Blue Dot | Municipal Toolkit

People in Canada take pride in this country's natural landscapes, rich ecosystems and wildlife. But Canada's Constitution doesn't mention environmental rights and responsibilities. Municipalities across the country are recognizing and supporting their residents' right to a healthy environment. By adopting the Blue Dot declaration, more than 150 municipal governments now support the right to clean air and water, safe food, a stable climate and a say in decisions that affect our health and well-being.

For some municipalities, adopting the Blue Dot declaration is a clear statement about environmental initiatives already underway. For others, it's a significant first step. Either way, after passing a declaration, many ask "What happens next?"

This toolkit provides practical ideas for next steps. Its introduction and 13 downloadable guides cover topics related to human health, green communities and a low-carbon future. Written for policy-makers, each guide shares examples of policies and projects undertaken in communities in Canada and around the world. The goal is to inform, inspire and share good ideas and great practices that will lead to healthier, more sustainable communities now and in the future.

The following guides are available:

Introduction to the Blue Dot Municipal Toolkit

Protecting Human Health

    Guide 1:   Air quality
    Guide 2:   Clean water
    Guide 3:   Non-toxic environment
    Guide 4:   Healthy food

Creating Green Communities

    Guide 5:   Access to green space
    Guide 6:   Protecting and restoring biodiversity
    Guide 7:   Waste

Building a Low Carbon-Future

    Guide 8:   Transitioning to 100% renewable energy
    Guide 9:   Green buildings
    Guide 10: Sustainable transportation
    Guide 11: Green economy
    Guide 12: Climate change adaptation
    Guide 13: Ecological footprint and land-use planning

To read more about municipal actions for environmental rights, and to access all the Blue Dot toolkit guides, visit **http://bluedot.ca/municipal-toolkits/**. To read more about the Blue Dot movement and work at the local, provincial and federal levels, visit **www.bluedot.ca**.

Ensuring a healthy environment requires action in communities of all sizes and at all levels of government. This toolkit helps municipalities continue to take the lead.

Acknowledgments

Introduction

Recognizing the right to a healthy environment: Next steps

Communities across Canada are recognizing the right to a healthy environment. As of mid-2017, more than 150 municipalities passed an environmental rights declaration. Next steps will depend on the specific municipal policy landscape, but each community must do all it can to protect its residents' right to a healthy environment.

This toolkit provides a wealth of ideas and inspiration, sharing examples from communities across Canada and the world. It's written for policy-makers but may be of interest to any community leader. The examples demonstrate inspiring municipal leadership and also show communities of all sizes benefiting from innovative policy solutions to reduce environmental impact and increase sustainable opportunities. The 13 guides collect ideas that can be used to stimulate discussion, fast-track policy development, and offer places for further research and advice. We hope this collection will ensure that community-level governments around the world continue to provide the leadership and momentum needed to ensure environmental rights for all.

You've adopted a municipal declaration respecting environmental rights.
Now what?

Every community has its own concerns and priorities. So every municipality will have its own approach to interpreting and implementing its environmental rights declaration. For most, a review of existing sustainability and environmental protection policies and bylaws is a useful first next step.

The figures below show a process Blue Dot communities can use to move forward in protecting their residents' right to a healthy environment. This toolkit, with its 13 resource-rich guides, has been developed to help with Step 8, "Look to other municipalities for good practices that can be adopted to further protection of the right to a healthy environment."

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1   Ville de Montreal, Montreal Charter of Rights and Responsibilities, 2006, http://ville.montreal.qc.ca/pls/portal/docs/page/charte_mtl_fr/media/documents/charte_montrealaise_english.pdf

2   Greenest City Action Team, Vancouver 2020 A Bright Green Future (Vancouver, 2009), http://vancouver.ca/files/cov/bright-green-future.pdf

3   City of Vancouver, Greenest City 2020 Action Plan - 2015-2016 update, 2017, http://vancouver.ca/green-vancouver/greenest-city-action-plan.aspx

4   John Purkis, "Introducing the New QuickStart ICSP for Smaller Communities," 2011, http://www.naturalstep.ca/introducing-the-new-quickstart-icsp-for-smaller-communities

5   City of Edmonton, "Citizen Dashboard: City by the Numbers," 2014, https://dashboard.edmonton.ca/green

A process to develop municipal sustainability initiatives to advance protection of the right to a healthy environment.

1 Municipality passes Blue Dot declaration

2a Review the legal framework in which the municipality works

2b Engage in advocacy at other levels of government to recognize and protect the right to a healthy environment

3 Understand which municipal powers can be used to protect residents rights to a healthy environment*

*Reviewing and determining municipal powers over environmental issues will likely require a municipal lawyer. Does the municipality have access to one?

This includes supporting Blue Dot resolutions at meetings of unions/ associations of municipalities

4 Review current sustainability planning initiatives and bylaws

5a Review the sustainability plan

5b Develop or update the sustainability plan

6 Report on achievements of the sustainability plan regularly

7 Incorporate commitments made in the sustainability plan in to enforceable bylaws and funded projects

8 Look to other municipalities for best practices that can be adopted to further protection of the right to a healthy environment

Municipality actively protects residents' rights to a healthy environment

Examples and sample questions for each stage of the process.

1

2a e.g., Municipal Act for most municipalities in Ontario, City of Toronto Act for Toronto.

2b

3 e.g., Alberta's Municipal Government Act permits councils to pass bylaws to protect the "safety, health, and welfare of people" and govern transportation, public utilities, public places and animals. It limits municipal planning powers over roads, oil and gas wells, pipelines and certain agricultural operations.

4 e.g., Montreal's Charter of Rights and Responsibilities recognizes the rights of citizens in matters of environment and sustainable development.[1] The Vancouver 2020: A Bright Green Future Action Plan provides international examples within the plan to give ideas of different practices and ambitious targets.[2]

5a e.g., Vancouver's Greenest City Action Plan makes commitments to all of the sections of the Blue Dot declaration with clear numerical targets and a 2020 deadline.[3]

5b Small to mid-sized communities could look into the QuickStart Integrated Community Sustainability Plan initiative to develop a sustainability plan.[4]

6 e.g., The City of Edmonton's Citizen Dashboard provides an online platform for citizens to see the city's progress towards its sustainability goals.[5]

7 e.g., The City of Oakville's Health Protection Air Quality Bylaw is an example of a community taking a step beyond planning to regulate its own air quality and its residents' environmental health.
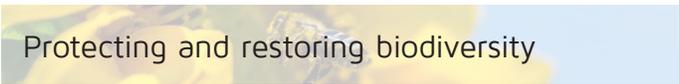
8

Although each municipality's sustainability priorities will depend on past achievements and current challenges, the Blue Dot municipal toolkit describes numerous ways Canadian and international communities are already taking action by addressing 12 areas of environmental policy. These are:
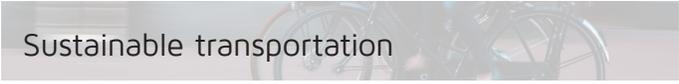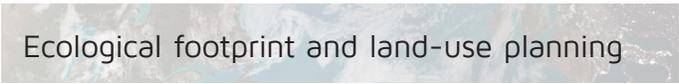
Protecting Human Health

Guide 1:   Air quality

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Subject guides

Click to download individual guides or visit **http://bluedot.ca/municipal-toolkits/** to find the full toolkit online.

Protecting human health

1. ### Air Quality

   Municipalities can protect residents' rights to clean air by addressing local concerns not adequately covered by federal and provincial regulations. These include the cumulative effects of low-impact industries and non-point sources of air pollution such as vehicles and residential burning. Oakville, Ontario has shown leadership in Canada by adopting a Health Protection Air Quality bylaw, which requires eligible polluting facilities to acquire a municipal permit for air emissions or submit plans for significant emissions reductions.[6] Internationally, municipalities such as Stockholm, Berlin and London, England have adopted low-emission zones in urban centres to reduce concentrations of harmful air pollutants.

2. ### Clean water

   Municipalities should maintain and protect both water supply and quality for future generations. Okotoks, Alberta uses progressive water pricing, efficiency incentives and a tertiary water treatment plant to reduce water consumption and keep limited water supplies clean.[7] Stockholm, Sweden extracts biogas from wastewater to power buses and private vehicles. Extracted heat is used in the city's district heating system.[8]

3. ### Non-toxic environment

   Municipalities can protect residents' health from exposure to toxic doses of chemicals. Toronto was the first Canadian municipality to develop a right-to-know bylaw requiring businesses to report usage and release of 25 priority chemicals through the ChemTRAC program. The program allows the city to identify toxic hotspots, see industry contributions to releases and provide grants to reduce pollution.[9] Communities in the U.S. such as Pittsburgh have used environmental rights–based ordinances to limit natural gas development to protect residents

6   Town of Oakville, A by-Law to Assess and Control the Health Effects of Major Emissions of Fine Particulate Matter in the Town of Oakville., 2010, http://www.oakville.ca/assets/general -environment/HPAQB2010-035.pdf

7   Town of Okotoks, Water Conservation, Efficiency, and Productivity Plan, 2014, http://www.okotoks.ca/sites/default/files/pdfs/publications/Okotoks Water CEP Plan 2014_FINAL.pdf

8   Stockholm Vatten, "Water and Wastewater," accessed August 1, 2015, http://www.stockholmvatten.se/en/water-and-wastewater/#!/wastewater

9   Toronto Public Health, Tracking and Reducing Chemicals in Toronto, 2015, http://www1.toronto.ca/City Of Toronto/Toronto Public Health/Healthy Public Policy/ChemTRAC/Files/pdf/CT-2013 highlight_2015_06_05_Final.pdf

10 Community Environmental Legal Defense Fund, "Community Rights," 2017, http://celdf.org/community-rights/

from potential exposure to harmful doses of chemicals used in the fracking process.[10]

4. Healthy food

Municipalities can help facilitate local food production, distribution and procurement, and contribute to programs to ensure lower income households can access healthy food. Edmonton has recently changed its bylaws to allow urban agriculture, including beehives, chickens and goats.[11] Thunder Bay supports a gleaning project, which allows residents to help pick food after harvest to reduce food waste at farms and increase the affordability of healthy food for low-income families.[12] San Francisco has been designated as an urban agriculture incentive zone by the State of California. Property owners can apply for reduced taxes for small-scale urban agriculture.[13]

Creating green communities

5. Access to green space

City green spaces contribute to population health. They improve air quality, moderate temperatures, reduce citizen stress and support active lifestyles. Communities can develop parks and other natural spaces, set tree canopy requirements for development zones, and work to restore the ecological services of natural spaces. Surrey, B.C. uses cluster and gross density zoning to allow higher density in certain areas when the developer protects ecologically valuable land. Now 88 per cent of Surrey residents live within 400 metres of a green space.[14] In Oslo and Stockholm, strict legal protections mean 94 and 95 per cent of residents, respectively, live within 300 metres of green space.[15]

6. Protecting and restoring biodiversity

Most species at risk live along Canada's southern border, where most urban communities are. Municipal policies to protect and restore biodiversity are urgently needed to reduce habitat loss. Edmonton and Montreal have developed biodiversity strategies to create connected

11 City of Edmonton, Fresh: Food and Urban Agriculture Strategy, 2012, http://www.edmonton.ca/city_government/urban_planning_and_design/food-and-urban-agriculture.aspx

12 Thunder Bay District Health Unit, "Access to Healthy Foods," 2017, http://www.tbdhu.com/health-topics/healthy-eating/access-to-healthy-foods

13 City and County of San Francisco, Ordinance Amending the San Francisco Administrative Code, 2012, http://sfgsa.org/sites/default/files/Document/UrbanAgricultureOrdinance.pdf

14 City of Surrey, Surrey Zoning By-Law 12000, 1993, http://www.surrey.ca/bylawsandcouncillibrary/BYL_Zoning_12000.pdf

15 Austin Perez, "Oslo," Nature Needs Half, 2012, http://natureneedshalf.org/oslo/; Stockholms Stad, Stockholm-Application for European Green Capital Award, 2008, http://ec.europa.eu/environment/europeangreencapital/wp-content/uploads/2011/04/Stockholms-application-for-Europan-Green-Capital-revised-version.pdf

16 ICLEI-Local Governments for Sustainability, Cities and Biodiversity: Exploring How Edmonton and Montreal Are Mainstreaming the Urban Biodiversity Movement, 2013, http://www.icleicanada.org/images/icleicanada/pdfs/Biodiversity_CaseStudy_EdmontonMontreal.pdf

17 City of Kelowna, "Chapter 12: Natural Environment DP Guidelines," in Official Community Plan, 2012, https://apps.kelowna.ca/CityPage/Docs/PDFs/Bylaws/Official%20Community%20Plan%202030%20Bylaw%20No.%2010500/Chapter%2012%20-%20Natural%20Environment%20DP%20Guidelines.pdf

networks of protected areas and reduce habitat fragmentation.[16] Kelowna, B.C. has developed a compensation and offset policy so that no net loss of habitat occurs.[17] Essen, Germany is developing the largest naturalization project in Europe. It plans to naturalize 39 kilometres of ditches into functioning stream ecosystems.[18]

7. Zero waste

Reducing waste that goes to landfills and incineration is increasingly important, to decrease pressure on existing landfill facilities and to limit formation of potent greenhouse gases such as methane. Many Canadian municipalities have made commitments to develop systems where no waste will be sent to landfills. San Francisco has committed to reach its zero waste goal by 2020.[19] In Canada, leading municipalities with high diversion rates have developed mandatory source separation bylaws (Halifax and Markham) or landfill bans for organics and recyclables (Nanaimo and Metro Vancouver).[20] The Italy's Trevino and Priula Districts pay-as-you-throw systems have achieved extremely low annual garbage production rates using five to six stream separated curbside collection from all residential, multi-family and commercial buildings.[21]

Building a low-carbon future

8. Transitioning to 100 per cent renewable energy

Climate change is one of the biggest issues facing our time. Municipalities will be on the forefront of facilitating a shift in reducing greenhouse gas emissions and transitioning into renewable energy systems. Municipalities have direct control over greenhouse gas emissions from municipal operations, landfill gas, and residential waste management and indirect control over commercial/industrial waste, buildings, energy use, industry and transportation. Some municipalities own energy utilities, which gives them further autonomy in transitioning to renewable systems. Vancouver, the first Canadian municipality to commit to transitioning to 100 per cent renewable energy by 2050, is developing a plan to achieve this goal.[22] Guelph created an award-winning Community Energy Plan, which led to a district heating strategy, created incentives for local renewable energy development, and reduced greenhouse gas emissions between 2006 and 2012 by 23.6 per cent.[23] The cities of Hannover, Stockholm and Copenhagen have created ambitious targets and comprehensive implementation strategies,

18 City of Essen, Essen 2017 Application: Nature and Biodiversity, 2015, http://ec.europa.eu/environment/europeangreencapital/wp-content/uploads/2015/06/04_Application-EGC-2017_Nature-and-Biodiversity_ESSEN.pdf

19 SF Environment, "Resolution Setting Zero Waste Date," 2003, http://www.sfenvironment.org/sites/default/files/editor-uploads/zero_waste/pdf/resolutionzerowastedate.pdf

20 Federation of Canadian Municipalities, "Getting to 50% and Beyond: Waste Diversion Success Stories from Canadian Municipalities," 2009, www.fcm.ca/Documents/tools/GMF/Getting_to_50_percent_en.pdf

21 Joan Marc Simon, Case Study 4-The Story of Contarina, 2014, http://www.zerowasteeurope.eu/zw-library/case-studies/

22 City of Vancouver, "Renewable City: Our Future to 2050," 2015, http://vancouver.ca/green-vancouver/renewable-city.aspx

23 Guelph Hydro, Energy Usage and Greenhouse Gas Emissions: Summary Report 2012, 2013, http://guelph.ca/wp-content/uploads/EnergyAndEmissionsReport_2012.pdf

24 For example: City of Copenhagen, CPH 2025 Climate Plan, 2012, http://kk.sites.itera.dk/apps/kk_pub2/pdf/983_jkPOekKMyD.pdf

including the development of municipally owned wind farms, biogasification plants and carbon neutral district energy systems.[24]

9. Sustainable transportation

Sustainable transportation practices create targets to help more people use public transit, walk and cycle, and implement programs that improve the efficiency and accessibility of sustainable transportation systems. Montreal has an extensive cycling network, a bike-share system, an intelligent transport system with priority bus signals and reserved bus lanes, and transit-oriented communities along commuter train lines.[25] Copenhagen and Amsterdam have bicycle mode shares of more than 30 per cent, far exceeding the cycling infrastructure of any city in North America. Copenhagen is developing a system of bicycle superhighways, which provide commuter access from suburban areas directly into the city completely separate from cars.[26] Amsterdam has developed its cycling infrastructure through quality requirements for all bike routes, including maximum grades and wait time limits at traffic lights.[27]

10. Green buildings

After transportation, buildings are the next major source of greenhouse gas emissions in municipalities. Toronto and Vancouver have both adopted building bylaws that require new buildings to be constructed to higher efficiency standards than provincial building codes. Toronto's Green Standard also provides an optional higher efficiency tier which, if achieved, will allow building developers to apply for development charge rebates.[28] Vancouver has an Energy Retrofit Strategy, which uses energy audits, incentives and permitting requirements to increase the energy and resource efficiency of existing buildings.[29] International cities have experimented with other ways of funding building upgrades. In Berlin, retrofitting companies can be paid back as owners of renovated buildings recoup energy savings.[30]

11. Green economy

Municipalities can develop a green economy by promoting sustainable practices in existing businesses, training residents for green jobs and encouraging green business development. The Greater Toronto Area's Pearson Eco-Business Zone is an example of how municipalities can

25 Sociéte de transport de Montréal, Strategic Plan 2020, 2012, http://www.stm.info/fr/node/3238

26 City of Copenhagen, Good, Better, Best: The City of Copenhagen's Bicycle Strategy 2011-2025, 2011, http://kk.sites.itera.dk/apps/kk_pub2/pdf/823_Bg65v7UH2t.pdf

27 Gemeente Amsterdam, "Quality Requirements for the Main Bicycle Network," 2012, https://www.amsterdam.nl/parkeren-verkeer/fiets/cycling-policy/critical-success/quality-requirements/

28 City of Toronto, "Toronto Green Standard," 2015, http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=f85552cc66061410VgnVCM10000071d60f89RCRD

29 City of Vancouver, "Energy Retrofit Strategy for Existing Buildings," 2014, http://vancouver.ca/files/cov/Energy-Retrofit-Strategy-for-Buildings-Presentation-for-Council-June-2014.pdf

30 C40 Cities, "Case Study: Energy Saving Partnership Berlin (ESP)," 2011, http://www.c40.org/case_studies/energy-saving-partnership-berlin-esp-%E2%80%94-an-effective-and-innovative-model-to-reduce-co2-and-energy-costs-without-expenses-for-building-owners

partner with businesses to develop green business practices. This partially municipally funded program has subsidized retrofits and supported collective infrastructure upgrades to increase energy efficiency, reduce water use, and increase material recycling alongside partners in the Eco-Business Zone.[31] To help create clean tech sector jobs, San Jose, California's Prospect Silicon Valley provides municipal space and consultation support for startups.[32]

12. Climate change adaptation

All communities in Canada have a responsibility to reduce greenhouse gas emissions. But we're already seeing the effects of climate change: higher temperatures, changes in precipitation patterns and extreme weather events. Halifax conducted a study that predicted increased extreme weather and sea level rise and has already restricted development within a 3.8-metre elevation of sea level.[33] Prince George, B.C. has planned for adaptation by including requirements to consider climate change for tree planting and storm water management directly in its Official Community Plan.[34] New York City has quickly implemented its adaptation strategy, updating bylaws to require flood preparedness and creating a small business resiliency support program.[35]

13. Ecological footprint and land use planning

Ecological footprint assesses the overall sustainability of a community by estimating the land and water area needed to provide the city with the resources it uses. It's strongly linked to land use planning, as well as specific initiatives to reduce resource use and waste. Urban containment boundaries, such as in Saanich, B.C., help control sprawl and promote infill rather than expansion.[36] Tools such as density bonuses and smart growth policies in Ucluelet and brownfield development incentives in several communities in Southern Ontario help reduce a municipality's area requirements.[37] Portland, Oregon's goal is to have 80 per cent of residents within a 20-minute walk of food, housing, businesses and services by 2035.[38] The development of more complete communities in Canada could reduce municipalities' ecological footprints by increasing sustainable transportation use, protecting green space and biodiversity, and enhancing the efficiency of resource and energy use.

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31 GTAA Partners in Project Green, "Partners in Project Green," 2016, http://ar2015.partnersinprojectgreen.com/

32 City of San Jose, Green Vision 2014 Annual Report, 2015, https://www.sanjoseca.gov/DocumentCenter/View/42557

33 Halifax Regional Municipality, Regional Municipal Planning Strategy, 2014, http://www.halifax.ca/regionalplanning/documents/RegionalMunicipalPlanningStrategy.pdf

34 City of Prince George, "Climate Change Adaptation," 2017, https://princegeorge.ca/City%20Services/Documents/Environment/Climate%20Action/Adaptation_PrinceGeorgeAdaptationStrategyNov6.pdf

35 C40 Cities, "New York City: A Stronger, More Resilient New York," 2013, http://www.c40.org/profiles/2013-nyc

36 SmartGrowthBC, Urban and Rural Containment Boundaries, 2008, http://wcel.org/smart-bylaws-guide-%E2%80%93-part-1-urban-containment-boundaries-%E2%80%93-saanich

37 Province of BC, "Ucluelet's Approach to Sustainable Development," BC Climate Action Toolkit, 2015, http://www.toolkit.bc.ca/success-story/ucluelet-s-approach-sustainable-development-planning; Michael Ryval, "From Brown to Gold: The Trials, Tribulations-and Rewards-of Developing Brownfields," Ontario Home Builder, 2012, http://www.fcm.ca/Documents/tools/GMF/From_Brown_to_Gold_The_Trials_Tribulations_and_Rewards_of_Developing_Brownfields_EN.pdf

38 C40 Cities, "Portland: Healthy Connected City Network," 2014, http://www.c40.org/profiles/2014-portland

Advisory services

The **Natural Step Canada (TNSC)** is a national charity whose mission is to tackle climate change and accelerate the transition to a truly sustainable society that thrives within nature's limits. Its academy, advisory services and Sustainability Transition Labs use best-in-class science, systems thinking and facilitation to help individuals and organizations collaborate, solve complex problems, foster innovation, optimize performance and drive systems change.

TNS Canada offers a **Service Cycle for Sustainable Communities** to help municipal governments plan for long-term sustainability and resiliency, embed sustainability into their culture and operations, and engage community stakeholders in their sustainability plans.

To learn more go to: **http://naturalstep.ca/**

The **Whistler Centre for Sustainability (WCS)** is a non-profit organization with the mission to "inspire and facilitate effective planning and meaningful conversations for a better world." WCS provides innovative community engagement, planning and implementation services to local governments across Canada, drawing on its expertise and experience in more than 40 communities. The Centre's work is rooted in future-focused social, environmental and economic values, so that final deliverables embed sustainability throughout.

To learn more go to: **http://whistlercentre.ca**