1. Context
   • What residents care about
   • Current Metro 2040 tools


Question: Will these policies reflect the value of natural areas and green spaces in urban areas?
What residents care about

• #1 Value: Parks and forests

• Top concerns:
  1. Housing affordability
  2. Road congestion
  3. Loss of greenspaces
  4. Transportation system quality
  5. Climate change impacts
Current Metro 2040 Policies
Conservation and Recreation Lands
Other Regional Land Use Designations
GAP 1: Sensitive ecosystems

87% within Con/Rec

-1,600 ha from 2009-2014
Sensitive Ecosystem Inventory
GAP 2: Ecosystem Services

Ecosystem Services are the benefits people obtain from ecosystems.
## Ecosystem Services Valuation

<table>
<thead>
<tr>
<th>Natural capital asset class</th>
<th>Low estimate annual service</th>
<th>High estimate annual service</th>
<th>Low estimate asset</th>
<th>High estimate asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper forest</td>
<td>$13,167</td>
<td>$37,197</td>
<td>$438,885</td>
<td>$1,239,911</td>
</tr>
<tr>
<td>Urban forest</td>
<td>$6,442</td>
<td>$18,200</td>
<td>$214,737</td>
<td>$606,662</td>
</tr>
<tr>
<td>Total waterways (including riparian buffer)</td>
<td>$2,644</td>
<td>$17,218</td>
<td>$88,128</td>
<td>$573,935</td>
</tr>
<tr>
<td>Total foreshore</td>
<td>$4,837</td>
<td>$16,487</td>
<td>$161,234</td>
<td>$549,589</td>
</tr>
<tr>
<td>Total grasslands</td>
<td>$487</td>
<td>$487</td>
<td>$16,237</td>
<td>$16,237</td>
</tr>
<tr>
<td>Total carbon storage – forest, soils</td>
<td>n/a</td>
<td>n/a</td>
<td>$228,842</td>
<td>$228,842</td>
</tr>
<tr>
<td>Totals</td>
<td>$27,577</td>
<td>$89,589</td>
<td>$1,148,063</td>
<td>$3,215,176</td>
</tr>
</tbody>
</table>
GAP 3: Climate change

- Declines in snowpack
- Hotter, drier summers
- Warmer, wetter winters
- More intense rainfall events
- Longer growing season
- Sea level rise
GAP 4: Green spaces in urban areas

- Low canopy cover
- More impervious surfaces
Urban Forestry
Regional Green Infrastructure Network

GREEN INFRASTRUCTURE

Natural Assets
- Wetlands
- Forests
- Parks
- Lakes/Rivers/Creeks
- Fields
- Soil

Enhanced Assets
- Rain Gardens
- Bioswales
- Urban Trees
- Urban Parks
- Biomimicry
- Stormwater Pond

Engineered Assets
- Permeable Pavement
- Green Roofs
- Rain Barrels
- Green Walls
- Cisterns
Heat stroke
Heat exhaustion
Fainting
Cramps
Rash
Edema

Shade
Cooling
Recreation
Local flooding

Stormwater management
Human health
Biodiversity
Food security
Potential New *Metro 2050* Policies

- Sensitive ecosystems
- Ecosystem service valuation
- Urban forestry
- Regional green infrastructure network
- Regional vision
Thank you!