

Climate-ready communities

A TOOLKIT FOR LOCAL GOVERNMENT



SIERRA
CLUB BC



Executive Summary

How can communities in B.C. grow and create new housing options while maintaining public safety and quality of life in the face of climate change and the biodiversity crisis? How do we create climate-ready housing and climate-ready neighbourhoods that are resilient to the climate impacts that we are already facing, and which are predicted to get worse?

Recent modeling predicts that temperatures in B.C. will rise up to 3° Celsius above 1981-2010 baseline levels (Figure 1).¹ This could create urban heat islands where indoor temperatures regularly surpass safe thresholds leading to fatalities among vulnerable populations and ultimately making our cities uninhabitable.

This toolkit addresses these questions and challenges. It draws from best practices to provide practical strategies, actions and initiatives to address housing, climate and biodiversity in communities across B.C.

These tools include measures already available in provincial legislation, including establishing environmental development permit areas and tree protection bylaws.

Local governments can also prioritize protection and restoration of greenspace on public and private land, including expanding the municipal park system and mandating the planting of robust tree species and biodiverse landscaping in private developments. They can also pursue partnerships with Indigenous communities and other stakeholders to enhance climate-readiness and safeguard biodiversity.

Some tools are outside the scope of the current local government framework in B.C., such as a “no net loss” approach to urban greenspace (currently in place in neighbouring Washington State), so one next step is advocating for the provincial government to amend existing laws to introduce new approaches.

Effectively responding to the housing, climate and biodiversity crises facing our communities is no small task. But the actions and strategies outlined in this toolkit can assist local governments in undertaking this work — safeguarding inclusive, liveable and climate-ready communities for the long term.

Photos by Jeremy Lee.

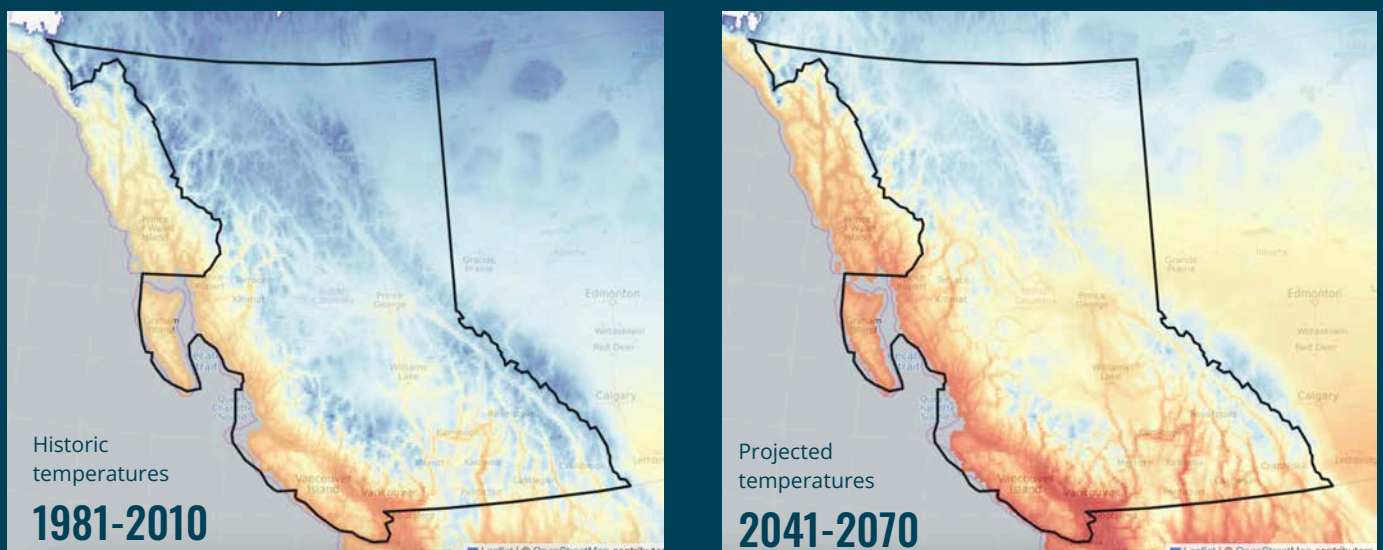


Figure 1: A heat map from the University of Victoria’s Plan2Adapt project. The maps show historic temperature levels (left) and the projected temperature increases up to 3° Celsius in parts of B.C. (right). This could create urban heat islands where indoor temperatures regularly surpass safe thresholds leading to fatalities among vulnerable populations and ultimately making our cities uninhabitable. This modeling highlights the need to develop municipal strategies that make our communities more resilient to climate change and other challenges. A road map of actions and initiatives for local governments that could help accomplish this are outlined in this toolkit.

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PART 1

Understanding the Issues

1.1 Bill 44 and Bill 47: Expanding Housing Supply

Responding to public and developer pressure to expand the housing supply in British Columbia, the Legislative Assembly enacted Bills 44 and 47 in November 2023, the Housing Statutes (Residential Development) Amendment Act, 2023, S.B.C. 2023, c. 45 and Housing Statutes (Transit-Oriented Areas) Amendment Act, 2023, S.B.C. 2023, c. 48.

The legislation amended the Local Government Act, adding a requirement (in Section 481.3) that a local government must use its zoning powers to accommodate at least one additional housing unit on each residential parcel (either within an existing detached building or on another building on the parcel).

The legislation also authorizes the provincial Cabinet to impose greater density requirements based on (1) the land area of a parcel, (2) the population of a community, (3) proximity to the nearest bus stop, and (4) whether the parcel is within an urban containment boundary recognized in a Regional Growth Strategy. In the Local Government Zoning Bylaw Regulation, BC Reg 262/2023, enacted in December 2023, the Cabinet specified that at least 3 residential units must be accommodated on parcels 280 m² (3,014 square feet) or larger in communities with populations of at least 5,000. On parcels located within 400 metres of a bus stop in those

communities, a minimum of 6 housing units must be accommodated.

In areas designated as “transit-oriented areas” (within 400 metres of bus stops and 800 metres of passenger rail stations prescribed in the Local Government Transit-Oriented Areas Regulation, BC Reg 263/2023), substantially greater minimum densities are required — ranging from 4 floors and a 1.5 floor-space ratio (“FSR”) (the ratio of buildable floor area to land area) on properties within 400 metres of a prescribed bus stop in Lantzville, Penticton and Whistler, to 20 floors and a 5.0 FSR on parcels within 200 metres of a passenger rail station in a number of Lower Mainland municipalities (Burnaby, Coquitlam, Langley, New Westminster, Port Moody, Richmond, Surrey and Vancouver). Local governments are also prohibited from imposing minimum off-street parking requirements in transit-oriented areas (with the exemption of accessible parking spaces).

The legislation also mandates that a local government must consider provincial policy guidelines for “small-scale multi-family housing”² and “transit-oriented areas”³ while developing zoning regulations for this additional density.



The legislation also prevents local governments from convening public hearings to receive community input on a zoning bylaw if the sole purpose of the bylaw is to permit residential development that is consistent with an Official Community Plan, and at least half the floor area is residential.

The legislation includes associated amendments to the Vancouver Charter (as well as a subsequent amendment in March 2024 preserving the authority of Vancouver City Council to impose landscaping requirements through a zoning bylaw).⁴

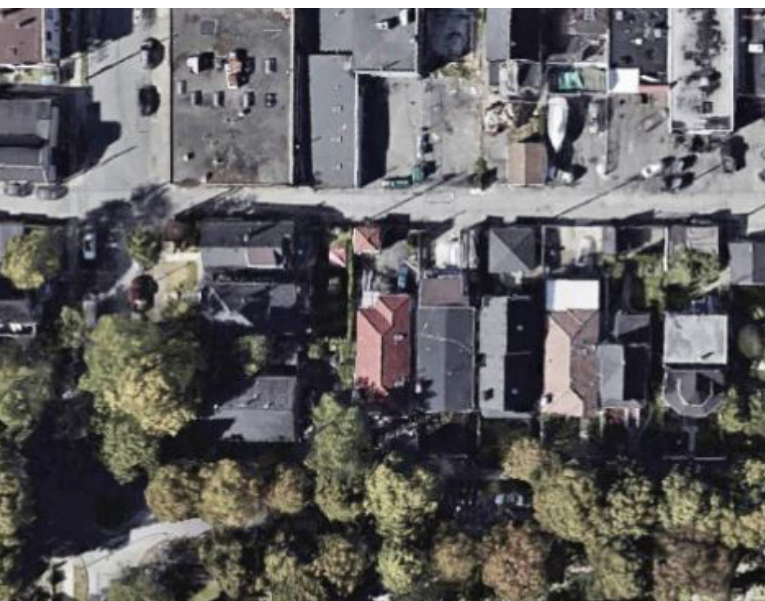
Since Bill 44, Bill 47 and the associated regulations were enacted, B.C.'s 161 municipalities have undertaken a flurry of activity to come into compliance with the minimum density requirements.

PARCELS ARE EXEMPT UNDER THE REGULATION IF:

- They are subject to a hazardous condition
- Development would significantly increase the threat or risk from the hazardous condition
- The threat or risk from the hazardous condition cannot practically be mitigated
- The local government has obtained a report from a qualified professional certifying the existence of the hazardous condition

PARCELS ARE EXEMPT FROM THE ADDITIONAL DENSITY REQUIREMENTS UNDER THE LOCAL GOVERNMENT ACT IF THEY ARE:

- Protected under the Heritage Conservation Act
- Protected under a municipal heritage designation bylaw
- Not connected to a municipal water or sewer system
- In a zone where the minimum lot size is 4,050 m² or more (43,594 sq feet)
- Larger than 4,050 m² (43,594 sq feet) in area





1.2 The Climate Crisis in Local Communities

CONCURRENT WITH BRITISH COLUMBIA'S DRIVE TO EXPAND HOUSING SUPPLY IN URBAN AREAS, THE CLIMATE CRISIS CONTINUES TO DEEPEN, WITH IMPACTS BEING FELT WITH GREATER FREQUENCY AND INTENSITY HERE IN THE PROVINCE AND AROUND THE GLOBE.

Recent years have witnessed wildfires of unprecedented scale, precipitating evacuations and widespread property loss from West Kelowna to Lytton to Jasper to Yellowknife and many points in between.

The Intergovernmental Panel on Climate Change (IPCC) has warned that impacts of climate change are already being experienced in every region of the globe, and that while strong reductions in greenhouse-gas emissions will limit climate change, it could take 20 to 30 years for the earth's climate to stabilize.⁵ As a result, both mitigation and adaption measures are necessary.

Impacts of climate change on human health in B.C. have been graphically and tragically revealed—for example, during the “heat dome” of 2021 when more than 600 people died. Since then, oppressive conditions have become the norm in many urban areas during the summer months, particularly for seniors, people with disabilities, low-income people, and people with various health conditions.

In response, jurisdictions such as the Capital Regional District have developed an online “Extreme Heat Information Portal” and a Regional Heat Map, identifying areas “where people may be most vulnerable to hotter temperatures due to their age and health issues, taking into account the types of buildings they live in” based on a Demographic Vulnerability Index and Building Vulnerability Index (Figure 2).⁶

Impacts of climate change on local communities, as well as mitigation and adaptation measures, have been discussed by West Coast Environmental Law in the 2012 report *Preparing for Climate Change: An Implementation Guide for Local Governments in British Columbia*.⁷

Critics of Bill 44 and Bill 47, such as Protect Coquitlam's Urban Forest and the Community Trees Matter Network in Greater Victoria, have noted that trees are vital and valuable components of urban infrastructure—particularly in the context of climate change.



As Nature Canada notes,

“Canopy cover helps prevent flooding by intercepting the rain, which allows up to 30% to evaporate without even touching the ground. The green space needed for a tree provides a permeable surface in urban areas which reduces run-off, and the tree roots help the water penetrate the earth even faster.

Furthermore, tree canopies provide shade, making cities more comfortable and reducing the need for air conditioning. A well-treed neighbourhood can reduce the temperature on a hot summer’s day by roughly 2.5 degrees Celsius compared to a neighbourhood without trees. Trees also improve the quality of the air. Hot temperatures bake car exhaust, creating smog, but trees help filter particulates and thus reduce pollution.”⁸

They warn that unintended consequences of densification may include:

- Mature trees are lost faster than communities can regrow them, leading to a net loss in Urban Tree Canopy cover and reduced ecosystem services;
- The local land area shaded by the Urban Tree Canopy shrinks, intensifying the urban heat-island effect; and
- The percentage of land covered by impermeable surfaces goes up, increasing flood risks and pollution loading in streams and rivers, and further reducing the space available for plants.
- It can take decades for a new tree to replace the benefits provided by a mature tree that has been lost to development.

Advocates warn that communities cannot afford to lose large trees today when residents rely (and will increasingly rely in the future) on their shade, cooling and rainwater-management benefits to protect their health and property from the worsening harms of climate change.

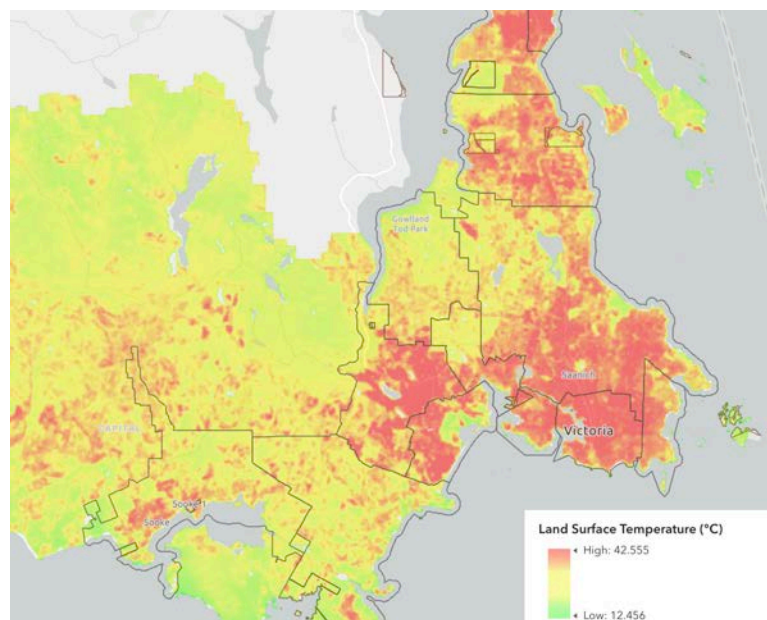


Figure 2: A heat exposure map showing land surface temperatures in the Capital Regional District. You can explore this map in the *Capital Region Extreme Heat Information Portal* at heat.prepareyourself.ca.



1.3 The Biodiversity Crisis in Local Communities

ALONGSIDE THE CLIMATE CRISIS, COMMUNITIES THROUGHOUT B.C. ARE IMPACTED BY A BIODIVERSITY CRISIS, AS HUMAN ACTIVITIES RESULT IN A SHARP DECLINE IN PLANT AND ANIMAL SPECIES THAT MAKE UP THE WEB OF LIFE WHICH IS ESSENTIAL FOR SURVIVAL ON THIS SHARED PLANET. MILLIONS OF SPECIES AND BILLIONS OF PEOPLE ARE IMPACTED BY THE BIODIVERSITY CRISIS.

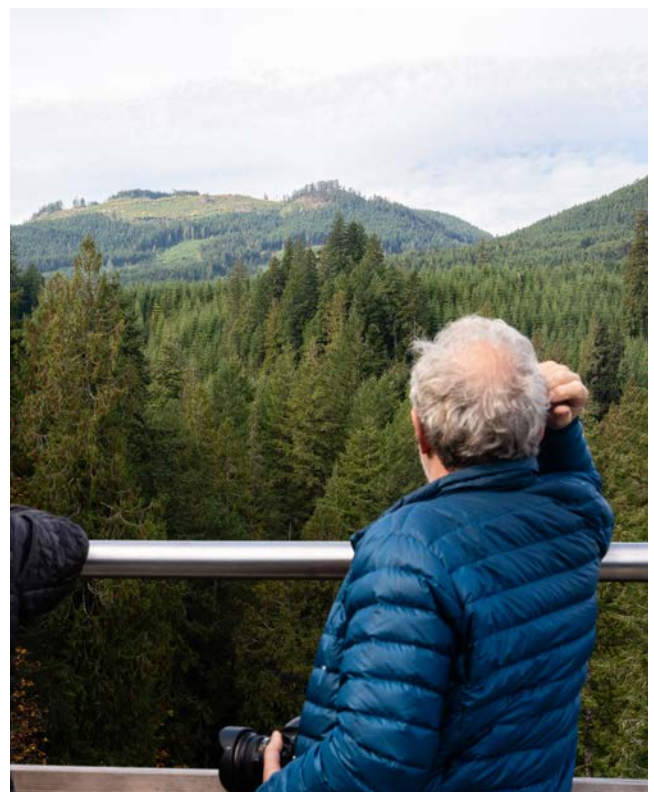
In response, Canada joined other nations as a signatory of the Convention on Biological Diversity in 1993, which noted that substantial investments are required to conserve biodiversity and that conservation measures produce significant environmental, economic and social benefits.

The Conference of Parties in Kunming and Montreal in 2022 enacted the Kunming-Montreal Global Biodiversity Framework, an action plan establishing 23 targets, including the “30 by 30” target—aiming for governments to designate 30% of Earth’s terrestrial and aquatic area as protected areas by 2030.

The world is facing an extinction crisis. As the most biodiverse province in Canada, British Columbia has the opportunity and responsibility to help turn things around. We’re home to the most species at-risk in Canada with more than 1,900 species and ecosystems on the brink.

Biodiverse ecosystems, and all the life they hold, support human health too. They clean the air we breathe, filter the water we drink, and help communities be more resilient to climate risks.

Access to greenspace is more difficult in urban areas, where many people are physically removed from natural environments.



A community member looks out at a clearcut on a nearby mountain top (Photo by Mya Van Woudenberg/Sierra Club BC).



Photos: (Top-left) Mya Van Woudenberg/Sierra Club BC,
(Bottom-right) Nila Sivatheesan/Sierra Club BC.

Researchers in Finland found that visiting parks, community gardens and other urban green spaces three to four times per week reduced the likelihood of a person turning to substances to manage mental health conditions by one third, and reduced asthma symptoms by about one quarter.⁹

This research also found the positive effects of visiting green spaces were strongest among the lowest-income households. Access to nature is socio-economically skewed in many jurisdictions, including Canada and Finland, with poorer communities having fewer opportunities to be in nature.

Local governments also grapple with competing values for land management. This is exemplified by the approach to native plants and pollinator habitat in urban areas. Though often classified as “weeds” and “noxious” substances in municipal property-maintenance bylaws enacted decades ago, these plants serve as vital habitat for endangered pollinators and other species of concern.

In 2023, Maple Ridge became embroiled in a dispute with two of its residents. They had created an expansive pollinator garden on their private property, with nectar-rich native plants to attract bees, butterflies, hummingbirds and other pollinators. The municipality issued them a warning, threatening to clear the land and bill the owners if they failed to bring the property into compliance with local bylaws.¹⁰

“It can look unruly to people who are used to seeing pristine lawns,” one of the owners told the Maple Ridge-Pitt Meadows News, suggesting the conventional approach to landscaping in North America is “the opposite to what the birds, bees and butterflies need.”

This tension is not confined to B.C. In 2022, controversy arose in London, Ontario, after the municipality cleared a privately owned parcel that was rich in milkweed, essential habitat for the endangered Monarch Butterfly. Environmental advocates warned of a potential breach of the federal Species At Risk Act, while the municipality claimed the action was necessary in response to complaints from nearby property owners.¹¹

The controversy sparked regulatory change. In 2024 London city council adopted a modernized yard-maintenance bylaw that allows larger, biodiverse plantings on private land, retreating from policies that privileged manicured lawns.¹²

1.4 Balancing Multiple Values for Community Health and Wellbeing

Some B.C. municipalities, such as Port Moody and View Royal, have expressed concern regarding the impacts of Bill 44 and Bill 47 on climate resilience, biodiversity and liveability in local communities.¹³

In a resolution adopted in February 2024, Port Moody called on the B.C. Government to “revise Bill 44 to embed tree protection, tree canopy expansion, and climate resilience into the policy or ensure local governments retain clear authority to protect mature trees and tree canopy in residential neighbourhoods and implement locally developed Climate Action Plans.”¹⁴ The resolution noted “the importance to communities of local Urban Forests during the height of the recent pandemic, as well as during the unprecedented ‘heat dome,’” as well as the benefits of “permeable surfaces and green infrastructure” for flood-control, such as during the 2021 atmospheric river.

When Opposition MLA Adam Olsen asked about potential impacts of Bill 44 on tree canopy during a debate in the

Legislature on March 7, 2024, the Minister of Municipal Affairs stated that she would take the message to the Minister of Housing, but no substantive response appears to have been provided.¹⁵

At the Union of BC Municipalities convention in Vancouver in September 2024, mayors, councillors and regional directors from around the province focused on the pressing needs for housing and infrastructure solutions. Implementing green infrastructure to facilitate climate-ready housing and communities was missing from the dialogue.

As the climate and biodiversity crises continue to deepen local governments must rise to the challenge, implementing actions and solutions that safeguard urban greenspace and biodiversity (Figure 3), keeping our densifying communities inhabitable for residents now and in the future.



THE NEXT SECTION

Part 2 of this toolkit outlines specific actions local governments can take, leveraging their existing authorities under the Local Government Act and Community Charter to implement best practices for healthy, climate-ready communities.

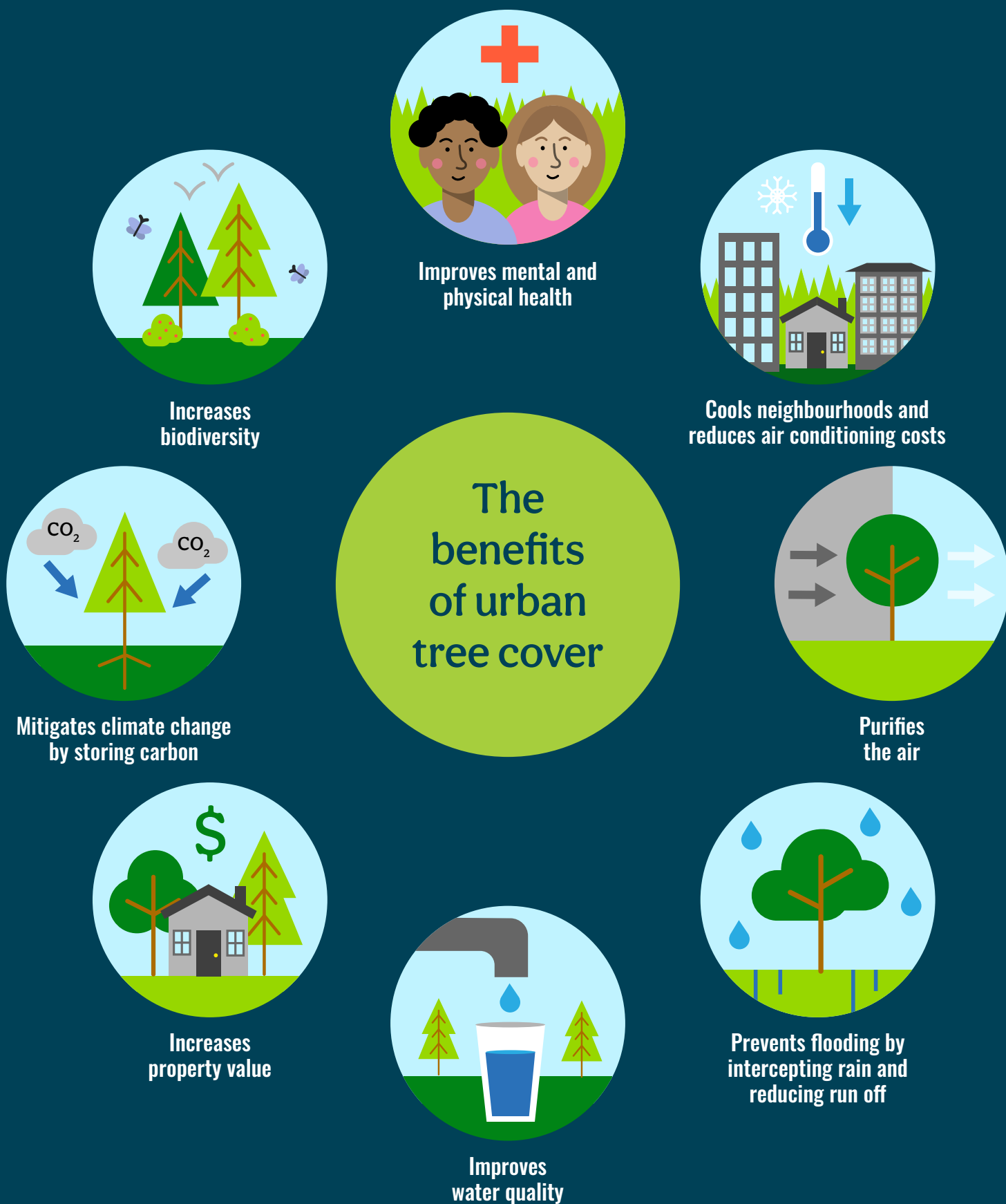


Figure 3: Mature tree canopies provide major benefits to our communities. Urban tree cover substantially improves resilience in response to climate change, provides wildlife habitats, raises property values and much more. As the climate and biodiversity crises continue to deepen, local governments must rise to the challenge. Implementing actions and solutions that safeguard urban greenspace and biodiversity, such as by implementing tree protection bylaws (covered in section 2.2), can help make our densifying communities habitable for residents now and in the future.



PART 2

Toolkit for Local Government Action

2.1 Planning Tools to Safeguard Biodiversity in Densifying Communities

ENVIRONMENTAL DEVELOPMENT PERMIT AREAS (EDPAS)

While Bill 44 and Bill 47 have mandated minimum density requirements in B.C. communities, local governments retain far-reaching powers to regulate land use, zoning and development.

This includes the power to establish Environmental Development Permit Areas (EDPAs) in Official Community Plans (OCPs).

Section 488 (1) of the Local Government Act states that: “An official community plan may designate development permit areas for one or more of the following purposes: (a) protection of the natural environment, its ecosystems and biological diversity” If a local government establishes an EDPA under this section, it must (a) describe the special conditions or objectives that justify the designation, and (b) specify guidelines that respect the manner by which the special conditions or objectives will be addressed (s. 488(2)).

If a property is located within an area designated as an EDPA, the owner must first obtain a Development Permit from the local government before they can (1) subdivide the parcel, (2) commence construction or alteration of any building, or (3) alter the land.

As a condition of issuing a Development Permit, the local government can mandate requirements within EDPAs, including retaining of natural areas, including plants, soil, topography and other natural features.

Examples of EDPAs include the Gorge and Gonzales shorelines in Victoria, Garry Oak habitat in Comox, the West Howe Sound shoreline on the Sunshine Coast, and upland areas in Kelowna.¹⁶

This tool has been discussed at length in reports by West Coast Environmental Law, the Environmental Law Centre at the University of Victoria, and the Metro Vancouver regional district.¹⁷

As stated above, Bill 44 exempts parcels of land that are susceptible to “hazardous conditions” (which are described elsewhere in the Local Government Act as being “subject to flooding, mud flows, torrents of debris, erosion, land slip, rock falls, subsidence, tsunami, avalanche or wildfire, or to another hazard” (s. 491(2)).

Further legislative reform in this area would be helpful, as discussed in Section 2.2 below. The Legislative Assembly could amend the Local Government Act to exempt lands designated with an EDPA from the Bill 44 density requirements.

Local governments can take action today to protect local biodiversity by (1) designating EDPAs in their OCPs, and (2) advocating to the provincial government and MLAs to provide an express exemption for EDPAs in Bill 44, as described above.

MANDATE CLIMATE-RESILIENT AND BIODIVERSITY-FRIENDLY LANDSCAPE PLANS

In addition to EDPA powers, local governments can mandate the planting of climate-resilient and biodiversity-friendly plant species, including tree species and pollinators, in Landscape Plans adopted through the rezoning, development permit and subdivision processes.

This can include requirements to concentrate remnant greenspace on private parcels in areas that are large enough to sustain biodiversity, rather than preserving narrow strips of unusable land around the perimeter of buildings and impermeable surfaces.

Specifications regarding retention of permeable surfaces and minimum soil depth can also create conditions for trees and other plants to succeed on private parcels in the long term, with associated biodiversity and public health benefits.

In March 2024, the B.C. Legislature adopted amendments to the Vancouver Charter that expressly recognize the municipality's authority to mandate Landscape Plans in connection with the exercise of its zoning powers.¹⁸

A key component of landscape planning and design in new development is ensuring adequate root depth for trees, to give them the best chance of success in our warming climate. Local governments can mandate minimum soil depth and volumes, surface permeability, selection of native and climate-resilient species, stock size and quality, planting density, utility and infrastructure setbacks, and other requirements in landscape plans approved as part of the development and subdivision processes.¹⁹

HELPFUL RESOURCES

- **The University of Victoria Environmental Law Centre's Green Bylaws Toolkit (updated edition, 2021)**
- **Metro Vancouver's Tree Regulations Toolkit (updated edition, 2024)**
- **Develop with Care guidelines (updated edition, 2014), which the B.C. government published to provide "local governments, the development community, landowners and environmental organizations [with] a comprehensive guide to maintaining environmental values during the development of urban and rural lands"**²⁰



ESTABLISH AND MAINTAIN A STRICT URBAN CONTAINMENT BOUNDARY IN THE REGIONAL GROWTH STRATEGY

The Local Government Act empowers local governments to introduce Regional Growth Strategies (RGSs), which can be viewed as agreements between communities in a regional district regarding future population, housing and employment growth, with targets, policies and actions to accommodate, manage and mitigate adverse impacts of this growth.

If a regional district adopts an RGS, all member local governments must include a “Regional Context Statement” within their Official Community Plans (OCPs) demonstrating consistency with the RGS.

A key component of an ecologically sound RGS and Regional Context Statement is a firm Urban Containment Boundary, establishing the limits of dense urban development (Figure 4). Urban Containment Boundaries are expressly recognized in Bill 44 as being exempt from the minimum density requirements (Local Government Act, s. 481.3(4)(a)).

To safeguard biodiversity on the edge of urban areas, establishing and maintaining an Urban Containment Boundary is an essential step for local governments to take through their RGS and Regional Context Statements.

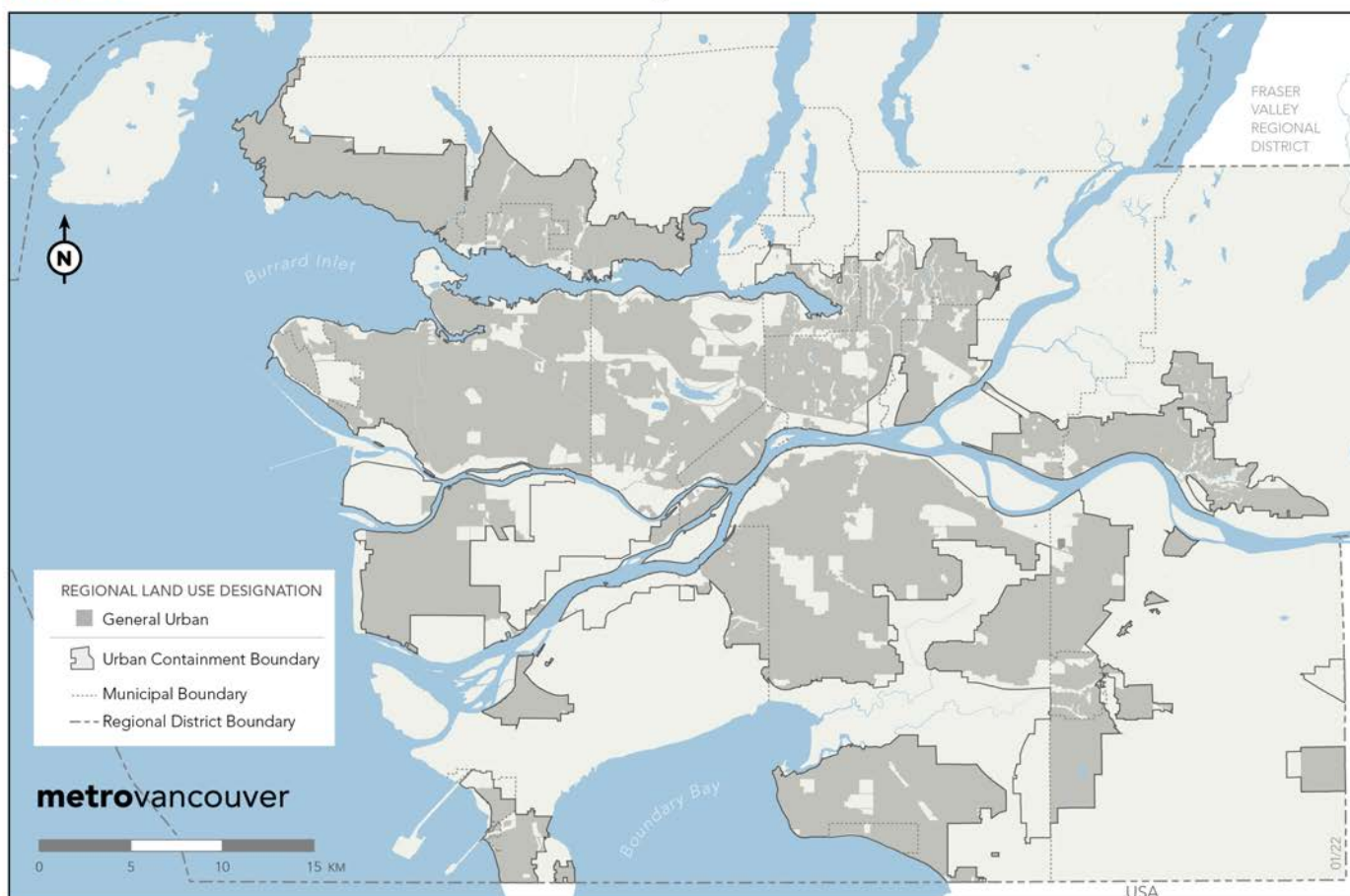


Figure 4: A map of Metro Vancouver's Urban Containment Boundary and General Urban Lands.

Once established, citizens, municipal staff and elected officials must be vigilant in protecting the boundary and preventing incremental “urban sprawl” into outlying natural areas.

Some considerations for establishing an RGS and Urban Containment Boundary are discussed in the UVic Environmental Law Centre’s (ELC) *Green Bylaws Toolkit*.²¹ This includes setting targets (for example, that 90% or more of all new density must be located within the Urban Containment Boundary).²²

The UVic ELC report goes further, recommending that local government’s exercise their policy-making powers in their RGSs and OCPs to introduce Regional Conservation Strategies (or “Regional Biodiversity Strategies”) aimed at maintaining and enhancing “the biological diversity of a region” and protecting and/or restoring “ecologically significant areas.” As well as providing “local and senior governments and other stakeholders with management priorities and planning tools that can help them make sure that local habitats persist as viable elements of healthy regional watersheds and ecosystems.”²³



Photos: (Left) Josef Hanus/Canva, (Top-right) MissNephew/Canva, (Bottom-right) Emily Norton/Canva.





2.2 Regulatory Tools: Tree Protection Bylaws, Zoning Bylaws and Property Maintenance Bylaws

ADOPT ROBUST TREE PROTECTION BYLAWS

As noted above and in Figure 3 (page 10), mature tree canopies in urban areas substantially improve resilience in response to climate change, providing shade and natural cooling features that maintain liveability for residents during the warming summer months, while providing essential rainwater management functions given root systems absorb and hold water while also stabilizing soil and slopes from erosion.²⁴ Trees also produce oxygen and absorb carbon, while providing vital wildlife habitat.

As Metro Vancouver has noted: “Trees provide a range of important ecosystem services for humans including shading, carbon storage, stormwater management, and physical, mental, and social well-being. Measuring tree canopy cover is a simple way to determine the extent of the urban forest and the magnitude of services it provides. In contrast, impervious surface is associated with many of the negative effects of urbanization, such as higher temperatures (the ‘Urban Heat Island’ effect), and increased flood risk, hydrological cycle disruptions and poor water quality, all of which can impact stream health.”²⁵

Enacting robust tree protection bylaws is an essential component of the municipal toolkit. These bylaws, which can be enacted under the existing authority of

municipalities in B.C.²⁶, restrict removal of trees on private land and mandate replacement if removal cannot be avoided. Penalties are enforceable under the Offence Act, providing a municipal “stick” to prevent incremental loss of the urban forest through individual choices of landowners.

While municipalities enjoy far-reaching powers in this area, it should be noted that a municipal council cannot (without providing compensation to a landowner) use a tree protection bylaw to:

- prevent all uses permitted under the applicable zoning bylaw, or
- prevent the development to the density permitted under the applicable zoning bylaw.²⁷

Regional districts also have much more limited tree-protection powers, confined to prohibiting or regulating removal of trees on land the board of the regional district considers to be subject to flooding, erosion, land slip or avalanche (by designating “tree cutting permit areas”, pursuant to s. 500 of the Local Government Act).

The Metro Vancouver regional district has created a comprehensive toolkit to assist local governments in developing tree protection bylaws.²⁸



ROBUST TREE PROTECTION BYLAWS INCLUDE THE FOLLOWING PROVISIONS:

- Requiring a permit to remove any tree exceeding 15 centimetres diameter at breast height (DBH), with more stringent requirements for tree species of particular concern, and potential exemptions for “hedges”
- Mandating replacement of trees where removal cannot be avoided at a ratio of at least 2:1
- Limiting the availability of cash-in-lieu payments (as an alternative to tree plantings on site), with a sufficiently high cash requirement to make this the least attractive (rather than most attractive) option
- Limiting the availability of exemptions for “permitted removals” where conflicts are anticipated with infrastructure, utilities or building footprints
- Mandating robust stocking and planting standards, soil depth / volume / permeability requirements, pruning standards, and “tree protection zones” / root zones
- Imposing onerous fines (for example, of at least \$2,000 per incident) for removal of a tree in convention of a bylaw, with enforcement provisions against landowners and contractors²⁹

PLANTING CLIMATE-RESILIENT TREES

In the context of climate change, local governments will want to consider requirements for climate-resilient tree species when mandating replacement and stocking standards. There are many native tree species that can help make our communities more resistant to climate impacts such as fire and drought. When planting trees for climate adaptation, it's important to select species native to your specific biogeoclimatic zone instead of non-native and invasive species which can harm local biodiversity.

There are many communities already putting this into practice. For example, the Garry Oak Meadow Preservation Society has a nursery with thousands of Garry Oak seedlings, a fire and drought-resistant species native to Southern Vancouver Island. This society is leading community planting initiatives.

MODERNIZE “WEED CONTROL” BYLAWS

Protection and restoration of biodiversity on private land includes ensuring that local governments adopt modern, 21st century property maintenance bylaws, with a view toward encouraging rather than restricting native plants, pollinator plants and other climate-resilient plant species.

London, Ontario responded to controversy surrounding pollinator gardens by adopting a new Yard and Lot Maintenance bylaw in 2024 that removes references to “weeds” and “noxious” plants and instead mandates a maximum height of 1 metre (3 feet) for any plants on private land deemed to be within a “visibility triangle” on a driveway or corner lot (to reduce motor-vehicle collisions by avoiding open site lines).³⁰

Local governments in British Columbia can follow this example and support pollinators and other vital animal and plant species by modernizing their own property maintenance and “weed control” bylaws, ensuring that the regulations do not prioritize manicured lawns over more biodiverse landscaping.

A related benefit to modernizing yard-maintenance and boulevard bylaws is encouragement for urban gardening on private and public land, with associated benefits for community health, resilience and wellbeing.

PROTECTING AND RESTORING BIODIVERSITY ON MUNICIPAL LAND

Alongside land-use planning and regulatory tools, local governments can take action to protect and restore biodiversity on their own lands. This includes developing and implementing a robust Urban Forest Plan, implementing the “3-30-300 Rule” (page 19), and acquiring land for greenspace protection through a Land Acquisition Fund and as part of the development-approval process.





ADOPT AND FUND A ROBUST URBAN FOREST PLAN

Local governments can adopt and fund a robust Urban Forest Plan, beginning with quantifying the existing tree canopy coverage in the local area (including the percentage of canopy on private and public land, as well as data regarding age and species distribution), and then identifying actions, targets and strategies to protect and expand the urban-forest canopy.

Metro Vancouver recently updated its Canopy Coverage target to 40% of lands within the urban containment boundary by 2050 (from a current level of 32%).³¹ The regional district also published the updated Metro Vancouver Tree Regulations Toolkit (2024), which provides a helpful discussion on consideration for local governments in determining their own Canopy Cover targets.³²

The Urban Forest Plan should apply a robust equity mapping lens, ensuring the establishment of a healthy

urban forest in proximity to the homes of low-to-moderate income households. Planting Priorities in the Plan (and subsequent prioritization in the planning schedule and annual and multi-year operational and capital budgets) should focus on neighbourhoods and blocks with the fewest number of street trees and the lowest percentage of canopy coverage.

The plan can include a selection of drought-resistant and locally appropriate species for replanting, as well as provisions governing irrigation, pruning and removal.

Adopting a robust plan is only part of the equation. Stable, adequate, multi-year funding in the municipal financial plan for both capital and operations are essential to ensure the plan is implemented on the ground and the community benefits from a healthier urban forest over time.

IMPLEMENT THE “3-30-300” RULE

Embracing scientific evidence that access to greenspace substantially improves human health and wellbeing, urban foresters have advanced the “3-30-300 Rule” (Figure 5).

This guideline aims to provide equitable access to trees and greenspaces and their benefits by setting the thresholds of having at least three well-established trees in view from every home, school, and place of work; no less than a 30% tree canopy in every neighbourhood; and no more than 300 metres to the nearest public greenspace from every residence.³³

This guideline is consistent with the World Health Organization recommendation that urban residents should live within 300 meters (a 5-minute walk) from the nearest public green space of at least 0.5-1.0 hectares in size.³⁴

Dutch forester Cecil Konijnendijk articulated the “3-30-300 Rule” in a study published in the Journal of Forestry Research in 2022, stating that: “Having trees and other

vegetation in sight from one’s home, place of work, or school has important mental health and performance benefits. Local tree canopy cover is positively associated with cooling and other aspects of climate moderation. With public greenspaces in proximity to one’s home stimulates regular use of these areas and results in positive impacts on mental, physical, and social health.”³⁵

Nature Canada has further discussed the problem of inequitable access to nature in urban areas:

“Not everybody gets to enjoy the benefits of the urban forest to the same degree. People living in racialized and marginalized neighbourhoods have highly inequitable access to urban trees and forests compared to those in affluent neighborhoods. This ‘tree inequity’ is part of a broader issue of environmental injustice and racism in Canada: low-income and often racialized minority communities tend to be located within lower quality natural environments, are disproportionately exposed to environmental burdens that threaten their health, and access fewer environmental amenities.”³⁶



3 trees visible from
your window

30% tree canopy
cover



300m away from a
greenspace

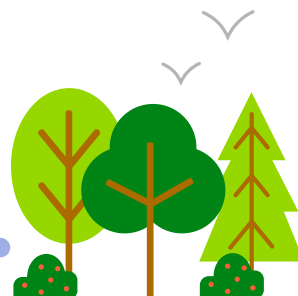


Figure 5: The “3-30-300 Rule” aims to provide equitable access to trees and greenspaces and their benefits. This guideline sets the thresholds of having at least three well-established trees in view from every home, school, and place of work; no less than a 30% tree canopy in every neighbourhood; and no more than 300 metres to the nearest public greenspace from every residence.

RESOLUTION EB32: SUPPORTING BIODIVERSITY IN LOCAL COMMUNITIES

Resolution EB32 calls for the B.C. government to create a Local Natural Areas Protection Fund that would provide a mechanism for the province to allocate money to municipalities, regional districts, and First Nations to support land acquisition for ecosystem health.



Nature Canada proposes that “equitable access should be thought of in terms of three variables – proximity to urban trees and forests, urban forest quality and the governance of urban forests.”³⁷

IMPLEMENT A LAND ACQUISITION FUND AND STRATEGY

Another municipal tool for protecting and restoring biodiversity is buying private land to ensure its permanent protection as public parkland.

The Capital Regional District on southern Vancouver Island adopted its Regional Parks Acquisition Fund in 2000, collecting approximately \$4 million per year from the property tax requisition (approximately \$10 per household) to purchase natural areas and permanently protect them within the regional parks system.

Since the fund was created, 4,900 hectares of land have been protected in the Greater Victoria area, augmenting existing regional parks and creating new ones, including sensitive Garry Oak, Douglas Fir and shoreline habitat.

A similar mechanism has been established by the Regional District of East Kootenay—the Columbia Valley Local Conservation Fund— raising nearly \$3 million for conservation purposes since 2010.

When combined with philanthropic contributions from members of the public, matching contributions from other levels of government, and discounts from landowners in exchange for tax credits, these financing mechanisms can amplify the land-protection potential of finite fiscal resources. These regional funds are discussed further in the *Green Bylaws Toolkit*.³⁸

On a more modest scale, many municipalities maintain Fiscal Reserves dedicated to the acquisition of municipal land. Various financing mechanisms can replenish and grow these reserves from year to year, including (1) direct allocations from tax revenue in the annual financial plan, (2) development cost charges (DCCs), (3) community amenity contributions from land developers, and (4) proceeds from the sale of other municipal land.

To ensure that expenditures from local Land Acquisition Funds are aligned with municipal priorities relating to parks, climate and biodiversity, local government are wise to adopt a robust Land Acquisition Strategy to inform their land acquisitions.

The Provincial government can also support these efforts by establishing a Local Natural Areas Protection Fund (as endorsed by Union of BC Municipalities in Resolution EB32 “Supporting Biodiversity in Local Communities”, adopted in 2023).

These financing mechanisms for municipal parkland acquisition are discussed by the UVic Environmental Law Centre in the *Green Bylaws Toolkit*.³⁹

CLIMATE-READY SCHOOLS: TRANSFORMING B.C.'S SCHOOL GROUNDS FOR RESILIENCE AND COMMUNITY

School grounds in B.C. collectively represent thousands of hectares of public land in the heart of our communities that can be adapted and improved for climate-readiness, biodiversity, public health and the benefit of all.

Schools are a cornerstone of public space and greenspace in communities. They serve as hubs where children learn, play, and build relationships with each other and the natural world. Beyond their role in education, school grounds provide critical opportunities for habitat restoration, rainwater management, community engagement, and climate adaptation.

School ground design can significantly influence how well a community or city adapts to the challenges of a changing climate. By re-imagining these spaces, we can create environments that foster resilience while enhancing quality of life for children and their communities.

Here are some ways school grounds can be redesigned for climate-readiness.

Nature-Rich Play Areas:

Incorporating green infrastructure—such as tree canopies, pollinator habitat, native plant gardens, and rain gardens—can transform school grounds into vibrant, climate-smart spaces. These features not only provide shade and reduce urban heat island effects but also offer hands-on learning opportunities for students and other community members, helping them connect with nature and understand ecological systems.



Stormwater Management:

School grounds can be retrofitted from barren lawns and hardscaped surfaces to permeable surfaces, wetlands, rain gardens, vegetated areas and retention ponds to manage stormwater and prevent flooding in the context of our changing climate. These solutions reduce the strain on municipal infrastructure and protect surrounding neighborhoods during heavy rainfall events, while reintroducing vital biodiversity in the heart of communities. The Quadra Elementary School wetland restoration project on Quadra Island, completed in 2022, provides an example of this kind of climate-ready retrofit.

Carbon Sequestration and Air Quality:

Planting trees and maintaining greenspaces on school grounds can enhance air quality and act as natural carbon sinks, contributing to local climate mitigation efforts. These improvements benefit children's health and create cleaner, healthier environments for surrounding communities.

Outdoor Learning Spaces:

Climate-ready schools can include outdoor classrooms and shaded study areas to provide flexible, year-round learning environments. These spaces encourage creative and active learning while reducing the energy demands of traditional indoor facilities.

Community Resilience Hubs:

School grounds can double as community resilience hubs during climate emergencies, providing gathering spaces for residents and serving as distribution points for resources during heat waves, wildfires, or floods.



THE VISION FOR B.C.'S SCHOOLS

To meet the challenges of a changing climate, we must transform school grounds across B.C. into dynamic, nature-rich environments that serve both children and their communities. These spaces will not only foster play, learning, and social connection but also act as vital assets in building climate-resilient communities. By integrating ecological design and climate adaptation strategies, B.C.'s schools can become leaders in creating a sustainable future for all.



THE ROLE OF LOCAL GOVERNMENT

Local governments can play a pivotal role in helping schools adopt nature-based solutions to build resilience to climate change. By collaborating with school boards and adopting policies and budgets that prioritize biodiversity and green infrastructure, local governments can support schools in integrating nature-based solutions into their campuses.

For example, municipalities can coordinate upgrades to municipal stormwater systems in conjunction with school boards, establishing wetlands, bioswales and rain gardens on school grounds to reduce the burden on municipal infrastructure, limit project costs, and restore ecosystem services.

Municipalities can also partner with school boards and school stakeholders for tree planting, native plant restoration and community-school gardens, providing municipal grants and staffing expertise where appropriate.

These measures mitigate flooding, reduce urban heat, enhance biodiversity and make school grounds more resilient and livable for students, teachers and all residents of the surrounding neighbourhood. By working together, local governments, school boards and schools can create healthier, more adaptive learning environments that not only address climate challenges but also enhance community well-being.

EXAMPLES OF CLIMATE-READY SCHOOLS

Through partnerships and creative thinking, schools can adopt climate-ready practices, such as using native plants in landscaping or restoring wetlands on school property. Here are some real life examples.

Quadra Island Elementary School:

Working in partnership with knowledge holders of the We Wai Kai Nation with funds provided by the BC Wildlife Federation, this project adapted a portion of a grassy playing field that was flooded for much of the winter months into a vibrant wetland. The Quadra Island Elementary wetland now stores and manages rainwater, while reintroducing dozens of native plant species into an outdoor classroom frequented by students and the general public.

You can learn more at: bcwf.bc.ca/quadra-island-schoolyard-given-new-life-with-wetland-build/

Irma Coulson Public School:

Evergreen and the Halton District School Board partnered with landscape architects to revitalize this grassy, eroded school ground into a vibrant outdoor learning area. Not only do the students love it, but their school ground now supports local biodiversity, has tripled the tree canopy to combat overheating, and is more resilient to flooding.

Learn more at evergreen.ca/impacts/climate-ready-schools/



ACQUIRE MUNICIPAL LAND AS A CONDITION OF DEVELOPMENT APPROVALS

In addition to the direct purchase of land for conservation purposes, local governments can acquire land from private owners through development approval processes, in the form of “density bonuses”, “community amenity contributions”, “development cost charges”, and “subdivision approval.”

Section 510 of the Local Government Act mandates that a landowner must dedicate up to 5% of a project area as parkland, with no compensation, as part of the subdivision approval process (or an equivalent cash contribution equal to the market value of the land), with the area of land and location to be acceptable to the local government.

Section 559 authorizes “development cost charges” to assist local governments with the capital costs of “providing and improving parkland”, among other municipal services.

These mechanisms are available under the existing land-use authority of local governments in B.C.

Substantially greater contributions of land or cash-in-lieu payments for greenspace protection can be secured by the local council or board as part of zoning approval processes, whereby a landowner or developer gifts a portion of their land (or cash-in-lieu payment) to the community as a condition of obtaining zoning approval or additional density.

To optimize the potential impact of Community Amenity Contributions and Bonus Density for parkland purposes (and to thereby relieve pressure on local governments to directly purchase land themselves), the “base density” in an OCP or zoning bylaw should be set at a relatively low level, to ensure redevelopment proposals trigger requirements for a community amenity contribution.

INCENTIVES FOR BIODIVERSITY ON PRIVATE LAND

Local governments can also provide encouragement for protecting and enhancing biodiversity on private lands.

This can include grant programs to support restoration of native plant species, as well as “tree giveaway” programs, provision of other free plants, and distribution of soil, mulch and other gardening materials in neighbourhoods. The City of Victoria’s Get Growing Victoria program has distributed plant seedlings grown in the municipal nursery (along with soil and mulch) to residents free of charge since 2020, in a partnership with community centres and food-security organizations.

When designing such programs, local decision-makers should be mindful to appropriately balance the public interest, recognizing that landowners are often the most economically advantaged community members. Local governments must also abide by the prohibition in the Community Charter (at Section 25) against providing “a grant, benefit, advantage or other form of assistance to a business” unless expressly authorized by statute. However, in the context of the climate and biodiversity crises, appropriate grant and “give-away” programs can serve the public interest by enhancing the tree canopy, cleaning the community’s air, enhancing food security, and creating vital pollinator habitat of general benefit.

Such programs can also align with support for Indigenous land-management practices and post-colonial relationships, by encouraging the vitality of local food-bearing and medicinal plant species.

In addition to these actions, local governments and partners have an essential role to play raising public awareness of the benefits of climate-resilient landscaping and urban design in the context of the climate and biodiversity crises. A public education component is included in the Get Growing Victoria program. On the Lower Mainland, the UBC Faculty of Forestry’s Collaborative for Advanced Landscape Planning (CALP) has developed the Citizen’s Coolkit, aimed at equipping urban-dwellers with awareness and tools to “climate-proof your neighbourhood while improving the urban forests that surround your home”.⁴⁰



WORKING WITH INDIGENOUS PARTNERS

Alongside the actions described above, a close, evolving and respectful partnership with First Nations is an integral component of local efforts to restore biodiversity and enhance climate-readiness.

Indigenous peoples have stewarded the lands and waters of present-day British Columbia for millennia, developing strong connections to, and awareness of, local natural resources and ecological systems. Supporting Indigenous peoples and communities in acting on this knowledge, in culturally appropriate ways, can contribute to climate-readiness while also supporting decolonization.

Areas for cooperation and partnership include food systems, natural asset management, and restoration of waterways, wetlands and shoreline areas. For example, the District of Central Saanich has recently partnered with the WSÁNEĆ peoples on the acquisition and restoration of the “Maber Flats” area (TIKEL in WSÁNEĆ), a historic wetland used by WSÁNEĆ peoples to harvest plant and animal species, which for nearly a century was subordinated to diking and exclusive agricultural uses. This partnership will contribute to municipal priorities regarding flood control and rain-water management, while advancing the WSÁNEĆ objective of restoring Indigenous food systems and land-management practices.

Similar partnerships between local governments and Indigenous communities can be found around the province, demonstrating the potential for joint action for climate-readiness and biodiversity resilience.



Photos: (Above) An image of TIKEL (Maber Flats) by Mya Van Woudenberg/Sierra Club BC; (Below-left) Troy Moth, (Below-right) Emily Norton.



ADVOCACY TO THE PROVINCIAL GOVERNMENT AND FEDERAL GOVERNMENT

Alongside the actions described above, local governments can advocate to the provincial government to review and amend the Local Government Act, Community Charter and other legislation to introduce stronger protections for biodiversity in urban areas.

This advocacy can include the following requests for actions by the Legislative Assembly and Provincial Cabinet:

1. Create a Local Natural Areas Land Acquisition Fund, as endorsed by UBCM delegates with the passing of Resolution EB32 in 2023, to facilitate partnerships between local governments and the provincial government to protect natural areas. The proposed fund would be established with a start-up contribution from the provincial treasury of \$500-million, augmented by annual contributions of \$50-million for a period of ten (10) years, a proposal that is aligned with the recent Provincial-Federal-Indigenous conservation financing agreements.
2. Amend the Local Government Zoning Bylaw Regulation, BC Reg 262/2023 to exempt land of high ecological value from the minimum density requirements of Bill 44, by adding a new subsection 3(3) stating that: "Section 481.3 (3), (4) and (5) of the Act does not apply in relation to land if it is located within a development permit area designated in accordance with Section 488(1)(a) of the Act for the protection of the natural environment, its ecosystems and biological diversity";
3. Introduce legislation mandating a "no net loss" policy for urban greenspace, modeled on provisions in neighbouring Washington State's Growth Management Act. This legislation requires communities to maintain the same quantity and quality of critical areas over time, through adoption of "Critical Areas" regulations for protection of the natural environment, wildlife habitats and sources of drinking water. These local regulations must first avoid, then minimize and mitigate, development impacts on critical areas. Bellingham's Critical Areas Ordinance, for example, has resulted in significant investments in restoration, including stream daylighting and forest and wetland restoration.⁴¹
4. Amend the Community Charter to specify minimum canopy coverage targets for the urban forest as part of local government's tree-protection powers; and
5. Review the biodiversity impacts of the density requirements introduced in Bill 44 and Bill 47 by December 31, 2025, and introduce legislative amendments to ensure an appropriate balance between the creation of new housing supply and the necessity for building climate-resilient and biodiversity-friendly communities.





PART 3

Conclusion

Summary of Tools

In conclusion, while Bill 44 and Bill 47 are important legislative amendments that will help B.C. tackle the housing crisis, local governments have the power to play a substantial role in safeguarding biodiversity and stewarding climate-resilient communities.

Help your municipality be resilient with this checklist of tools:

1. Environmental Development Permit Areas
2. Climate-Resilient and Biodiversity-Friendly Landscape Plans
3. Urban Containment Boundaries
4. Robust Tree Protection Bylaws
5. Modernize “Weed Control” Bylaws
6. Robust Urban Forest Plan
7. Implement the “3-30-300 Rule”
8. Land Acquisition Fund and Strategy
9. Climate-Ready School Grounds
10. Municipally Owned Protected Areas
11. Incentives for Biodiversity on Private Land
12. Partnerships with Indigenous Communities and other Stakeholders
13. Advocacy to the Provincial and Federal Governments

As stated in this report, applying a robust equity lens is essential in moving forward with these tools to ensure that social and ecological values are aligned and that biodiversity and its benefits remain accessible to all community members, particularly those who are Indigenous, racialized or low income.

While municipalities and regional districts now operate in a modified jurisdictional landscape, with a lesser role in land-use approvals, elected officials, staff and citizens can address the housing, climate and biodiversity crises by deploying these existing tools to protect and restore local biodiversity, and improve resilience and wellbeing in the long term for climate-ready communities.

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