

# EXPLORING URBAN RIGHTS FOR NATURE:

POSSIBILITY, PRAXIS, PATHWAYS



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# EXECUTIVE SUMMARY

To address the deep, complex and imminent environmental challenges faced by cities today, a transformative approach for urban planning and design is needed. The scale of change that is required may not be supported by the existing tools, policies or value systems in place. Achieving deeper sustainability requires a significant shift in how we imagine the world and our place in it.

The challenge will be to think differently: to reimagine what planning can be and what it can achieve.

This report explores an emerging concept of 'urban rights for nature' as such a transformative approach for the greater Vancouver region. We focus on how rights for nature can be a guiding principle or idea in urban planning, how it might influence the urban form, and the related tools and processes we can use to get there.

In the context of this work, we define urban rights for nature as a place-based approach to community planning which explicitly places nature at the heart of all processes, decisions, and designs. It involves a recognition of nature as having intrinsic value, and places relationships between people and nature, and with one another, as a priority, applying equity and environmental justice principles to all processes. We see it as a framework for guiding our urban planning processes towards more equitable and nature-centric approaches. At its core, it seeks to encourage greater reciprocity between cities and the environment - including the citizens, planners, and decision makers within.

This work is inspired by and builds off the growing global legal movement of 'rights for nature' as well as related

environmental planning concepts such as Biophilic Cities and nature-based thinking. We have explored and defined our working concept of urban rights for nature through research conducted between September 2020 - March 2021, including literature reviews, case studies, and engagement with local practitioners including a webinar, nature-based activities and interviews.

*Exploring Urban Rights for Nature: Possibility, Praxis & Pathways* will be of use to planning practitioners in the greater Vancouver region who are seeking new tools or frameworks for planning for sustainability in the context of deepening environmental inequities, complex resilience challenges, and planning in and on unceded Indigenous land.

In **Chapter 1: Possibility**, we introduce the idea of rights for nature in the context of cities, define our working concept of urban rights for nature, and help to build a case for a strengthened nature-centric planning approach guided by an understanding of the fundamental relationships and benefits of nature in cities.

In **Chapter 2: Praxis**, we discuss several key themes that emerged through our work that practitioners should be attuned to if exploring how to work within a framework of urban rights for nature in a planning context. These are:

- **Decolonization and reconciliation:** There is an important relationship between rights for nature and Indigenous relationships to land that needs to be

*Continued*

unpacked. A decolonial perspective is critical to a rights for nature approach in the greater Vancouver region for at least three key reasons. Firstly, our region is situated on unceded Indigenous land, and urban rights for nature is a land and nature-based planning practice. Secondly, urban rights for nature seeks to transform our planning processes and our relationship to nature, so we must consider what our existing relationships to nature are and what forms of knowledge and power brought us here. Thirdly, to reimagine a transformative approach for nature-centric planning, we have to rethink the starting point of inquiry and cultivate skills of imagining fundamentally different futures. This includes new modes of knowledge production as part of our vision for re-making cities. We suggest some additional learning resources for planners seeking to start on the path towards reconciliation.

- **Equity and justice:** Rights for nature is about improving the lives of all the residents of a community, and therefore it is important to consider how the rights of nature interact with human and community rights and needs. Concepts such as ecological justice may be useful to inform these considerations, as it extends the ideas of environmental justice to include consideration of our ethical obligations to the biosphere and the creatures that inhabit it, more generally.
- **'Rights' in the context of cities:** It is important to determine a local definition of both 'rights' and 'nature' in this context. From our research, three key challenges in articulating rights were raised: what aspects of nature might you give rights to; what might those rights include; and who advocates for the rights holders.
- **Effective language and framing:** A key finding was that the language and core concept of reciprocity and

relationship seemed to resonate with most project participants, offering perhaps a useful alternative to the language of 'rights' that emerged as a point of critique. The framing of reciprocity invites us to consider both how we benefit from the environment and how we might actively give back to and steward nature. It also builds on a common value set of many planners - of responsibility and acting in service to their community.

In the context of the greater Vancouver region, a thoughtful urban rights for nature approach will require careful consideration of its intersections with these themes.

In **Chapter 3: Pathways** we propose three possible pathways for applying a framework of urban rights for nature. Each pathway offers a different entry point for starting the conversation about urban rights for nature - it unpacks the 'what, when & how' for achieving different scales of change and provides practitioners with concrete examples and local planning tools that might assist with creating change.

- **Total Transformation:** The first pathway describes an organization or community ready to apply the urban rights for nature concept as a whole. For example, the municipality of Curridabat, Costa Rica developed a long-term community plan built around pollinators as citizens, which shapes decision making, urban design, priority setting, and evaluation. Examples of planning tools that would be useful on this path include Official Community Plans and Regional Plans.
- **Incremental Improvement:** The second pathway focuses on smaller ways to apply individual elements of the urban rights for nature concept when changing the overall

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direction and vision of the organization is not feasible. For example, Auckland, New Zealand adopted the Te Aranga Māori Design Principles, which apply core Māori values, like managing and conserving the environment as part of a reciprocal relationship, to the common planning tool of urban design guidelines. This approach could also be taken with municipal asset management, and zoning regulations.

- **Windows of Opportunity:** The third pathway describes situations where teams are able to apply the entire rights for nature concept to a specific project or site, without making changes to the larger systems they are a part of. In New York City, a not-for-profit organization called the Billion Oyster Project and a municipal design competition created an opportunity to propose building oyster reefs in the harbour. The reefs will improve biodiversity, clean the water, and provide protection from storm surges, improving human and aquatic habitat at the same time. Other planning tools that could create windows of opportunity include area specific plans and large site zoning or variance applications responding to unique site conditions.

In order for planners, designers, managers, and citizens to really embrace nature in cities, we argue that a more transformative and comprehensive approach is needed to guide how we develop, design, manage our region. We suggest urban rights for nature offers a framework worth exploring.

*“When we tell [our children] that the tree is not a who, but an it, we make that maple an object; we put a barrier between us, absolving ourselves of moral responsibility and opening the door to exploitation. Saying it makes a living land into “natural resources”. If a maple is an it, we can take up a chain saw. If a maple is a her, we think twice.”*

- Robin Wall Kimmerer, Braiding Sweetgrass<sup>1</sup>

# ACKNOWLEDGMENTS

This report was prepared for West Coast Environmental Law by Elsabe Fourie, Yette Gram, and Sarah Marshall, graduate students in the University of British Columbia School of Community and Regional Planning (SCARP).

The SCARP student team would like to begin by acknowledging the land on which this work was conducted. Our work was undertaken on the unceded, ancestral, and shared territories of the *xw̓məθkwəy̓əm* (Musqueam), *Skwxwú7mesh* (Squamish) & *səlilwətaɬ* (Tseil-Waututh) Nations, who have been in relationship with this land since time immemorial. As we have embarked on this exploration of what rights for nature could mean in the context of cities, we have been and continue to be guided and inspired by the wisdom of the local host nations who sustain regenerative relationships with all the beings of this place.

In addition, our team would like to thank those individuals who have contributed to this project. Firstly, our team would like to thank Deborah Carlson from West Coast Environmental

Law for her guidance and support on this project. We would also like to extend our gratitude to Maged Senbel and Erick Villagomez from UBC's School of Community and Regional Planning for their time, knowledge and expertise through the studio project. Finally, we would like to acknowledge the contributions of the following participants:

- Anuradha Rao, Registered Professional Biologist
- Brittany Morris, Planning Analyst, Vancouver Parks Board
- Deborah Harford, Executive Director, Adaptation to Climate Change Team (ACT), Faculty of Environment, SFU
- James Casey, Fraser Estuary Specialist, Birds Canada
- Laurie-Bates Frymel, Senior Planner (Environment), Metro Vancouver
- Melina Scholefield, Manager of Green Infrastructure Implementation Branch, City of Vancouver

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# TABLE OF CONTENTS

<b>2-4</b>	Executive Summary
<b>5</b>	Acknowledgements
<b>7-9</b>	Introduction
<b>10-16</b>	Chapter 1. Possibility
<b>17-25</b>	Chapter 2. Praxis
<b>26-35</b>	Chapter 3. Pathways
<b>36-37</b>	Conclusion
<b>38-53</b>	Appendices
<b>54-62</b>	References



# INTRODUCTION



Over the past decade, a number of places across the globe have recognized rights for nature. You may have heard about rivers and parks in New Zealand being afforded legal personhood<sup>2</sup> - or more recently rights being granted to Quebec's Magpie River<sup>3</sup>. A town in Costa Rica has taken this concept further and recognized pollinators as urban constituents<sup>4</sup> - fundamentally shifting urban planning and policy decisions to account more fully for nature. As urban areas grapple with climate emergencies, biodiversity loss, and growing social and environmental inequities - we wondered how the rights for nature movement might be applied as a pathway towards transformative environmental change in the urban arena.

We began this work in September 2020 with the goal of understanding how communities consider nature in planning, decision making, and engagement, and how the concept of rights for nature might help to forge more nurturing relationships with the ecosystems we live in. We have found that many of the concepts within the rights for nature movement have potential to change the ways cities plan with and for nature. We propose 'urban rights for nature' as a new framework which embodies these core concepts, and which might be applied in the context of the greater Vancouver region.

This report is the result of conducting literature reviews and exploring case studies on how cities around the world have been adopting various aspects of the rights for nature movement, as well as workshops, nature-based activities and interviews carried out with local practitioners to explore how rights for nature might be applied to city building work in the greater Vancouver region. We summarize key themes, insights and use 'what we heard' statements from our participants to help communicate our findings.

The project was conducted entirely during the COVID-19 pandemic and the methodology was designed in compliance with local health guidelines, with all research and interviews conducted virtually. Given timelines and scope of this project, we did not have the opportunity to learn from and speak to local First Nations. Throughout the report we identify the potential linkages between urban rights for nature, Indigenous worldviews and reconciliation. We acknowledge that a needed next step for advancing this work is dedicating time and

relationship building to more fully consider what this work might mean for the Indigenous Peoples on whose stolen lands this concept would be advanced.

### Who should read this report?

This report was prepared for environmental planning and policy practitioners working in the greater Vancouver region. It is intended to act equally as a primer on the emerging idea of 'rights for nature' in the context of cities, as well as identify possible pathways and tools that practitioners could use to advance this concept in practice.

### How to read this report

This report unfolds over three main chapters: Possibility, Praxis & Pathways:

#### *Chapter 1: Possibility*

This chapter introduces the idea of urban rights for nature as a guiding framework for urban planning, and outlines the possibility of what rights for nature could bring to our cities.

#### *Chapter 2: Praxis*

The Praxis chapter presents key considerations for practitioners who may be interested in applying an urban rights for nature framework to their work. While urban rights for nature offers great potential, it is not without its critiques. In the context of the greater Vancouver region, a thoughtful rights for nature approach will require careful consideration of its intersections with decolonization and reconciliation; equity and justice; 'rights' in the context of cities; and language and framing for effective communication.

#### *Chapter 3: Pathways*

Each organization, team, or individual thinking about advancing an urban rights for nature approach will have different circumstances in which they are working. This section outlines three common pathways to implementing change, each with different preconditions, opportunities and potential challenges. We provide examples of



what applying urban rights for nature in each might look like. The first pathway (Total Transformation) describes an organization or community ready to apply the urban rights for nature framework as a whole. The second (Incremental Improvement) focuses on smaller ways to apply parts of the urban rights for nature concept when changing the overall direction and vision of the organization is not feasible. The third pathway (Windows of Opportunity) describes situations where teams are able to apply the entire urban rights for nature framework to a specific project or site, without making changes to the larger systems they are a part of.

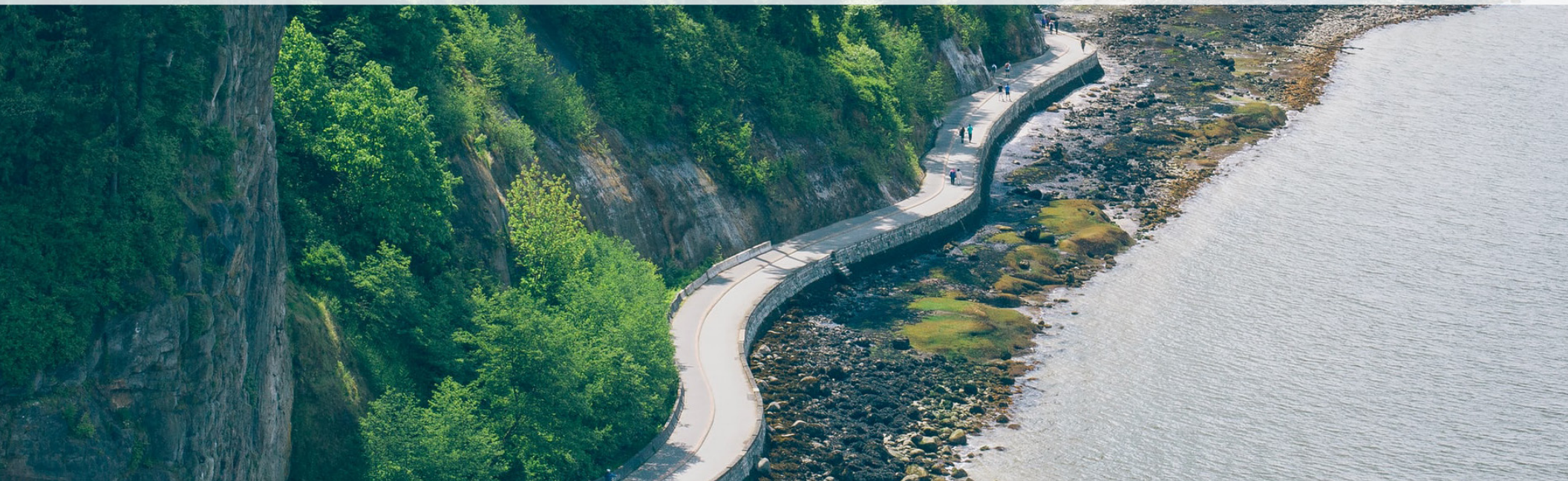
In order for planners, designers, managers, and citizens to really embrace nature, we argue that a more transformative and comprehensive framework is needed to guide how we develop, design, manage our region. We suggest urban rights for nature offers a framework worth exploring.





# CHAPTER 1. POSSIBILITY

Urban rights for nature offers great possibilities as a guiding framework towards more relational planning with nature



## A Story of Possibility

***As part of our work, we asked project participants to go outside and reflect on the experience of a particular element of nature or species in the urban environment. We also asked them to consider how that experience might be changed if that aspect of nature's intrinsic rights were better considered in planning and design practices. This is the story that one such individual shared:***

I tried to follow my regular morning walk routine around my neighbourhood of Mount Pleasant and focused on Salal. Part of my relationship with Salal stems from my childhood and growing up on Vancouver Island, the land of the unceded traditional territory of Quw'utsun and Hul'qumi'num people. Salal was everywhere, it was a part of my daily life. And it was something, for me, that I always felt very grounded to. I would use the berries to dye my gym bag in elementary school. I would always go on walks and would talk to Salal and to the moss, it was a place where I felt myself and so I always saw Salal as, for me, a memory. This is a part of my personal relationship with it – it has that embodied memory for me. But it's also often used in floral arrangements and there are Salal farms, and it's sent around the world to be part of floral arrangements, and so I've seen how that relationship can be very different for others.

One of the reasons that I chose to focus on Salal is because it's native to this area and if you go into forests or old growth areas then it's very common. But it's something that I did not see on my walk. Aside from areas like Pacific Spirit, or maybe within tiny

pockets within the city here and there, it's something that is not very visible even though it would naturally be here. And thinking around rights for nature, on my walk I saw Cedars in people's yards and a variety of natural elements and parts of natural systems – but it's all very contained and manufactured, those conditions for Salal or the understory of a Coastal rainforest to flourish were not present within the radius of the walk that I went on.

Something that I've thought about for a lot of my life and have also heard many Indigenous leaders say, is around how violence on the land becomes embodied violence. And how healing the land is like healing ourselves. And on my walk, I saw how the experience of Salal... there is no reciprocal relationship.

Thinking about rights, something that is common is this idea that within a 15-minute walk you can 'access all of your needs', but what then are the conditions to enable Salal to flourish? And the role that humans have to take care of the planet and spaces for Salal? How can those conditions be created, and that reciprocity nurtured throughout? Right now, a lot of those conditions aren't there, or you need to know where to go to find it. And not just Salal, but also other shrubs and berries which would have been here and are very much still here, but are often invisible in an urban environment or are hard to find.

- Story adapted from interview with project participant

## Rights for Nature in Urban Places

Efforts to recognize the rights of nature have become a prominent form of environmentalist mobilization around the world in the last 15 years. Assertions of the rights of nature have emerged in a number of places, at different scales of governance, and in response to a variety of issues facing communities<sup>5</sup> - from granting rivers legal personhood; to recognizing pollinators as citizens at the local level; to declarations of the rights of nature at various levels of government. These are bold actions, built from an understanding that we must move beyond the idea of the environment existing as a singular value set to be considered in 'trade-offs' with other social and economic factors. The rights for nature movement is built on the premise that we must bring the value of ecosystems and species front and centre, and foster a more integrated and reciprocal relationship with nature.

Urbanized regions and cities, like the greater Vancouver region, are the spaces in which many environmental and social issues are unfolding. Yet it is also at this scale where various concepts and approaches have been advanced in pursuit of 'greener' and 'resilient' cities and communities. The framework of rights for nature is relatively novel, especially in its application to the realm of urban planning. However, it may offer a new comprehensive paradigm for how we develop, design and manage our cities<sup>6</sup>. Urban planning policies, strategies and governance must look at the relationship between cities and nature in a more cyclical and holistic way, perhaps starting with reframing our thinking of cities as complex ecosystems<sup>7</sup>.

## Thinking of Cities as Ecosystems

Urbanization is a global mega-trend, with urbanized areas set to increase by 1 million km<sup>2</sup> by 2030<sup>8</sup>. The impact of this trend on our global ecosystems is well documented. Cities are responsible for 80% of the greenhouse gas emissions causing climate change<sup>9</sup>. Urban areas increase impervious surfaces and reduce natural vegetation, which contributes to urban heat island effects, increases rainwater run-off carrying contaminants to receiving waters, and adversely impacts human health. Cities threaten species diversity and ecosystems through physical changes to land use patterns, habitat

fragmentation and degradation, introduction of invasive species, and by fundamentally altering natural hydrological, energy, and nutrient cycles<sup>10</sup>.

However, there is an equal recognition that cities are deeply connected to, and dependent on, their surrounding landscapes and ecosystems: water, air, and plants sustain us; gardens, rivers, and greenways support our mental health and wellbeing; and pollinators, parks, and green infrastructure sustain critical urban biodiversity. For many, urbanization and the ongoing redevelopment of existing urban areas can be seen as being both the cause of environmental degradation, as well as the solution. Suites of concepts and approaches have been launched to promote urban nature and greener cities. Underpinning these solutions is a growing understanding about the vital ways that our cities are connected to nature, and the importance of these relationships to biodiversity, and to us.

The benefits of bringing nature forward in urban spaces are well documented (see Figure 1). This includes improved water management, urban heat island mitigation, air quality improvements, local food production, and recreational, health, and aesthetic benefits. Integrating biodiverse green spaces in urban areas – such as urban forests, wetlands, natural coastlines and green infrastructure - can also help cities mitigate and adapt to the impacts of climate change<sup>11</sup>. This is critical in the context of the greater Vancouver region, where climate impacts are projected to have far-reaching economic, social and environmental consequences<sup>12</sup>.

There is also a growing body of research which demonstrates the mental and physical health and wellness benefits of being in proximity to nature and green spaces, including reducing stress and anxiety, faster healing rates for hospital patients, increased physical activity and greater social activity and community bonding<sup>13,14</sup>. This has been more evident than ever during the COVID-19 pandemic, where access to urban greenspace has provided needed space for social gatherings, coping with stress and anxiety, and for wellness and activity<sup>15</sup>. In this way, urban nature can be characterized as providing critical social-ecological resilience infrastructure in face of compounding risks and

vulnerabilities from COVID-19 and climate change<sup>16</sup>.

Cities are emerging as a unique ecosystem in their own right – the interrelationships between the built form, people and the environment shape the particular social-ecological conditions of place. What is clear is that cities need nature and nature needs to be allowed to flourish in the city – this is the basis for a needed and strengthened relationship between urban planning and nature. Thinking of cities as ecosystems may be one way to better consider nature as an integral part of a broader community's long-term health and wellbeing.

### A New Approach to Planning with Nature

Planning plays a central role in shaping the landscape of a city. As discussed, the ways we shape and build our cities can have a profound impact on the surrounding environment. Therefore, planners are especially accountable for re-considering how decisions, designs and plans enhance, rather than detract from, nature.

Suites of concepts for environmental policy, planning and design have been embraced by the planning profession to promote greener and more resilient cities. Examples include: sustainable development,

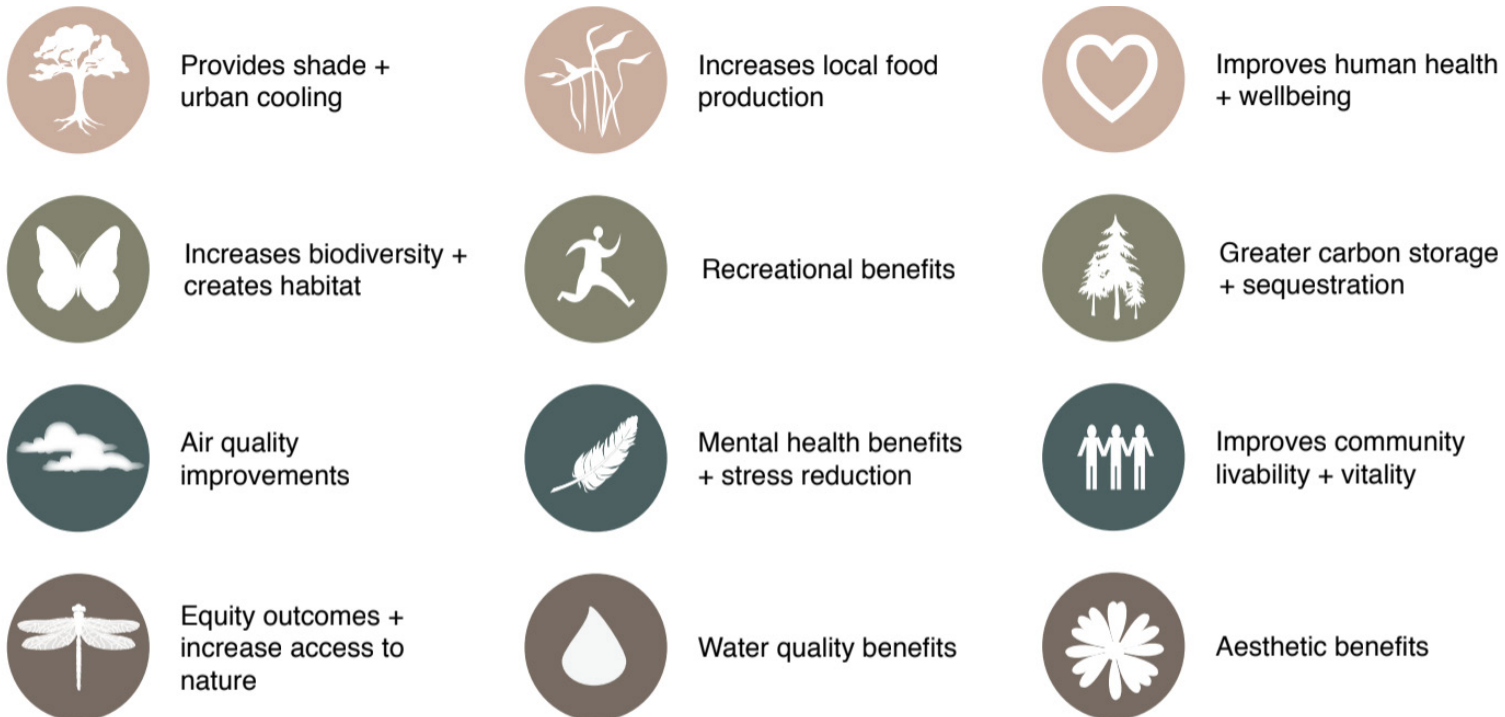


Figure 1: Benefits of Bringing Nature Forward in Urban Spaces

as emerged from the Brundtland report<sup>17</sup>; nature-based solutions, ecosystem services, and green infrastructure<sup>18,19</sup>; nature-based thinking<sup>20</sup>; Biophilic Cities<sup>21</sup>; and the environmental and ecological justice movements<sup>22,23</sup>.

These concepts and approaches are all examples of an increased attention towards the importance of nature and ecosystems in an urbanizing world<sup>24</sup>. A key challenge remains that these environmental protection strategies, policies and tools are often based on meeting human necessities and merely trying to mitigate or minimize environmental harm. In many ways, we may view our existing planning systems as permissive, in which environmental protections are secondary to the needs of humans<sup>25</sup>. Secondly, many of these tools frame our relationship with nature – and focus the proposed solutions – on the instrumental values of nature: what good it can do for me and you. More recent concepts, like nature-based thinking, Biophilic Cities and environmental justice movements, help to shift the needle slightly by broadening our thinking towards more holistic, equitable and nature-centric planning practices. The legal rights for nature movement has also been taking root around the globe – seeking to advance a view of nature as having intrinsic value, and to uphold that intrinsic right of nature to flourish (see Appendix A for a timeline of legal rights for nature examples). It seeks to address the way western legal systems treat nature as property, through affording constructs such as personhood and rights-based approaches to shift the status of nature from property to a rights-bearing entity<sup>26</sup>.

In order for cities and planning to really embrace nature, we argue that a more transformative turn needs to be made beyond human-centric and solutions-based approaches<sup>27</sup>. We suggest that many of these existing concepts need to be placed within a broader framework for how we develop, design, and manage our cities.

Urban rights for nature may be such a framework. It shares characteristics with many of these existing approaches (see Figure 2), drawing central ideas from each and bringing them together into a new framework that seeks to be a more holistic and reciprocal understanding of our relationship with nature in the specific context of planning in urban areas.

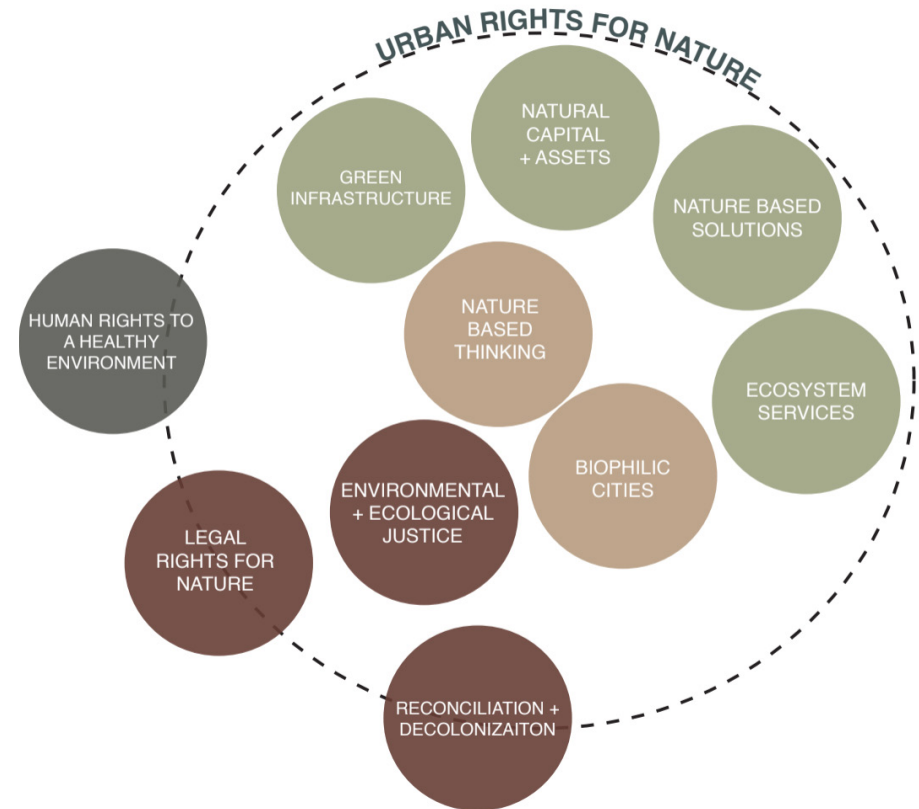


Figure 2: An Urban Rights for Nature Framework Encompasses Related Environmental Planning Concepts

An urban rights for nature framework invites the question: what if we considered the intrinsic rights of nature when we made urban planning decisions, the same way we do for people? It seeks to fundamentally shift our relationship with the natural world: acknowledging our dependence on nature and respecting our need to live in harmony with the natural world<sup>28</sup>. As a concept, it recognises that this type of shift is contingent on reconnecting urban populations with nature directly (physically, spiritually, emotionally) as a cornerstone to achieving systematic change<sup>29</sup>. It draws on the rights

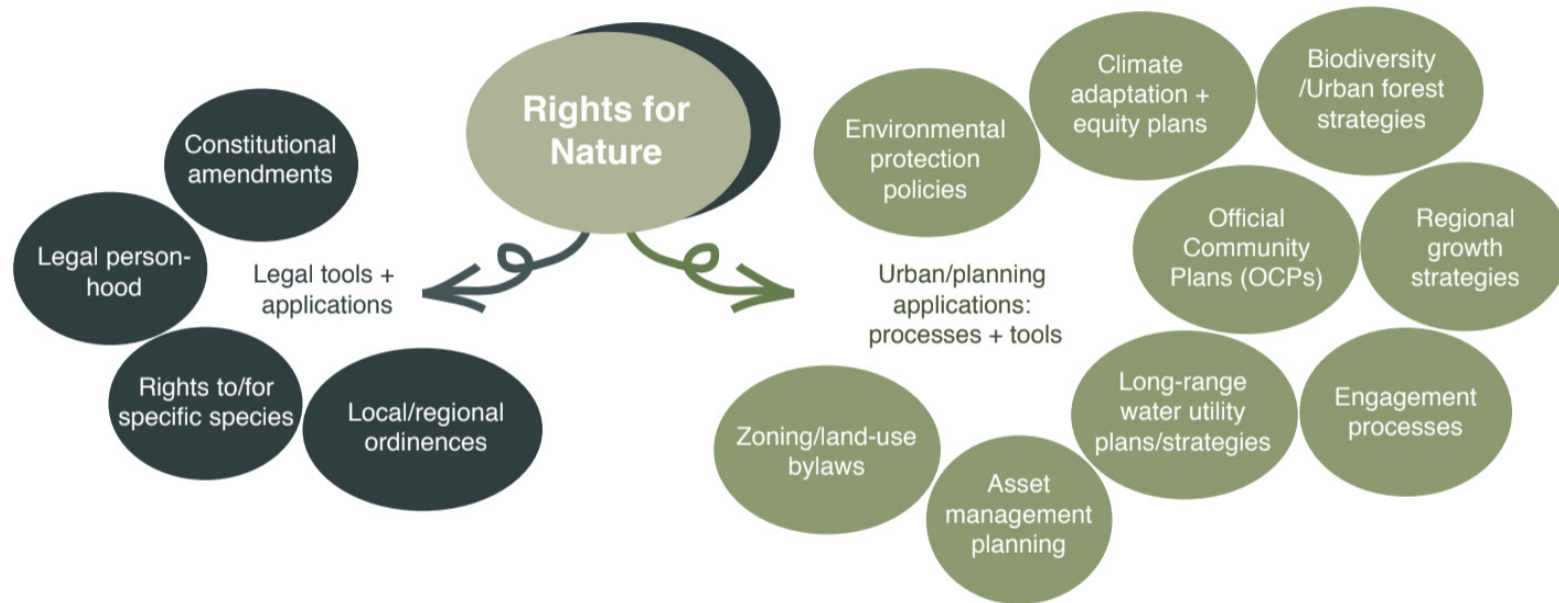


Figure 3: Rights for Nature Tools for Legal and Urban Planning Pathways

for nature movement's explicit attempt to acknowledge the intrinsic rights of nature - but goes beyond a strictly legal application and rather grounds the concept in the realm of cities and planning. We are focusing on how rights for nature can be a guiding principle or idea in urban planning, how it might influence the urban form, and the related tools and processes we can use to get there (see Figure 3).

The rights for nature concept is relatively novel, especially in its application to the realm of urban planning, however it may offer a new comprehensive paradigm for how we develop, design and manage our cities. Urban planning policies, strategies and governance must look at the relationship between cities and nature in a more holistic and cyclical way, breaking down the existing nature-human duality.

### Defining Urban Rights for Nature

As explored above, the concept of urban rights for nature shares many

characteristics with other environmental planning paradigms and is being considered here outside of and beyond its legal origins. It is therefore important to more concretely define what the concept is, and is not, for the purposes of this report.

We define urban rights for nature as:

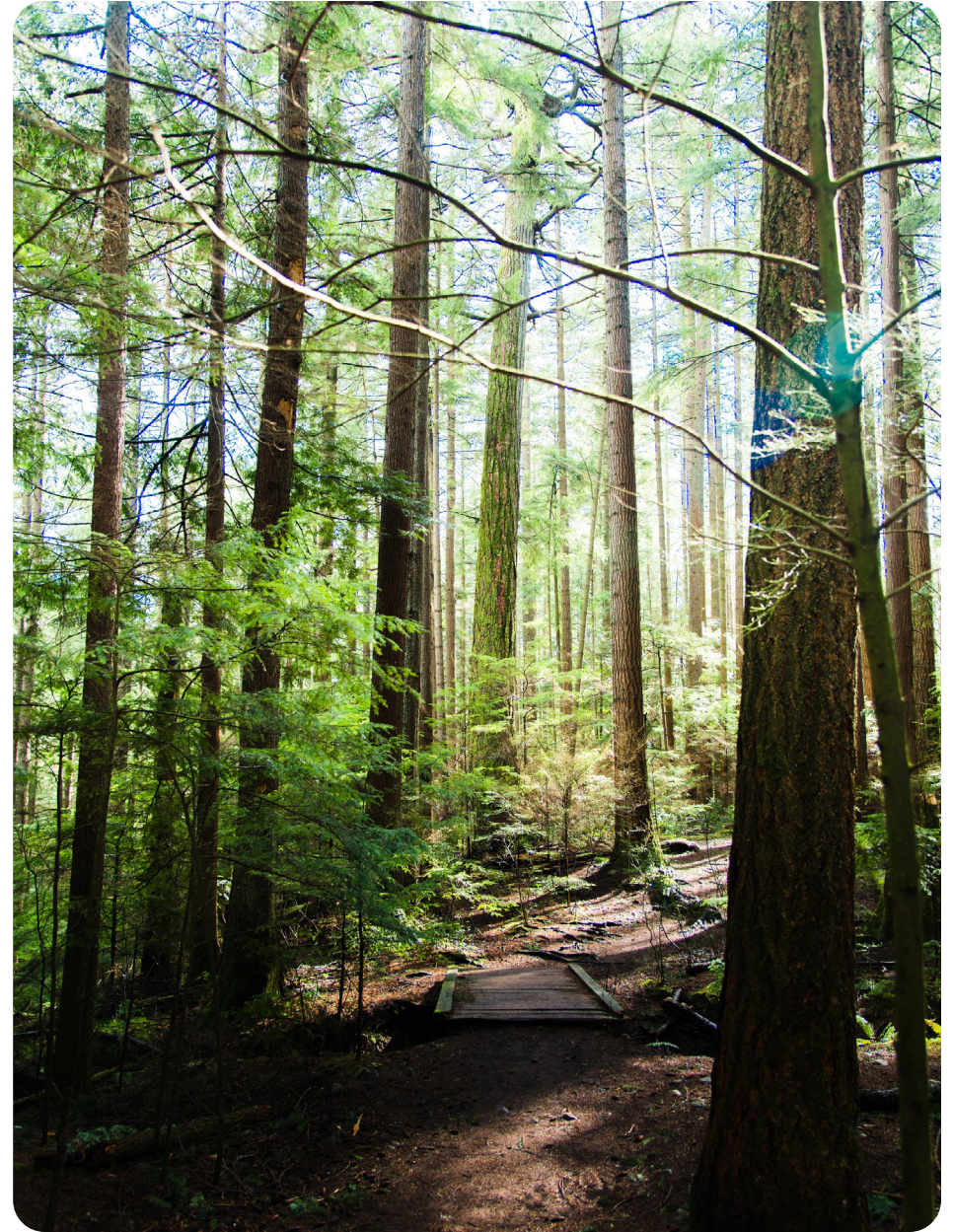
*A place-based framework for community planning which explicitly places nature at the heart of all processes, decisions, and designs. It involves a recognition of nature as having intrinsic value, and places relationships between people and nature, and with one another, as a priority, applying equity and environmental justice principles to all processes.*

Urban rights for nature integrates different forms of knowledge into decision making: including traditional ecological knowledge, local knowledge and ecological principles. Nature is defined at the community level, based on community values, pressures and needs.

Ultimately, urban rights for nature offers an important vision to strive for - one in which we are more conscious of our relationships to the natural world thus setting the course for a more sustainable urban future.

What exactly that looks like can vary widely from community to community, based on the local environmental and socio-cultural conditions, as well as a myriad of decisions on how to apply the concept that each municipality or region will make for itself. In practice, there are very few cities who have taken on a truly transformative shift to community planning using the framework of urban rights of nature. In fact, our research uncovered only one example of a community doing this so far - Curridabat, Costa Rica. There remains limited precedent therefore in seeking to explore what rights for nature means in the context of urban places. We highlight examples of communities applying components of the urban rights for nature framework throughout this report – for more, see Appendix B in which we share the other case studies we used to inform our conclusions.

In addition to being a highly varied set of practices, urban rights for nature may not be a silver bullet solution to our many intersecting urban challenges. It may not be applicable in every context and relevant critiques and concerns of the concept must be addressed if it is to be applied. These considerations are discussed in detail in the next chapter (Praxis).





# CHAPTER 2. PRAXIS

Important considerations in applying urban rights for nature to practice





Urban rights for nature offers a framework for restructuring our relationships with ecosystems and bringing nature forward as a major planning actor. It is also about finding new ways of tackling environmental challenges and re-centering diverse voices, worldviews and knowledge systems in the process.

Urban practitioners eager to explore the possibilities of rights for nature should be attuned to the many complexities in shaping such an approach. An urban rights for nature framework must fit into the local context. For example, in the case of the lower mainland, planning and environmentally-based work occurs on unceded stolen land.

We propose that while an urban rights for nature approach holds tremendous potential, it may not always be the needed or most effective pathway forward. It must be carefully thought through, in terms of its relationship to place, to equity and justice, and in the context of a changing climate. This chapter seeks to introduce and discuss four 'further considerations' for advancing an urban rights for nature approach in the context of the greater Vancouver area. We do not offer definitive answers, but rather seek to prompt additional questions and reflective thinking among practitioners who are exploring how this approach might be of value to their praxis.

#### What We Heard

*"Rights for Nature puts a different spin on things ... it's good to place alongside environmental justice and reconciliation ... it will bring up a lot of things around access, justice, privilege. This is a big conversation." - Project participant*

## Decolonization and Reconciliation

### *Unpacking the relationship between rights for nature and Indigenous relationships to land*

Underpinning the rights for nature movement is the idea that we need more holistic and reciprocal relationships with nature. The literature and case studies we reviewed as well as the conversations

we had with practitioners highlighted the parallels between core concepts underpinning rights for nature and Indigenous worldviews, laws and traditions that have upheld more nurturing relationships with nature for millennia. Importantly, however, Indigenous People's rights, cultures and worldviews are not synonymous with the rights of nature, though many Indigenous worldviews and values are based on a deep physical and spiritual connection to place, land, territory, environment and resources since time immemorial<sup>39,40,41</sup>.

There is potential for the rights for nature concept to be advanced alongside broader reconciliation and decolonization efforts in the region - though only if done in partnership with the local nations and if this approach aligns with their self-identified interests.

Practitioners thinking about applying the rights for nature concept should aim to do so through genuine processes of relationship building and knowledge collaboration - the First Nations on whose territories they work may have their own culturally specific approaches which meet similar goals and may be more appropriate for the place in question.

#### What We Heard

*"Rights for Nature and Indigenous resurgence do compliment each other -- so long as rights for nature is synonymous with the local Indigenous perspective." - Project participant*

*Articulating rights for nature is not an act of reconciliation. Reconciliation is amending for past harms." - Project participant*

*"It has to do with decolonizing the systems." - Project participant*

### *Why a decolonial perspective is important to Rights for Nature*

In the context of our discussion on urban rights for nature, we define decolonization as a collective process that involves dismantling colonial ideologies and structures that perpetuate the status quo of the superiority and privilege of Western thought and approaches. Decolonization involves addressing unbalanced power dynamics, acknowledging Indigenous knowledge and approaches and rights

to self-determination, and learning about yourself in relationship to the community in which you live and work. Decolonization must be a unique and context specific process<sup>42</sup>.

A decolonial perspective is important to this conversation in at least three key ways:

**1. We are talking about rights for nature in the context of planning in the greater Vancouver region.** Planning as a practice, especially in our context of unceded Indigenous land, has and continues to perpetuate a colonial legacy of Indigenous displacement and marginalization. As a future-focused planning paradigm, urban rights for nature may seek to re-shape structures of governance, and the ways we organize space and fulfil our relationships with place<sup>43</sup>. It is important that any dialogue about how we get from where we are to where we want to be is informed by our past and critically how that past has constructed the present<sup>44</sup>. It is important that we acknowledge our responsibilities in advancing urban rights for nature approaches while working on stolen land, in a province that has adopted UNDRIP as a framework for reconciliation<sup>45</sup>, and in a profession that has been and continues to be colonial in nature.

**2. If urban rights for nature seeks to transform our planning processes and our relationship to nature, then we must consider what our existing relationships to nature are and what forms of knowledge and power brought us here.** The genesis of many sustainability challenges are colonial in nature; including the ongoing extraction and privatization of land, natural resources, air, forests, water, biodiversity and other traditionally 'common' resources<sup>46,47</sup>. A prevailing notion of this worldview is that humans are separate from, and superior to, nature. Many of our current environmental planning practices, policies and tools are based on meeting human necessities and merely trying to mitigate or minimize environmental harm. If we are to truly shift to a more reciprocal planning paradigm, we must move beyond anthropocentric, solutions-oriented and instrumental values of nature, which is characteristic of colonial planning practices.

**3. To reimagine a transformative approach for nature-centric planning, we have to rethink the starting point of inquiry and cultivate skills of imagining fundamentally different futures.**

**What we need are new modes of knowledge production as part of our vision for re-making cities; ones which explicitly challenge colonial legacies which uphold the spaces within which urban sustainability and planning practitioners operate.** The value of breaking away from old patterns of thought and developing innovative responses has been demonstrated with respect to environmental questions<sup>48,49</sup>. In fact, many of these and other pressing questions have been answered before: Indigenous traditions are the repository of vast experience and deep insight on achieving balance and harmony. We draw on the following quote from Libby Porter to further explore this idea: *"Indigenous notions of holistic development have typically (and historically) been more broad based than the relatively recent Western integrative shifts towards greater sustainability; yet they have been systematically underplayed in endeavours for envisioning cities. Traditional and revived Indigenous knowledge, values and concepts may also be invaluable in more fully resolving contemporary urban dilemmas in locationally and culturally specific ways"*<sup>50</sup>.

*"[For many First Nations in British Columbia] the understanding of the territory as a lived human story speaks to the question of identity and human meaning and to the emotional and spiritual value of land, as it is lived and spoken. This is in contrast to a Eurocentric, universal, economic, utilitarian model of the land's value, private property and economic ownership which characterize the legal and political discourses in Canada."*  
- Christine J. Elsey, *The Poetics of Land & Identity among British Columbia Indigenous Peoples*<sup>51</sup>

### What We Heard

*“A Key takeaway is that this approach requires an institutional worldview shift that must be informed by existing worldviews eg. Indigenous worldviews and traditional laws” - Project participant*

*“There is a deep culture shift needed to support the idea of ‘being in relationship’ with nature and having shared values and responsibilities. It’s a big disconnect with ‘human centric’ approaches to community planning and infrastructure” - Project participant*

*“One other piece is abandoning the ideas and frameworks around possession — we must rethink how we make our decisions as humans that affect water. Jurisdictions that we create as humans are also not responsive to the jurisdictions that water has created itself. For example, in a watershed, the water has told us indirectly in how it wants to be in relationship with us.” - Aimee Craft<sup>52</sup>*

### Where can planners start on the path towards reconciliation and decolonization?

The journey towards reconciliation and decolonization begins with individual commitments to learning about and understanding local Indigenous histories; the legacy and impacts of colonialism on Indigenous-settler relationships in Canada; and planning’s complicity in settler-colonialism. There is also a need to listen closely and honestly to the agenda being set by local First Nations, and creating ways of being accountable to that agenda<sup>53</sup>. These are important steps on the path towards building relationships, and working with and learning from local nations to identify whether an urban rights for nature approach might be appropriate in our regional context. We suggest the following resources for planners seeking to start or advance their own personal learning and unlearning.

#### *Settler Colonialism, Truth & Reconciliation, United Nations Declaration on the Rights of Indigenous Peoples*

- The Truth and Reconciliation Commission of Canada - Honouring the Truth, Reconciling for the Future: [Summary of the Final Report of the Truth and Reconciliation Commission of Canada](#)<sup>54</sup>

- Bob Joseph - 21 Things You May Not Know About the Indian Act (Book)<sup>55</sup>
- United Nations Declaration on the Rights of Indigenous Peoples ([UNDRIP](#))<sup>56</sup> and the BC Declaration on the Rights of Indigenous Peoples Act ([DRIPA](#))<sup>57</sup>

#### *Planning + Local History*

- Canadian Institute of Planners (CIP) [Policy on Planning Practice and Reconciliation](#)
- Learn whose land you are on at <https://native-land.ca/>
- View the history of land use and changes in the greater Vancouver region in this [Delta Animation](#)
- Learn about the histories, cultures, values, and planning priorities of local nations. For example:
  1. [Musqueam Comprehensive Community Plan](#)
  2. [Tsleil-Waututh Nation Community & Land Use Plans](#)
  3. [Squamish Nation Strategic Plan](#)
  4. [Tsawwassen First Nation Strategic Plan](#)
  5. [Kwkwetlem First Nation Website](#)

Lastly, a guiding source of inspiration for the authors of this report is the book “Braiding Sweetgrass” by Robin Wall Kimmerer<sup>58</sup>.

## Justice + Equity

Environmental justice, and related concepts of climate justice and environmental equity, explicitly call out the systemic injustices in law, policies, and institutions that govern our lives and which have and continue to reproduce disproportionate social, economic and environmental outcomes for particular communities. It highlights inequities in the access to and use of natural resources and in the distribution of environmental harms<sup>59</sup>. For example, most sources demonstrate that it is people of color, Indigenous communities, children, the elderly, the disabled and ill, and the poor who are disproportionately impacted by current and impending climate and environmental impacts<sup>60</sup>. Conversely, our most intact fragments of healthy ecosystems in cities tend to be in more affluent neighbourhoods. In this context, unless we explicitly include human rights and equity in the decision making and implementation processes, urban rights for nature runs the risk of becoming simply another way to protect existing natural assets in affluent and privileged areas.

Urban rights for nature is about improving the lives of all the residents of a community, and therefore it is important to consider how the rights of nature interact with human and community rights and needs. Concepts such as ecological justice may be useful to inform these considerations, as it extends the ideas of environmental justice

### What We Heard:

*“Who are we prepared to give rights to? How do these interact with humans in urban spaces?” - Project participant*

*“When I consider affording rights for nature, I have the thought that humans aren't all given rights equally. Not everyone has access to clean healthy foods or water, housing, freedom from predators and danger. In the extension to nature, we can't forget that all humans are not on par with achieving their own rights being respected and granted. So I think of nature as one of the most vulnerable people ... we need to address everyone's needs equally.” - Project participant*

to include consideration of our ethical obligations to the biosphere and the creatures that inhabit it, more generally.

## Challenging 'Rights'

In recognizing the rights of nature in cities, it is important to determine a local definition of both 'rights' and 'nature' in this context. From our research, three key challenges in articulating rights were raised: what aspects of nature might you give rights to; what might those rights include; and who advocates for the rights holders.

These questions must consider local context. For example, Curridabat, Costa Rica is a case we studied where they now consider pollinators as citizens in their community, affording them the rights that come with that recognition. The pollinators now serve as the central species around which planning and decision making takes place in the community, and they were chosen because of their foundational role in ecological productivity and therefore quality of life in Curridabat. What is the equivalent in the lower mainland? Is it a charismatic species that can easily win people's hearts, or an ecologically significant species that may be less widely beloved? Is it even a species, or would we give rights to an entire ecosystem or an abiotic element of nature, such as water or soil?

An added layer of complexity is considering these questions in the context of a changing climate. Will the species whose rights we recognize be able to survive in the climate we will have in 50 years? We are often uncertain of what nature needs now - how can we know what it will need far into our future? Can we be sure that we can

*“...where does an ecosystem end? Where does the influence of a river stop? How can we measure harms to a mountainside in order to make the mountain whole again? Where, in time, does 'whole' begin? ... And should we even attempt to measure the immeasurable? Also, how do we, with humility, 'think like a mountain' or give proper voice to an endangered wolf that would make it louder than any calls for human economic development?” - LaFollette & Maser, 2019<sup>61</sup>*

uphold the rights of nature considering so many unknowns? Practitioners seeking to apply rights for nature will need to make decisions around many of these questions for themselves, taking into consideration their local context, priorities, and resources.

#### What We Heard

*“What could we give rights to meaningfully - the Fraser River? Nature is too undefined ... what is natural? We would need case studies on what it really looks like at different scales - ie. species, creek, river ... there’s complex jurisdictional issues.” - Project participant*

### Language + Framing

It is clear that we need nature to be a priority. Part of the challenge in advocating for this priority will be to ensure we are working with language that resonates (see Figure 4). There is power in the framing of urban rights of nature as a way of upholding nature’s intrinsic value and right to flourish. For many, this provides a source of inspiration for imagining a fundamentally different future.

However, our research uncovered several key themes around language and framing of ‘rights’ for nature that warrant further consideration. These will be particularly relevant in the context of ‘pathways to change’ (as discussed in the following chapter, Pathways), communications strategies, and audiences you may be seeking to bring into the conversation.

#### *Challenging the language of ‘rights’*

Through our work, the language of ‘rights’ emerged as a point of contention. Some participants found the word powerful and inspiring and thought of it as a strong foundation to motivate concrete action. Others found it unapproachable, too connected to colonial systems of law, or too deeply associated with other ongoing struggles for human rights and likely to create a competitive environment between

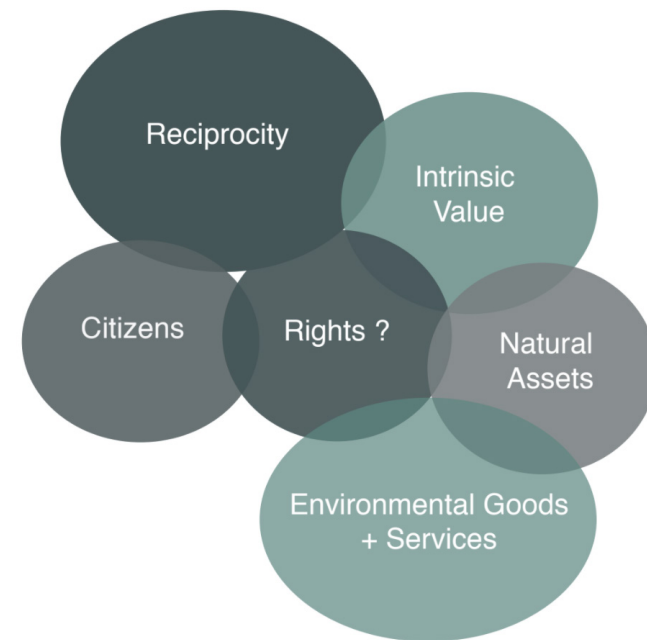


Figure 4: Language considerations and alternatives to ‘rights’-based framing

movements (eg. legal rights for nature; Human Rights to a Healthy Environment).

Our core case study, Curridabat, didn’t use the word rights at all, and instead used the word ‘citizens’ to describe how they were expanding their idea of who is considered a member of the community to include pollinators. As an alternative phrasing it is also imperfect and can give rise to confusion, as citizen is more often used to refer to a person’s status as a citizen of a given country, while in this context it refers instead to a resident and member of a community, human or not.

Despite the debates over language, the core concept of giving higher consideration to nature and creating a more reciprocal relationship with the environment was found highly valuable and intriguing by everyone we spoke with throughout the project. This highlights that

a practitioner looking to apply this concept should reflect carefully on the wording they use to present it, and how it might be interpreted within their particular community.

### *Framing is key: who is the audience?*

At its core, urban rights for nature is about changing how we plan with and for nature, which requires presenting the idea in a way that will get decision-makers on board. To this end, framing is key.

A core insight raised by participants is that urban rights for nature relies on the argument that nature has intrinsic value, beyond what we can measure and attribute monetary worth to. This way of thinking resonates very deeply with people who already hold this belief, but for those who don't already believe in it, the 'intrinsic value' argument may not get very far. In this way, urban rights for nature may not be a very helpful narrative in some contexts, in particular when there is not already a broad consensus of placing value on nature within your intended audience.

This line of thinking is one of the reasons that approaches such as nature-based solutions, ecosystem services, and natural assets are finding great popularity in municipal planning contexts. They use language and framing that is in line with many people's existing worldview, and is therefore more easily accepted. However, as discussed in the following chapter (Possibility), these approaches are limited in what they can achieve and continue our existing understanding of nature as an asset for human benefit, which has been and continues to be insufficient motivation to address the

#### **What We Heard**

*"We need biodiversity and reciprocity to be a priority everywhere people are making decisions about the land. Framing is key. We need to make sure the priority is there, whether it is rights or not." - Project participant*

*"Challenges in articulating the 'value' of natural capital (we can't 'quantify' cultural spiritual connections to land)." - Project participant*

realities of negative human impact on our environment. For practitioners, it will be important to frame the costs and benefits of a new approach in a way that decision-makers will engage with, but it is equally important to stay mindful of the worldviews and values that such framing reinforces.

#### **What We Heard**

*"We are trying to find a way to articulate the value of nature to policy makers. The intrinsic value argument is very difficult, and hard to enforce. It brings into question everything we do." - Project participant*

*"Realities of our system - what else will get [decision makers] thinking. Environmental goods and services is a useful argument ... the slippery slope is that it gets reduced to ... forests as an asset." - Project participant*

### *Preferred/Alternate Framings*

How might we move past the challenges of the framing of rights? The language and core concept of reciprocity and relationship seemed to resonate with most of our participants, and may offer a useful alternative. The framing of reciprocity invites us to consider both how we benefit from the environment and how we might actively give back to and steward nature. It also builds on a common value set of many planners - of responsibility and acting in service to their community. Perhaps this framing can help address the critiques of language and framing discussed above, and more successfully spread the idea and practice of recognizing nature's inherent value and building a healthier relationship with our local environment.

#### **What We Heard**

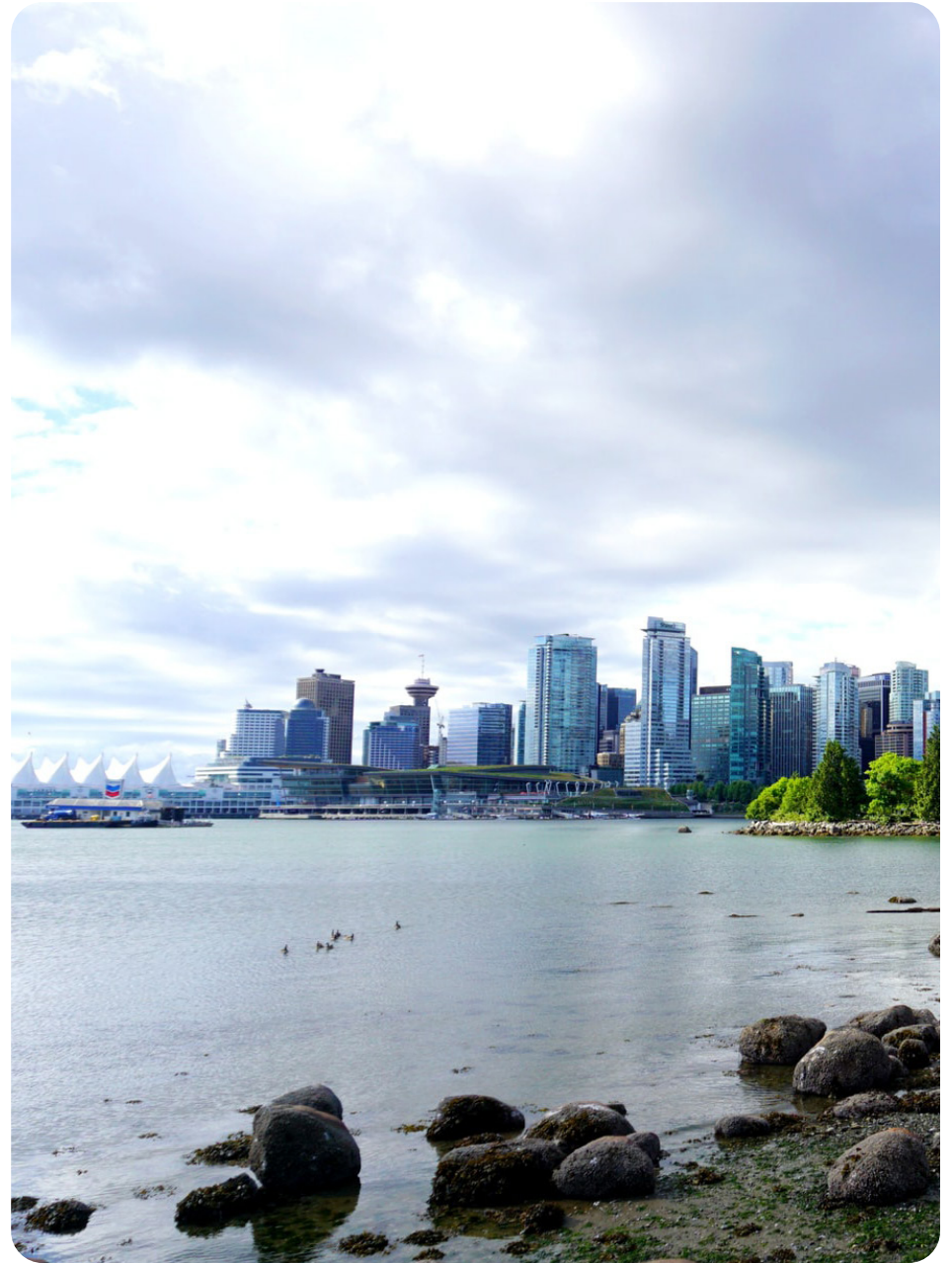
*"How can we better focus on relationships and reciprocity?" - Project participant*

*"Rights for Nature offers a drive for positive reciprocity with nature. This is a concept that could underpin our planning." - Project participant*



**What We Heard**

*“Nature-based solutions and green infrastructure, etc. are catching on more in urban planning because of the ways we make decisions and who planners see themselves as being accountable to ... maybe instead of “rights for nature” vs “rights for people” (which kind of reinforces the people-nature binary and is at odds with most Indigenous worldviews) ... we ought to be thinking about relationality, ie. what “justice” means in the context of how people and nature relate to one another. And I think that’s more compelling from a policy perspective because it doesn’t remove people from the equation in the way that “rights for nature” seems to imply.” - Project participant*





## CHAPTER 3. PATHWAYS

There are many pathways to change, and we have highlighted three for which urban rights for nature could offer useful insight or guidance: Total Transformation; Incremental Improvement; and Windows of Opportunity



## A Story of Pathways

The Sun and the North Wind were arguing one day about who was stronger and more powerful. To settle the matter they decided to hold a competition. Whoever could remove the cloak of a traveller walking by would be the strongest.

The North Wind went first, and with a huge gust of wind buffeted the traveller from all directions, trying to blow the cloak off. All the trees on the hill lost their leaves, and the birds flying by went faster than they ever had before, but the traveller wrapped their cloak around themselves more tightly, keeping it from the Wind.

Eventually, the North Wind gave up, and it was the Sun's turn. As the wind died down, the sun shone out brightly, warming the

traveller on their walk. As it got hotter, the traveller started to sweat, and finding their cloak to be too warm, took it off themselves.

For the North Wind and the Sun, persuasion proved more effective than force to remove the traveller's cloak, but if the competition had been for something else, that may not have been the case. The Sun did not help the birds fly quickly the way the North Wind had. The Sun and the Wind each had different strengths, suited to meeting different goals. The moral here is to choose the right tools and strengths for the goals you are trying to meet.

-Story adapted from Aesop's Fables

Urban Rights for Nature is a concept that has a lot to offer, and how it is most effectively applied in urban planning and what the outcomes look like will vary depending on the appropriate approach for a given situation. At its heart, urban rights for nature offers a framework for transformational change and a shift in worldview, but it can also be a guiding framework for smaller, more incremental change that brings us towards transformational readiness. Urban rights for nature is a desired state, though may in the short term simply serve the purpose of making ecological planning more consistently and equitably applied, through influencing the urban form and the related tools and processes we can use to get there.

In this chapter, we outline three common pathways to change and how the rights for nature concept might be applied in each (see Figure 5): Total Transformation; Incremental Improvements; and Windows of Opportunity.

For each pathway, we summarize **What** the application of urban rights for nature might look like, **When** the context may be right for each, and **How** to include urban rights for nature in our existing planning tools. We also share three case studies of cities around the world, each providing an example of an implementation pathway. These cases are discussed in more depth in Appendix B, which also contains additional examples of cities advancing more nature-centric planning approaches across the three pathways.

We hope that this will be a useful starting point for practitioners thinking about how to bring these ideas into their own work.

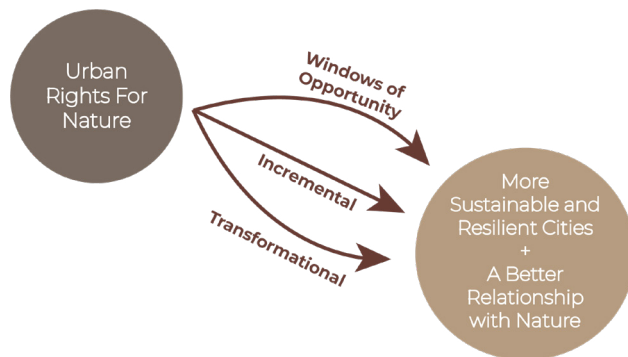


Figure 5: Pathways to Rights for Nature

## Pathway 1: Total Transformation

**What:** An urban rights for nature framework is used to shape a city or region’s long term vision, which trickles down to inform planning, design, implementation, and daily operations.

**When:** This approach is most effective when an organization is open to or seeking a large-scale shift in direction. Examples of possible opportunities include significant changes to the political landscape, and renewal of long-term planning policy.

**How:** Large-scale and city-wide guiding documents, such as Official Community Plans, are shaped by the principles of an urban rights for nature approach, which are then implemented through policy, regulation, processes and operating norms.

### *Transformative Approach to Urban Rights for Nature:*

On this pathway to change, urban rights for nature is embraced as a new way of thinking that affects how decisions are made throughout the city. Planners, decision makers and citizens spend time to develop what a local understanding of urban rights for nature means, using that understanding to shape their collective identity and vision for the future. This process embodies the inclusive principles of urban rights for nature, taking a highly participatory approach that centers diverse voices and considers the needs and desires of the entire community. The vision is used to transform planning processes and operations, shifting who is considered part of the system, who matters in decision-making, and how success is measured.

### *Preconditions:*

This ambitious approach is most likely to take hold if the municipality or region has already reached a point where the need for holistic transformation is recognized and they are actively exploring what that might look like. For example, if a new City Council is elected on a strong environmental platform, or the organization is nearing the time to update their existing long-range plans.

If leadership is supportive of, and championing a change towards,

### Case Study Example: Curridabat

Beginning in 2015, the Mayor's office of Curridabat, Costa Rica began to conceptualize a whole new community vision: 'La Ciudad Dulce', or the Sweet City in English. The vision for Sweet City began with Curridabat asking "how can a city add value to nature instead of subtracting value from it?"<sup>64</sup>. What resulted was the municipality embarking on a new planning approach centred around pollinators as prosperity agents for broader community wellbeing<sup>65</sup>. This vision seeks to improve the ways in which all members of the community experience the place they call home and views all members of the city - including birds, bees and other plant species - as citizens<sup>64</sup>.

In fact, as of 2020 Curridabat has officially afforded citizenship to pollinators, trees and native plants - making them the first municipality across the globe to do so<sup>65</sup>.

Central to this vision is the idea that a city designed to improve the way that pollinators experience the urban environment will become abundant, diverse, comfortable, robust, colorful, and better organized<sup>64</sup>. Importantly, the Sweet City framework is not just a vision document - it has led Curridabat's Municipal Operation Plan to be redrawn and adopted as public policy<sup>64</sup> thus demonstrating how these concepts can be applied to tangible municipal operations and policies.

As an example of how the urban rights for nature framework has changed how planners think about their work in Curridabat, rather than setting out municipal goals or objectives, the Sweet City plan reframes success around experiences. Projects and policies are designed to remediate or enhance the way the City is experienced from seven perspectives, including that of an earthworm, a raindrop, and the experience of accessing desired destinations.

The design of infrastructure in particular is centered around these experiences. Curridabat is beginning to ask questions such as "how can we accommodate infrastructure so that rivers can serve their natural purpose and how can we enhance their ecological value within the territory?", or "how does a raindrop move around the

city?"<sup>64</sup>. With a focus around the raindrop, we are made aware of the ways in which urban infrastructure has been designed to promote runoff as it aims to quickly drive raindrops to the nearest river. This leads to a consideration of how infrastructure can benefit the experience of a raindrop, rather than be a detriment to it.



Image: Biophilic Cities

a more sustainable and resilient city, and they have the required authority to make holistic, systemic changes, this approach of total transformation through urban rights for nature may be a feasible option. It is additionally helpful if a significant segment of the community already holds compatible values and generally supports environmental initiatives.

#### *Applicable Planning Tools:*

##### **Tool: Official Community Plan**

An Official Community Plan (OCP) is one of the key planning tools available to a local government to put in place an urban rights for nature approach that will be reflected in decision-making about land use and development within its jurisdiction. As a forward-looking document that sets out overarching policies and objectives, it has the potential to shape how decisions about land use, infrastructure, housing, environmental protections and social needs might better consider nature or aspects of nature<sup>62</sup>. The OCP provides the framework for local government decision-making: all bylaws and local government decisions, including capital expenditures, must

be consistent with the OCP once it has been legally adopted by a local government<sup>63</sup>. As well, an OCP is developed through a process that includes public consultation, and this provides an opportunity to foster dialogue about our natural environment, and strengthen reciprocal relationships between people and place.

*Scenario Example: Vancouver's new City Plan is shaped around recognizing the Fraser River as a core citizen in the community. There is greater emphasis on our inseparable relationship to the river, and there is a strengthened overarching requirement for planning decisions across land use, development, infrastructure to demonstrate how they add value to the health of the Fraser. For example, there is a strengthened policy tool to require implementation of green rainwater infrastructure in every new land use development. Because the Fraser crosses jurisdictional boundaries, there is a greater emphasis on regional collaboration and watershed scale decisions. Through the City Plan process, 'guardians' are assigned to represent the Fraser River in engagement processes - to advocate for its inherent needs and rights to flourish. Vancouver's planning decisions moving forward are shaped by recognizing that a healthy river is an integral part of our community.*

**Other Tools:** Regional Plans (eg. Metro 2050 Regional Plan; Metro 2050 Climate Plan)



## Pathway 2: Incremental Improvement

**What:** The practical application of components of the urban rights for nature idea within the existing social, cultural and political context.

**When:** This approach can be very effective to lay a foundation that helps bring an organization closer to being open to and ready for transformational change. It can be taken to continue moving forward when it wouldn't be appropriate to update long-range plans, but improvement is recognized as needed. This approach could also be helpful in contexts where there are many overlapping jurisdictions, making large-scale change especially challenging.

**How:** Urban rights for nature guides more nature-centric planning approaches within smaller initiatives, such as design guidelines, pilot projects, and topic-specific policy.

### *Incremental Approach to Rights for Nature:*

This pathway to change recognizes that total transformation is not always feasible. To build a case to support more transformative change down the line, the incremental approach can include building the kinds of projects a holistic application of rights for nature would lead to. For example, while we present the concept of natural assets management as limited in its ability to create the kind of reciprocal relationships with nature that rights for nature promotes, in a community that had not previously thought of the important contributions that nature makes to our resilience, a focus on natural assets would be a significant step forward.

Further, building pilot and demonstration projects guided by the values of urban rights for nature provides experience in design and delivery, and helps deepen understanding of what implementation looks like. Such projects make it easier to discuss more systematic

changes as the implications are better understood.

Updating smaller practices and policies, such as design guidelines or public engagement processes, to include greater consideration of the needs of nature is also an example of an incremental application of rights for nature. See the case study below for an example of how updated design guidelines in New Zealand help normalize consideration of nature, and simultaneously support decolonization efforts through the inclusion of Māori principles.

At the same time, the incremental approach would continue to provide opportunities to advocate for broader more transformative change, connecting these smaller practices to the vision of an urban rights for nature planning future. This will help to shift the window of conversation and build the long-term support for more nature-centric planning approaches.

For more examples of cities taking an incremental approach to rights for nature through pilot projects and smaller policy changes, see Appendix B.

### Case Study Example: Māori Design Guidelines

The Te Aranga Māori Design Principles from Tamaki Makaurau (Auckland, New Zealand) were founded on intrinsic Māori cultural values and serve to provide practical guidance for enhancing outcomes for the design environment. The Māori-developed and broadly adopted principles have arisen from a widely held desire to create culturally appropriate design processes and responses that enhance the natural landscapes and the built environment.

Design guidelines or standards are a common element of current planning practice and the Te Aranga Principles are a strong example of a change to practice that does not require an overhaul of the entire planning system. Inclusion of key Māori values, such as kaitiakitanga - managing and conserving the environment as part of a reciprocal relationship - help to guide more culturally

appropriate, nature-centric and place-based urban design and planning processes, similar to what an urban rights for nature framework would look to create. Further, these design guidelines also offer insight for undertaking reconciliatory attempts to right the wrongs of colonial legacies, and for centering Indigenous knowledge in the urban planning arena.

The Te Aranga Principles have been applied to several major urban planning projects across Tamaki Makaurau - ranging from large-scale transit, public realm design, capital infrastructure programs and private development projects. This example can be seen as a model for how cultural values that at their core reflect a meaningful and sustainable relationship to the environment can translate into new ways of thinking about urban planning and design choices. The result is more inclusive, place-based, culturally appropriate, nature-centric, and decolonial planning outcomes in the urban arena<sup>66</sup>.



### *Preconditions:*

This approach is most applicable when leadership is not open to large-scale change, whether due to timing, political will, or limited jurisdictional authority. For example, if a municipality or region has just completed an update to their long range plans, or is about to go

into an election, an incremental approach to change may be more welcomed than a push for transformation. Similarly, if leadership is not currently interested in ambitious environmental action or has different political priorities, the incremental approach may support building the case for increasing the priority of the environment. Finally, urban areas are often under the overlapping jurisdiction of many different organizations, which limits any one municipality or organization from drastically changing their systems without a long-term commitment to collaboration. In this context, the incremental approach allows a municipality to keep taking steps forward where they have the authority to do so.

***Applicable Planning Tools:***

**Tool: Local Government Asset Management - Natural Assets**

Municipalities and regional districts are responsible for managing community infrastructure assets over the asset lifecycle<sup>67</sup>. Climate change is likely to have significant impacts to infrastructure across BC, the largest asset managed by most local governments<sup>68</sup>. Many of the services local governments provide - including water, wastewater and stormwater delivery, transportation, and environmental services - depend on engineered infrastructure assets that are in need of renewal. The effects of climate change are expected to put even more strain on these assets and on local government budgets going forward.

Natural assets may be one area that local governments are currently under-accounting for. Natural assets are ecosystem features that are nature-based and provide services that would otherwise require the costly equivalent of engineered infrastructure. They are cost effective, resilient and a key component of sustainable service delivery. For local governments, natural assets can include forests which convey stormwater and recharge aquifers; green infrastructure which stores and filter stormwater and provides climate adaptation benefits; and coastal areas which protect against storm surges and sea level rise, among others. By identifying natural assets at the community level and prioritizing them in municipal asset management, local governments can secure important budget savings while also delivering vital municipal services more efficiently and adapting to climate change. Natural assets as compared to grey infrastructure

may reduce life cycle costs while increasing resilience to climate change<sup>69</sup>.

Zoning may also be a tool whereby communities can strengthen the protection of, and limit development on, sensitive lands including critical natural asset areas<sup>70</sup>.

By working within the language and processes of long-term risk and asset management, we might advance a nature-based asset and infrastructure planning approach. We can acknowledge the importance of these natural assets to cities and long-term resilience building, and identify opportunities to protect, conserve and restore these spaces. While this approach still considers nature as an asset, it can be a strong incremental step towards urban rights for nature.

*Examples: The Town of Gibsons pioneered a Natural Asset Management Strategy for the purposes of managing risk, reducing costs, maintaining healthy ecosystems and managing effective assets<sup>71</sup>. They have developed helpful step-by-step resources that may assist other municipalities in developing their own natural asset management strategies. The District of West Vancouver used a natural asset management approach to identify the value of local natural assets, including a buried creek<sup>72</sup>. This approach yielded a guidance document for daylighting streams across the district as a means of improving stormwater management, while also delivering greater biodiversity and climate resilience benefits. The Municipal Natural Assets Initiative is leading the charge in this area - developing resources and helping municipalities incorporate natural assets into asset management and decision making processes<sup>73</sup>.*

**Other tools:** Urban Forest Strategies; Biodiversity Strategies; Design Guidelines; Evaluation + Maintenance Programs



### Pathway 3: Windows of Opportunity

**What:** Finding small windows of opportunity to apply an urban rights for nature framework to particular projects, sites, or teams, while leaving the larger system unchanged.

**When:** This approach is most applicable in contexts where the system as a whole is not ready for or open to change, but a certain team, project, or site has the freedom to try something new.

**How:** Applying urban rights for nature concepts to projects or teams with unique circumstances, such as laboratory or start-up style structures; sites where the standard approach doesn't work or where one organization has complete authority and jurisdiction over process design; design competitions; or partnerships that require their own approach.

#### *Windows of Opportunity Approach to Rights for Nature*

This approach to change involves keeping watch for opportunities to apply new concepts as they emerge, and introducing the concept of urban rights for nature as something to test out. Such windows of opportunity can include a wide variety of situations. A more obvious example includes when a municipality solicits something innovative, through establishing a start-up or experimental laboratory style team, or a design competition for a particular site (see the case study on the right for an example of the latter). Both of these approaches allow more creative freedom to experiment and suggest a design or process approach that is totally out of the ordinary for the municipality, and could easily include the application of urban rights for nature.

Another example is sites with characteristics that mean the usual design approach is unnecessary or inappropriate. This could be sites with unusual or difficult topography, very large sites, sites with high citizen involvement, or landmark locations that demand a unique approach.

Sites with minimal overlapping jurisdiction and where the project

leader has the authority to design processes in a different way are also good candidates. Conversely, partnerships with other organizations that include the coming together of several value systems could be a window of opportunity, for example, working with First Nations. These projects may be a good opportunity to propose the consideration of an urban rights for nature framework as the project will likely require developing a unique set of collaborative guiding principles and already represents a departure from business as usual.

#### **Case Study Example: The Billion Oyster Project and Living Breakwaters, NYC**

The New York City harbour, which in the 1600s contained an estimated 220,000 acres of oyster reefs, was functionally a dead zone by the early 1900s due to urban pollution and massive over harvesting. More recently, organizations like the Billion Oyster Project are working to reverse hundreds of years of extractive and polluting patterns of resource use, and make the harbour a productive ecosystem once again. Since 2014, they have reintroduced 4.5 million oysters to the harbour and built 15 new oyster reefs across the five boroughs of New York<sup>74</sup>, including five acres of new oyster habitat built in 2020<sup>75</sup>. These new oyster reefs provide important marine habitat, filter the harbour water, soften the impact of large waves during storms, prevent erosion, and may one day provide food once again to New York City<sup>76</sup>.

A future project, called Living Breakwaters, saw an opportunity in the momentum of the Billion Oyster Project and used a design competition to take the concept even further, integrating it with other important urban functions. Designed by SCAPE landscape architecture studio, the Living Breakwaters project will build protective breakwaters off the coast of Staten Island which simultaneously provide storm surge protection, create habitat for oysters and other species, and provide opportunities for public education and social resilience<sup>77</sup>. The proposal demonstrates the ideals of urban rights for nature, by both protecting and enhancing human habitat and providing habitat for the many organisms ...

... that rely on reefs and intertidal zones.

The experimental environment of a design competition allowed for proposing something totally new, without committing to a systemic overhaul. Furthermore, the parallel work of the Billion Oyster Project helped create this window of opportunity, as it demonstrated the success that such projects could achieve in the harbour.



Image: Billion Oysters Project

### What We Heard

*In an area where there are multiple overlapping, incompatible uses and priorities might not be the best place to start. We'd ultimately want to get there, but it wouldn't be the easiest place to start. Start somewhere ... where there's space just to dream a little bit and have an open conversation about a different starting point."*  
- Project participant

### Preconditions:

This pathway to change is most likely to occur when the leadership and organization as a whole are not ready for or open to major change, but some space has been made within the existing system for experimentation. It will be most successful when the team working within the window of opportunity has been given the necessary

authority to make unusual decisions and enact a different process than is the norm. It may be helpful for the site or topic of the project to be entirely within the jurisdiction of the project team, to not be under significant time pressure, or to be part of a collaborative partnership which is committed to working in a different way.

### Applicable Planning Tools:

#### Tool: Zoning Bylaws (Major Rezoning, Development Applications)

With zoning or land use bylaws local governments can regulate development by establishing permitted (and prohibited) land uses, densities, and the siting, size and dimensions of buildings and their uses. If adopted through the OCP, any development which requires a change in the zoning for an area will require a rezoning application. Across a region with limited developable land, major rezoning or land development applications may be a key window of opportunity for re-thinking how we plan and shape areas of our community.

*Example: In 2016, a comprehensive planning program began to help create a policy statement to guide the rezoning and redevelopment of the Heather Lands in Vancouver<sup>78</sup>. The site is jointly owned by the Canada Lands Company and the Musqueam, Squamish and Tsleil-Waututh (MST) Nations Partnership<sup>79</sup>. The redevelopment of the Heather Lands represents a unique opportunity to advance reconciliation; prioritize ecosystem services; and connect residents to natural spaces for recreation, health and cultural benefits.*

#### Tool: Area Specific Plans

Area specific plans can guide long-term vision setting and action for existing land uses and areas in our community. By setting long-term visions, and bringing multiple partners to the table, we can advance nature-centric and holistic planning visions.

*Example: The Stanley Park Comprehensive Plan is an ongoing planning initiative for the development of a 100-year vision and comprehensive plan for Stanley Park - the first of its kind for the park<sup>80</sup>. This work is being undertaken on a government to government basis between the Vancouver Parks Board and the Musqueam, Squamish and Tsleil-Waututh Nations<sup>81</sup>. This intergovernmental and long-term comprehensive planning process provides a window of opportunity to shift community values and behaviours around a significant natural*

*area in the region, and centre the perspectives and knowledge of the local Indigenous nations who have long-standing connections to the land. An urban rights for nature lens could help inform all aspects of park planning, design, programming and management.*

**Other tools:** Neighbourhood Plans; Master Plans; Public Space Policies





**CONCLUSION**

In order to advance deeper sustainability solutions in cities, we argue a significant shift must be made with how we imagine the world and our place in it. Urban rights for nature may be a needed framework for re-shaping how we plan with and for nature. It embodies planning practices, designs, decisions, and engagement practices that are place-based, that acknowledge the intrinsic value of nature and its need to express itself on the landscape, and which consider questions of equity and justice along the way. Opportunities to advance this work range from total transformation of a community's vision and planning through high-level community planning documents, to more incremental changes which help to shift the needle towards broader change. There may also be windows of opportunity in our planning work where we can work in partnership with open hearts and open minds for rethinking new solutions in specific sites within our urban areas.

The time has come for us to create and strengthen a cycle of positive reciprocity between cities and nature - to recognize ourselves and urban spaces as part of an integral urban ecosystem web.

We propose that building greater reciprocity with nature can begin with us as individuals. We invite readers to take time to reflect on and absorb any learnings or insights gained from reading this report, and begin to explore your thoughts on what applying an urban rights for nature framework might look like in the context of your work or daily life. To do so, we encourage you to seek inspiration from the natural world around you - visit your favourite urban tree, sit in your local park, or close your eyes and listen to the sounds of birds. We invite you to consider these questions:

1. If you were given the task to redesign a particular urban area, and you gave the needs of a particular natural element the same consideration as other users (such as pedestrians, drivers, residents, cyclists, families etc), what would you change about the space?
2. Think about an average work day for you. Think about the work you have been doing and the steps you take to do it. If you were giving nature the same rights and consideration as human residents, what might you have done differently? How would

your day-to-day decisions and processes change? How might the work of your colleagues change? What are you already doing that recognizes the rights of nature and builds a more reciprocal relationship?

By reflecting on these topics in our existing urban natural spaces, we hope to inspire a habit of regularly connecting with the ecosystems in which we do our planning work.

### What We Heard

*"Thinking about rights for nature can lead to an understanding of our collective responsibility to one another & all living beings. It shouldn't be an end goal, but a way of life ... a way for us to practice this daily & reshape how and what we consume daily. - Project participant*

*"If I was taking a rights to nature approach I would start my day with giving back to nature first. That exists in many cultures and traditions but it's been lost by a lot of us." - Project participant*

*"The moral covenant of reciprocity calls us to honor our responsibilities for all we have been given, for all that we have taken. It's our turn now, long overdue. Let us hold a giveaway for Mother Earth, spread our blankets out for her and pile them high with gifts of our own making. Imagine the books, the paintings, the poems, the clever machines, the compassionate acts, the transcendent ideas, the perfect tools. The fierce defence of all that has been given. Gifts of mind, hands, heart, voice, and vision all offered up on behalf of earth. Whatever our gift, we are called to give it and to dance for the renewal of the world. In return for the privilege of breath."*  
-Robin Wall Kimmerer, Braiding Sweetgrass<sup>92</sup>

# APPENDICES

## APPENDIX A: LEGAL TIMELINE<sup>83,84,85</sup>

### Since Time Immemorial

Cultures around the world have recognized and upheld the rights of nature as part of a particular worldview and cultivated relationship with the natural world. In many places, these earth-centric practices persist. In many places, these practices and worldviews have been, and continue to be, intentionally and systematically attacked and destroyed through colonization.

### 2008

Ecuador becomes the first country in the world to recognize the rights of Pacha Mama, or mother nature, in its national constitution. The first case was brought forth to the Provincial Court of Justice of Loja in 2011 featuring the Vilcabamba River as the plaintiff. The rights of ecosystems were upheld, stating that a proposed government highway construction project would interfere with the river's rights to 'exist' and 'maintain itself'.

### 2010

Bolivia holds the World People's Conference on Climate Change and the Rights of Mother Earth which resulted in the Universal Declaration on the Rights of Mother Earth.

Bolivia's Legislative Assembly passed the Law of the Rights of Mother Earth, which recognizes the rights of Mother Earth to life, diversity of life, water, clean air and restoration, among others.

Pittsburgh, Pennsylvania becomes the first large US city to enact a local ordinance recognizing the rights of nature. The ordinance, passed unanimously by the City Council, was part of a ban on shale gas drilling and fracking.

The United Nations General Assembly adopts its Resolution on Harmony with Nature.

### 2014

New Zealand parliament passes the Te Urewera Act, finalizing a Treaty claims settlement between Tūhoe (a Māori tribe) and the New Zealand Government. The Act affirms Te Urewera (a former national park) has legal recognition in its own right.

### 2015

The Municipality of Curridabat, Costa Rica adopts the Sweet City Framework which recognizes pollinators as the key to a prosperous city.

### 2017

New Zealand parliament finalizes the Te Awa Tupua Act, granting the Whanganui River legal status as an "indivisible and living whole comprising the Wahanganui River from the mountains to the sea".

## REFERENCES

2018

The Colombian Supreme Court recognizes the Columbian Amazon as a subject of rights.

The White Earth band of the Chippewa Nation adopts the Rights of the Manoomin law. This secures legal rights of manoomin, or wild rice - a traditional staple crop of the Anishinaabe people. This is the first law to secure legal rights of a particular plant species.

2019

Uganda enacts the National Environmental Act in which nature is recognized as having the right to exist, persist, maintain and regenerate its vital cycles structures, functions and its processes in evolution.

2020

Blue Mountain Council of New South Wales Australia resolves to integrate the rights of nature into municipal planning and operations.

The Municipality of Curridabat, Costa Rica, affords citizenship to pollinators, trees and native plants.

2021

The Magpie River in Quebec, Canada is granted legal personhood status in a bid to protect it from future threats. The regional municipality of Minganie and the Innu Council of Ekuanitshit adopted separate but similar resolutions granting the river nine legal rights, including the right to flow, to maintain its biodiversity and the right to take legal action.



## APPENDIX B: CASE STUDIES OF RIGHTS FOR NATURE

With urban rights for nature being a relatively novel concept, our research uncovered very few examples of this happening on the ground. There are many legal examples of rights for nature at a local level (see Appendix A for timeline of legal examples), particularly across the United States, as well as many local examples of innovative environmental planning within areas such as the Biophilic Cities movement. The challenge was to identify examples that move beyond a strictly legal discourse, that are not just extensions of 'business as usual' planning practices, and that offer insights for the greater Vancouver area.

Using our definition of urban rights for nature, our team began reviewing the planning practices of urban places from around the world. Our research covered legal rights for nature cases, biophilic cities examples, design and community development approaches, and further scanned communities and projects that emerged throughout our literature review (Figure 6). The City of Curridabat in Costa Rica emerged as the best comprehensive example of an urban rights for nature approach, and for this reason it is given greater attention and detail in this section.

We have arranged these case studies below to align with the three potential pathways for change outlined in the report: Total Transformation, Incremental Change, and Windows of Opportunity.



Figure 6: Community case studies reviewed and included in this work

## TOTAL TRANSFORMATION

### Blue Mountains, New South Wales, Australia A Case to Watch

This is a novel case as, to our knowledge, it represents the only other local council motion (after Curridabat) to explicitly use the term of rights of nature as a means of framing municipal operations and actions. It is not a legal action, nor is it in response to any particular direct threat to a specific aspect of nature. The municipality recognizes the inherent rights of the natural environment, and acknowledges that their position as a city within a world heritage national park warrants bold and transformative ways of thinking about long-term sustainability of the natural world.

Blue Mountains, in New South Wales, Australia resolved to integrate rights for nature within its municipal planning and operations earlier this year on March 31, 2020. A report is currently being prepared by city staff that will be presented to the Council later on in the year. Although it still remains to be seen how exactly rights for nature will be operationalized, there was some discussion of what the possibilities this new approach might offer to the local municipality. For example, it could direct management of natural areas or could be considered for adoption as a guiding principles within higher-level strategic and planning documents (eg. Community Strategic Plan or Local Environmental Plan)<sup>86</sup>. Recognizing their limited jurisdictional role in implementing 'rights for nature' into relevant planning legislation, they also suggested their role might be largely one of advocacy to State and Federal governments. For Blue Mountain Council, the rights for nature approach was a logical next step building on their existing Planetary Health ethos in their Local Strategic Planning Statement<sup>87</sup>. Rights for nature extends the idea of human and natural health are inextricably connected to creating laws and policies that create guidance for actions that respect that relationship. The Council also acknowledges the close alignment of this approach with many First Nations and traditional Indigenous 'Caring for Country' concepts, such as those practiced by Traditional Owners in the Blue Mountains, Australia and around the world<sup>88</sup>. This is a case to watch - to see how adoption of a rights for nature approach informs a local government's planning and operations efforts.

### Curridabat, Costa Rica A Model for an Urban Rights for Nature Approach

*"Pollinators are the consultants of the natural world, supreme reproducers and they don't charge for it. The plan to convert every street into a biocorridor and every neighbourhood into an ecosystem required a relationship with them."*  
-Edgar Mora, former Mayor of Curridabat

Curridabat's 'Sweet City' model is a place-based approach to community planning that has ultimately centered nature, with a particular focus on pollinators, at the heart of all its urban processes, decisions, and designs. Turning theory into action, the Sweet City framework has taken their nature-centric approach and applied it to updated municipal operation plans, policies, and design guidelines. Through ongoing community engagement, Curridabat's planning practices serve to rekindle and strengthen the relationship between nature and the community as a priority. By equally considering the everyday experience of all of its citizens, including both human and inhuman

such as bees, earthworms and raindrops, the Sweet City framework applies equity and environmental justice principles to all of its processes. As this section will explore further, urban rights for nature within Curridabat's Sweet City framework has been operationalized in a holistic manner through what the City believes to be the five fundamental dimensions of the urban experience: Biodiversity, Infrastructure, Habitat, Coexistence, and Productivity.

#### *Curridabat's Sweet City Framework*

Beginning in 2015, the Mayor's office of a small suburb in Costa Rica began to conceptualize a whole new vision for the city: Curridabat as a Sweet City. 'La Ciudad Dulce', or the Sweet City in English, is a city planning approach that has been adopted by the Municipality of Curridabat in Costa Rica and centers pollinators as prosperity agents for broader community wellbeing<sup>89</sup>. This vision seeks to improve the ways in which all members of the community experience the place they call home and views all members of the city - including birds, bees and other plant species - as citizens<sup>90</sup>. In fact, as of 2020 Curridabat has officially afforded citizenship to pollinators, trees and native plants - making them the first municipality across the globe to do so<sup>91</sup>. The Sweet City plan is exciting in its framing of the role of nature, and particularly pollinators, as central to the wellbeing and prosperity of the broader community. It offers us a prime example of how nature can become a focal point for all elements of community planning, and how rights for nature can be brought into an urban setting.

Sweet City's vision recognizes pollinators, and particularly native bees - which in Curridabat are the largest producers of trees, plants, and ultimately soil<sup>92</sup> - as the center of urban planning and design. In reframing the role of pollinators to recognize them as native inhabitants and as city dwellers, the Sweet City model overcomes the antagonism between city and nature that has characterized traditional urban planning practices. Central to this vision is the idea that a city designed to improve the way that pollinators experience the urban environment will become abundant, diverse, comfortable, robust, colorful, and better organized<sup>93</sup>. Importantly, the Sweet City framework is not just a vision document - it has led Curridabat's Municipal Operation Plan to be redrawn and adopted as public policy<sup>94</sup> thus demonstrating how these concepts can be applied to tangible municipal operations and policies.

#### *Planning Context*

Historically, Latin America has imported urban development models that do not correspond to its needs or its reality as a region. As a result, these traditional Euro-centric models have lagged behind global challenges such as climate change, inequality, human security, technology gaps, and ecosystem connectivity, among others<sup>95</sup>. Cities, like Curridabat, are increasingly adopting more locally-relevant planning models, such as urban rights for nature, as they seek to adapt and respond to these changing global pressures.

Curridabat is a small community of 65,000 people and occupies an area of 16.4 km<sup>2</sup> within the Greater Metropolitan Area of the Central Valley of Costa Rica<sup>96</sup>. The community is characterized by its smaller size and lack of urban planning throughout its history<sup>97</sup>. However, Curridabat is also characterized by an abundance of natural resources which must be responsibly managed in order to continue to offer vital cultural connections, ecological services as well as livelihood opportunities. Their profile is not dissimilar to many other global cities. Curridabat therefore considers their Sweet City model to be a blueprint that can be reproduced to generate prosperity in other cities around the world<sup>98</sup>. While the greater Vancouver area is much larger than Curridabat, with 2.4 million residents in Metro Vancouver in 2016<sup>99</sup>, and has a vastly different jurisdictional and planning setting, we anticipate that there is still much we can learn from the Sweet City model.

### *Sweet City: Five Fundamental Dimensions of the Urban Experience*

The vision for Sweet City began with Curridabat asking “how can a city add value to nature instead of subtracting value from it?”<sup>100</sup>. What resulted was the municipality embarking on a new planning approach centred around pollinators as prosperity agents. The municipality’s innovation team developed the vision for Sweet City, which has since advanced a transformation across Curridabat’s administrative management, public services and community projects. There is a new holistic planning approach being taken - one which brings people, nature and governance together to chart a course for a more prosperous city. Importantly, the approach also hinges on relationship building between people and nature: Sweet City seeks to improve the way in which all the members of the community - from people to pollinators - experience the place where they live<sup>101</sup>. To facilitate this, the Sweet City model has developed seven overlapping experiences, which add to the main goals that the Municipality of Curridabat will promote via its 2018-2022 Strategic Municipal Plan<sup>102</sup>. By reframing many of the city’s objectives from the focal point of experiences, city planning becomes more inclusive and holistic. The experiences include: the raindrop’s experience; the earthworm’s experience; the conscious eating experience; the access to desired destinations experience; the trust in the inhabited space experience; the mental health experience; and the local governance experience. A central goal is to transform Curridabat into a sentient city, or one which is capable of “feeling” its territory<sup>103</sup>.

The Sweet City model focuses on what it believes to be five fundamental dimensions that encompass the overall experience of a citizen: Biodiversity, Infrastructure, Habitat, Coexistence, and Productivity<sup>104</sup>. Within each of these elements, pollinators such as bees, butterflies and hummingbirds, as well as the other plants and organisms they are intimately linked to, are effectively recognized as citizens with roles to play and rights to be upheld<sup>105</sup>. With this lens, approaches to city design, natural area planning, food production and policy design are undertaken in a fundamentally different way. Through this holistic approach, Sweet City aims to enhance the adaptability of cities to climate change by both implicitly and explicitly focusing on all members of a community, including nature, and especially those marginalized elements that have been left behind in traditional urban models<sup>106</sup>.



Figure 7: Sweet City Dimensions

### *Biodiversity*

In Curridabat, biodiversity is characterized as the foundation from which all aspects of development arise. The main objective of the Sweet City model is therefore to reintroduce biodiversity into the urban space by, for example, reframing neighbourhoods as ecosystems and bringing the river back into the city<sup>107</sup>. Curridabat is keenly aware of the benefits of a biodiverse city. As such, Sweet City sees a key to the growth and betterment of a city as the inclusion of all organisms in the development of a vision of an urban environment, from trees to pollinators to seed dispersers to soil microorganisms. Sweet City aims to improve the experience of these species by offering better conditions for them to carry out their ecosystem functions. In this way, supporting biodiversity sets the stage for a more attractive, enjoyable, healthy, secure and prosperous urban environment<sup>108</sup>.

### *Biodiversity In Practice*

Since launching in 2015, Sweet City has had a strong focus on increasing ecological literacy through citizen biodiversity programs and connecting people to nature<sup>109</sup>. These ecological literacy initiatives range from community engagement events where residents of all ages have the opportunity to learn about and plant flowers and trees that are native to Curridabat, to providing educational tools such as the Sweet City Greenery Guide that is dispersed to all citizens, businesses and institutions which details what and how to plant<sup>110</sup>. By learning what plants will bear fruits, which bird and pollinator species are drawn to certain plants, as well as which plants are medicinal, Sweet City fosters a deeper connection to nature and place for all citizens while advancing the uptake of native and pollinator-supportive species across the community. With the focus on ecological literacy, and building a community ethic around the importance of locally-specific and native pollinator species, nature's intrinsic value becomes a guiding principle for biodiversity rather than just an afterthought as is often the case in traditional planning practices. As the stock of pollinator-supportive vegetation is increased, the natural process of ecology takes over as species return to pollinate in Curridabat and ultimately create a sweeter city. A sweeter city has a number of spinoff benefits, including health and happiness, as citizens enjoy a more healthy and prosperous urban environment.

### *Infrastructure*

The Sweet City framework aims to align urban infrastructure and landscape architecture with biodiversity, and not the other way around as is oftentimes the case. With challenges like climate change rising to the forefront, Sweet City seeks to adopt infrastructure that can make the city more resilient and adaptive while also reducing their ecological footprint<sup>111</sup>. In this regard, Curridabat is beginning to ask questions such as “how can we accommodate infrastructure so that rivers can serve their natural purpose and how can we enhance their ecological value within the territory?”, or “how does a raindrop move around the city?”<sup>112</sup>.

A unique approach taken in Curridabat is to centre design of infrastructure around experiences - not just of humans but also of nature. For example, when thinking about urban infrastructure needed to manage water Curridabat would consider the experiences of humans as equally as it would a raindrop. With a focus around the raindrop, we are made aware of the ways in which urban infrastructure has been designed to promote runoff as it aims to quickly drive raindrops to the nearest river. This leads to a consideration of how infrastructure can benefit the experience of a raindrop, rather than be a detriment to it.

### *Infrastructure In Practice*

The City's Water Sensitive Master Plan (WSMP), which guides the city's approach to urban water management through a water sensitive

urban design lens, places the experience of the raindrop at the center of planning decisions<sup>113</sup>. With approximately 80% of Curridabat's annual 2,200mm rainfall occurring between May and November, the city is affected by regular flooding, mainly in the form of flash floods, due to increased urbanization and a tropical climate with high rainfall intensities<sup>114</sup>. Like many other water sensitive cities, Curridabat has incorporated nature within its WSMP through efforts such as green infrastructure and increased forest cover which aim to reduce overland flow by allowing more infiltration of rainfall to reduce urban flooding. In centering the experience of the raindrop as it moves throughout the city on its journey to the river, Curridabat's infrastructure decisions are more deeply informed by nature, resulting in more nature-based and resilient infrastructure solutions.

Moreover, guided by the notion of pollinators as the consultants of the natural world, the Sweet City vision centers the ways in which pollinators experience the urban environment. Under this Sweet City framework, Curridabat has launched its 'Spaces of Sweetness' initiative, which focuses on how landscape and infrastructure design can improve the experiences of pollinators. Curridabat has identified that much of the city's neighborhoods are either paved, sealed, or grassed surfaces and although these make it easier for humans to move through the city, the lack of vegetation has led pollinators to move out of the city.<sup>115</sup> With the vision of turning each street into a bio-corridor and each neighbourhood into an ecosystem, the 'Spaces of Sweetness' concept reimagines sidewalks from basic infrastructure to "pollinator corridors" and replaces grass with native flowers which are a vital source of food for bees and butterflies<sup>116</sup>. Nearly 5,000 linear feet of gardens for plants adjacent to new sidewalks have been built since 2015, which not only improves the experience of pollinators, but also increases biodiversity and leads human citizens to live more active lifestyles through walking<sup>117</sup>. Moreover, through this Spaces of Sweetness concept, "bee hotels" have been installed throughout the city. Most of Curridabat's bees are either ground or tunnel nesting bees, and these bee hotels offer these pollinators a space to nest and breed, thus ensuring their survival throughout the city<sup>118</sup>. In centering the experience of pollinators within urban design practices, landscape and infrastructure design moves beyond considering only human experiences.

### *Habitat*

In the Sweet City approach, Habitat is defined as the interaction that occurs between Biodiversity and Infrastructure, and is the dimension which aims to improve the relationship that citizens have with all urban elements. Habitat is the city's window into questions of accessibility. It considers how to advance a more accessible and integrated habitat, with better access to opportunities - like work, education, facilities, recreation and services - for all. This dimension primarily focuses on how such opportunities are distributed within a territory, as well as the ways in which housing is arranged and the convenience of the transportation systems that connect all of these elements.

### *Habitat In Practice*

Accessibility and equity guidelines have become more standard in today's planning practices, as seen through Curridabat's 'Law on Equal Opportunities for People with Disabilities', which mandates the construction of access ramps as well as the installation of elevators in most buildings<sup>119</sup>. However, using Habitat as a lens to approach accessibility at a community-wide scale, it was identified that often a person with a disability cannot move around their neighbourhood to reach these 'accessible buildings'. Under Sweet City's 'Spaces of Sweetness' masterplans, *Transiciones*, or 'Transitions' in English, aim to create corridors of accessibility by integrating disconnected areas due to poor infrastructure or physical barriers<sup>120</sup>. These corridors have a mean length of 600-800 meters, with their need identified through participatory workshops with citizens<sup>121</sup>. These *transiciones* may also provide opportunities for pollinator corridors to emerge, or for bee hotels to be placed, as the experiences and the accessibility of bees and hummingbirds to nature are considered in tandem with

that of human accessibility.

### *Coexistence*

The fifth dimension is Coexistence. The core objective of this dimension is to include and empower vulnerable populations while also providing them with cohesive influence on policy in order to foster a more inclusive Habitat<sup>122</sup>. Thus, Coexistence seeks to promote the necessary conditions that lead to inclusiveness for all various communities that populate a city, ranging from the inclusion of pollinators, to birds and pets to all of the cohorts of human residents.

Coexistence also includes temporary occupants and inhabitants, such as people who do not reside in but who work in the city. This dimension seeks to answer questions such as “how friendly, pleasant, and inclusive is our city to fauna, such as hummingbirds, and to minorities, like female immigrants?”<sup>123</sup>. Equally, this dimension recognizes that if only property owners are considered as the population to serve, then this population is represented mostly by men and as such the design of the city would ultimately exclude women, migrants, and pollinators, as well as other citizens who actively coexist within Curridabat’s urban space<sup>124</sup>.

### *Coexistence In Practice*

Under the Sweet City framework, Curridabat’s Park Maintenance Office is currently working to make parks more inclusive to all of its inhabitants, and to ensure that citizens have equal opportunities to access these spaces. Since 2018, solar-powered LED lamp posts have been installed in several city parks to provide adequate lighting systems and increase security so that citizens who would like to access parks feel safe doing so and barriers to accessing nature are reduced. Under the Spaces of Sweetness masterplan, research on the geographical distribution of populations that visit parks has resulted in funds being allocated to low-income neighbourhoods to improve parks, public space, and infrastructure. The experience of the earthworm has also been a central indicator for soil health and soil self-regeneration, which has begun to guide local garden implementation within parks spaces. In considering the experience of the earthworm, we are reminded of the integrated approach to Curridabat’s five dimensions of urban rights for nature, as soil health moves beyond just parks and gardens but also helps to guide the water management master plan<sup>125</sup>. The Park Maintenance Office is also incorporating pollinator-friendly plants as a part of standard park design to increase biodiversity. In this way, parks are increasingly becoming more inclusive spaces for people and nature.

### *Productivity*

The final dimension of Productivity aims to revert a city’s most common and destructive pattern: intensive resource consumption<sup>126</sup>. The majority of the world’s citizens currently live in urban settings, and we continue to rely on rural areas to produce electricity and food. Sweet City seeks to better acknowledge the productive capabilities of cities, and includes as a paramount objective of urban development to transform the city from an extractive and consuming conglomerate to a productive urban ecosystem<sup>127</sup>.

### *Productivity In Practice*

As we have explored in the previous four dimensions, Sweet City aims to enhance the community for all of its citizens, and centres the experiences of pollinators, rain drops, earthworms, pets, and more to guide the city’s planning practices. In total, the Sweet City model has developed seven overlapping experiences. These encompass the main elements to be enhanced in order to improve the quality of life for all of Curridabat’s citizens, and includes the experience of ‘Conscious Eating’ as its third experience of the seven<sup>128</sup>. This experience recognizes that cities have potential to be transformed into productive urban ecosystems and aims to improve the availability of healthy

foods and promote conscious eating. Through increased ecological literacy, which we have seen as a strong focus in the Biodiversity dimension, Sweet City provides citizens with the knowledge as to which native plants can be grown in their gardens and backyards, and which of these will bear fruits and vegetables that can be consumed<sup>129</sup>. As more food is grown and consumed locally, the reliance on rural areas to produce this food begins to decrease, and Curridabat is slowly transformed into a more productive city that places urban rights for nature at the center through place-based knowledge and ecological literacy.

#### *Case Study Conclusion*

By recognizing the intrinsic value of nature, in particular pollinators as prosperity agents, Curridabat has experienced transformative re-thinking of what is possible in their community and showcases the exciting potential that urban rights for nature can have on the ground for cities.

Although much of Curridabat's work in practice shares similarities with how other cities around the world are centering nature within their planning decisions and policies, what makes Curridabat unique is the central framing of pollinators and trees as citizens, and the city's planning and design approach considering experiences of various city inhabitants. Curridabat's Sweet City approach is inherently place-based, and represents a holistic approach to thinking about community planning. Through its five dimensions, Curridabat places the relationships between people and nature, and with one another, as a priority, and applies equity and environmental justice principles to all process as it considers the experiences of all citizens, ranging from pollinators, to raindrops, to earthworms, to people, and beyond.

In the absence of a national or state-level governance or policy structure guiding local planning within Costa Rica, Sweet City was an opportunity for Curridabat to create its own vision for how nature's intrinsic value could be, and would be, a guiding principle for the municipality's long-term goals. In terms of transferability, Sweet City has been recognized as being most applicable to small- and medium- sized cities around the world. Applying an urban rights for nature approach this holistic and comprehensive to an area as large and complex as the greater Vancouver region would not come without its challenges. We are mindful of the many fundamental differences between Curridabat and the greater Vancouver region, including geographic size, population density, urban form, jurisdictional, governance and policy frameworks, urban planning history, environmental pressures and challenges and many more. Sweet City is not a cookie-cutter framework to be applied here - as we have noted these solutions must inherently be place-based. Rather, it offers us a starting point for beginning to imagine how urban rights for nature might lead to transformation in the way that we think about and design our cities. It offers a window through which to envision how we might begin to move beyond what is already being accomplished in the greater Vancouver region. What might it mean for the greater Vancouver region to begin to consider experience-informed design and infrastructure approaches, including the experiences of salmon, eagles, bees, and people equally? What could be accomplished if we re-framed the regions' communities as ecosystems, and the networks connecting them as bio-corridors? How might biodiversity become a focal point for local climate adaptation, citizen engagement and reconciliation efforts?

#### **'Salmon Nation', Pacific Northwest Region of North America Total Transformation Through the Salmon Nation Trust**

*Salmon Nation Trust is an emerging vision for cultivating a bioregion where people, culture and nature all thrive<sup>130</sup>. The not-for-profit's effort is to initiate systemic change in the way communities function and to reimagine the economy and environment in a way that*



*celebrates and harnesses the resources of the region rather than simply exploit them. As a vision and approach, it offers insight for new ways of framing solutions to complex social-environmental challenges, for empowering different voices and knowledge systems, and for supporting more respectful and productive relationships between people and nature.*

A more broad-based and bottom-up effort to support alternative approaches to existing resource-extractive patterns is the emerging bioregional not-for-profit endeavour called the 'Salmon Nation Trust'. Although it is not a strictly urban endeavour, it spans a region in which urban places are found and seeks to inspire, enable and invest in regenerative development approaches. Salmon Nation is an attempt to re-define a shared bioregion, and re-imagine the economy and environment in a way that celebrates and harnesses the resources of the region<sup>131</sup>. This bio-cultural region spans the coastline from Alaska to California, and is defined by a shared connection to Pacific salmon, a biological indicator of natural, social and financial health<sup>132</sup>. The vision of this not-for-profit effort is to cultivate different ways of thinking and doing, prioritizing place-based solutions for fostering a bioregion where people, culture and nature all thrive<sup>133</sup>. A core mandate is to cultivate and support what they call the Raven Network - a network of individuals who are pioneers of community-based creativity and innovation and who are testing new ideas in commercial and non-commercial activities that enhance where they live<sup>134</sup>. This network was most recently brought together through a Festival of What Works - a virtual gathering of presenters, workshops, film screenings and panels discussing "what works" in our bioregion. It highlighted practical, replicable ideas at the leading edge of education, community planning, economic development, social activism, health, healing, food production, and environmentalism. The idea behind Salmon Nation advances a more holistic way of understanding our relationship to the place in which we live and to the resources on which we rely. It centres diverse voices and knowledge systems at the heart of this transformative approach. It is an idea and vision to watch and to learn from in its framing of our relationship to place and of cultivating place-based innovations harnessing new and millenia old ideas from across a region.

## INCREMENTAL IMPROVEMENT

### Oslo, Norway

#### Incremental Improvement through protection of the *marka* (forest)

*Oslo is a member of the Biophilic Cities network, and its prioritization of nature is present in many different levels of plans over many years, especially in the protection of the forests (the marka in Norwegian), the rivers, and the fjord. In response to projected population growth, the municipal master plan of Oslo calls for sustainable, compact development, whose location is largely determined by existing and protected natural areas and features.*

Oslo, the capital city of Norway, is prioritizing nature as they plan to accommodate projected population growth. Through the municipal master plan, the city is densifying through sustainable, compact redevelopment in existing areas, and explicitly preventing expansion into the surrounding forest (marka in Norwegian)<sup>135</sup>. The pattern of development is further shaped by the 'blue-green structure' of the city, which is made up of rivers, the fjord, and green spaces, including the marka<sup>136</sup>. These features are recognized as vital to the structure and functioning of the city, and other urban infrastructure is placed and designed with their protection and enhancement in mind.

Oslo is therefore undertaking a number of large projects that aim to revitalize nature, including a pollinator highway with “feeding stations” for bees every 800 feet or so, as well as the resurfacing of 7 urban rivers<sup>137</sup>. The restoration of these rivers aims for naturalized waterways, native vegetation, and natural bottom substrates for invertebrates, fish, and so forth<sup>138</sup>. In addition, Oslo aims to place these waterways, if possible, in their historical runs and to make them accessible for the general public.

In the city’s Master Plan update, access to nature, primarily for recreational purposes, served as a guiding principle for how to approach densification. Their transit system also contributes to the principle of access to nature, with a metro stop built for the sole purpose of bringing urban residents to the marka (surrounding forest)<sup>139</sup>. Oslo, however, is not a perfect case study in terms of equitable habitat improvements. The city has been criticized for its socio-economically and racially differentiated impacts of development, with the single family homes and yards of wealthier areas protected by policy, while less affluent areas bear the majority of the higher density redevelopment necessary to meet their compact city goals<sup>140</sup>.

By approaching the development of infrastructure by first considering nature, not only do these efforts contribute to better climate adaptation, but also to increased biodiversity, better water quality of the rivers, and better air quality for the population<sup>141</sup>. However, Oslo still has quite a way to go to rival Sweet City’s Habitat dimension, which holistically builds on and incorporates biodiversity and infrastructure to begin answering questions regarding segregation, access, and integration of its citizens.

## Toronto, Canada

### Incremental Improvement through bird-friendly Design Policies & Guidelines

*Toronto has been a leader and a pioneer in raising awareness about the threats to birds in cities, and was the first city to engage in the kind of bird collision monitoring that has become common in a number of cities today<sup>142</sup>. Placing the experience of the bird at the center of its urban design practices, Toronto has become the first city to adopt mandatory bird-friendly design standards<sup>143</sup>.*

In a similar manner to designing infrastructure in Curridabat with the experience of pollinators in mind, Toronto’s bird-friendly design practices center the experience of birds in design and decision making when developing new infrastructure. In addition to the positive contribution that birds make to many individuals’ health and well-being, birds perform many important ecological functions, including pollination, seed dispersal, and nutrient cycling<sup>144</sup>. Bird-friendly design recognizes that birds today face many hazards that include building facades and glass which they have difficulty seeing, and aim to reverse declining bird population numbers as habitat change and pollution continue to intensify in urban areas<sup>145</sup>. In 2007, Toronto published two Bird-Friendly Development Guidelines which offered a groundbreaking and comprehensive list of strategies to make new and existing buildings less dangerous to migratory birds. These documents support the application of the Toronto Green Standard (TGS), which guides Toronto’s sustainable design requirements for all new private and city-owned developments, within its “Bird Collision Deterrence” and “Light Pollution” performance measures<sup>146</sup>. Both of these measures are now required as part of Tier 1 of the TGS, which outlines mandatory requirements of the planning approval process<sup>147</sup>. By centering the experience of birds within its planning practices, Toronto’s urban infrastructure policies are actively adapting their practices to protect birds, and by extension biodiversity, within the city’s urban territory.

## Tamaki Makaurau (Auckland), Aotearoa (New Zealand) Incremental Improvement through Te Aranga Māori Design Principles

*The Te Aranga Māori Design Principles were founded on intrinsic Māori cultural values and serve to provide practical guidance for enhancing outcomes for the design environment. Inclusion of key Māori values, such as kaitiakitanga - managing and conserving the environment as part of a reciprocal relationship - help to guide more culturally-appropriate, nature-centric and place-based urban design and planning processes<sup>148</sup>. Coexistence is advanced through the inclusion of Māori values which view humans and nature as one. Further, these design guidelines also offer insight for undertaking reconciliatory attempts to right the wrongs of colonial legacies, and for centering Indigenous knowledge in the urban planning arena.*

The Te Aranga Māori Design Principles (Te Aranga) are a set of outcome-oriented principles founded on intrinsic Māori cultural values and designed to provide practical guidance for enhancing outcomes for the design environment<sup>149</sup>. The principles have arisen from a widely held desire to enhance culturally appropriate design processes and responses that enhance the natural landscapes and the built environment and which place Mana Whenua (authority over land and natural resource) at the heart of both<sup>150</sup>.

There are several Māori values embedded in the Te Aranga Principles that help guide more holistic, nature-centric and reciprocal urban design<sup>151</sup>:

- Kaitiakitanga - managing and conserving the environment as part of a reciprocal relationship, based on the Māori view that humans are part of the natural world.
- Wairuatanga - the immutable spiritual connection between people and their environments.
- Whanaungatanga - a relationship through shared experiences and working together which provides people with a sense of belonging.

The Te Aranga Principles have been applied to several major urban planning projects across Tamaki Makaurau - ranging from large scale transit, public realm design, capital infrastructure programs and private development projects. This example can be seen as a model for how cultural values that at their core reflect a meaningful and sustainable relationship to the environment can translate into new ways of thinking about urban planning and design choices. The result is more inclusive, place-based, culturally appropriate, nature-centric, and decolonial planning outcomes in the urban arena.

## Wellington, New Zealand Incremental Improvement through a Natural Capital Biodiversity Strategy

*Wellington's Natural Capital Biodiversity Strategy (NCBS) is a deeply place-based document, responding to an ecological history and present context shaped by invasive species introduced as the country was colonized. With a strong focus on protecting and restoring indigenous biodiversity, the strategy is recognized as supporting Wellington's public health, tourism economy, and adaptation to climate change. The NCBS was developed in partnership with the local Māori, and thus offers a strong example of how urban biodiversity planning can be advanced alongside urban reconciliation efforts, and informed by local and traditional ecological knowledge.*

Wellington, New Zealand, has launched a biodiversity strategy that aims to preserve and protect the natural elements that define Wellington and New Zealand<sup>152</sup>. The Natural Capital Biodiversity Strategy (NCBS) is a deeply place-based document, responding to an ecological history and present context shaped by invasive species introduced as the country was colonized. The NCBS approach therefore focuses exclusively on protecting and enhancing biodiversity of species indigenous to New Zealand.

Biodiversity protection and enhancement is well integrated into city building practices, with many major planning projects and documents centered around the preservation and enhancement of nature within and around the city, and further highlighting how such projects can help City Council meet its many other priorities and obligations including but not limited to, public health, supporting the tourism economy, and adaptation to climate change. Through the NCBS, which supports the 2030 Wellington master plan, regulatory documents, council plans and policies, and reserve management policies work to protect and restore Wellington's indigenous biodiversity. Projects that are underway include the Zealandia Eco-Park, a 225 hectare fully fenced ecosanctuary to keep introduced predatory and land mammals out, as well as a planned Blue-belt aquatic protection zone that aims to enhance water quality and reconnect residents to the ocean<sup>153</sup>.

Notably, Wellington's NCBS strategy has been developed in partnership with the local Māori<sup>154</sup>. City council has acknowledged the unique relationship that Māori have with New Zealand's natural taonga - their indigenous biodiversity - as tangata whenua (people of the land) and in their role as kaitiaki (guardians)<sup>155</sup>. Additionally, the holistic approach of the Māori world view speaks of the interconnectedness of species and ecosystems, and informs the practice of managing at both an ecosystem and a landscape scale<sup>156</sup>. This decolonial element adds an important layer of depth to the Wellington biodiversity strategy, which when combined with the hyper-local understanding of ecosystems and biodiversity makes it a strong example of the kinds of plans that might be developed from an urban rights for nature approach.

## WINDOWS OF OPPORTUNITY

### California, USA

#### Window of Opportunity for Climate Resilience Planning through a nature-centric, state-level executive order

*In October of 2020, California state Governor Gavin Newsom announced a new strategy which places the protection and conservation of natural lands and biodiversity at the centre of the state's efforts to fight climate change. This approach mirrors Curridabat's recognition of biodiversity as the central element underpinning broader community wellbeing and resiliency. With this order, California becomes the first state in the country to pledge to conserve 30 percent of land and coastal water by 2030<sup>157</sup>.*

A recent executive order in California centers the state's vast network of natural and working lands, including forests, farms, wetlands, coasts and urban greenspaces, in the state's efforts to fight climate change and boost climate resilience<sup>158</sup>. The order establishes a goal to conserve 30 percent of the state's land and coastal water by 2030 to fight species loss and ecosystem destruction - the first goal of its kind in the USA. California is considered one of the world's biodiversity hotspots, given its high concentration of unique species that

are experiencing unprecedented threats<sup>159</sup>. California also boasts a major agricultural industry - producing over a third of the USA's vegetables and two-thirds of the nation's fruits and nuts<sup>160</sup>. The state is also experiencing an increasing frequency and magnitude of major climate impacts - including widespread wildfires, sea level rise, and water scarcity. Although not directly a rights for nature approach, or specifically an urban strategy, this case represents an emerging frame for action, one which explicitly makes a connection between the protection of biodiversity and climate mitigation and adaptation. The executive order directs local state agencies to pursue innovative actions, strategies and partnerships to maximize the benefits of their natural and working land through, for example, healthy soils management, wetland restoration, active forest management, and boosting green infrastructure in urban areas like trees and parks. It also convenes governmental partners, California Native American tribes, experts, business and community leads to protect and restore the State's biodiversity, helping to advance multi-benefit, cooperative, and diverse approaches<sup>161</sup>. Additionally, It calls for a focus on land conservation activities that serve all communities and in particular low-income, disadvantaged and vulnerable communities<sup>162</sup> - thereby advancing equity and environmental justice principles.

## New York, USA

### Window of Opportunity through design competitions

*New York City Harbour has been a center of industry and shipping for hundreds of years, and the extractive and wasteful use of resources has severely degraded the ecosystem. The Billion Oyster Project and the oyster reefs they install and manage across the harbour, in conjunction with their education programs, are restorative projects that seek to shift New Yorkers' understanding of what a productive harbour looks like. It is a great example of the productivity dimension applied elsewhere, and of using a nature-centric approach for achieving widespread urban benefits.*

The New York City harbour, which in the 1600s contained an estimated 220,000 acres of oyster reefs, was functionally a dead zone by the early 1900s, due to urban pollution and massive overharvesting<sup>163</sup>. More recently, organizations like the Billion Oyster Project are working to reverse hundreds of years of extractive and polluting patterns of resource use, and make the harbour a productive ecosystem once again.

Since 2014, they have reintroduced 4.5 million oysters to the harbour and built 15 new oyster reefs across the 5 boroughs of New York<sup>164</sup>, including 5 acres of new oyster habitat built in 2020<sup>165</sup>. These new oyster reefs provide important marine habitat, filter the harbour water, soften the impact of large waves during storms, prevent erosion, and may one day provide food once again to New York City<sup>166</sup>.

A future project, called Living Breakwaters, takes the concept even further, integrating it with other important urban functions. Designed by SCAPE landscape architecture studio, the Living Breakwaters project will build protective breakwaters off the coast of Staten Island which simultaneously provide storm surge protection, create habitat for oysters and other species, and provide opportunities for public education and social resilience<sup>167</sup>.

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