

Lessons from the Biodiversity Health and Indicators Study

Recommendation:

THAT Council receive the report dated September 22, 2026, titled “Towards a Regenerative Systems Approach: Lessons from the Biodiversity Health and Indicators Study”, for information.

Report Purpose and Summary Statement:

To provide Council with an update of the ongoing Biodiversity Health and Indicator Study. It is exploring a systems approach to understanding and stewarding the diversity of life in Maple Ridge through an iterative, community-informed process. This approach treats biodiversity as a condition of the community's long-term health, safety, and prosperity, connecting indicators to the decisions and actions available, and builds on the direction the City has already adopted on climate action.

Previous Council Action:

On [July 28, 2026](#), Council approved the report titled, “Council Strategic Plan Q2, 2026 Key Result Update”, which included a key result to establish an inventory and baseline of biodiversity health.

Funding Source:

2025 Business Plan and Budget

Strategic Alignment:

Liveable Community; Climate Leadership & Environmental Stewardship; Engaged, Healthy Community; Diversified, Thriving Economy; Governance & Corporate Excellence

Climate Impact:

Supports climate action and resilience initiatives using a biodiversity lens.

Advisory Committee Consultation:

An engagement exercise was conducted with the Climate and Environment Advisory Committee on July 15, 2026.

Communications:

Initial public engagement was conducted through an online StoryMap which was posted between June 8 and August 4, 2026, which received 112 responses. A public open house was held on June 15, 2026. Additional engagement activities, discussions with community organizations, staff review, and ongoing relationship-building with Katzie First Nation and Kwantlen First Nation are underway.

**Applicable Legislation/
Bylaw/Policy:**

Official Community Plan; Resilient Future 2050 Climate Action Plan; Hazard Framework; Environmental Management Strategy and Framework; Urban Forest Management Plan; Green Infrastructure Management Strategy; Tripartite Framework Agreement on Nature Conservation; Metro 2050: Regional Growth Strategy – Metro Vancouver.

Lessons from the Biodiversity Health and Indicators Study

BACKGROUND:

Maple Ridge supports a diversity of lands, waters and life which shape the character, resilience, and prosperity of the community, contributing to the wellbeing of current and future residents. These living systems are under strain, set within a broader context of global biodiversity decline, as land use change, climate change, and growing pressures from development and resource use.

Throughout 2026, City staff worked with Diamond Head Consulting Ltd. to develop an approach towards better understanding biodiversity health in Maple Ridge, which involved producing a community informed indicators draft framework. This work-in-progress framework is informed by ecological understanding, systems thinking as well as community engagement inputs and perspectives from local land managers. The Framework also considers how shared values could shape the commitments, indicators, actions, and accountability mechanisms to enhance evidence-based decision-making.

This report updates Council on the work undertaken to date, a summary of the engagement responses, and next steps to implement Council's key result and establish an inventory and baseline for biodiversity health. It builds on the City's approach on climate action by providing a biodiversity lens on climate and land use impacts, which can inform how the City plans, regulates, builds, operates, and evaluates future development and policy actions.

DISCUSSION:

Public Engagement:

An online *Thriving Maple Ridge* StoryMap, was posted between June 8 and August 4, 2026. It was designed to solicit public input around people's experiences and connections to places in nature. 112 responses were received. A public open house was held on June 15, 2026, and an engagement exercise was also conducted with the Climate and Environment Advisory Committee on July 15, 2026.

Observations from these engagement efforts highlighted water as a key unifying theme, with community responses frequently citing streams, wetlands, groundwater, salmon, watershed health, and concerns around water quality and availability as priorities.

Engagement with Katzie First Nation and Kwantlen First Nation remains ongoing, and Nation-determined values, priorities, and knowledge systems, together with additional engagement with under-represented groups, will continue and inform the Framework as comes together (Attachment A).

A Biodiversity Lens:

The project engagement completed to date confirmed the importance of Maple Ridge's identity as being 'Bold by Nature' to residents. Engagement respondents expressed concerns about maintaining the conditions that enable participation in the living systems around them, having the knowledge, access, and resources needed to act, and clarity about where responsibility lies for meaningful action to occur. The concerns suggest that biodiversity decline is experienced not only through ecological change but through the limited opportunities people have to experience the living systems around them. Responses also described memories of gathering food and medicines, teaching children by creeks, watching seasonal change, tending gardens and boulevards, collecting rainwater as wells run low in Thornhill, and caring for the places they know best.

In the engagement responses, close to 9 in 10 described the relationship and responsibility towards land and water. For instance, when people were asked what they value, where they see change, and what needs greater care, biodiversity was not described as a special environmental category but as a web of relationships. Water was the thread that connected most things; many reflected on how streams, wetlands, salmon, forests, wildlife, food systems, and neighbourhood character were interconnected parts of a living whole rather than separate issues to be managed independently.

Towards a Regenerative Systems Approach:

The engagement findings pointed to the importance of biodiversity not solely as an environmental outcome but as intimately connected to the health of systems that sustain life over time. Biodiversity is sustained through relationships, and this includes relationships among species and ecosystems, between people and places, and between communities and the institutions responsible for shaping conditions on the landscape. This understanding highlights a limitation of conventional biodiversity management.

Ecological systems are often assessed one project, permit, site, or species at a time, even though the conditions that sustain life are shaped by cumulative decisions across landscapes and institutions over time. As a result, measurement can focus on what is easiest to measure in a single place, rather than on the connected conditions that support ecological function, resilience, and long-term system health. This can make decline difficult to detect and what actions should be taken and by whom.

Many of Maple Ridge's ecosystems are already degraded and many of the connections between people and place have been lost. Therefore, for the Framework project the focus is not simply on how to reduce impacts, but how to contribute positively to recovery and renewal. This approach positions biodiversity as interconnected relationships, functions, capacities, and governance systems, and provides a structure for understanding how municipal decisions, investments, and governance practices collectively influence the conditions that a healthy environment over time in the community.

From Measurement to Accountability:

The recurring question “who is responsible?” emerged throughout the engagement. Who manages the care of our natural assets - a pond, a riverbank, a stream corridor? Who manages invasive species? Who responds when ecological conditions deteriorate? Who makes decisions about the future of these places?

These questions reflect the interest of the community in the systems of governance, stewardship, decision-making, and accountability. Biodiversity decline is therefore not solely an ecological challenge but also a relational and governance challenge since governance decisions shape how land, water, and resources are used, valued, and managed.

The Framework will provide a lens to better understand how the City’s decisions can influence biodiversity and community wellbeing, and bring together and build on the direction the City has already adopted through the Official Community Plan (OCP), Climate Action Plan, Urban Forest Management Plan, Green Infrastructure Strategy, Environmental Management Strategy, Environmental Management Framework, Hazard Framework, and other related initiatives. It will improve coordination across plans, projects, departments, and decision-making processes, much as the climate resilience lens has done in recent years, and through work underway including the upcoming OCP update, Development Permit Area updates, climate adaptation and environmental policy development, and related bylaw and implementation work.

Proposed Biodiversity Health Indicator Framework:

The Framework will connect what the City values, what it measures, and how it responds through practical means of doing with key features grouped as follows:

- **Vision and values.** A community-informed vision and values focused on healthy lands and waters, the continuity and flourishing of life, intergenerational wellbeing, stewardship and reciprocity, and the diverse relationships through which people experience and care for place.
- **Guiding principles.** Principles that shape how decisions are made, including: responsibility and care, respect for Indigenous interests and relationships, evidence-informed decision-making, transparency in evaluating trade-offs, precaution under uncertainty, consideration of long-term and intergenerational consequences, and adaptive learning and accountability.
- **Stewardship direction.** Overarching directions that emphasize maintaining ecological integrity, avoiding negative impacts, restoring degraded conditions, and giving more than is taken from living systems.
- **Goals, objectives, and indicators.** The Framework will organize biodiversity health around goals and integrated objectives, broken down into actions that the City can take to monitor conditions that impact biodiversity over time.
- **From monitoring to response.** Each biodiversity indicator will have a measure and associated methods or tools to help identify trends, pressures, and areas of concern. This

will enable the City to monitor outcomes and adapt policies, programs, and management actions as needed, while monitoring and reporting through mechanisms such as a biodiversity ledger and habitat-balance approach.

Some elements of the Framework are already reflected in current City practice, while others will be opportunities for future Council consideration. These include habitat-balance implementation approaches, biodiversity reporting mechanisms, invasive species management tools, dedicated resourcing, and longer-term governance and accountability measures.

NEXT STEPS:

The remaining work associated with the Thriving Maple Ridge Biodiversity Health and Indicators Study is outlined in the Future Deliverables Memo (Attachment A). The Framework will continue to be refined through additional engagement, technical analysis, and implementation planning and presented to Council as the subject of a future report for consideration anticipated in early 2027.

Over the coming months staff will continue to work with Diamond Head Consulting Ltd. to complete screening-level spatial analyses to identify where ecological and community values overlap with cumulative pressures and opportunities for protection, restoration, and stewardship. Additional work will include community wellbeing and relationship mapping, recommendations for monitoring, stewardship, policy, and governance, implementation considerations for staff, and further development of priority indicators, thresholds, and management responses. Relationship-building with Katzie First Nation and Kwantlen First Nation will continue, alongside broader engagement with the public, stewardship organizations, local land managers, and under-represented groups will continue. These findings will be integrated into the final study report.

As this work continues, several potential future projects may be recommended to Council for consideration between 2027 and 2029, subject to the findings of the completed study, such as: habitat balance and biodiversity reporting, invasive species management tools, and opportunities to better integrate biodiversity and climate-resilience into decision-making.

CONCLUSION:

What began as an project to measure biodiversity evolved into a broader understanding of biodiversity as both an outcome and an indicator of the systems that sustain life in Mape Ridge. This report provides Council an interim update as the Biodiversity Health Community-Informed Indicators Framework continues to be refined. Through engagement, technical analysis, monitoring, and relationship-building, the Framework will provide a basis for connecting what the City values, what it measures, and how it acts to support the continuity and flourishing of life in the community.

"Kendra Cheeseman"

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Attachments:

(A) Future Deliverables Memo – Thriving Maple Ridge

Report Approval Details

Document Title:	Towards a Regenerative Systems Approach - Lessons from the Biodiversity Health and Indicators Study.docx
Attachments:	- Attachment A - Future Deliverables Memo - Thriving Maple Ridge.pdf
Final Approval Date:	Sep 15, 2026

This report and all of its attachments were approved and signed as outlined below:

Louisa-May Khoo, Planner 3

Amanda Grochowich, Manager of Community Planning

James Stiver, Director of Planning and Building

Carolyn Mushata, Director of Legislative Services and Corporate Officer

Scott Hartman, Chief Administrative Officer

August 26, 2026

City of Maple Ridge Council

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Re: Remaining Deliverables for the “Biodiversity Health Community-Informed Indicators Framework”

Project Overview

The City of Maple Ridge is developing a Biodiversity Baseline and Indicators Framework to establish a consistent approach for understanding, monitoring, and reporting on biodiversity health in the City. The project brings together ecological and systems-based information, community perspectives, and biocultural values to support informed decision-making and establish a foundation for ongoing biodiversity management, monitoring, and reporting.

A key component of the project is the development of indicators to track changes in ecological conditions and relationships with nature. This framework is intended to provide practical tools for the City while remaining adaptable as new information becomes available, community understanding grows, and relationships with First Nations and other partners continue to develop.

Work Completed to Date

Early project work focused on establishing an information baseline and identifying opportunities and gaps relevant to the framework. This included an inventory of existing datasets, consideration of data ownership and governance, assessment of technical and relational gaps, review of relevant City plans and practices, and identification of priorities for engagement. An engagement toolkit was subsequently developed to support City-led discussions and community input.

Public engagement was conducted through an online StoryMap platform from June 8 to August 4, 2026. The StoryMap invited participants to identify aspects of nature they value, places that are important to them or may require greater care, and observations regarding environmental conditions and change in Maple Ridge. A total of 112 responses were received. These findings provide an initial understanding of how community members experience, use, and care for local places and natural areas. Additional targeted community engagement and ongoing engagement with local First Nations will continue to broaden and refine the perspectives informing the framework.

A preliminary community-informed indicators framework and dashboard have been developed. This work translates emerging community values and priorities into a concise set of potential indicators. It also identifies opportunities for future monitoring, visualization, and spatial mapping.

Collectively, the baseline information, findings from the engagement process, and the draft indicator framework establish the foundation for the project's remaining phases.

Future Work and Deliverables

The next phases of this project will include spatial analysis, the development of recommendations for monitoring, stewardship planning, policy and governance, as well as an implementation plan for city staff. The project will be documented in a summary report that compiles the findings and recommended next steps. Finally, this will be presented to Council.

An overview of the remaining project tasks, their associated deliverables, and timelines is provided below.

Screening-Level Analyses – September to October 2026

Screening-level analyses will be completed to identify areas of ecological and community importance, areas vulnerable to cumulative pressures, and opportunities for protection and stewardship. This work will build on the indicators framework and existing datasets to identify where multiple pressures overlap with valued ecological or community features. Community well-being and relationship mapping will be developed to illustrate connections between ecological conditions, access to nature, community values, and place-based relationships across Maple Ridge.

The analysis will provide a screening-level basis for identifying priority areas and considering potential implementation approaches, such as protection, restoration, stewardship, partnerships, or other appropriate management tools.

Key Deliverables:

- Screening-level cumulative impact and pressure-point analysis
- Well-being and relationship maps

Monitoring and Guardianship Concept – October to December 2026

A monitoring framework will be developed to translate the selected indicators into practical measures that can be tracked over time. The framework will identify what should be monitored, appropriate methods and frequencies, potential monitoring locations, and roles for the City, community members, First Nations, and partner organizations. Monitoring approaches will consider a range of participation levels, from community-led observations to more technical monitoring requiring specialist oversight.

This phase will involve a cross-reference between the indicators informed by the community and the cumulative effects action areas of the Katzie First Nation. It will also include an outline for a potential guardianship program and a note outlining the requirements and pathways for the future development of a Water Balance Model.

Key Deliverables:

- Monitoring Framework
- Cross-reference connecting community-informed indicators and monitoring activities with Katzie's cumulative effects action areas
- Scoping for a guardianship program
- Scoping note for a Water Balance Model

Policy and Governance Options – October to December 2026

A Policy and Governance Options Memo will be developed to identify practical ways for the City to translate the framework's findings and community-informed priorities into action. The memo will consider municipal tools such as policies and bylaws, land-use and stewardship agreements, incentive programs, partnerships, and potential funding mechanisms.

The work will also identify opportunities to integrate biodiversity considerations into existing City programs and processes, including development review, parks and natural-area management, restoration, and community stewardship. Draft policy and program guidance will be provided where appropriate, along with considerations for implementation, governance, innovation, and responsible use of emerging tools.

Key Deliverables:

- Policy and Governance Options Memo
- Draft policy and program guidance
- Identification of innovation opportunities and guardrails

Internal Process Roadmap – November to December 2026

An Internal Process Roadmap will identify how the Biodiversity Health Framework can be incorporated into existing City workflows and decision-making processes. The work will consider functions such as development review, capital planning, parks and natural-area management, budgeting, and Council reporting.

The roadmap will provide practical implementation tools, including integration points, checklists, decision prompts, role clarification, and straightforward workflows. It will also identify early implementation priorities, departmental champions, staff capacity and training needs, and practical next steps for implementation.

Key Deliverables:

- Organizational capacity assessment
- Integration points, checklists, workflows, and decision frameworks
- Capacity-building recommendations, including departmental champions and staff training needs

Summary Report and Council Presentation – December 2026 to January 2027

The final phase of the project will consolidate the work completed throughout the project into a concise Summary Report. The report will highlight key findings and recommendations and identify priority actions related to monitoring, stewardship and guardianship, policy development, governance, and internal implementation. Recommended actions will be accompanied by information on anticipated timing, responsibilities, benefits, and key dependencies.

Supporting communication materials will also be developed for non-technical audiences, including a public-facing project summary and a Council presentation package. The project will conclude with a briefing to Council outlining the framework, key findings, recommended actions, and opportunities for continued implementation and monitoring.

Key Deliverables:

- Summary Report
- Communication materials for non-technical audiences
- Council presentation materials and briefing

Please don't hesitate to call us if you have any questions regarding the material discussed in this memo.

Sincerely,

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