



## PLAN – INDICATORS

| INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Low | Fair | Good | Optimal |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|---------|
| <b>1. Appreciation of trees as a community resource</b> <p>a. <b>Key objective:</b> Courtenay's urban forest is recognized as vital to the community's environmental, social, and economic well-being.</p> <p>b. <b>We have achieved this when:</b> Stakeholders understand, appreciate, and advocate for the urban forest as a community resource. There is widespread public and political support and advocacy for trees, resulting in strong policies and plans that advance the viability and sustainability of the urban forest.</p> <p>c. <b>How we rate now:</b> Good. Trees are widely acknowledged as providing environmental, social and economic services – resulting in some action or advocacy in support of the urban forest.</p>                                          |     |      |      |         |
| <b>2. Clear and defensible urban tree canopy assessment and goals</b> <p>a. <b>Key objective:</b> Urban forest policy and practice is driven by comprehensive goals municipality-wide and at the neighbourhood or land use scale informed by accurate, high-resolution assessments of existing and potential canopy cover.</p> <p>b. <b>We have achieved this when:</b> The City has a complete, detailed, and spatially explicit high-resolution Urban Tree Canopy (UTC) assessment accompanied by a comprehensive set of goals by neighbourhood and land use.</p> <p>c. <b>How we rate now:</b> Good. The City has a complete City-wide, detailed, and spatially explicit high-resolution UTC baseline assessment, but not yet for the neighbourhood or land use scale.</p>             |     |      |      |         |
| <b>3. Trees on private property</b> <p>a. <b>Key objective:</b> Understand the extent, location and general condition of privately owned trees.</p> <p>b. <b>We have achieved this when:</b> The City has a sample-based assessment of trees on private property, as well as detailed Urban Tree Canopy analysis of the entire urban forest integrated into a municipality-wide GIS system.</p> <p>c. <b>How we rate now:</b> Good. LIDAR-based assessment of individual trees on private property.</p>                                                                                                                                                                                                                                                                                   |     |      |      |         |
| <b>4. Green infrastructure asset management integration</b> <p>a. <b>Key objective:</b> Integrate green infrastructure asset value into the municipal asset management system to support valuing and accounting for natural assets in the City's financial planning to build a climate resilient infrastructure.</p> <p>b. <b>We have achieved this when:</b> The City recognizes and accounts for the value of natural forms and functions within an asset management system and invests in green infrastructure protection and enhancement.</p> <p>c. <b>How we rate now:</b> Fair. The City recognizes the value of natural forms and functions but does not yet have adequate information to value green infrastructure as a municipal asset. This is a current work in progress.</p> |     |      |      |         |
| <b>5. Wildfire planning</b> <p>a. <b>Key objective:</b> Proactively manage forest fire risk.</p> <p>b. <b>We have achieved this when:</b> A wildfire protection plan is in place and implemented along with FireSmart development guidelines.</p> <p>c. <b>How we rate now:</b> Fair. Open burning regulations in place, online guidance on fire danger and high risk activities.</p>                                                                                                                                                                                                                                                                                                                                                                                                     |     |      |      |         |
| <b>6. Interdepartmental and interagency cooperation</b> <p>a. <b>Key objective:</b> Ensure all relevant municipal departments and agencies cooperate to advance goals related to urban forest issues and opportunities.</p> <p>b. <b>We have achieved this when:</b> Municipal urban forest policy is implemented by formal inter-departmental and inter-agency working teams on all municipal projects.</p> <p>c. <b>How we rate now:</b> Fair. Municipal departments, affected agencies and urban forest managers recognize potential conflicts and reach out to each other on an ad hoc basis.</p>                                                                                                                                                                                     |     |      |      |         |
| <b>7. Urban forest funding to implement the plan</b> <p>a. <b>Key objective:</b> Maintain adequate funding to implement the urban forest strategy.</p> <p>b. <b>We have achieved this when:</b> There is sustained public and private funding to comprehensively implement the strategy.</p> <p>c. <b>How we rate now:</b> Fair. Resourcing for public lands in the form of a dedicated staff, equipment and tree-care specific funds are provided for some proactive management, all of which has been enhanced significantly in the past few years. However, a dedicated budget is required for tree management.</p>                                                                                                                                                                    |     |      |      |         |



## MANAGE – INDICATORS

| INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Low | Fair | Good | Optimal |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|---------|
| <b>1. City tree inventory</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> A current and comprehensive inventory of intensively managed trees to guide management, including data such as age distribution, species mix, tree condition and risk assessment.</li> <li>b. <b>We have achieved this when:</b> The City tree inventory is complete, is GIS-based, supported by mapping and includes detailed tree condition as well as risk ratings.</li> <li>c. <b>How we rate now:</b> Good. Significant improvements over 2017 status. The street tree inventory is accurate, GIS compatible and includes detailed tree condition ratings.</li> </ul>                                                                                                                                                                                  |     |      |      |         |
| <b>2. Maintenance of City owned streets and park trees</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> Maintain all publicly owned intensively managed trees for optimal health and condition in order to extend longevity and maximize current and future benefits.</li> <li>b. <b>We have achieved this when:</b> All publicly owned, intensively managed trees are routinely maintained on an ongoing basis according to level of service expectations.</li> <li>c. <b>How we rate now:</b> Good. Significant improvements over 2017 practices. Publicly owned trees are inspected regularly and street trees are proactively maintained on a 5 year cycle.</li> </ul>                                                                                                                                                             |     |      |      |         |
| <b>3. City tree risk management</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> Fully implement a comprehensive tree risk management program according to ANSI A300 (Part9) "Tree Risk Assessment" standards, and supporting industry best management practices.</li> <li>b. <b>We have achieved this when:</b> Risk management is integrated with the routine pruning cycle, the level of assessment and response is reasonable to meet the duty of care (i.e., priorities and timelines for mitigation are established based on the characterization of risk).</li> <li>c. <b>How we rate now:</b> Good. Risk inspections are conducted periodically, resulting in scheduled follow-ups or more advanced assessments when needed but the program is newly initiated and not yet integrated with a routine pruning cycle.</li> </ul> |     |      |      |         |
| <b>4. Storm response</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> A response plan guides call-out procedures, resources available and the clean-up response.</li> <li>b. <b>We have achieved this when:</b> An action plan for responding to storm damage is in place and a response drill occurs periodically.</li> <li>c. <b>How we rate now:</b> Fair. A call-out procedure, roles and responsibilities, and criteria for prioritizing tree hazards and removing debris is in place, but there is need for further development in this area.</li> </ul>                                                                                                                                                                                                                                                                         |     |      |      |         |
| <b>5. Pest and disease management</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> An Integrated Pest Management (IMP) plan guides treatment responses to existing and potential pest threats to the urban forest.</li> <li>b. <b>We have achieved this when:</b> An integrated pest management plan is in place and is implemented.</li> <li>c. <b>How we rate now:</b> Good. No integrated pest management plan but IMP is practiced.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                     |     |      |      |         |
| <b>6. Urban wood and green waste revitalization</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> A closed system diverts all urban wood and green waste through reuse and recycling.</li> <li>b. <b>We have achieved this when:</b> All green waste is diverted to its best use.</li> <li>c. <b>How we rate now:</b> Fair. While most green waste does not go to the landfill, uses are limited to chips or mulch.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                          |     |      |      |         |
| <b>7. Usage of publicly owned natural areas</b> <ul style="list-style-type: none"> <li>a. <b>Key objective:</b> Management levels of service are informed by a detailed understanding of the ecological structure and function of all publicly owned natural areas as well as usage patterns.</li> <li>b. <b>We have achieved this when:</b> In addition to usage patterns, ecological structure and function of all publicly owned natural areas are assessed and documented.</li> <li>c. <b>How we rate now:</b> Fair. Publicly owned natural areas are identified in a plan (e.g. the Parks and Recreation Plan).</li> </ul>                                                                                                                                                                                                                           |     |      |      |         |



## PROTECT – INDICATORS

| INDICATORS                                                                                                                                                                                                 |  |  |  | Low | Fair | Good | Optimal |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----|------|------|---------|
| <b>1. Tree protection, policy development and enforcement</b>                                                                                                                                              |  |  |  |     |      |      |         |
| a. <b>Key objective:</b> Secure the benefits derived from trees on public and private land by enforcement of municipality-wide policies and practices including tree protection.                           |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Municipality-wide policies and practices are integrated to protect public and priority private trees, and the policies are consistently enforced.                    |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Good. Policies and practices are in place to protect public and private trees, and are generally enforced.                                                                      |  |  |  |     |      |      |         |
| <b>2. Publicly-owned natural areas management planning and implementation</b>                                                                                                                              |  |  |  |     |      |      |         |
| a. <b>Key objective:</b> Acquire and restore publicly-owned natural areas in pursuit of meeting municipal-wide biodiversity and connectivity goals.                                                        |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> A biodiversity strategy, or equivalent, is in effect to manage, restore existing natural areas and acquire future natural areas network throughout the municipality. |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Approaching Good. The Parks and Recreation Plan is adopted. Parks/area specific plans will be created.                                                                          |  |  |  |     |      |      |         |
| <b>3. Privately-owned environmentally sensitive areas protection policy and enforcement</b>                                                                                                                |  |  |  |     |      |      |         |
| a. <b>Key objective:</b> Secure the benefits derived from environmentally sensitive areas by enforcement of municipality-wide policies in pursuit of meeting biodiversity and connectivity goals.          |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Policy and enforcement are in place to protect environmentally sensitive areas on private land.                                                                      |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Good. Policy is in place to protect privately-owned identified environmentally sensitive areas, but enforcement powers are limited.                                             |  |  |  |     |      |      |         |



## GROW – INDICATORS

| INDICATORS                                                                                                                                                                                                                                                                  |  |  |  | Low | Fair | Good | Optimal |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----|------|------|---------|
| <b>1. Tree establishment and replacement planting</b>                                                                                                                                                                                                                       |  |  |  |     | ●    | ⦿    |         |
| a. <b>Key objective:</b> Develop a comprehensive and effective tree planting and establishment program that is driven by canopy cover goals and other considerations according to the UFS.                                                                                  |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Tree planting and replacement is guided by strategic priorities and makes progress towards targets set for canopy cover, diversity and tree health.                                                                                   |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Fair. Some tree planting and replacement occurs, but with limited overall municipality-wide planning and post planting care.                                                                                                                     |  |  |  |     |      |      |         |
| <b>2. Planting design guidance, site specifications and standards</b>                                                                                                                                                                                                       |  |  |  |     | ●    | ⦿    |         |
| a. <b>Key objective:</b> Ensure all publicly owned trees are suitable for the site and planted into conditions that meet requirements for survival and maximize current and future tree benefits.                                                                           |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> All trees planted are in sites with adequate soil quality and quantity, and with sufficient growing space and over all site conditions to achieve their genetic potential and thus provide maximum ecosystem services.                |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Fair. Appropriate tree species are considered in site selection.                                                                                                                                                                                 |  |  |  |     |      |      |         |
| <b>3. Equity in planting program delivery</b>                                                                                                                                                                                                                               |  |  |  | ●   |      |      |         |
| a. <b>Key objective:</b> Ensure that the benefits of urban forests are made available to all, especially to those in greatest need of tree benefits.                                                                                                                        |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Equitable planting and outreach at the neighbourhood level are guided by strong citizen engagement in identified low-canopy/high-need areas.                                                                                          |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Low. Tree planting and outreach are not determined equitably by canopy cover or need for benefits.                                                                                                                                               |  |  |  |     |      |      |         |
| <b>4. Native vegetation planting</b>                                                                                                                                                                                                                                        |  |  |  |     |      | ●    | ⦿       |
| a. <b>Key objective:</b> Encourage the appreciation of native vegetation by the community and ensure native species are widely planted to enhance native biodiversity and connectivity                                                                                      |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Policies require the use of native species and management of invasive species on a project-appropriate basis, in public and private land development projects, and native species are commonly voluntarily used.                      |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Good. Policies require the use of native species and management of invasive species on a project-appropriate basis.                                                                                                                              |  |  |  |     |      |      |         |
| <b>5. Green infrastructure for stormwater management</b>                                                                                                                                                                                                                    |  |  |  |     | ●    |      |         |
| a. <b>Key objective:</b> Incorporate passive and active rainwater capture into streetscapes and development projects to improve tree health, stormwater management and green and blue community-wide connectivity.                                                          |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Stormwater management guidelines incorporate passive and active water capture <sup>1</sup> considerations for vegetated landscapes and are equivalent to regional best practices standards.                                           |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Fair. Passive and active water capture considerations for vegetated landscapes are occasionally incorporated into City or private land development projects.                                                                                     |  |  |  |     |      |      |         |
| <b>6. Building energy efficiency</b>                                                                                                                                                                                                                                        |  |  |  | ●   |      |      |         |
| a. <b>Key objective:</b> Use trees and vegetation to improve building energy efficiency.                                                                                                                                                                                    |  |  |  |     |      |      |         |
| b. <b>We have achieved this when:</b> Energy Conservation Development Permit Area Guidelines (Local Government Act S.488 (1)(h)) are established based on equivalent regional climatic best practices standards and include the valuation/calculation of avoided emissions. |  |  |  |     |      |      |         |
| c. <b>How we rate now:</b> Low. Landscapes are planted, and new developments designed, without consideration for the location for building energy efficiency.                                                                                                               |  |  |  |     |      |      |         |

<sup>1</sup> **Passive rainwater capture systems** receive and hold water to gradually infiltrate it into surrounding soil. These systems do not have any mechanical components. For example, a vegetated swale by the side of the road or pervious paving that receive rainfall and allow it to permeate from the surface into the surrounding soil.

**Active rainwater capture systems** actively collect, filter, store and reuse water. These systems generally include mechanical components such as pumps or filters that require electricity and require ongoing maintenance. For example, a biofiltration raingarden that filters road runoff into a below ground cistern used to irrigate landscapes.



## PARTNER – INDICATORS

| INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Low | Fair | Good | Optimal |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|---------|
| <b>1. Citizen involvement and neighbourhood action</b> <p>a. <b>Key objective:</b> Citizens and groups participate and collaborate at the neighbourhood level with the municipality and/or its partnering NGOs in urban forest management activities to advance municipality-wide plans.</p> <p>b. <b>We have achieved this when:</b> Proactive outreach and coordination efforts by the City and NGO partners result in widespread citizen involvement and collaboration among active neighbourhood groups engaged in urban forest management.</p> <p>c. <b>How we rate now:</b> Fair. Some active neighbourhood groups engaged in advancing urban forest goals, but with little or no overall coordination with or direction by municipality or its partnering NGOs.</p>                                                                                                                  |     | 🟡    |      |         |
| <b>2. Involvement of large private and institutional landholders</b> <p>a. <b>Key objective:</b> Large private landholders to embrace and advance city-wide urban forest goals and objectives by implementing specific resource management plans.</p> <p>b. <b>We have achieved this when:</b> Large landholders develop comprehensive tree management plans (including funding strategies) that advance UFS goals, and there is active community engagement and access to the property's forest resource.</p> <p>c. <b>How we rate now:</b> Low. Large private landholders are generally uninformed about urban forest issues and opportunities.</p>                                                                                                                                                                                                                                       | 🔴   |      |      |         |
| <b>3. Green industry<sup>&lt;7&gt;</sup> cooperation</b> <p>a. <b>Key objective:</b> Green industry works together to advance city-wide urban forest goals and objectives, and adheres to high professional standards.</p> <p>b. <b>We have achieved this when:</b> There is a shared vision, goals and extensive committed partnerships in place as well as solid adherence to high professional standards.</p> <p>c. <b>How we rate now:</b> Fair. There is some cooperation among green industry as well as general awareness and acceptance of city-wide goals and objectives.</p>                                                                                                                                                                                                                                                                                                      |     | 🟡    |      |         |
| <b>4. Utilities cooperation</b> <p>a. <b>Key objective:</b> All utilities – above and below ground, City and 3<sup>rd</sup> party – employ best management practices and cooperate with the City to advance goals and objectives related to urban forest issues and opportunities.</p> <p>b. <b>We have achieved this when:</b> Utilities support engineered solutions to accommodate trees and utilities, and participate in formal interdepartmental/interagency working teams on all municipal projects.</p> <p>c. <b>How we rate now:</b> Low. Utilities take actions impacting the urban forest with varying degrees of municipal coordination or consideration of the urban forest. Notifications from some 3<sup>rd</sup> parties occur, although best management pruning practices are not always followed. Coordination internally on utilities maintenance could be improved.</p> | 🔴   | 🟡    |      |         |
| <b>5. Regional collaboration</b> <p>a. <b>Key objective:</b> There is cooperation and interaction on urban forest plans among neighbouring municipalities within the region, and/or within regional agencies.</p> <p>b. <b>We have achieved this when:</b> There is widespread regional cooperation, including with relevant authorities such as the health authority, resulting in development and implementation of a regional Urban Forest Strategy.</p> <p>c. <b>How we rate now:</b> Low. Municipalities have no interaction with each other or the broader region for planning or coordination on urban forestry.</p>                                                                                                                                                                                                                                                                 | 🔴   | 🟡    |      |         |
| <b>6. Urban forest research</b> <p>a. <b>Key objective:</b> Research is active and ongoing towards improving our understanding of the urban forest resource, the benefits it produces, and the impacts of planning, policy, design and management initiatives.</p> <p>b. <b>We have achieved this when:</b> The urban forest is a living laboratory - in collaboration with public, private, NGO and academic institutions - integrating research and innovation into urban forest management.</p> <p>c. <b>How we rate now:</b> Low. No urban forest research is currently occurring.</p>                                                                                                                                                                                                                                                                                                  | 🔴   |      |      |         |