

DATE OF MEETING January 27, 2021

AUTHORED BY ROB LAWRANCE, ENVIRONMENTAL PLANNER

SUBJECT 2021 ENVIRONMENT COMMITTEE WORKPLAN

## **OVERVIEW**

### **Purpose of Report**

To provide the Environment Committee with a workplan for consideration and recommendation to Council.

### **Recommendation**

That the Environment Committee recommend that Council endorse the 2021 Environment Committee Workplan.

## **BACKGROUND**

The City of Nanaimo Environment Committee mandate includes such items as; offering innovative ideas, providing advice and information, options and recommendations to Council on climate change, green technology, energy efficiency, urban forestry, and other topics associated with environmental sustainability for the City of Nanaimo.

The 2021 Environment Committee Workplan intends to set a timeline for committee involvement in projects scheduled for 2021 that align with and further the committee's mandate.

## **DISCUSSION**

The 2021 Environment Committee Workplan outlined below presents the committee's consideration and recommendations to Council for endorsement.

<b>2021 ENVIRONMENT COMMITTEE WORKPLAN</b>			
<b>Topic</b>	<b>Project Lead</b>	<b>Overview</b>	<b>Introduction And Review Time</b>
REIMAGINE Nanaimo: <ul style="list-style-type: none"> <li>• Doughnut Economics Environmental Indicators</li> <li>• Phase 2 Environmental Policy Options</li> <li>• Climate Action Plan Review and Update</li> </ul>	Community Planning / Development Approvals	The Environment Committee will be providing Staff with input and comment on: <ul style="list-style-type: none"> <li>• Identifying Environmental Indicators to be used for developing the 'City Portrait' that will be used as a framework for REIMAGINE Nanaimo;</li> </ul>	January - October

2021 ENVIRONMENT COMMITTEE WORKPLAN			
		<ul style="list-style-type: none"> <li>Review and provide comment on environmental policy revisions that will be developed in Phase 2 of REIMAGINE Nanaimo;</li> <li>Staff to provide an update on the implementation of the 2012 Community Sustainability Action Plan; and</li> <li>Review and provide comment on the Climate Action Plan update.</li> </ul>	
Solid Waste Education	Engineering and Public Works	<ul style="list-style-type: none"> <li>Provide comment and input on the City's solid waste reduction and diversion education program.</li> </ul>	March
Step Code Acceleration Options Review	Development Approvals	<ul style="list-style-type: none"> <li>Work with the local building community and local energy experts and report back with options to accelerate implementation of the Energy Step Code.</li> </ul>	May
Home Energy Retrofit Program	Development Approvals	<ul style="list-style-type: none"> <li>Coordinate with the Regional District of Nanaimo to establish a regional Home Energy Building Retrofit Program.</li> </ul>	May - August
Comprehensive Soils Bylaw	Engineering and Environment	<ul style="list-style-type: none"> <li>Receive updates and provide input as the City completes a review and update of its Erosion and Sediment Control Bylaws.</li> </ul>	May - December

The above workplan table provides a list of projects that fall within the mandate of the Environment Committee. City Staff seek Council approval for the committee to proceed to work on such projects and Council may add additional items to this workplan.

## **OPTIONS**

1. That Council endorse the 2021 Environment Committee Workplan.
  - Advantages: The Environment Committee can proceed with implementation of the workplan.
  - Disadvantages: Some projects and programs may not be listed that are considered relevant to the committee mandate.
  - Financial Implications: There are items on the workplan, such as the Regional Home Retrofit Program that will have financial implications, if adopted. Other items are either ongoing projects that have already received council approval, Staff policy or regulatory updates that will be presented to Council for adoption at a future date.
  
2. That Council does not endorse the 2021 Environment Committee Workplan.
  - Advantages: None identified.
  - Disadvantages: Progress is on listed initiatives is delayed.
  - Financial Implications: None identified.

## **SUMMARY POINTS**

- The Workplan intentions are to show Council how the Environment Committee will meet its mandate and offer input and advice on the environment.
- City Staff seek Council approval for the committee to proceed to work on such projects listed in the 2021 Environment Committee Workplan and over the course of the year, Council may add additional items to this workplan.

### **Submitted by:**

Rob Lawrance  
Environmental Planner

### **Concurrence by:**

Jeremy Holm  
Director, Development Approvals

Dale Lindsay  
General manager, Development Services

DATE OF MEETING January 27, 2021

AUTHORED BY ROB LAWRANCE, ENVIRONMENTAL PLANNER

**SUBJECT CITY PORTRAIT ENVIRONMENTAL INDICATORS**

## **OVERVIEW**

### **Purpose of Report**

To provide the Environment Committee with a list of environmental indicators for recommendation to be included in the REIMAGINE Nanaimo process.

### **Recommendation**

That the Environment Committee review and provide input on the proposed list of environmental indicators for use in developing the City Portrait for Nanaimo, as part of the REIMAGINE Nanaimo process.

## **BACKGROUND**

During the Special Council meeting held on 2020-DEC-14, the following motion was passed:

*It was moved and seconded that the City of Nanaimo adopt the Doughnut Economic Model as a cohesive vision for all City initiatives and planning processes; and that a city portrait for Nanaimo be created to scale down the doughnut economics framework, that the city portrait be blended with the REIMAGINE NANAIMO process and that the appropriate measurable targets and indicators relevant to the community be identified and included in the framework to track progress.*

During the Regular Council Meeting of 2020-NOV-16, Council unanimously passed the following motion:

*That Council amend the Environment Committee Work Plan and re-focus it to address the environmental components of this social and environmental sustainability framework.*

This report provides background information on the Doughnut Economics Framework and a list of environmental indicators for the committee's review and input.

### **Defining Doughnut Economics**

First published in 2012, Kate Raworth, a Senior Associate at Oxford University's Environmental Change Institute, developed the Doughnut Economic model, as a way to meet "Humanity's 21<sup>st</sup> century challenges while staying within the means of the planet".

On a global scale, the model aligns a set of social indicators, developed by the United Nations, which set minimum global living standards, including basic needs for food, housing, healthcare, and equity, for each person. These standards are to be met and exceeded, while not adding

pressure on the Earth’s life-supporting systems, which include; a stable climate, fertile soil, and a protective ozone layer (Rockstrom et al<sup>1</sup>).

The ‘Doughnut’ model is labeled as a 21<sup>st</sup> century approach to balance development between meeting key social needs and avoid pushing beyond our ecological limits. The social needs identified focus not only on economic growth, but also on thriving, resilience, and well-being within communities. (ATTACHMENT A – Doughnut Framework Model).

The ‘Doughnut’ framework model has been adjusted to apply on a local government scale, in cities, such as Philadelphia, Pennsylvania and Portland, Oregon, through the City Portrait framework. That said Staff are still trying to confirm which City has officially adopted this framework into their community plans.

The City Portrait community framework methodology looks at local-social and ecological indicators and contrasts it to the global-social and ecological impacts that result from the economic choices of the community.

A City Portrait consists of four lenses that each ask the following questions:

	<b>SOCIAL LENS</b>	<b>ECOLOGICAL LENS</b>
<b>LOCAL</b>	What would it mean for the people of Nanaimo to thrive?	What would it mean for Nanaimo to thrive within its natural habitat?
<b>GLOBAL</b>	What would it mean for Nanaimo to respect the wellbeing of people worldwide?	What would it mean for Nanaimo to respect the health of the whole planet?

The cities that participated in developing the City Portrait framework defined ‘thriving’ for their communities through an analysis of citywide resident opinions and by working with City Staff to identify official targets and indicators that best responded to each of the lenses. In Nanaimo, the City has just finished its Phase 1 public engagement for REIMAGINE Nanaimo. This included a broad engagement with the public online and mail-in surveys, and community stakeholder discussion around a range of topics dealing with the environment and sustainability. |

## **DISCUSSION**

### **Choosing Indicators and Measuring Progress**

When deciding on appropriate indicators, a number of considerations need to be taken into account. An environmental indicator can provide a direct measurement but it can also be a proxy measure that only provides an indirect measure. For example, when looking at progress around climate adaptation, proxy measures are often the only measure that can be taken. The technical expertise and resources needed to track an indicator can also limit the choice of indicator or target chosen.

1- <sup>1</sup>Rockstrom, Johan, et Al. (Sept. 2009) A Safe Operating Space for Humanity. Nature, Vol. 46/24

Given these considerations, effective indicators are generally:

- Linked to goals and objectives that tie back to existing key policy documents (i.e. Regional Growth Strategies, Official Community Plans, etc.);
- Allow for adaptive and flexible planning;
- Can measure progress in implementing an action or the change the community wants made; and
- Is easy to measure and is relatively accurate.

### Local Indicators and Targets

There is a range of indicators the City could use as environmental indicators for the REIMAGINE Nanaimo City Portrait framework. The following table lists indicators and targets collected by the City or other levels of government as a starting point for discussion. Some indicator lists may not be currently applied but could be collected using existing City resources.

<b>Environmental Goal</b>	<b>Objective</b>	<b>Local Ecological Indicator</b>	<b>Global Ecological Indicator</b>
<b>AIR</b> <ul style="list-style-type: none"> <li>• Climate mitigation</li> <li>• Climate adaptation</li> <li>• Clean Air</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve City GHG reduction targets</li> <li>• Prepare for a changing climate</li> <li>• Maintain 'low risk' on the Provincial Air Quality Health Index</li> </ul>	<ul style="list-style-type: none"> <li>• Annual number of trees planted in the City</li> <li>• Meters of sidewalk / cycling routes built in the City</li> <li>• Change in transit mode share</li> <li>• Levels of particulate matter / ground level ozone / nitrogen dioxide as measured from provincial stations</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce total GHG emissions (tonnes of CO2e) to meet Intergovernmental Panel on Climate Change (IPCC) targets</li> <li>• Total fossil fuel consumption (GJ)</li> </ul>
<b>WATER</b> <ul style="list-style-type: none"> <li>• Water for people and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain water storage capacity for fish (Nanaimo River)</li> </ul>	<ul style="list-style-type: none"> <li>• Per capita water consumption</li> </ul>	<ul style="list-style-type: none"> <li>• Average water use of 426L per capita per day by 2035</li> </ul>

Environmental Goal	Objective	Local Ecological Indicator	Global Ecological Indicator
<ul style="list-style-type: none"> <li>Maintaining healthy streams</li> </ul>	<ul style="list-style-type: none"> <li>Maintain urban stream water quality for fish</li> </ul>	<ul style="list-style-type: none"> <li>Growth in volume of water stored (% from baseline)</li> <li>Provincial stream water quality standards (Temp, DO, Specific Conductivity, Turbidity) at levels safe for fish</li> </ul>	<ul style="list-style-type: none"> <li>Peak water use of 769L per capita per day by 2035</li> </ul>
<p><b>LAND</b></p> <ul style="list-style-type: none"> <li>Control overall development in the Nanaimo Regional District</li> <li>Zero Waste</li> <li>Public access to natural spaces</li> <li>Healthy Urban Forests</li> <li>Protect and expand biologically diverse natural habitats</li> <li>Manage for Invasive Species</li> </ul>	<ul style="list-style-type: none"> <li>Contain/encourage growth within the Urban Containment Boundaries (UCB) of the City</li> <li>Majority of residents within walking distance to a park</li> <li>Enhance public awareness around Nature and Stewardship</li> <li>Maintain a healthy urban tree canopy</li> <li>Update Sensitive Ecosystem Inventory and compare to 2002 results</li> </ul>	<ul style="list-style-type: none"> <li>Residential density inside the UCB within urban nodes and corridors</li> <li>Area of Parks</li> <li>Number of residents within 400m of Parkland</li> <li>Mature tree canopy cover by 2050 (biologically diverse and equitably distributed in the City)</li> <li>Number of trees planted in City Parks / Boulevards</li> <li>Number of red and blue listed species in City Parks</li> </ul>	<ul style="list-style-type: none"> <li>The City will work with the Regional District of Nanaimo to keep 90% of our region's waste out of the landfill by 2029</li> </ul>

Environmental Goal	Objective	Local Ecological Indicator	Global Ecological Indicator
		<ul style="list-style-type: none"> <li>Public participation level in environmental programs</li> </ul>	

The REIMAGINE Nanaimo process can adopt the Doughnut Framework model and create a City Portrait framework for Nanaimo that can be connected back to the multiple plans that are currently being updated.

This initial set of indicators and targets are a starting point for discussion purposes and will change and evolve as more information comes forward from the public input process and environmental stakeholders. Staff will continue to collect and refine the environmental, social and economic indicators as further public and committee feedback comes forward.

**SUMMARY POINTS**

- This report provides background information on the Doughnut Economics Framework and a list of environmental indicators for the committee’s review and input.
- The ‘Doughnut’ model is labeled as a 21<sup>st</sup> century approach to balance development between meeting key social needs and avoid pushing beyond our ecological limits. The social needs identified focus not only on economic growth, but also on thriving, resilience, and well-being within communities.
- The ‘Doughnut’ framework model has been adjusted to apply on a local government scale, in cities, such as Philadelphia, Pennsylvania and Portland, Oregon, through the City Portrait framework. That said Staff are still trying to confirm if these Cities have officially adopted this framework into their community plans.

**ATTACHMENTS:**

**ATTACHMENT A: Doughnut Framework Model**

**Submitted by:**

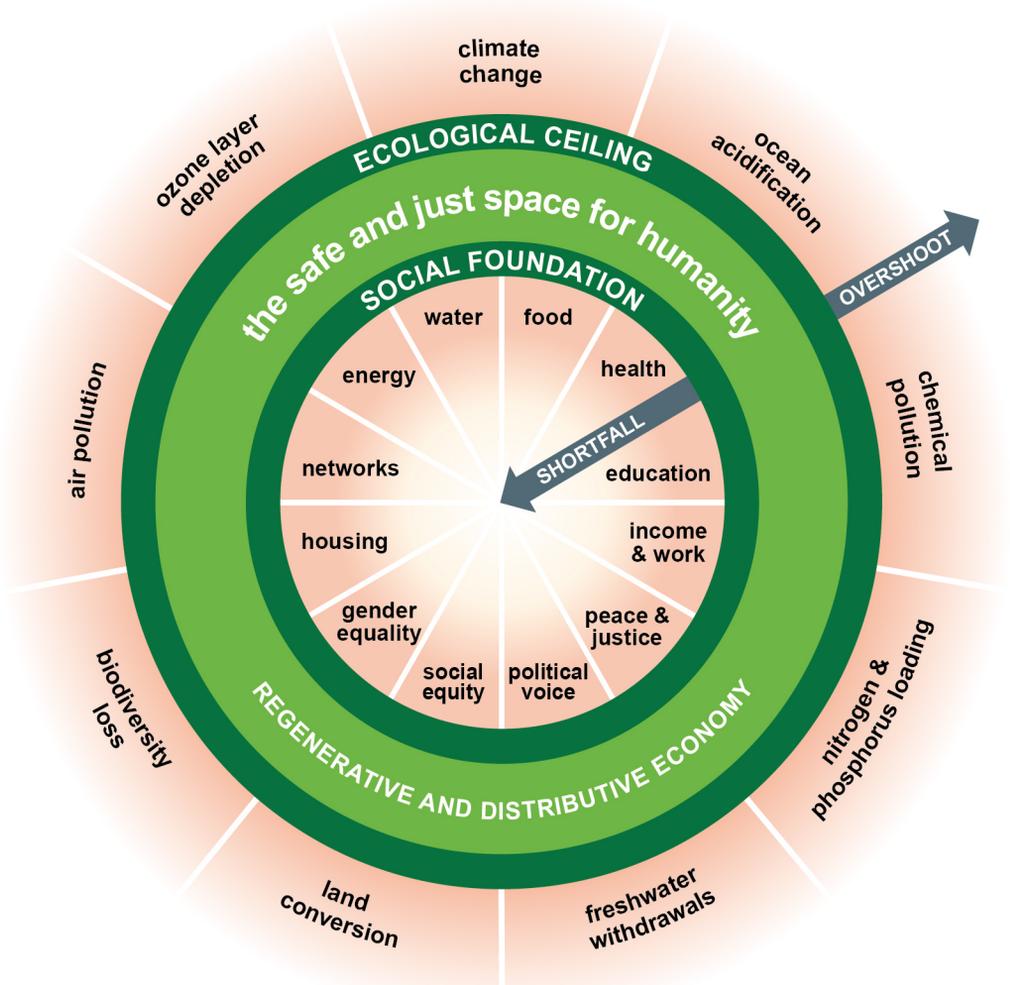
Rob Lawrance  
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Director, Development Approvals

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General Manager, Development Services

ATTACHMENT A





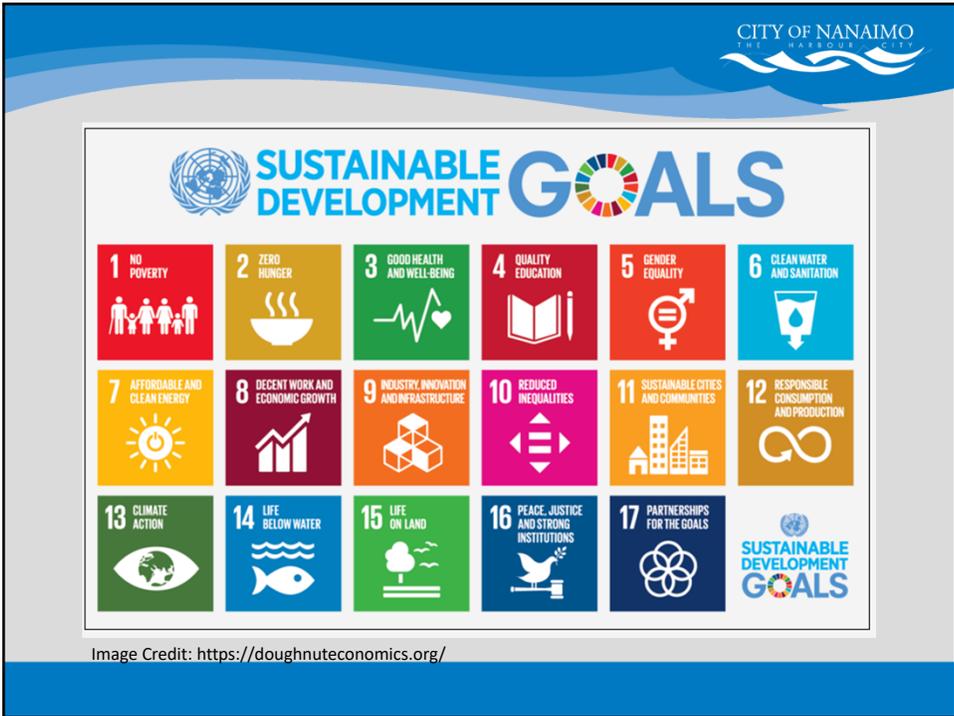
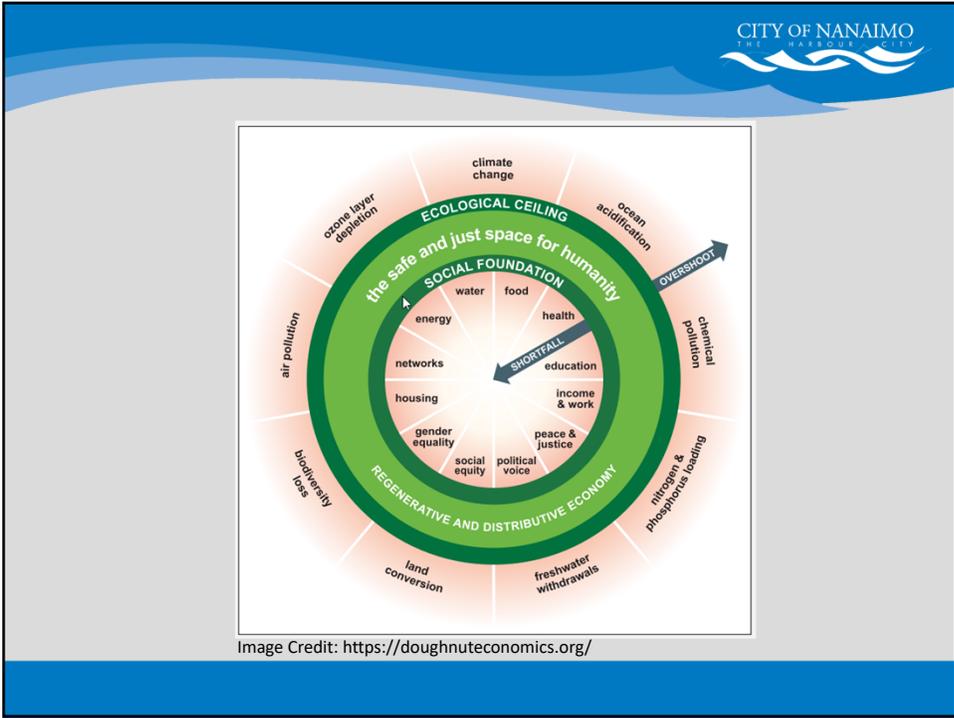
**REIMAGINE NANAIMO in  
THE DOUGHNUT  
ECONOMICS FRAMEWORK**

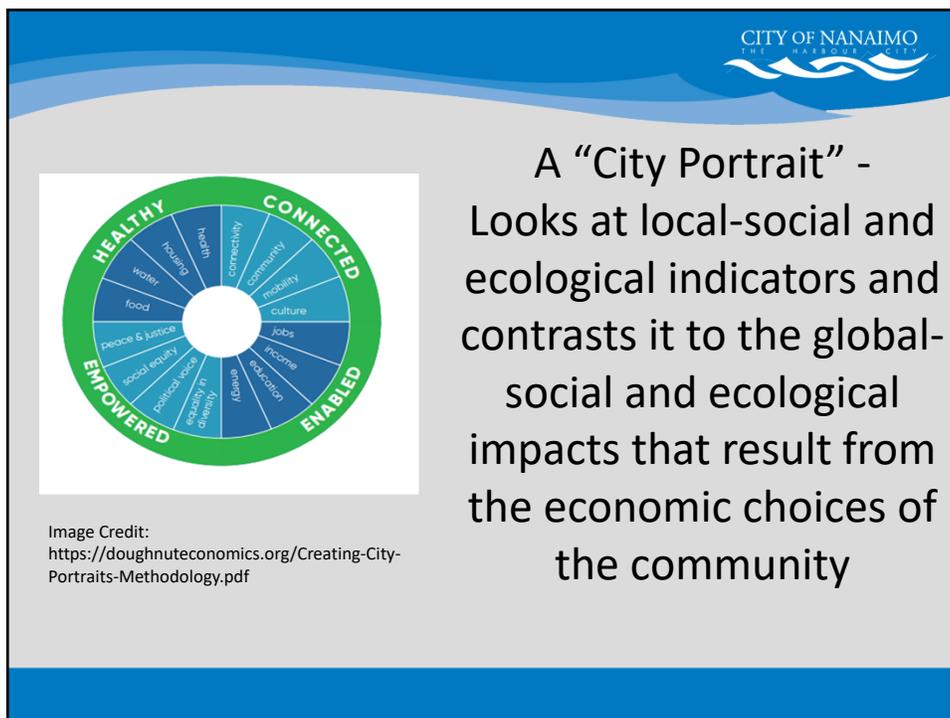
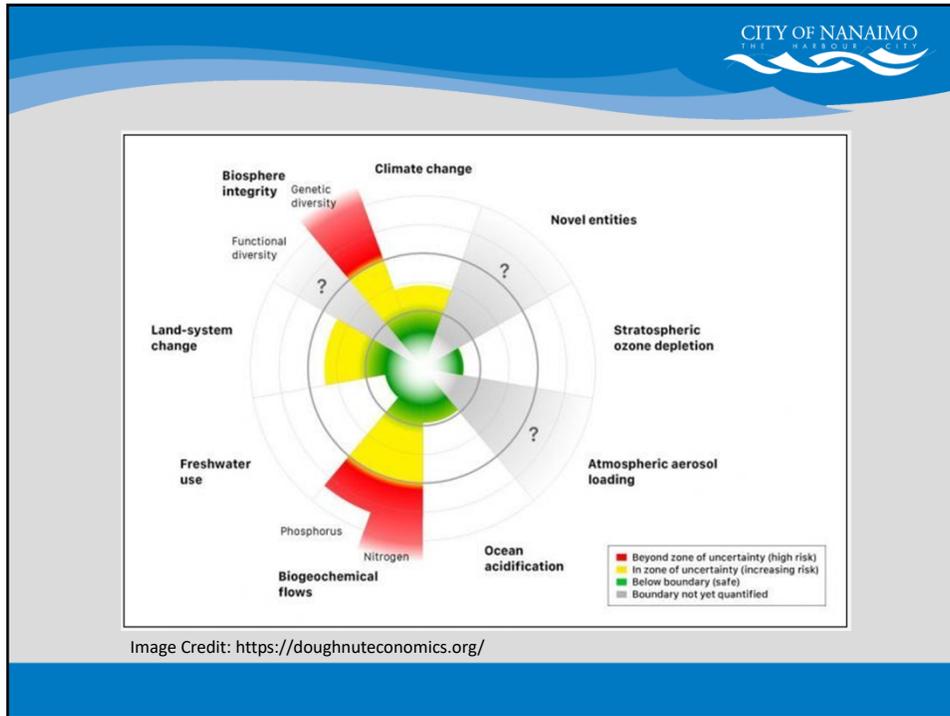
Presentation to the Environment Committee  
2021-JAN-27

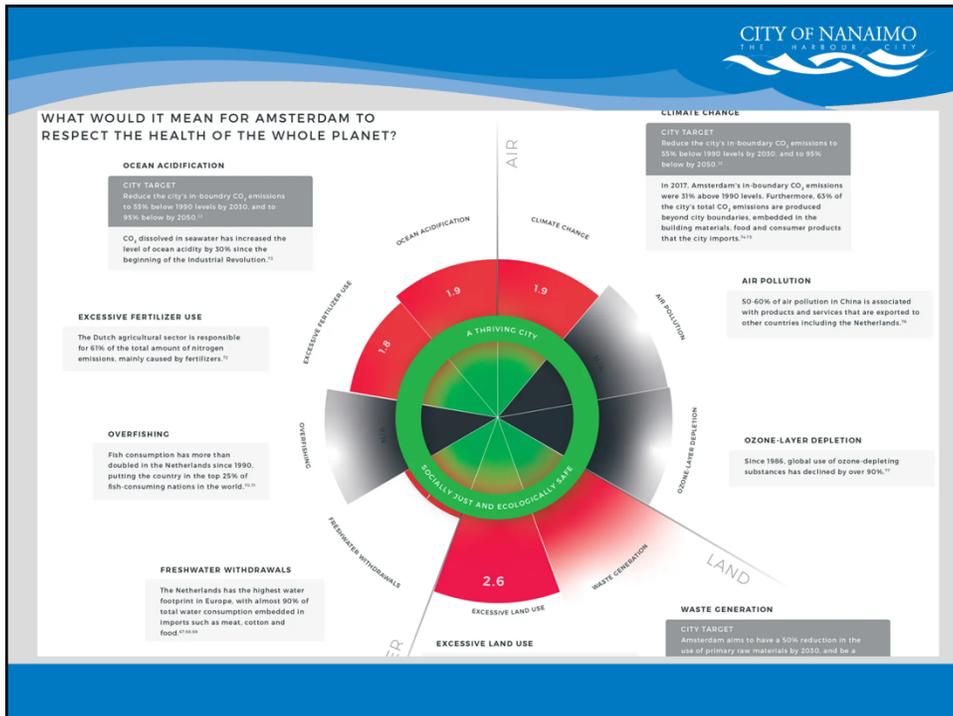


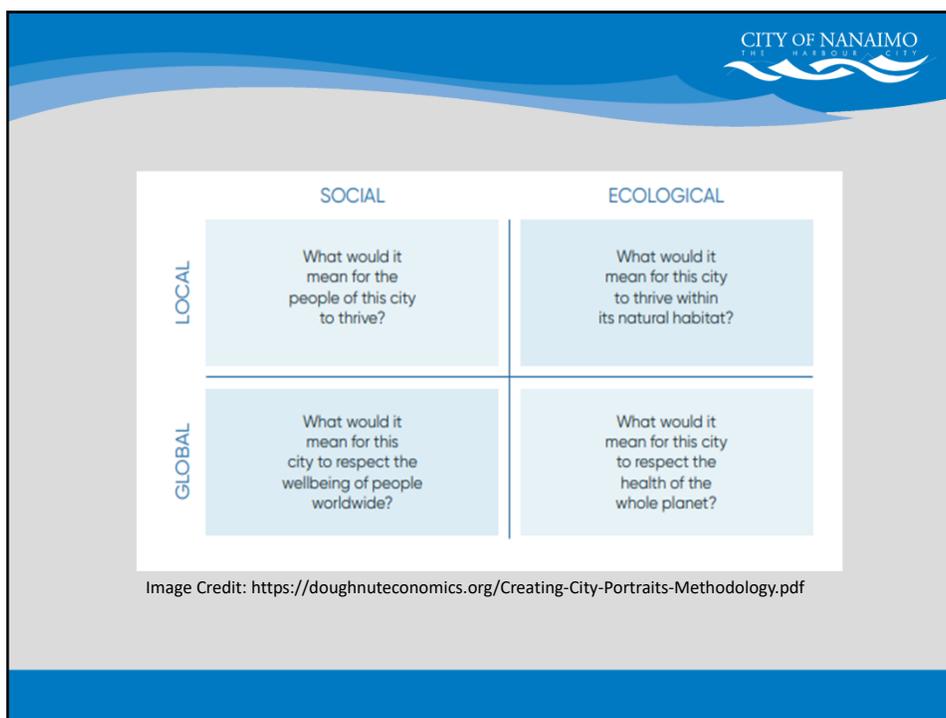
**Council Motion from 2020-DEC-14:**

“That the City of Nanaimo adopt the Doughnut Economic Model as a cohesive vision for all City initiatives and planning processes; and that a city portrait for Nanaimo be created to scale down the doughnut economics framework, that the city portrait be blended with the REIMAGINE NANAIMO process and that appropriate measurable targets and indicators relevant to the community be identified and included in the framework to track progress.”





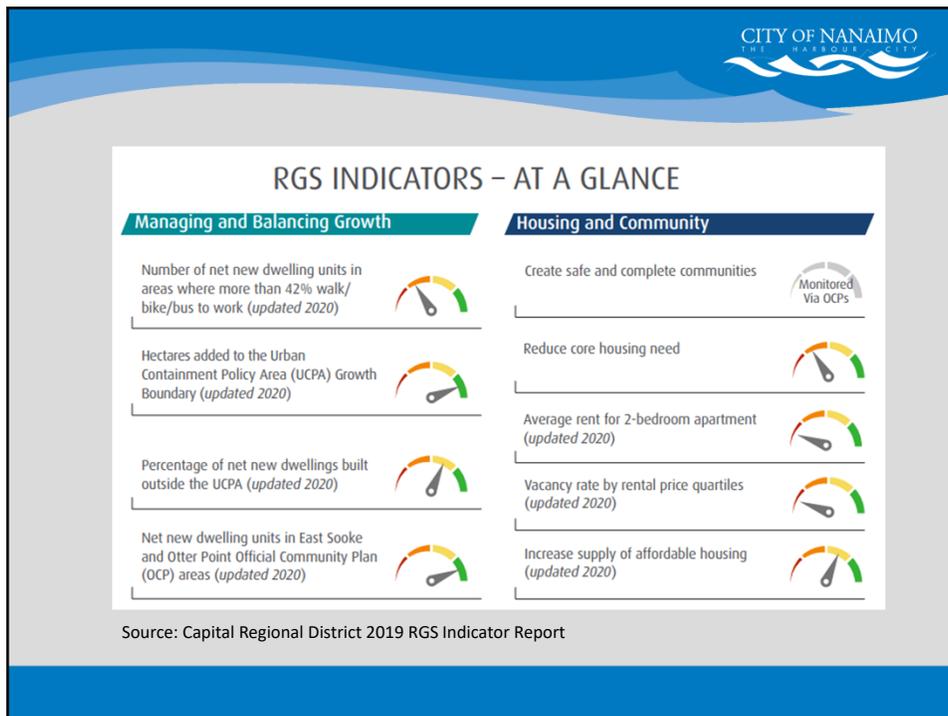
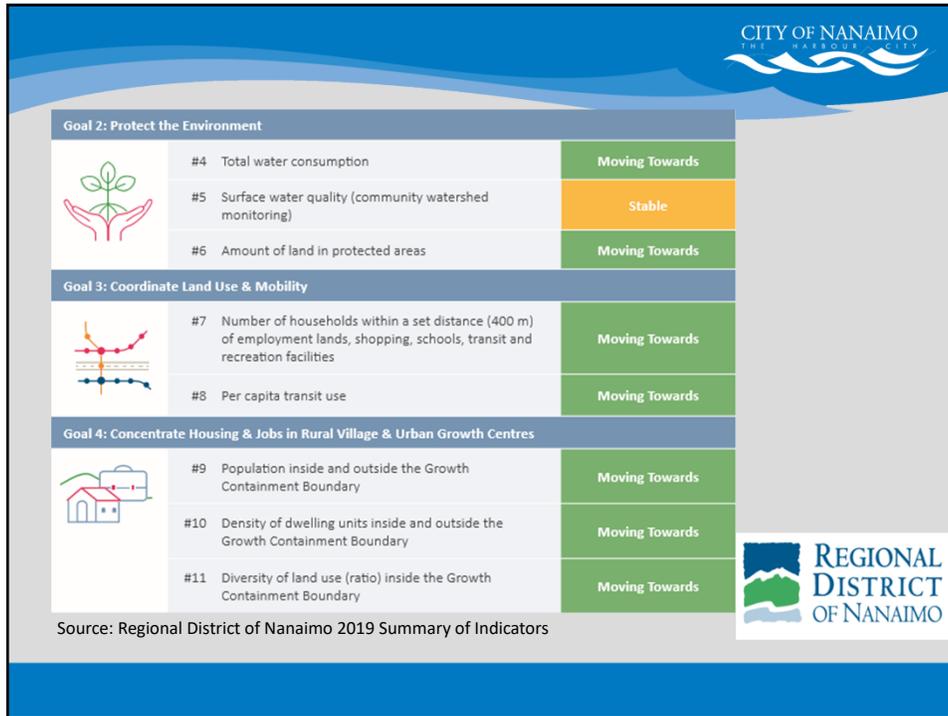


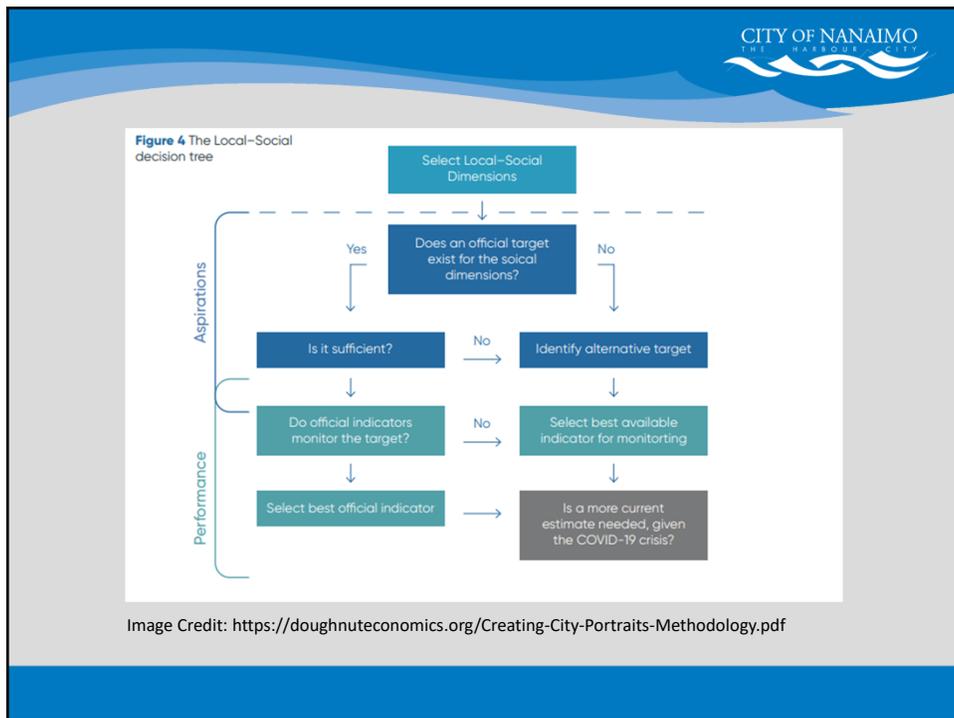
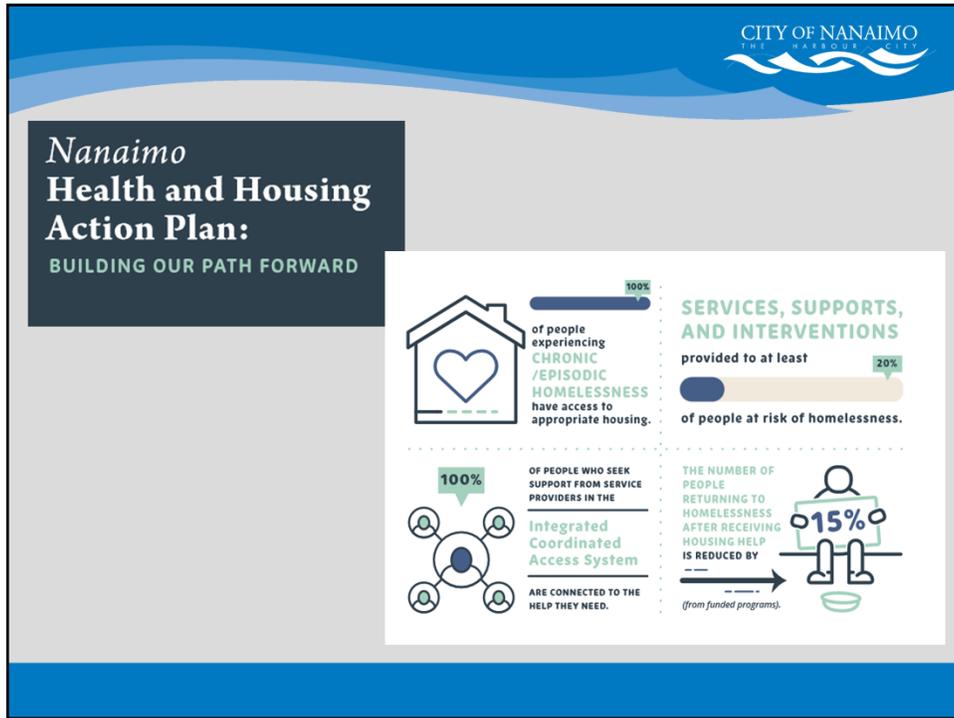


CITY OF NANAIMO  
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## Related Current Plans & Indicators

- Regional Growth Strategy Annual Update
- Affordable Housing Strategy
- Health & Housing Action Plan
- Economic Development Strategy
- GIS Mapping of Land Use/Parks
- Forest Canopy Cover
- Water Quality Indicators
- Community GHG Emission Levels





## NEXT STEPS:



- Analysis of Phase 1 Engagement for community priorities
- Review of relevant existing plans and documents for key indicators
- Consultation with key staff on potential innovative approaches
- Using the tools developed by DEAL to develop unique Nanaimo portrait

