by the riverfront inlet to allow for Parliament Hill viewing opportunities from across the river. The bottom of the escarpment can also provide safe launching of non-motorized watercraft. ***Additional seating*** Additional seating can be located atop the viewing deck and along the bottom of the escarpment, providing different viewpoints of the river. Additional coverage from natural elements should be considered when adding more seating. ***Café/food stalls*** There is an opportunity to offer more food options to both visitors and locals. Setting up food stalls in this location would complement the viewpoint and encourage visitors to linger and enjoy riverfront views. ***Public art*** Arts programming can include temporary art displays during different seasons, and venues for performances by buskers. ***Swimming barge*** A floating swimming pool can be used as a temporary feature that will provide visitors the experience of swimming in proximity to the river without worrying about river currents.



Figure G.58: *Outward-looking Museum in Lisbon, Portugal with steps going on top to a lookout point.*



Figure G.59: *Additional stairs outside the Museum in Liston, Portugal.*



Figure G.60: *Blue River Café at Thames Riviera Hotel in Maidenhead, United Kingdom.*



Figure G.61: *Outdoor buskers at Halifax, Nova Scotia, Canada.*



Figure G.62: *Badeschiff (meaning "bathing ship") in Berlin, Germany*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Hull Riverfront	
Kruger Lots	***Amphitheatre and a public market with an extended boardwalk.*** These two anchoring ideas are intended to reform the economic character of the area to a less industrialized area. An amphitheater can provide outdoor entertainment that includes views of Parliament, and the public market can encourage open farmers' markets on a boardwalk that extends into the water. ***Temporary location for Cirque du Soleil*** The current Cirque du Soleil area is located at the Zibi site. A temporary location may be required if development were to occur at the current location. ***Fire pits/gazebo (winter use)*** Fire pits and heated gazebos can be places of shelter for visitors during the winter months. These temporary animations could be located close to the anchoring ideas or along the path connecting both lots. ***Public art*** Public art along the riverfront can range from interactive music or visual displays, and areas for buskers. ***Ferris wheel*** Like the Capital Wheel in National Harbor in Maryland, USA, a Ferris wheel is a complementary land use feature that provides unique views of the river. ***Smokestack to remain as wayfinding*** When the Kruger facility becomes available after 2053, the smokestack can be repurposed and used as a wayfinding tool. It can be left as a reminder of the industrial history of the river.



Figure G.63: *Esplanade Outdoor Stage in Singapore.*



Figure G.64: *Waterfront restaurant in Halifax, Nova Scotia, Canada.*



Figure G.65: *Cirque du Soleil at in Vancouver, British Columbia, Canada.*



Figure G.66: *Fire Pit.*



Figure G.67: *The Capital Wheel in National Harbor, Maryland, USA.*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Hull Riverfront	
Kruger Lots	***Innovation space*** An innovation space is a complementary land use feature that would offer spaces to encourage start-ups and entrepreneurship in an area that has been known for industrial uses. The space can also promote sustainable practices and development within the community.  ***Figure G.68:*** *Benchmark's Innovation Lab in Media, Pennsylvania, USA.*
Museum of History Riverfront	***Water fountain (featuring music and light show)*** The green area behind the museum provides ample space for riverfront animation and complementary land use features. With Parliament Hill as a backdrop, small music and light shows projected onto mist could provide a storytelling platform for stories relating to the Ottawa River.  ***Figure G.69:*** *Water and Light show in Singapore.* ***Outdoor theatre/stage*** A small outdoor theatre/stage located close to the water's edge, with terraced seating that follows the landscape of the greenspace. The area could be used for visitors using pathways as another resting location when there are no ongoing performances.  ***Figure G.70:*** *Haddad Riverfront Park in Charleston, West Virginia, USA.* ***Multi-use greenspace*** A multi-use greenspace can be a complementary land-use feature that can host a range of seasonal events in conjunction with the museum or city.  ***Figure G.71:*** *HyperLane park in Chengdu, China.* **Public art** Due to ample greenspace, programming can include temporary interactive art displays, such as illuminated see-saws.  ***Figure G.72:*** *Light-up musical seesaws in Navy Pier, Chicago, Illinois, United States*

Identified Locations	Catalogue of Ideas for Each Identified Location
Character Area: Hull Riverfront	
Twin Pine Island	⚓ ***Public art installation/Indigenous art*** Any form of public art display should take into account the environmental considerations for this location and use materials that are flood resistant.

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Jacques-Cartier

Jacques-Cartier Park North

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Jacques-Cartier Park South

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Parking lot west of MacDonald-Cartier Bridge

Figure 54 (Extension of boardwalk): AZURE. (2020, June 14). In Providence, A New Pedestrian Bridge Puts Its Best Foot Forward. From https://www.azuremagazine.com/article/in-providence-a-new-pedestrian-bridge-puts-its-best-foot-forward/

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Hull Riverfront

Riverfront Inlet and Greenspace East of Portage Bridge

Figure 58 (Lookout Area): Divisare. (2016). Museum of Art, Architecture and Technology (MAAT). From https://divisare.com/projects/341188-al_a-piet-niemann-maat-museum-of-art-architecture-and-technology

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Kruger Lots

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Museum of History Riverfront

Figure 69 (Water fountain): Wanderers & Warriors. (2022, June 7). 3 Best Light Shows In Singapore. From https://wanderersandwarriors.com/singapore-light-shows/

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Appendix H: Posters

Appendix H.1: Design Charette Posters

Overview

Overview of Study Area

The Study Area is focused on the riverfront lands along the Ottawa River within the Core Area boundary. The river forms the border between the provinces of Quebec and Ontario. The NCC/CCN is the steward for majority of the shorelines and lands located along the river.



2005 Core Area, Capital Core Area Sector Plan.



Plan of the Lower Village of Hull, 1882.

Historical Context

The Ottawa River has been central to events that have shaped Canada's history, including the Algonquin Nation's network of trading and communications in the Ottawa River watershed; exploration by Europeans; the fur trade; the square timber and lumber trade; and the planning for the Capital of Canada.

Why animate the Ottawa River?

Public organizations, community groups, and businesses are requesting for more opportunities to access the river. In order to develop a plan that will support recreational and business opportunities along the riverfront shorelines, a cohesive and coordinated approach with key stakeholders and First Nations is required.

Historical Animation Points



A timber slide on Ottawa River near Parliament Hill, late 1880s.



Lovers' Walk. Cover of Picturesque Canada, Volume 1, 1875.



A group ice skating on the Ottawa River in front of the Rideau Falls.



The Rideau Canal, Bytown. W. H. Bartlett. 1841.

Timber Slide
Timber slides were maintained to facilitate the timber trade and bypass rapids and falls in the Ottawa River Valley. It was occasionally used as entertainment by visitors to Canada.

Lovers' Walk
It is believed the path was originally used by Indigenous Peoples travelling along the southern banks of the Ottawa River, as well as raftsmen travelling to and from their homes and the timber chutes. This pathway was a popular tourist destination in the 19th and 20th centuries.

Portage Routes
Portage routes taken by early First Nations inhabitants and voyageurs were necessary to avoid rapids and falls that disrupt the Ottawa River.

Skating
Winter conditions in 1958-1959 were perfect for the public to skate through the Rideau Canal Skateway and onto the Ottawa River.

Bytown's Wharf
Located east of the locks, the wharf and building located by the wharf previously housed the Royal Engineers. It had also served as a storehouse.

Project Team: Ellory Vincent, Chloe Andre, Rachel Barber, Elliot Chiu, Matthew Harding, Katie Lobban, Fathimah Tayyiba Rasheed, Graydon Simpson, and Rosanna Wisden

Animating the Ottawa River in the Core of Canada's Capital SURP: 824 Queen's University

Existing Conditions : North Shore

Jacques-Cartier Park & Area

- Hosts national celebrations like Canada Day and Winterlude
- While paths such as the Capital Pathway and the Voyageurs Pathway run through the park, the park's main attractions are its natural features and a bike rental service



Photo of Hull Marina, in the vicinity of Jacques-Cartier Park.

Canadian Museum of History

- A popular destination located on the Ottawa River across from Parliament Hill
- The museum's grounds include a riverfront pathway, but direct access to the river is blocked in spots by fences



Canadian Museum of History and pathway.

Kruger, Inc. Plant & Area

- A paper products manufacturing plant with 650 linear metres of public paths along its river frontage (Voyageurs Pathway)
- Features views of the Ottawa River, Parliament Hill, and the Judicial Precinct
- No direct access to riverfront between Rue Victoria and the Portage Bridge



Pathway adjacent to Kruger plant.

Scott Point & Portage Park

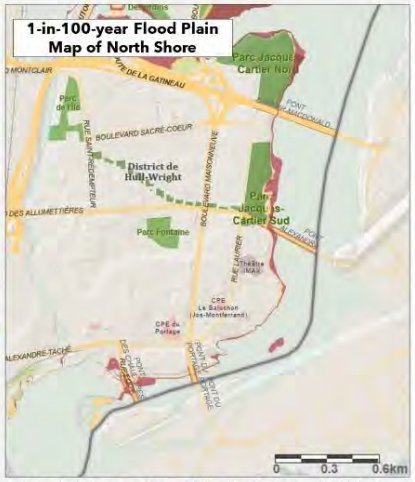
- Green space east of Portage Bridge
- Scenic views of Ottawa, but shoreline is off limits to public
- Challenging topography in area



Scott Point and view of Parliament Hill.

Maps: Land-use, Flood Plain, and Landmarks





Flood plain map from Ville de Gatineau's Website



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Animating the Ottawa River in the Core of Canada's Capital

SURP-824 Queen's University

Existing Conditions : South Shore

Rideau Falls Park & Green Island

- A 2.89-ha park with several commemoration sites (e.g. the Commonwealth Memorial) and viewing points
- Area lacks anchor points & connections to the overall path; *Capital Pathway Strategic Plan* (2020) proposes a discovery path to improve linkages to MacDonald-Cartier Bridge



This image shows the twin falls at Rideau Falls and the bridge connection to pathway.

Rideau Canal Trail

- Canal was designated a UNESCO World Heritage site in 2007
- The locks: eight locks framed by the Parliament Buildings and Chateau Laurier on either side and has boat launches/docking





Boat launch along the Rideau Canal and the locks with connections and cross-linkages.

Kìwekì Point

- Located behind the National Gallery of Canada; a great lookout and a key Capital destination
- The existing path does not encourage lingering along or exploration of the river due to a lack of resting points and animation

Richmond Landing

- Aqua taxi drop-off at the foot of Richmond Landing monument
- Lack of accessibility; multiple informal paths to the waterfront; foliage hiding the views



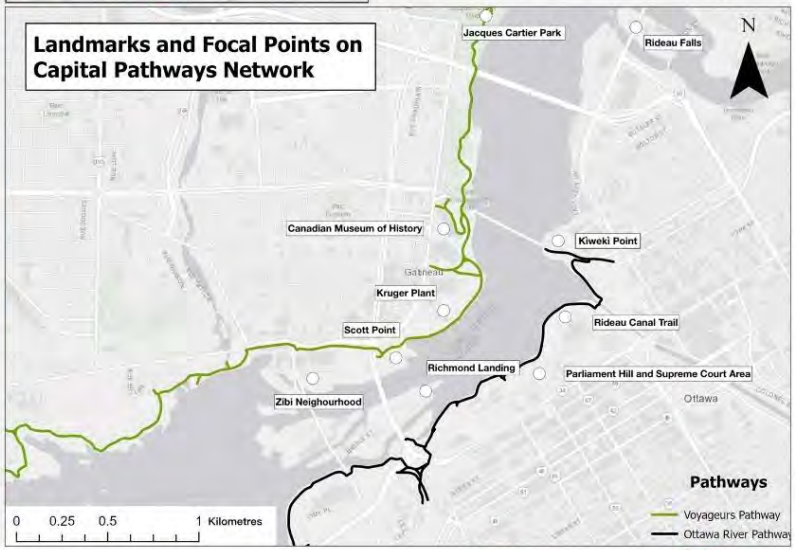
Docking point in the Richmond Landing area.

Maps: Land-use, Flood Plain, and Landmarks





Flood plain map from the City of Ottawa's Website



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Vieux Québec

Ville de Québec, Québec

Relevance

- Escarpement provides unique opportunities for animation and experiences for users
- Winter programming for year-round usage
- Redevelopment to restore access to the St. Lawrence River
- Public access to historic locations and sites of National significance



Tobogganing on the Dufferin Terrace utilizes natural topography and provides year-round animation (Airtransat, 2018).



Vieux Port de Québec in the summertime where users can walk along the St. Lawrence River through the marina, cruise ship terminal, and plenty of picturesque streets ("Old Port", n.d.).

Best Practices

- Multi-level development and animation of the escarpment provides unique views and different ways to experience the area
- Connections to surrounding areas encourage lingering, while the funicular provides increased connectivity
- Direct access to public spaces provides for year-round animation

History & Context

Located within a UNESCO World Heritage Site with over 400 years of history, visitors to Vieux Quebec have access to historic landmarks such as the Dufferin Terrace, Château Frontenac, and Place Royale.

Along the St. Lawrence River, the Vieux Port began redevelopment in the 1980s where the primary objective was to restore access to the St. Lawrence River for both residents and tourists, and diversification of port activities.



A photograph of Dufferin Terrace in 1908 (McCord Museum, 1908).



A photograph of Dufferin Terrace in its current conditions (Viator, n.d.).



Ice fishing in le Village Nordik in Vieux Port de Québec (Village Nordik du Port de Québec, n.d.).



Place des Canotiers: an urban park that provides users with a place to sit and contemplate the views and experiences in the lower Vieux Port area ("Place des Canotiers", n.d).



Views from the Vieux Port looking up at the Château Frontenac, showing the change in topography ("Old Québec", n.d).

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West Harbour, Hamilton

Hamilton, ON, Canada

Relevance

- Remediation of industrial lands
- Long-term planning



Hamilton Harbour in the early 1950s dominated by the steel industry. (Hamilton Port Authority, 2012)



The Hamilton West trolley provides a unique experience to view the 12km waterfront rail, complete with rest stops, cafes, and restaurants. ("Down by the Bay – A Guide to Hamilton's West Harbour", n.d.)

History & Context

The Hamilton Harbour has been dominated by industrial uses as it's ideal use for shipping led to the expansion of "the steel city". However, pollution led to unsafe water conditions in the 1950s. Since then, there have been improvements in pollution controls and remediation. In the past 20 years there have been significant enhancements to the waterfront for public use.

Best Practices

- Deindustrialization and remediation of the waterfront to remove incompatible uses and create a continuous public realm
- Master plan for the waterfront provides long-term visions while allowing for short-term flexibility and usage year-round





Above: animation along the waterfront trail where users can stop for a meal and enjoy the waterfront. ("Restaurants", n.d.)

Left: proposed waterfront redevelopment of a vibrant, pedestrian-oriented, mixed-use community on Pier 8. ("Waterfront Redevelopment", n.d.)

Granville Island, Vancouver

Vancouver, BC, Canada

Relevance

- Remediation of industrial lands
- Heritage & history



False Creek Ferry – Operational since 1982, carrying locals and visitors across the waterfront. (From "We asked longtime False Creek Ferry workers about the cutest things they've seen while sailing", Delafontaine, 2022)



Granville Island a.k.a. Industrial Island in 1922. (City of Vancouver Archives, Bu N70)

History & Context

Historically a gathering place for fishing by the Musqueam, Squamish, and Tsleil-Waututh Nations, Granville Island became a federal site for industrial development in the 1890s. It was used for sawmills and other industrial uses from the 1890s until the 1960s when there was a massive sawmill fire. In 1977, the transformation from industrial to mixed-use commercial began due to the dissipating logging industry and a desire for different use of space. Today, owned and operated by the Canada Mortgage and Housing Corporation (CMHC), the fully operationally self-sustaining Granville Island is home to 300-plus businesses and employs over three thousand people.

Best Practices

- Deindustrialization and remediation of the waterfront to remove incompatible uses and create a continuous public realm
- Self-sustaining economic social hub federally owned and operated
- Celebration of Indigenous claim to the land and heritage on site



Patio overlooking False Creek at Bridges Restaurant, Granville Island. (granvilleisland.com, 2021)

Spree River Waterfront, Germany

Berlin, Germany

Relevance

- Waterfront viewpoints
- Historic capital city



Users relaxing in the sun at Capital Beach Bar close to the central station and government district is a popular spot for both residents and tourists. ("Capital Beach", n.d.)



Spree river boat tours are a popular way to see the waterfront. ("River Cruise: "Historic City Cruise"", n.d.)

Best Practices

- Waterfront pathway winds along the river showcasing natural and historic heritage
- Pedestrian-centric
- Guided scenic boat tours
- Active and passive waterfront animation to engage patrons



Given pollution and existing frequent use of the Spree river as a shipping passage, swimming is not safe in the Spree. However, the Baderschiff swimming pool is built inside a hollowed-out hull to give users a unique Spree River swimming experience. ("Badeschiff, the Floating Swimming Pool in Berlin", n.d.)

History & Context

The Spree River traverses through Berlin and is the main river through the capital, with many of the historic buildings and sights along the Spree River banks, including the Chancellery, Palast de Republik, Schloss Bellevue and Schloss Charlottenburg.

Oslo Harbour Promenade

Oslo, Norway

Relevance

- Former industrial lands
- Heritage & history



Sorenga Seawater Pool being enjoyed by visitors swimming and relaxing. (Philip Schwartz, 2019)



Map of waterfront promenade linking viewpoints and destinations. (visitoslo.com, 2022)

Best Practices

- Pedestrian-centric promenade
- Passive and active animations
- Wayfinding along pathways



Left: public art and orange wayfinding post along waterfront promenade. (visitoslo.com, 2022)

Below: view of historic buildings juxtaposed with new architecture and promenade along waterfront. (visitoslo.com, 2022)



History & Context

Aker Brygge is a neighbourhood in central Norway that was transformed from a former shipyard into a point of connection between the rest of Oslo and the waterfront. Each year the 12 km long publicly accessible promenade is visited by roughly 12 million people, both tourists and residents. Since its redevelopment, Aker Brygge and the Oslo Harbour Promenade have become hubs for public transportation, trams, busses, and boat tours to neighboring islands.

Right: view over Oslo Harbour, 1929. Photo: Anders Beer Wilse



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Appendix H.2: Final Presentation Posters



Hull Riverfront

Kreuger Riverfront

Existing Conditions

- Established pathway network
- Varied topography and within floodplain
- Mix of green space and industrial uses
- Scenic views of Parliament Hill



The Halifax Harbour (Precedent) has year-round animations including waterfront dining. When applied to Ottawa this would provide users with a new dining experience where the key feature is the picturesque National Capital landscape.

Potential Animations

- Commercial animation (e.g. food trucks, bistros, etc.)
- Theatre and other performance-based animations
- Arts and culture programming and animation
- Recreational water-based animation within inlets

Food trucks act as a way to animate spaces in a flexible manner with minimal need for infrastructure. They provide a critical service that is currently missing along the riverfront.





Outdoor amphitheaters, such as the example image of an amphitheater in Little Island, New York, can serve as a gathering space along the riverfront and can host outdoor local community performances.

Demonstration Plan

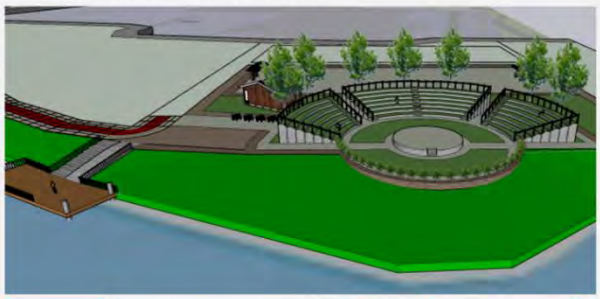
Key Features

- Boardwalk with an extension for seating
- Raised public market
- Amphitheatre
- Multiuse space
- Enhanced dock and lookout



Initial design concept created by Fathimah demonstrating waterfront animation that enhances the Hull riverfront with a public market, boardwalk and amphitheater.









The Hull Riverfront features a proposed boardwalk with a public market as well as an amphitheater overlooking parliament hill. Proposed animations for the Hull Riverfront created by Fathimah Rasheed.

Animating the Ottawa River in the Core of Canada's Capital

Queen's University

SURP-824

Jacques-Cartier Park

Jacques-Cartier Park (North)

Existing Conditions

- Established pathway network
- Very low elevation within the floodplain
- Naturalized landscape
- Insufficient access to river
- Slower moving water
- Large green spaces

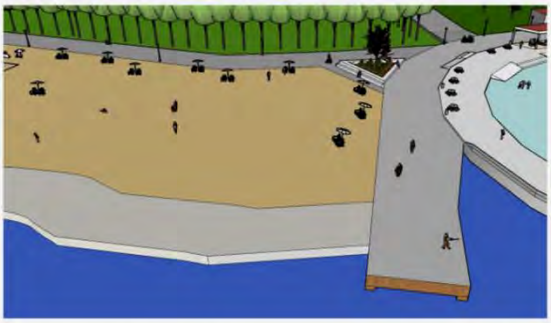
Potential Animations

- Recreational water animation (swimming, skating, beach activities, boating etc.)
- Commercial animation (rental vendors, food vendors, etc.)
- Winter animation (skiing, winter festivals, warming sheds etc.)

Demonstration Plan

Key Features

- Circular swimming pier (With potential to convert to a skating rink in winter months)
- Raised urban beach
- Fishing pier
- Boardwalk with a dock and lookout point
- Naturalised playground
- Multiuse garden space



At the centre of the model, one can see a swimming pool defined by a circular pier for commercial and recreational uses year-round. The Area also has an extended marina, multiuse spaces, and opportunities for winter animation in the form of an enclosed skating rink. Proposed animations for the Jacques-Cartier Park (North) created by Fathimah Rasheed.



Commercial riverfront animation along the Spree River in Berlin, which is a popular Beachbar attraction for both residents and tourists.



The Kwillena Gabi Pool in the City of Mandurah, Australia, is defined by a circular floating jetty platform. The jetty allows for public and commercial use and provides opportunities for water-based recreation, water transport, and tourist activities.



Initial design concept created by the Project Team with Photoshop demonstrating waterfront animation that enhances the Jacques-Cartier Park (North) with a circular pier, fishing pier and urban beach.





Sussex

Lady Grey Drive

Existing Conditions

- High elevation
- Insufficient access to riverfront
- Fragmented pedestrian pathways
- Scenic views of Gatineau Hills
- Mix of public and private riverfront
- An excess of parking
- No public amenities





Stanley Park Seawall and the Capilano Suspension Bridge in Vancouver act as animations that allow users unique opportunities to interact with Nature in from different vantage points.

Potential Animations

- Pedestrian connection to Kìwekì Point through an extension of a pedestrian-only Lady Grey Drive
- Boardwalks and viewpoints to better access the riverfront
- Arts, culture, and commercial programming and animation along Lady Grey Drive

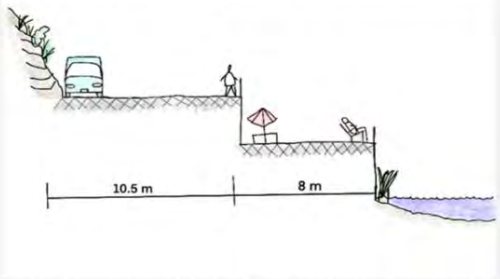


Initial design concept created by Fathimah Rasheed demonstrating waterfront animation that enhances the Sussex riverfront with a public market and boardwalk and amphitheater.

Demonstration Plan

Key Features

- Pedestrianized promenade with multi-level retaining wall
- Seating along the road
- Multi-use space for programming and commercial animations such as food trucks, markets,
- Pedestrian bridge connecting to Kìwekì Point.



Sample of the proposed design for the pedestrian promenade on Lady Grey Drive which features a multi-level design to allow users increased interactions with the riverfront.



This model shows an extended pedestrian promenade that features a multi-level retaining wall system to allow users better access to the riverfront. This area would also provide space for interactive and varied programming that may include food trucks, markets, and historical art pieces. Proposed animations for the Lady Grey Drive created by Katie Lobban.





Parliament & Institutions

Bytown Wharf

Existing Conditions

- Varied topography
- Seasonal flooding in areas of low elevation
- National landmark and significant tourist destination



The 100 Street Funicular & Frederick G Todd lookout in Edmonton creates a fully accessible pathway from the base of the Fairmont Hotel Macdonald to the edge of the North Saskatchewan River.

Potential Animations

- Improved access and animation through funiculars
- Boat launch and water taxi station
- Flood protection and seating through retaining steps
- Commercial animation and programming
- Pedestrian connection to Kìwekì Point via Pìdàban bridge



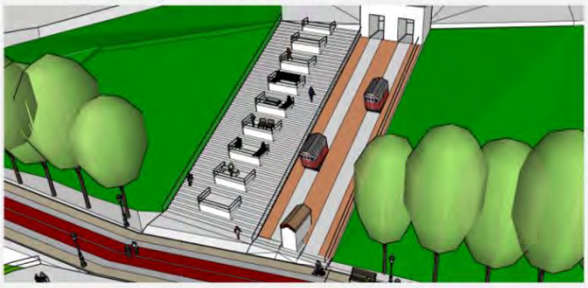
Above - Initial design concept created by the Fathimah Rasheed demonstrating waterfront animation that enhances the Parliament & Institution riverfront with an extended docking area that allows users to get closer to the riverfront, along with a small bistro.

Below – Potential animation concept created by Fathimah Rasheed demonstrating an interactive staircase with a dock at the water's edge, a prime space for programming activities like art classes.

Demonstration Plan

Key Features

- Funicular and stairs with viewing platforms
- Wharf landing platform
- Ramp with landing for small vessels









This design proposes and interactive staircase as the base of the Rideau Locks which is a prime location for additional programming activities like art classes, a new wharf and lookout platform to bring people right over the river, and dock vessels. The final key component to the design is a funicular, which is critical to improving accessibility in the National Capital Region. An interactive staircase which features lookout platforms and resting areas will also be placed alongside the funicular. Proposed animations for the Bytown Wharf created by Chloe Andre and Fathimah Rasheed.

Before & After



Before: Docking area located in the Parliament & Institutions character Area.



After: Extended docking area with a riverfront bistro.



Before: Existing informal paths that bring people along the water's edge in the Parliament & Institutions character Area.



After: Interactive staircase with a dock that allows for views of the Parliament as well as artistic programming.



Before: Chaudière Lookout area located in the Chaudière Island and Dam character Area.



After: Chaudière Lookout area featuring enhanced seating and water feature.



Before: Rock Formation with an inlet located in the Hull Riverfront character Area.



After: Lookout point that also accommodates water activity from the riverfront inlet.

Animating the Ottawa River in the Core of Canada's Capital

Queen's University SURP-824

Before & After



Before: Existing parking lots located along the Hull Riverfront character Area, providing the best views of Parliament.



After: Raised public market with extended seating and boardwalk on the west, with an amphitheatre on the east of the character area.



Before: Drive currently used for parking in the Sussex character Area.



After: Pedestrianized road with multi-level retaining wall that allows for seating along the road. A pedestrian bridge at the end of the Drive connects visitors to Kiweki Point.



Before: Fragmented pathway behind the National Research Council of Canada in the Sussex character Area.



After: Potential lookout providing close-up view of Rideau Falls.

Precedents

The top 20 precedents: the best national and provincial waterfronts from Canada and around the world.



List of Precedents

1. **The Forks**, Winnipeg, MB, Canada
2. **Vieux Port du Québec**, Ville de Québec, Québec
3. **Dufferin Terrace**, Ville de Québec, Québec
4. **Vieux Port de Montréal**, Montréal, Québec
5. **Danube Promenade**, Budapest, Hungary
6. **West Harbour**, Hamilton, ON, Canada
7. **St. Charles Linear Park**, Ville de Québec, QC, Canada
8. **100 St. Funicular & Frederick G. Todd Lookout**, Edmonton, AB, Canada
9. **Spree River Waterfront Promenade**, Berlin, Germany
10. **Seine River Waterfront Promenade**, Paris, France
11. **Samuel De Champlain Promenade**, Ville de Québec, QC, Canada
12. **Touch The Water Promenade**, Edmonton, AB, Canada
13. **Market Square**, Helsinki, Finland
14. **Aker Brygge & Oslo Harbor Promenade**, Oslo, Norway
15. **Marina Bay**, Singapore
16. **Harbour Front**, Toronto, ON, Canada
17. **Granville Island**, Vancouver, BC, Canada
18. **Waterfront Nyhavn**, Copenhagen, Denmark
19. **Damrack Waterfront**, Amsterdam, Netherlands
20. **The Wharf**, Washington, DC, USA
21. **The Commonwealth Park**, Canberra, Australia
22. **Bow River Waterfront Promenade**, Calgary, AB, Canada
23. **Halifax Harbour Waterfront**, Halifax, NS, Canada
24. **Thames River**, London, England
25. **Clarke Quay**, Singapore
26. **Dow's Lake**, Ottawa, ON, Canada
27. **Navy Pier**, Chicago, IL, USA
28. **Stockholm Waterfront**, Stockholm, Sweden
29. **River Walk**, Detroit, MI, USA
30. **Lake Ontario Park**, Kingston, ON, Canada
31. **Stanley Park & Sea Wall Walk**, Vancouver, BC, Canada
32. **Darling Harbour**, Cockle Bay Wharf & Circular Quay, Sydney, Australia
33. **French Quarter**, New Orleans, LA, USA
34. **Marine & Walk Yokohama**, Japan
35. **Silver Coast Lakeshore Promenade**, Zurich, Switzerland
36. **Dubai Marina**, Dubai
37. **Siloso Beach Walk**, Singapore
38. **The Queensway – Humber Bay**, Toronto, ON, Canada
39. **Belle Isle Park**, Detroit, MI, USA
40. **Eastern Promenade**, Portland, OR, USA
41. **Bosphorous Waterfront Karokoy**, Turkey
42. **Rambla of Montevideo**, Montevideo, Uruguay
43. **Fisherman's Wharf & Embarcadero**, San Francisco, CA
44. **Quai Des Artistes, Quai Des Cageux & Quai des Légendes,** Ville de Québec, QC, Canada

References on Reverse of Poster

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Queen's University SURP-824

List of Animations

Seasonal Usage	Symbol
Summer use	☀
Winter use	❄
Year-round use	☀❄



Animation	Season
Amphitheatre	☀❄
BBQ areas	☀
Beach	☀
Bistro	☀❄
Boardwalk	☀❄
Boat launch	☀
Boat restaurants	☀❄
Boating	☀
Café	☀❄
Canoe	☀
Cliff jumping	☀
Cross-country skiing	❄
Cycle	☀
Docks	☀❄
Dog park	☀❄
Fat biking	❄
Ferris wheel	☀❄
Fishing	☀❄
Food trucks	☀
Funicular	☀❄
Gazebo	☀❄
Gondola/ cable car	☀❄
Historical models	☀❄
Ice fishing	❄
Kayaking	☀
Light shows	☀❄
Lookout	☀❄
Marina	☀❄

Animation	Season
Multi-use greenspace	☀❄
Outdoor gym	☀❄
Paddle boarding	☀
Pedal boat	☀
Pedestrian bridges	☀❄
Picnic area	☀
Pier/wharf	☀❄
Playground	☀❄
Pop-up shops	☀❄
Portage routes	☀
Public amenities	☀❄
Public art	☀❄
Restaurants	☀❄
Self-guided walks	☀❄
Skating	❄
Sledding	❄
Snowshoeing	❄
Splash pad	☀
Sports fields	☀❄
Swimming	☀
Swimming barge	☀
Tours	☀❄
Tubing	☀
Urban beach	☀
Water fountain	☀
Water inflatables	☀
Water taxis	☀
Ziplining	☀



Animating the Ottawa River in the Core of Canada's Capital

Queen's University SURP-824

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Appendix I: Final Presentation Photos, Posters, and Q&A

On December 9th, 2022, the project team hosted their final presentation at the NCC's Urbanism Lab in Ottawa. The purpose of the final presentation was to present our proposal and ideas for animating the Ottawa riverfront.



Figure I.1.: *An image of the NCC's Urbanism Lab where the presentation was held.*

Prior to the final presentation, a practice presentation was held on December 2nd, 2022, at Queen's University, to the students and faculty of the School of Urban and Regional Planning. The presenters were Chloe Andre, Elliot Chiu, Katie Lobban, and Rosanna Wisden. The faculty presentation allowed the project team to receive feedback in preparation for the final presentation.



Figure I.2: *Matthew Harding explains the existing conditions of the Ottawa riverfront to the audience*

Rachel Barber, Matthew Harding, Fatimah Rasheed, and Ellory Vincent conducted the final presentation. The final presentation first informed our stakeholders of the existing conditions including the SWOC analysis of the Ottawa Riverfront, followed by a list of historical animations the team learned about through their research on the Ottawa River. The vision, goals, and planning principles for the project were then presented alongside the overall map of the character areas. The map showed how each character area was created based on different environmental conditions, such as topography, surrounding land use, and the speed and flow of the river.

To present the proposed animations, the team chose one animation location for each of the character areas to expound on with additional details, illustrations, and animated demonstrations to show how the proposed animation suits the needs of the character area. The presentation then concluded with our recommendations and was promptly followed by a Q&A session with the stakeholders.

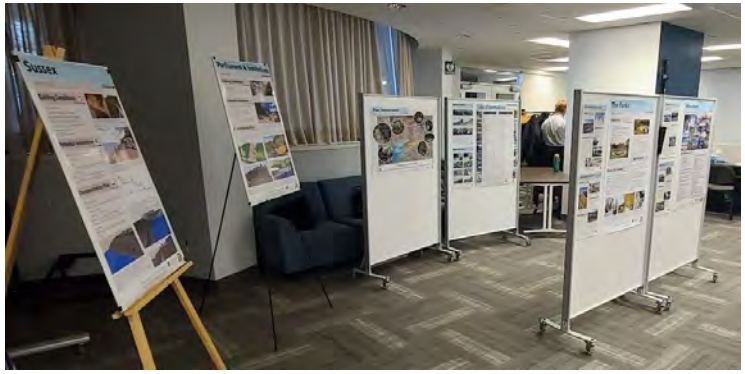
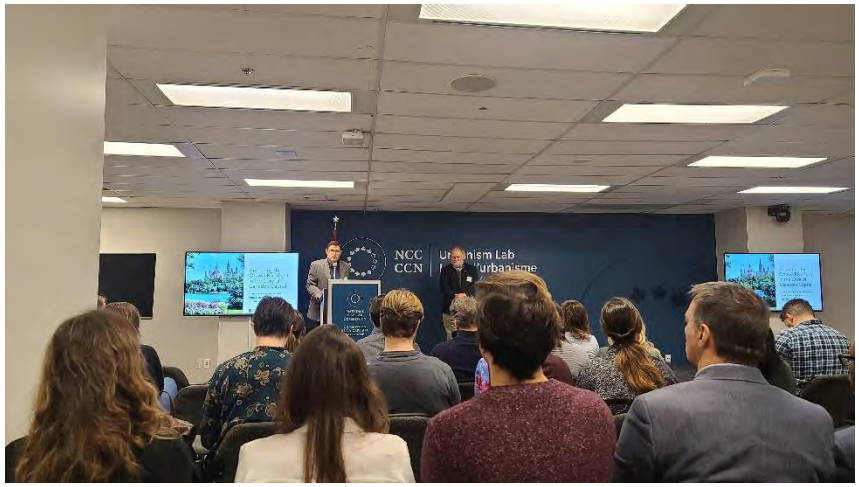


Figure I.3: *Posters displayed during the event for attendees to observe and ask questions.*

Accompanying the presentation was a series of posters (attached in Appendix H:2-3) created by the project team that provided a summary explanation of the animations and additional information. A handout was provided to attendees that provided a simplified explanation of the presentation as well as refreshments. Following the conclusion of the presentation, the project team was given an opportunity to network with industry professionals to receive valuable career advice and insights relevant to the project.

Appendix I.2: Final Presentation Photos

Figure I.4: *Pictures taken during the day of the final presentation at the NCC Urbanism Lab.*












Thank you!
Merci!

Appendix I.3: Final Presentation Q&A

Question 1: What are the considerations the team is taking in bringing these ideas forward?

Answer: As mentioned in our presentation, our recommendation for stronger collaboration across the river between the NCC, the City of Ottawa, and Ville de Gatineau should be considered when proposing and implementing riverfront animations. Most importantly, meaningful Indigenous engagement and collaboration between stakeholders and Indigenous partners should occur openly and honestly.

Question 2: Looking at inclusivity and accessibility, did the team look at accessibility or universal designs for each animation?

Answer: When determining the criteria for precedent evaluation alongside the client and the team's focus on waterfronts in provincial and national capital cities, our team did not come across many established examples of universal design. One example of good animation that incorporates universal design was the Touch the Water Promenade in Edmonton, Alberta. Although it isn't built yet, it seems that it will have a big impact on the community as a public gathering space freely open and accessible to all.

In our proposed animations for the Ottawa riverfront, it is our full intention that all animations will be free to the public and a North American leader in universal design.

Question 3: With regards to the Lady Grey Drive animation, how does the lower level with the retaining wall connect to the existing Lady Grey Drive?

Answer: The team got the inspiration for the design of Lady Grey Drive from the Queen's Wharf, a historical animation that was previously situated at Lady Grey Drive and was used for steamboat travel and boat rental. Both levels in the Lady Grey Drive design would be connected to the intersection of the road that leads to the Ottawa Rowing Club. We've designed it to dedicate the lower level of the Drive to open space and dedicate the upper level of the Drive to temporary complementary animations such as food trucks and seating that overlooks the lower level, and arts programming such as busking and outdoor public art.

Question 4: Did the team look at how visitors would access these animation locations by public transportation? And can you provide an example of how one would spend a day at one of these animation locations?

Answer: The project team highlights the Jacques-Cartier Park North location and its proposed animations as having the potential to encourage visitors to spend the day at this location. This area is accessible by public transit and is connected along the riverfront via the Trans Canada Trail/Voyageurs Pathway. The proposed animation includes a circular jetty with an enclosed swimming area that provides visitors with the opportunity to have direct access to the river. The jetty also serves as a launching dock for visitors who would want to use their non-motorized watercraft and get into the river. In addition, a fishing pier is located adjacent to the jetty, formalizing an already existing activity in this location. The wharf on the other side of the jetty can be used as an additional water-taxi stop, or a space to launch emergency boats. In addition to riverfront-related activities, the team also proposes complementary land use features that can bring more people to the park.

Question 5 (Recommendation): Stakeholder suggested demonstrating how the team's vision and planning principles tie into each of the animations proposed for each location.

Question 6: With the City of Ottawa and Ville de Gatineau plans to get the downtowns more activated, will the riverfront animations complement the interaction between places like Downtown Gatineau or Byward Market?

Answer: The team proposes to have riverfront animations that complement surrounding commercial areas. The team considered the surrounding areas when designing the concepts for each location, intending to not have the riverfront animations detract visitors from the downtown areas. In addition, each proposed animation for each character area was also designed to complement riverfront animations in other locations. This was done to ensure that visitors could encounter different kinds of experiences and activities throughout the study area.

Question 7: How do you highlight climate resiliency and the climate crisis in the design process?

Answer: The team looked at past plans, such as the Capital Pathway Strategic Plan, that outlined suggestions on how to mitigate the negative externalities related to flooding of the Ottawa River. The team incorporated these suggestions into our plans. For example, we suggest creating alternate pathways and elevated footpaths over areas that are more likely to be struck by floods.

Question 8: Has your team looked at bridges as nodes that offer vantage points of the river that also connects existing infrastructure across the river?

Answer: The project team looked at bridges within the study area as nodes that can connect animations across the river. An example that was brought up during the

design charrette was the Alexandra Bridge. With plans in the near future to replace this bridge, it provides an opportunity to encourage active transportation between riverfront animations that also maintain excellent sightlines to the Parliament.

Question 9: How does your team address the visibility perspective for the connectivity of pathways from Ottawa?

Answer: Our team reviewed Canada's Capital Views Protection and has identified that the view of Parliament Hill is integral to the identity of the capital. As such, animations on the Ottawa side of the river are designed to be discreet to not detract from the view of Parliament Hill. Furthermore, our proposals for animations on the Gatineau side are designed to project the image of a lively riverfront. Our intention is such that we can connect Ottawa and Gatineau by devising animations that encourage people to visit the Gatineau side of the river while also maintaining the views of the nation's capital.

Question 10: Has your team observed an existing riverfront animation that is currently working well? What was working well? And how does your team intend to enhance existing riverfront animations?

Answer: From the land survey the team conducted of the study area, we noted that the Canadian Museum of History Riverfront Park is an existing park that serves as a vibrant riverfront destination in the region. The riverfront park hosts a variety of festivals, performances, and shows. It also serves as a connecting point along the river that is adaptive, flexible, and resilient. Our team commends the riverfront park as a multi-use space that is actively engaging with the riverfront and creating a dialogue across the river. Hence, the team recommends the extension of this kind of animation and its character throughout the shoreline in that study area, instead of having animations fragmented or confined to a small portion of the riverfront.

Question 11 (Recommendation): Stakeholder suggested providing a complete wayfinding map of all proposed animations connecting both sides of the river. In addition, the stakeholder suggests providing examples of daytime and nighttime usage of the riverfront animations in identified locations.

Question 12: With regards to relationship building with First Nations, what animations does the team propose that would be beneficial in meeting the Truth and Reconciliation Commission (TRC) Calls to Action?

Answer: As a team of non-Indigenous students, we recognize that the study area has locations that have been used by Indigenous Peoples as meeting places for trade and cultural exchange. As student planners, we acknowledge that it is not our place to propose

animations on behalf of Indigenous Peoples. Hence, we recommend that we provide the platform for collaboration and support Indigenous-led riverfront animations in these locations.

Question 12: How do the team's animations address the floodplain?

Answer: The animation locations that were chosen by the team as being ideal for riverfront animation have been done with careful consideration of floodplains. Additionally, wherever possible, the animations have been suggested to be placed at a safe distance from potentially dangerous floodplains. The team recommends building flood-resilient animation infrastructure, as well as having elevated animation points where the land is too close to the water and prone to frequent floods. Moreover, taking inspiration from the proposed design for Tesasini Park (the result of NCC's partnership with the Algonquin Anishinabe, Zibi, the City of Ottawa, Ville de Gatineau, and Energy Ottawa), the team recommends resiliency through sustainable design and careful choice of materials for animation. For example, utilizing stone slabs as seating and having exposed bedrock shelves along low-lying areas to protect from erosion when the water level rises, in addition to maintaining existing mature trees.