District of Squamish

Circular Economy Roadmap and Implementation Plan

Prepared by Economic Development and Sustainability

October 2023

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Acknowledgements

Squamish is located on the unceded, ancestral, and traditional territories of the Sḵwx̱wú7mesh (Squamish) peoples who have cared for and protected the land since time immemorial; a place where we are privileged and grateful to live, work, and play.

We acknowledge that circularity has been a way of life for millennia for Indigenous peoples globally. We recognize the opportunity to learn from Indigenous and local custodians of the land.

We would like to express our gratitude to the following people who provided their feedback and support for Squamish's 2023 Circular Economy Roadmap and Implementation Plan:

- Dennis Silvestrone: Dean, Faculty of Business and Professional Studies, Capilano University and Economic Partner Forum member.
- Krystle tenBrink: Executive Director, Squamish Food Policy Council
- Gabriela Lech: Squamish Food Policy Council
- Joanne Gauci, Senior Advisor, Metro Vancouver and National Zero Waste Council

Executive Summary

The District of Squamish declared a climate emergency in 2019 and set the target to reduce greenhouse gas (GHG) emissions by 45% by 2030 and achieve net-zero emissions by 2050.

Like never before, there is a global groundswell of collaboration between corporates, non-government organizations (NGOs), and governments, recognizing the circular economy (CE) as a collective response to global crises – including interconnected issues of climate change, inequity, food security, resource depletion, consumption, and waste.

A CE aims to keep products, components, and materials at their highest utility or value. It aims to decouple economic development from the consumption of raw materials (the linear model) by describing an alternative approach in which economic growth is generated and jobs are created while simultaneously reducing environmental impacts.

The District of Squamish has identified a unique opportunity to benefit from the upswell of support towards a circular transition. The guiding principles of the CE align with District community goals, including a directive to act on climate change to create positive local and global impacts. Associated circular goals and actions are articulated in the District's 2018 Official Community Plan (OCP) and supporting strategies, including the District's 2023-2027 Strategic Plan, 2020 Community Climate Action Plan (CCAP), 2022 Zero Waste Action Plan (ZWAP), and 2021 Emerging Sectors Roadmap and Action Plan.

Prior to 2021, the District's CE work was undertaken by Sustainability team, using the lens of Zero Waste to apply circular principles, for internal and external engagement activities and policy development, as approved by Council in the 2016 Zero Waste Strategy. To support engagement and discussion around transition to a local CE, in 2021, the District developed a Draft Circular Economy Roadmap (Draft 2021 Roadmap).

The Draft 2021 Roadmap includes a suggested conceptual framework (CE Framework) consisting of seven elements of circularity, which can be applied at different intervention levels towards a CE, including three core elements and four key drivers.

Core elements deal with physical flows directly, these are:

1. Prioritizing regenerative resources;
2. Stretching the lifetime; and
3. Using waste as a product.

Key drivers deal with creating the conditions or removing barriers for a circular transition; these include:

1. Investment;
2. Innovation;
3. Policy; and
4. Collaboration.

Since the development of the Draft 2021 Roadmap, the District has carried out internal and external engagement activities focused on creating a CE, conducted primary research into the identified three thematic areas for focus (food systems, textiles, and the built environment) participated in collaborative CE learning opportunities and conferences, sourced funding to support the implementation of a Circular

Trailblazer Program and develop foundation setting assets, analyzed best practices, and gained extensive circular project knowledge.

Preliminary work in 2022 identified a strategy to set the foundations for circularity and opportunities to action within the three thematic areas. Setting the foundations for circularity includes, investment attraction, development of education programs and communications campaigns to influence behaviour, harnessing partnership opportunities, and developing inclusive policy. Through this strategy, the District, with the supporting community, can create a clear direction to ensure the long-term success of the collective efforts.

Squamish's 2023 Circular Economy Roadmap and Implementation Plan (2023 CE Roadmap) builds upon the District's recent work to identify strategies that align with community needs, overcome obstacles to circular adoption, and complement ongoing initiatives within the District and across the broader community. It adds structure and organization to these efforts so that, as a community, we can leverage, harness, enhance, and recognize the benefits of collective action toward circularity.

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Glossary of Terms and Abbreviations:

2023 CE Roadmap – 2023 Circular Economy Roadmap and Implementation Plan

CCAP – Community Climate Action Plan

CE – The 'circular economy' is a system aimed at eliminating waste and promoting the continual use of resources. The CE aims to keep products, components, and materials at their highest utility or value. It aims to decouple economic development from the consumption of raw materials (the linear model) by describing an alternative approach in which economic growth is generated and jobs are created while simultaneously reducing environmental impacts.

Climate change – refers to long-term alterations in the average weather patterns and conditions of the Earth's atmosphere. Greenhouse gases trap heat from the sun, leading to an increase in global temperatures, a phenomenon commonly referred to as global warming.

District – District of Squamish

Draft 2021 Roadmap – 2021 Draft Circular Economy Roadmap

Food security – is a concept that refers to the condition in which individuals, households, communities, and nations have consistent and reliable access to safe, nutritious, and culturally appropriate food to meet their dietary needs and food preferences for an active and healthy life.

GHG – 'Green house gases' are gases that are present in Earth's atmosphere and trap heat from the sun, leading to the greenhouse effect.

Inorganic – refers to substances, compounds, or materials that do not contain carbon-hydrogen (C-H) bonds or are not primarily derived from living organisms. Inorganic compounds are typically associated with minerals, metals, and nonmetals. They can be naturally occurring or synthesized through chemical processes.

Linear model or linear economy – describes the traditional approach to resource consumption and economic production. In a linear economy, products are manufactured from raw materials, used by consumers, and eventually discarded as waste at the end of their life cycle, often referred to as 'take, make, dispose'.

NGO's – Non-government organizations

OCP – Official Community Plan

REDIP – Rural Economic Diversification Infrastructure Program is a Province of BC funded program supporting rural economic development projects and capacity building.

Regenerative resources – are natural resources that can be naturally replenished or regenerated over time. These resources are not depleted when they are used sustainably, as their rate of replenishment is equal to or greater than the rate at which they are consumed. Regenerative resources contrast with non-renewable resources, such as fossil fuels and minerals, which are finite and deplete over time without the possibility of natural replenishment within a reasonable timeframe.

SFPC – Squamish Food Policy Council

SVAP – Squamish Valley Agricultural Plan

ZWAP – Zero Waste Action Plan

Circular Economy Roadmap and Implementation Plan

Definition and Scope

What is a Circular Economy?

The circular economy (CE) is a system aimed at eliminating waste and promoting the continual use of resources. In contrast, the traditional economic 'take-make-consumer-throw away' pattern is linear. Circularity addresses the need to consider the circular process from cradle to grave, from the ideation of a product through its entire useful life and into its subsequent use or stage. This approach focuses on reducing use of virgin materials, designing out waste, resource optimization and efficiency, by planning for the ongoing use of materials. The World Economic Forum states that "circular business models provide a competitive edge because they create more value from each resource unit than the traditional linear 'take-make-dispose' model."

Although there are a variety of frameworks to reference, it is generally agreed that the core elements of the CE are prioritizing regenerative resources, stretching the lifetime of products, and using waste as a resource. These core elements are reflected in the Draft 2021 Roadmap's suggested conceptual framework (CE Framework). Reducing the volume of virgin materials used is also an important feature captured within these core elements.

The CE sees material flows as part of two distinct cycles: biocycles and techno-cycles: For biocycles (i.e., biological loops), the objective is to return biomass into the biosphere after use – food waste and wood products from construction are two examples. For techno cycles, which encompass inorganic products and materials such as metals and minerals, the objective is to keep them in closed loops to ensure the possibility of reuse and recycling and to prevent potential pollution.

The CE aims to keep products, components, and materials at their highest utility or value. It aims to decouple economic development from the consumption of raw materials (the linear model) by describing an alternative approach in which economic growth is generated and jobs are created while simultaneously reducing environmental impacts. This requires a paradigm shift, particularly for businesses that traditionally focus on metrics such as sales, revenue and profit but generally do not measure material inputs, pollution, or waste. It also challenges traditional models where all the costs (or externalities) associated with a material are not captured, and new materials and transportation costs are inexpensive.

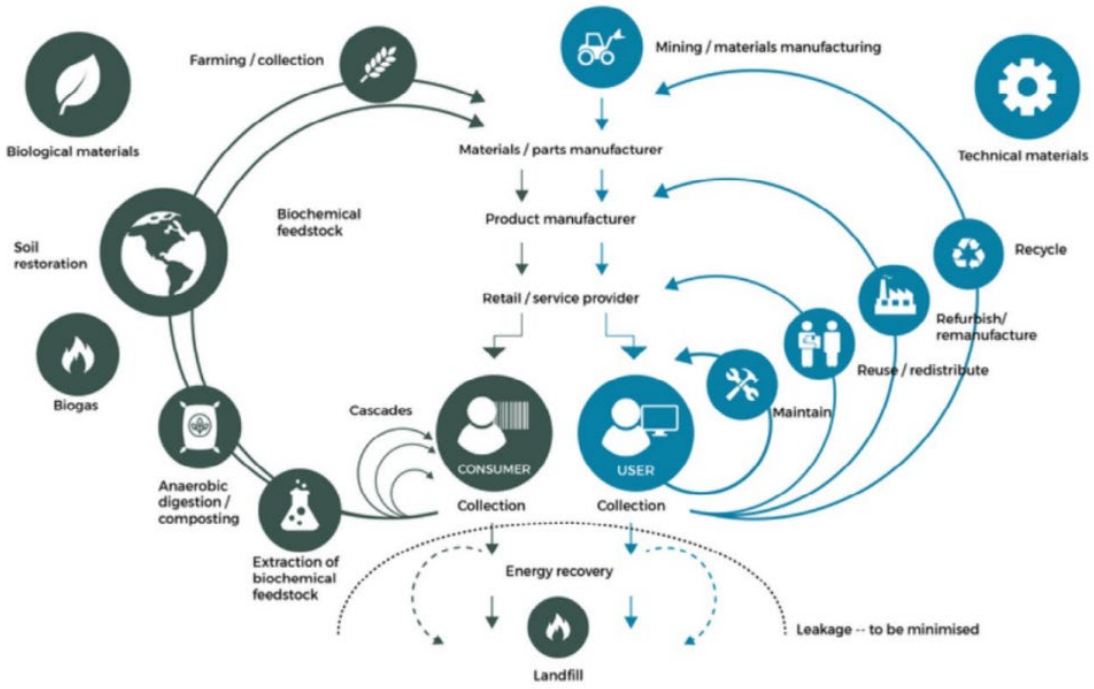

Diagram 1. Ellen MacArthur Foundation's butterfly diagram depicts the continuous flow of technical and biological materials through the 'value circle.'

Diagram 1 illustrates how biological and technical materials (and the products and components based on them) cycle through the economic system, each with its characteristics. Unlike biological materials, technical materials are not cascaded to other applications, but the functionality, integrity and value of embedded energy are maintained through remarketing, reuse, disassembly, refurbishment, and remanufacturing. The second law of thermodynamics prevents endless unaltered cycles— everything decays. [1]

Data and Trends

There is a global groundswell of collaboration between corporations, NGOs, and governments recognizing the CE as a collective response to an international climate crisis – including interconnected issues of inequity, food security, resource depletion and waste.

The CE presents new economic and employment opportunities that can help to recapture the value of the materials and resources currently being lost or 'wasted.' The global transformation to a CE has begun across all sectors of the economy, from natural resource and extractive industries to manufacturing and construction to more service-based sectors. It also spans the breadth of the private sector, from established multinational firms to innovative start-ups and small business entrepreneurs.

Case studies demonstrating existing local CE adoption will follow as an addendum.

[1] Towards the circular economy Vol. 2: opportunities for the consumer goods sector.pdf (thirdlight.com)

Benefits of a CE in Squamish

The CE provides an approach that can cultivate a regenerative economy, by creating District-led initiatives and facilitating, encouraging, and enabling community and business-led enterprises.

This 2023 Circular Economy Roadmap and Implementation Plan (2023 CE Roadmap) creates direction to attract investment, inspire innovation, collaborate, remove barriers, address community needs, create inclusive policies, and act so that the District and Squamish (District) will:

- Highlight and create opportunities for businesses to use more local products and services,
- Generate new, locally based revenue-generating opportunities,
- Benefit from enhanced industrial competitiveness,
- Participate in a thriving innovation economy,
- Reduce the amount of waste to the landfill,
- Achieve greater resiliency to supply chain shocks,
- Increase sense of place and community empowerment,
- Identify business diversification opportunities,
- Create community wealth building (linking businesses, community, and public sectors),
- Grow business sectors, and
- Provide local government and government agencies opportunities to reduce overheads and improve services.

Alignment with District Goals

The 2023 CE Roadmap leverages relevant and existing District goals to better identify and activate circular economies in Squamish.

The principles of a CE align with the District's Strategic Plan, which includes a directive to act on climate change to create positive local and global impacts. Circularity is also reflected in the District's Official Community Plan 2018 (OCP), 2020 Community Climate Action Plan (CCAP), 2022 Zero Waste Action Plan (ZWAP), and Economic Development's identification of the Green Economy as a growth sector as part of its 2021 Emerging Sector Roadmap and Action Plan.

This project supports Squamish2040 OCP objectives, including:

- (19.5) to encourage efficient, low-carbon, innovative development practices that conserve, recycle or generate energy, water, materials, and other resources.
- (24.1 a) to understand and address labour needs and gaps within the community, as well as the skills, expertise and talent of our citizenry;
- (24.1 b) increase local employment opportunities and job participation rates;
- (24.3 a) to support diversified and sustainable economic growth and productivity; and
- (24.3 b) to enhance employment infrastructure to meet local business needs.
- (26.1 a) to promote a healthy, just and resilient food system in Squamish.
- (26.1 b) to increase local food security and self-sufficiency.
- (26.3 c) to increase the value of the local agri-food economy.
- (26.5 a) to support and promote local food and land resources, production and sales.

- (26.7 a) to expand community facilities and infrastructure for food processing, distribution and storage within Squamish to promote regional food production, local employment, and facilitatin access to local and larger markets.
- (26.13 a) to integrate food access, infrastructure, food rescue and redistribution services and programs within physical and virtual community food hubs in the community.

This project demonstrates alignment with the CCAP goals concerning the identified areas of focus for Squamish, which are food/ organics, the built environment, and textiles:

- CCAP Big Move 1: Close the loop on Waste: divert organics, capture landfill gas, and reduce waste.
- CCAP Big Move 4: Decarbonizing Existing Buildings, retrofits, and upgrades.
- CCAP Big Move 6: Other Organizational Actions: aligning business development activities to support climate actions.

The ZWAP, adopted by Council in October 2022, supports, and aligns with the principles of a CE. Implementing a zero-waste approach requires a transition to a CE. The alignment of the two approaches is demonstrated as many local and national organizations are using 'Zero Waste' to brand their circular initiatives. The ZWAP consists of targets, strategies, and actions, that address the desired outcomes as well as move towards the top of the Zero Waste hierarchy (i.e., rethink and reduce) and a CE. Many of the actions outlined within the ZWAP align with the goals of a CE.

In late 2020 and early 2021, the District completed an engagement series as part of its Emerging Sector Roadmap and Action Plan implementation. The Emerging Sector Series brought together interested parties to help inform a vision and mission concerning the development of our local economy, as well as identify a framework to aid in developing and measuring strategies and actions aimed at fulfilling local economic goals. As an outcome, participants selected the Doughnut Economics framework to guide the District's work in this area and two significant actions for advancement, including the exploration and feasibility for Squamish business development, innovation, and learning opportunities and the facilitation of a local CE.

Doughnut Economics, as a framework, is to be used for guiding Economic Development targets and actions. Circular Economics has been identified as a means of achieving a Doughnut Economy. Doughnut Economics is premised on the idea that the social foundation is met while remaining within our ecological ceiling so that we collectively don't overshoot planetary boundaries. Within these boundaries is a space where it is both ecologically safe and socially just, a space where humanity can thrive.

Circular Squamish Goals

To recognize these economic, social, and climatic benefits, Squamish needs to act now. In doing so, the District has an opportunity to show leadership and reap the benefits of a local CE.

- To assist local residents to understand what CE is and why it is important.
- To gain awareness and acceptance of CE principles (let's get people excited!).
- To achieve CE District adoption.
- To achieve CE citizen adoption.
- To achieve CE business adoption.

- To develop effective measurement to guide forward actions.
- To establish innovative practices and solutions in partnership (becoming a CE Centre of Excellence).
- To become leaders in CE within Canada.
- To positively impact District climate goals.
- To develop a textile CE.
- To develop a built environment CE.
- To develop a food system CE.

Success Indicators

Success indicators are crucial for measuring progress, guiding decision-making, and ensuring an effective implementation strategy. The following success indicators relate directly to the foundational and thematic areas of work. As opportunities arise these indicators will be updated to reflect the increased breadth of focus.

Building the foundations

- Number of circular innovation projects implemented.
- Adoption of circular solutions and technologies.
- CE investment attracted – financial resources allocated to CE projects, initiatives and startups.
- Proportion of CE policies enacted or modified.
- Regulatory compliance – the extent to which businesses adhere to CE regulations and guidelines.
- Circular procurement adoption – the proportion of contracts prioritizing CE in sourcing goods or services.
- Number of cross-sector partnerships developed to support CE goals (public, private, academic, NGOs).
- Willingness of organizations to share resources – increase in circular assets on the circular asset map.
- Community engagement – participation rate in CE initiatives.

Textiles

- Adoption or development of sustainable textile manufacturing practices.
- Reduction in textiles to the landfill.
- Innovative textile solutions are developed or adopted to address the surplus of fibres that retain no value in their current form.
- There is a textiles network established, supporting a local textiles CE.

Food Systems

- Reduction in organic food waste.
- Adoption of solutions for avoiding food waste.
- Monitoring proportion of regenerative growing practices.
- Local producers sell an increased proportion of their products to regional buyers.

Built Environment

- Development of a second-hand building materials economy (number of businesses using second-hand materials, increased access to materials, adoption of training to support the use of second-hand materials).
- Reduction in construction and demolition waste to the landfill.
- There is an identified and implemented solution for wood waste that is not viable for use in a second-hand market in Squamish.

About the Roadmap

The 2023 CE Roadmap is a working document outlining a methodology for initiating a CE in Squamish and identifying tactics for lasting positive impact. It will be updated as actionable high-impact actions are determined and circular best practices are uncovered, following iterative learning from piloted projects, and collaboration with other municipalities and regions.

To support engagement and discussion around this transition to a local CE the District developed the Draft 2021 Roadmap with a suggested conceptual framework (CE Framework) to support a circular transition. The framework consists of seven elements of circularity, which can be applied at different intervention levels towards a CE, including three core elements and four key drivers. The 2023 CE Roadmap uses the CE Framework as a guiding tool to determine priority activations, mapping opportunities and existing implementations to create a needs-based, fulsome, circular approach.

Before 2021, the District's CE work was undertaken by Sustainability's team, using the lens of Zero Waste to apply circular principles, for internal and external engagement activities and policy development, as approved by Council in the 2016 Zero Waste Strategy. Since November 2021, the District's CE work has been primarily a collaboration between the Economic Development and Sustainability departments.

During the past two years, the District has carried out internal and external engagement activities, conducted primary research into the three thematic areas (food systems, textiles and the built environment), participated in collaborative learning opportunities and conferences, sourced funding to support the implementation of the Circular Trailblazer Program, analyzed best practices, and gained extensive circular project knowledge.

Although circularity currently exists locally in many forms, the 2023 CE Roadmap intends to put some structure and organization to the efforts so that, as a community, we can leverage, harness, enhance, and recognize the benefits of the collective action toward circularity.

The 2023 CE Roadmap builds upon the work of the 2021 Draft Roadmap and incorporates the preliminary work undertaken in 2022 and 2023, identifying strategies that align with community needs, overcoming obstacles to circular adoption, and complementing ongoing initiatives within the District and across the broader community.

Circular Framework

The CE framework proposed, uses a conceptual framework of seven elements of circularity that can be applied at different intervention levels toward a CE. The framework incorporates core elements from the Ellen MacArthur Foundation Key Elements framework and Closed Loop Partners four key drivers. Core elements deal with physical flows directly, while key drivers deal with creating the conditions or removing barriers for a circular transition.

Core elements

A. **Prioritizing regenerative resources focuses** on utilizing materials, energy sources, and inputs that can restore, replenish, or renew themselves naturally over time. This approach contrasts with the consumption of finite resources; it aims to minimize environmental impact and promote sustainable cycles in economic and ecological systems.

B. **Stretch the lifetime** includes strategies to prolong the usability of products and minimize waste. This involves designing products for durability, repairability, and upgradability and encouraging maintenance and repair services. Extending product life reduces resource consumption, waste generation, and environmental footprint.

C. **Using waste as a resource** is a strategy that recognizes waste materials not as useless byproducts but as valuable inputs for new processes or products. This concept aims to minimize disposal in landfills and incineration by finding innovative ways to recycle, repurpose, or convert waste into raw materials, energy, or other valuable outputs, thus closing the loop in the CE.

Key drivers

1. **Investment** is a necessary driver for accelerating the CE, encouraging innovation, and enabling transformative companies to bring their solutions to scale. Circular efforts require the support of investment sourcing for both supporting finance and infrastructure. Fundamental market forces include consumer demand, procurement power and profitability.
2. **Innovation:** As investment flows, innovation grows. Innovation can be supported by government, academia, and the private sector. Innovation includes systems processes, organizational design, product design, business models, supply chain, and technological and social innovation.
3. **Policy** includes regulation, economic instruments like taxation and incentives, and procurement. Fundamental market forces include education, legislation, allocations of investment, and balance of benefits – social, environmental, and economic.
4. **Collaboration and partnerships** include partnerships amongst corporations, public-private partnerships, or global commitments.

Context Setting

Building the Foundations

Building the foundations for circularity involves identifying strategic opportunities to support and enhance the circular ecosystem's collective impact. Identifying partners, funding opportunities, developing the innovation ecosystem, and policy development are incorporated into this foundation setting work within the implementation plan.

Due to the holistic nature of circularity, and alignment with District's sustainability goals, there is a significant body of ongoing work aligning with foundation setting.

Community Climate Action Plan

In 2019, the District declared a climate emergency and resolved to create a community climate action plan to guide Squamish toward a low carbon future. The CCAP outlines a vision to reduce emissions in Squamish by at least 45% (from 2010 levels) by 2030, and be back on track to achieve net-zero emissions by 2050. The CCAP proposes achieving this reduction in greenhouse gas emissions in Squamish, through the plan's 6 big moves. The activation of a local circular economy in Squamish is identified as an action in the plan's 'Big Move #1, Close the loop on waste'.

Zero Waste Action Plan

The District's ZWAP was updated to provide guidance and next steps to move the community towards zero waste. The concept of zero waste and circularity are aligned; the goal of zero waste is to design and manage the manufacturing and consumption of products in a way that minimizes waste and recovers as many resources as possible while keeping toxic substances out of the environment. While both concepts are based on different models, they both focus on systemic change to a closed loop model, with the goal of redesigning systems and behaviour change to avoid needless or wasteful consumption and create loops in the value chain. The development of the ZWAP (2022 to 2027) included extensive public engagement, as well as a review of the current system and zero waste and CE best practices. It includes strategic actions that encompass policy change and programming that address food recovery, increasing diversion opportunities, integrating financial incentives, supporting school programs, developing tools for multi-family homes, businesses and property managers, and events such as the ongoing Zero Waste Workshop Series.

To avoid duplication of effort the ZWAP is not incorporated into the 2023 CE Roadmap but is considered an aligned piece of work, advancing many of the strategic areas of the CE Framework. The plans are not mutually exclusive, where appropriate, circular initiatives have been pulled from the ZWAP and given priority within the 2023 CE Roadmap.

Circular Trailblazer Program

In 2023, the District received confirmation of Rural Economic Diversification and Infrastructure Program (REDIP) funding to support the development of a Circular Trailblazer Program which will see businesses participate in circular opportunity assessments, and education and networking events. The funding also supports, the development an asset sharing tool, a circular asset map,

innovation challenges, micro-grant funding to support businesses participating in the Circular Trailblazer Program, staff capacity to support the development of these foundational programs and tools, and a communications plan.

The Circular Trailblazer Program is referenced throughout the implementation plan, as it is considered a foundational piece of work, testing a pilot program to establish a local circular business ecosystem, and developing assets to support it.

Innovation Ecosystem Development

Innovation is identified within Economic Development's key focus areas, as foundational to enabling businesses to scale, attracting investment, and developing a thriving business ecosystem. Innovation was also identified as a priority within Economic Development's emerging sector work. In 2020, the District endorsed a sector ecosystem consisting of Core and Enabling Sectors and Emerging Areas in the local economy. To enhance the diversification and resilience of Squamish's economy, subsequently the District completed its Emerging Sector Roadmap and Action Plan which has guided development of the local economy. Through an inclusive engagement process involving industry, supporting organizations, government entities, and academia, it became evident that fostering local innovation was a crucial element in building this foundation. Consequently, the District established the Innovation Working Group dedicated to driving local innovation forward. Innovation, a key driver for circularity, will be supported as the Innovation Working Group fosters a thriving culture of entrepreneurship and sustainability, adapts, and responds to the changing needs of the innovation ecosystem, forges connections, leverages resources, fostering ideation and encouraging solutions.

The developing innovation ecosystem is referenced throughout the implementation plan as a point of leverage.

Labour Force Development Needs

In 2024 Economic Development will undertake a labour force plan, that will map out a transition to a circular job force, while applying a lens of economic decolonization and inclusion, to ensure a just transition. Embracing the CE framework will reshape global labour markets, giving rise to innovative 'circular jobs.' As the landscape evolves, workers and employers must adapt with new skill sets and mindsets. When managed effectively, the CE promises inclusive opportunities for all types of workers, aligning with a prosperous and equitable future. The transition to a CE requires we create decent work opportunities and develop new skills to ensure a just transition that supports people and the planet. Workers are a key force in the circular transition, and the transition will change how we work.

While this labour force plan work is formative, it will be influential in shaping and ensuring the ongoing success of a local circular business ecosystem, and securing education and innovation partners.

Sea to Sky Outdoor Adventure Recreation Enterprise Society (SOARE)

The Emerging Sector Roadmap and Action Plan identified Outdoor Recreation as an emerging sector for Squamish. Economic Development's cluster development work led to the creation of

SOARE in 2022, to facilitate development of a regional outdoor recreation industry in the Sea to Sky. SOARE is developing member services to help local outdoor recreation sector businesses access sales, marketing, operational, innovation, and educational support that they would not otherwise be able to attain on their own. This will help existing businesses grow and attract new complementary businesses to the area, supporting the local economy through job creation and external investment. A formal outdoor recreation network also has the potential to support the sector in adopting more sustainable practices and processes to reduce emissions by fostering innovation, local supply-chain development, and a CE.

Through REDIP funding secured in 2023, SOARE is establishing an innovation space which will be accessible to the SOARE member business in 2024, as well as entrepreneurs from any sector, on a user-pays basis. This infrastructure, and SOARE's support for the development of a CE, are key enablers for the development of a circular innovation ecosystem.

Circular Cities and Regions Initiative (CCRI)

In 2022, the District was accepted into the second cohort of the CCRI, a twelve-month program designed to support Canadian communities on their unique journey to circularity. The program provided direct access to leading experts in the field, direct support and guidance and peer-to-peer connections with other local governments and communities across the country. Participation in CCRI culminated in a report produced by Circle Economy, following a staff engagement workshop. Recommendations from this report, and through information provided throughout the program have been incorporated into the implementation plan.

Thematic Areas

Identifying thematic areas for the CE considered factors such as, intuitively demonstrating circularity concepts, community needs, and the global acceptance and relevance of various focus areas.

Food Systems

The food system, including production, transportation, and waste, significantly contributes to greenhouse gas emissions. It is often cited that if the global food system were a country, it would be one of the largest emitters of greenhouse gases after the United States and China. To cater to community food demand, urban food systems have developed into complex ecosystems and represent a diversity of activities, from food production, processing and distribution to consumption and food waste management. Circular food systems prioritize regenerative production, prevent food waste through reuse and sharing practices, reduce resource inputs and pollution, and ensure resource recovery for future use.

Organic food waste is a priority locally, federally, and globally. It is a focus of the District's CCAP and the ZWAP, as it represents a significant opportunity due to the percentage of material being put into landfills and as a significant emitter of GHG (methane) once in landfills. To mitigate this Squamish has a landfill gas collection system, which captures methane, reducing the GHG emissions. Organic food waste, if diverted properly, is already part of a local CE. Within Squamish organic waste is 31[2]% of the divertible items at the landfill, and of this 12[3]% is avoidable food

[2] District of Squamish 2022 Waste Composition Analysis.
[3] District of Squamish 2022 Waste Composition Analysis.

waste and 3[4]% is unavoidable food waste, with the remaining being largely different types of wood and yard waste.

Business Ecosystem Development

The District's Emerging Sector Roadmap and Action Plan identifies the Green Economy theme as an emerging area of opportunity for strategic growth and investment. Within the Green Economy is the business cluster 'Craft food and beverage, and agriculture'. In order to understand and advance this sector, in 2022, the District unveiled an Agri-Food Impact Study, which is focused on this emerging cluster and its impacts. The study measures the impacts of farms, ranches, fisheries, food and beverage processors, wholesalers, retailers, and food-related services on the Squamish economy and, more broadly B.C. while also assessing the social and environmental impacts.

Regional Collaboration

There is significant momentum in the region that supports the principles of a CE within the food system. Some edible food waste is repurposed through the food recovery systems, such as to Under One Roof for use either in the kitchen to prepare meals or in the market. Other food waste and compostable materials are diverted to either, Sea to Sky Soils to create compost that Sea to Sky farmers use and is sold locally to residents in Squamish or is processed at a composting facility within the Lower Mainland[5].

The 2020 Squamish Valley Agricultural Plan (SVAP) is a strategic planning document resulting from a community planning initiative led by the District, and Squamish-Lillooet Regional District (SLRD) in collaboration with the Squamish Food Policy Council (SFPC), Upland Agricultural Consulting, the Whistler Centre for Sustainability and in close consultation with the BC Ministry of Agriculture. The plan provides an opportunity for elected officials, the agricultural sector and community organizations to work together toward a more resilient and sustainable local economy. The goal of the 38 recommended actions presented is to realize a resilient, sustainable, and profitable local agricultural sector. Actioning the SVAP is a priority for the District, ensuring the ongoing development of a local food system and food supply.

The Sea to Sky Food Recovery Strategy and Action Plan (2021) highlights opportunities for recovery given the region's mix of food industry types, the amount of food available and the relative ease of recovering and collecting it. This report suggests that the highest potential for food recovery, based on potential tons per year, comes from retail/ grocery (1,540 – 2,400T), households (2,790-4,350T) and hotels, restaurants, and institutions (1,685-2,620T). This report also highlights that circular food systems can generate opportunities around inclusivity and equity, advancing the Doughnut Economics model.

In 2023, the SFPC led a District partnered REDIP application to fund the completion of a Farm and Food Feasibility Plan, to define the circumstances under which, and with what components, a food and farm hub would work in the Squamish to Lillooet region. This builds on the actions of

[4] District of Squamish 2022 Waste Composition Analysis.
[5] Note that end processing facilities change over time, so this information is accurate as of 2023.

the SVAP. Through SFPC's REDIP funding, the development of an agri-food society is being explored.

The Good Food Program 2022/23 is a project of the SFPC and a strategic priority of the Squamish Valley Agriculture Plan. The program aims to shift the buying power of the food industry in the Squamish to Lillooet region towards procuring more local food based on Good Food Values. The District has signed the Good Food Pledge, which is included in the District's Social Procurement Policy.

The local non-profit Squamish Climate Action Network (Squamish CAN) is the backbone of the SFPC with an established organizational structure including a Board of Directors and staff. Squamish CAN since 2009 has been leading community food systems with a priority of programs, services and establishing projects. After 2015 the SPFC was developed with the focus on policy development, planning and implementing some of the high priority action items as part of the SVAP.

Communications Research and Planning

In early 2023, the District and Capilano University undertook a Mitacs Business Strategy project to contribute to the foundations for circularity, proposing a change management communications strategy. Through this work opportunities and barriers to creating circular food systems in Squamish were identified, such as the requirement for enhanced education relating to food waste reduction and food preservation to extend the life of food and reduce waste, for both businesses and residents. Businesses identified the need for collaboration, particularly as it relates to innovation, in addition to communication tools, and prioritizing local food procurement.

Circular Food Systems and Social Equity

Overall, adopting circular food systems can contribute to building a more just and equitable food system, where resources are distributed more fairly, communities are empowered, and sustainable practices improve the well-being of society. However, it is essential to consider the specific context of each community and address potential challenges or unintended consequences to ensure that the transition towards circular food systems benefits all members of society.

Textiles

Consumer goods value chains are complex ecosystems that represent a diversity of activities, from material production to processing and distribution to consumption and waste management.

A circular consumer goods system is based on reducing the consumption of such goods, prolonging their lifespans (through strategies such as reuse, repair, and refurbishment), and managing end-of-life products to produce secondary materials that can substitute virgin materials for manufacturing.

There is a limit to the useful life of textile products, resulting in a need for upcycling solutions. Mature technologies already exist to recover and upcycle various natural and synthetic fibers

used in textiles, such as cotton, rayon, wool, polyester, and leather. Companies are working on new generations of semi-synthetic fibers, reducing the environmental impacts of conventional rayon.

Current activity, relating to textiles locally, impacting the recommended implementations include:

- The Sea to Sky Outdoor Adventure Recreation Enterprise's (SOARE) values and business sector alignment with the textiles thematic area.
- The opportunity to align SOARE, Capilano University Squamish, and the Innovation Working Group and others to develop textile innovations to prioritize regenerative resources, extend product life, and find new purposes for secondary fibres.
- The calibre of local high-end apparel brands, notably within the outdoor recreation sector, using advanced technologies and materials and promoting sustainable values, indicates an opportunity to innovate to salvage surplus, or past-useful-life, fibres.
- Within the secondary textiles market, there is opportunity to increase access to surplus textile materials.

Contributing to this textiles landscape analysis, in 2022 the District partnered with BCIT, undertaking research and generating a report 'Accelerating the Transition to a Textiles CE' for Squamish. The local ecosystem analysis revealed that finances present a significant barrier to engaging with circularity for producers. There is a strong high-end outdoor apparel business cluster, predominantly designing and testing product locally. Textile product and material fabrication primarily happens outside of the District. Customers place a high value on clothing price points. Lack of recycling options within the District means local thrift stores are overwhelmed by donations. Textiles at the end of life in Squamish are often sent out of the District, putting the problem into the hands of external economies and removing value from the Squamish textile economy.

Through this research it was determined that investment and collaboration are important drivers of circular textile economies. These drivers address the financial and capacity barriers faced by circular innovators. Innovation was most prevalent in the for-profit business sector, with most solutions targeting textile materials and products at either the design phase or at end-of-life through recycling and upcycling solutions, such as using recycled materials for garment production. Supply chain localization emerged as an important driver to increase local value retention and job creation while mitigating risks associated with global supply chains.

The District is participating in Textiles Lab for Circularity's research to identify opportunities for textiles recycling in Western Canada (final report is due December 2023). Reviewing the opportunities identified through this research, alongside the community need, will enable the District to identify high potential opportunities for fibre recovery and recycling through business collaboration, and innovation development or adoption.

Built Environment

Cities are often defined by their built environments, the human-made spaces where people live and work. The urban built environment is one of the global economy's most resource and energy-intensive sectors. A circular built environment aims to reduce this sector's negative

impacts by ensuring that materials and components are maintained and used at their highest value for as long as possible.

Through a partnership with Community Energy Association, 'A Local Government Guide, Policies, Programs and Incentives to reduce Embodied Emissions in the Built Environment' (Embodied Emissions Guide) was created (2022). This report highlights that, while operational emissions are increasingly being addressed by designing more energy-efficient buildings with low-carbon fuels, there is an opportunity impact 'up-front' embodied emissions (70 to 90% of embodied emissions are up-front) primarily associated with the materials and construction of buildings. Addressing embodied emissions presents an opportunity to drive significant GHG reductions. The Embodied Emissions Guide for local governments proposes nine opportunities to minimize up-front embodied emissions.

Current activity in the local built environment impacting the recommended implementations include:

- A thriving local renovation, demolition, and construction industry,
- Reduced operational emissions are a goal for the Sustainability team, which is complementary to the recommended built environment actions contained in the contained implementation plan,
- The building industry is a complex and heavily regulated environment - at all levels of government and,
- Squamish has a Demolition Waste Diversion Bylaw, which demonstrates the progressive policies already in place, working to enable a circular built environment and staff are actively monitoring its effectiveness and the development of similar regulations in other jurisdictions.

Implementation Approach

The District is looking to increase the use of circular leverage points, to use more of the tools available to impact our circular practices, the development of bylaws (or their update), procedures, policies, programs (internal and external), grant applications, procurement policies, and more. The intent is to integrate actions enabling a local CE into the District's operational work and support it within the community.

The 2023 CE Roadmap builds upon the work of the 2021 Draft Roadmap. It incorporates the preliminary work undertaken in 2022 to identify strategies that align with community needs, overcome obstacles to circular adoption, and complement ongoing initiatives within the District (see appendix 5.0) and across the broader community.

Short-term priorities (2024)

The implementation plan proposes a focus on foundation building in the short-term, including a pilot Trailblazer program, innovation challenges, and the creation of a circular asset map and asset sharing tool, which are supported through REDIP funding. In parallel, the plan proposes to enhance internal District adoption by activating a cross-functional staff team to support integration and advance the circular principles within the Social Procurement Policy. Economic Development's work to understand the future needs of the Squamish labour force will help to proactively identify the skills and training required to support Squamish's future circular business ecosystem.

Medium-term priorities (2025/26)

Many of the medium-term priorities within the thematic area rely on the development of the foundational elements such as programming and communications tools. Short-term opportunity identification will add definition to medium-term priorities such as, iterative opportunities identified through pilot programs, the labour force development needs assessment, and the results of feasibility studies and ongoing networking and engagement. For this reason, this is considered a transformational phase relying on the development of partnerships, and investment.

Long-term priorities (2027+)

It is proposed that in 2027 the District review and re-evaluate the thematic areas, and impact of the work to date, updating the CE Roadmap to ensure that the work, to advance circularity in Squamish, remains relevant and committed.

Capacity and funding

The 2023 CE Roadmap predominantly leverages funding and capacity support provided through REDIP in the short-term, however given limited District staff capacity and funding through taxation and the Solid Waste Utility, ongoing implementation will be dependent on partner support, and external funding to provide finance for implementation and to support District staff capacity.

Diagram 2

The Roadmap

Circular Implementation Challenges

Implementing a CE within a regional rural area, such as Squamish, presents unique challenges. The implementation plan was developed with consideration for barriers that may hinder the progress towards a CE, along with potential strategies to overcome these obstacles.

Limited awareness or understanding of the CE concept among businesses, District staff, and residents.

Economic pressures: Transitioning to a CE often requires upfront investments in new technologies and processes. Businesses may hesitate to invest in these changes due to concerns about short-term financial impacts and return on investment. Capacity and funding to develop and manage implementation is also a constraining factor.

Regulatory challenges: Existing regulations and policies may not support circular practices or may even discourage them.

Behavioural patterns: Consumer behaviours and habits geared towards disposability can impede change.

Supply chain complexity: Many products have complex and globalized supply chains, making tracking and managing materials for reuse and recycling difficult.

Lack of collaboration: A CE relies on cooperation between various parties, including businesses, government agencies, nonprofits, and research institutions. A lack of effective collaboration can slow progress and limit the scale of circular initiatives – this is particularly relevant to regional communities and economic ecosystems that do not support a large manufacturing base, such as Squamish.

Risk Aversion: Businesses may hesitate to embrace new business models or technologies due to the uncertainty and risks associated with changes. The fear of disrupting existing operations can hinder the adoption of circular practices.

Strategies identified to overcome barriers are recommended throughout the implementation plan and include:

- Education and awareness campaigns,
- Regional collaboration,
- Investment incentives,
- Policy reforms,
- Collaborative platforms and networking opportunities,
- Pilot projects,
- Seeking capacity and funding,
- Public engagement, and
- Fostering a culture of valuing and preserving resources.

Building the Foundations for Circularity

1. Foundation Building Recommendations

Establishing the foundations for circularity involves providing support for circularity across thematic areas. Much of the foundation setting work is proposed to be undertaken in the short-term as it is designed to establish the foundational building blocks, and create enduring momentum.

Resident and business mindset and behaviour change underpins momentum for transitioning towards a circular, resilient, and innovative economy, where resources are conserved, and sustainable practices are embraced. Programs, communication tools, and campaigns play a pivotal role in nurturing circular adoption and driving behavior change. While much of the proposed implementations focus on businesses, there is a need for residents to understand the concept of circularity to support these business efforts, adapting consumption habits to support circularity.

Supporting the circular economy by developing resources and programs will set the scene for the progression of a circular economy in Squamish. Proposed programs and resources to support the foundations of a circular economy include;

- An asset map to increase public awareness and use of shared circular assets (reuse, repair, sharing, rental, and recycling options) in Squamish, for businesses and residents,
- An online portal to provide a central repository that will underpin communication efforts for circularity generally, but also specific to each thematic area,
- A circular opportunity assessment program (Trailblazer) encouraging businesses to adopt circular practices, to be implemented alongside supporting resources and micro-grants, and
- The development of a tool or app to enable businesses to share resources such as space, tools, and residuals.

Nurturing a resilient and innovative business ecosystem is a priority for circularity. Investment is considered an enabler of innovation in this regard. The evolution of the local ecosystem alongside the development of best practices globally requires a dynamic approach, with continual improvement, through adaption and adoption of circular concepts as they fit the evolving needs of the Squamish ecosystem. This flexibility is not only required at a municipal level, but at a micro-level in order that businesses can quickly adapt and adopt. Businesses need to be supported through this process of innovation development and adoption through investment and collaboration.

Implementations to support a resilient and innovative circular economy include;

- Seeking financial support for community wide circular initiatives, as well as providing support for individual business or business cluster implementations.
- Develop innovation hubs to support the entrepreneurial and innovative business ecosystem with access to tools, training programs, mentorship, and collaboration.
- Understand the long-term needs of the labour force to ensure that local labour has access to skills development programs thereby enabling businesses to thrive and adopt circular practices.
- Create a portal that will match identified community needs and implementation opportunities.
- Create an investment attraction strategy that will target circular supply-chain gaps to meet the needs of the local business ecosystem.

By committing to continual improvement facilitated by research, education, collaboration, and diligent progress tracking, we ensure that our circular initiatives remain adaptive and effective, nurturing a culture of learning and innovation. High priority tactics for ensuring transparent and impactful implementations include:

- Partnering with academic institutions to undertake research and analysis, such as materials flow analysis, to identify high impact implementations and
- Developing a circular impact score, to be incorporated into the circular resource portal.

By extending our efforts to encompass a district-wide approach to circular engagement, adoption, and activation, we maximize our impact, and lead by example, fostering a collective sense of responsibility and community-wide participation.

It is proposed that:

- A cross-functional staff team will underpin the integration of circularity across District departments to ensure ongoing consideration for, and application of, circular principles and practices,
- The District demonstrate circular leadership by advancing District's Social Procurement Policy and,
- Through staff and community engagement identify policies, or policy amendments, that support, and remove barriers to, circular adoption.

These objectives align to provide high-impact support, developing the foundations for a sustainable CE. The actions are predominantly assigned as short-term priorities to bolster support, and enhance momentum, for the development of a local circular economy.

See Appendix 1.0 for a detailed list of associated objectives and actions.

Thematic Area Exploration

Opportunities for the application of CE principles abound in Squamish. Current District goals and objectives and community needs direct the thematic areas on which to focus. This approach creates alignment and the ability to build on current staff work plans and community efforts. The three thematic areas for exploration are the food systems, textiles, and the built environment.

2. Food Systems Recommendations

The maturity of the local food system presents an opportunity to advance circular principles for both residents and businesses. Existing initiatives include the focus on food systems across District Planning (supporting food systems and food security, informed by the SVAP), Economic Development (with Craft Food and Beverage and Agriculture identified as a sub-sector of the emerging Green Economy), and Sustainability (ZWAP), as well as the work of local partner organizations such as the Squamish Climate Action Network and Squamish Food Policy Council, Squamish Helping-Hands, and regional partners located throughout the Squamish-Lillooet Regional District.

With commercial and consumer-facing food waste reduction initiatives already in place, there is an opportunity to further support the diversion of organic food waste by impacting consumer behaviour at the point of purchase, developing innovative solutions that improve the management of, or better utilize, residual food product, and collaborating and sharing resources to enhance the local agri-food supply-chain.

The 2023 CE Roadmap identifies opportunities to pilot, scale, and promote organic waste technologies and management systems, addressing the environmental challenge of waste disposal while creating opportunities for local businesses to embrace more sustainable and innovative practices, such as composting or energy recovery. Funding received through REDIP provides support for innovation challenges to target specific community circular innovation needs – filling supply-chain gaps or creating new business development opportunities.

Fostering a collaborative and sharing economy among businesses within the local food supply chain is integral to optimizing resource use and reducing waste. By facilitating cooperation, resource sharing, improved procurement practices, and efficient logistics, we can minimize redundancies, lower costs, and reduce the environmental footprint of the supply chain.

Local circular food systems will be enhanced through;

- A food and farm hub feasibility study, which is underway by partner organization Squamish Food Policy Council. Supporting the evolution of this will be key to creating a more resilient and collaborative local food ecosystem.
- Support local food producers by fostering relationships, developing food procurement programs and an online procurement platform.
- Actively support and promote circular food system opportunities to increase awareness of, and participation in programming, innovation and collaboration opportunities.

Empowering consumers to make informed circular food purchasing decisions will ensure that local food businesses are easily identified and supported. Providing consumers with accessible information on purchasing decisions, supports local businesses and enables individuals to contribute to a CE with their choices. Partners will be supported to develop a brand to easily identify local circular producers at the point of purchase. The impact of the circular food systems branding will be enhanced with a behaviour change, consumer communications campaign.

These objectives, alongside the work already underway by District staff and partners, offers a fulsome approach to promoting sustainability, innovation, and community engagement in the local food ecosystem.

See Appendix 2.0 for a complete list of associated actions.

3. Circular Textiles Recommendations

Textiles represent approximately 6%[6] of all waste destined for the Squamish Landfill. The District of Squamish has identified the textiles thematic area as an opportunity to apply CE principles for the business sector, as well as to address a community need. The District sees textiles as an entry point for residents and businesses to understand, and become involved in, the CE, as well as resolving a resource management and waste reduction need. In 2019, the clothing donation bins were removed throughout Squamish due to health and safety concerns associated with the bins, since then the textile donation bins in Squamish are located at the Squamish Landfill's Transfer Station.

The opportunity for a local circular textile economy is both innovative and transformative, with a focus on harnessing the potential of our local textile businesses as well as addressing the need to leverage the volume of post-consumer fiber available. There is an opportunity to pilot, test, and expand upon recycling and fiber recovery solutions, particularly relating to Squamish's high-end outdoor apparel brands.

Through implementation of this plan innovation will be supported through access to investors, pilot funding and partnerships. This initiative not only spurs innovation, addresses the pressing issue of textile waste, but also aligns with the increasing demand for sustainable materials in outdoor gear and clothing. To this end, REDIP provides funding support for innovation challenges, however as this funding pool is finite, the requirement for support for textiles innovation is considered ongoing.

It is proposed that the District enhance the textiles ecosystem collaboration by:

- Supporting the development of a collective to self-manage priorities for circular textiles in Squamish,
- Undertaking a feasibility study for a shared maker, retail and storage space for circular textiles, and
- Facilitating a round table to ascertain barriers and enablers for a local circular textiles economy.

By fostering partnerships and incentivizing resource sharing across the textile supply chain, we can reduce waste, promote responsible production, and bolster the local economy. In doing so, we create a sustainable and resilient model that benefits both the environment and our community, while simultaneously propelling innovation and economic growth in the outdoor recreation sector.

These opportunities complement the reuse and repair initiatives activated through the ZWAP, ensuring that textiles and products are given a second life, thereby reducing the overall environmental impact, and reinforcing the CE approach. The approach also complements the strong second-hand marketplace that exists in Squamish which is largely facilitated through Facebook Marketplace, and consignment and thrift stores.

See Appendix 3.0 for a complete list of circular textiles objectives and actions.

[6] District of Squamish 2022 Waste Composition Analysis.

4. Built Environment Recommendations

The built environment represents not only a large amount of the waste generated in Squamish (15%[7]) but also a significant percentage (29%) of the GHGs emitted in Squamish.

Given the highly regulated nature of the built environment, two notable leverage points are policy and education. This involves crafting policy and regulations, communications, and educational programs that encourage sustainable construction practices, waste reduction, and resource efficiency. Within this area of regulation development, one prominent opportunity considers embedding circularity into our new buildings and when taking down old buildings, per the opportunities highlighted in the Embodied Emissions Guide (2022).

Proposed policy and education actions include:

- Ongoing consultation with the design and construction industry to assess the limitations and opportunities related to repurposed building materials
- Work with tertiary institutions to develop education and training programs
- Develop policy and educational materials to support the reduction of embodied emissions
- Create and share industry resources and services for contractors, and developers relating to deconstruction and construction waste and diversion
- Continue to communicate incentives for local contractors to leverage reused materials

Developing the local second-hand built environment focuses on supporting infrastructure, tools, and resources. Fostering growth and innovation within the second-hand economy will extend the lifespan of valuable building resources, by promoting the reuse and repurposing of construction materials, undertaking feasibility assessments to support infrastructure needs, undertaking innovation challenges, and providing access to educational materials to encourage collaboration and best practices.

Proposed actions to support the development of a second-hand economy for a circular built environment include:

- Assess the feasibility of a storage and resale site for surplus and repurposed building materials
- Utilize a circular resource portal to provide a platform for shared experiences, events, skills development and success stories, as it relates to reused building materials
- Create public facing information for buildings slated for demolition to maximize the potential for materials recovery.

Additionally, by tapping into our innovative local business ecosystem and the significant volume of deconstruction waste generated, we have an opportunity to pioneer, scale, and advocate for wood recycling and wood waste technologies. Innovation challenges provides circular solutions for wood waste that are not viable for the second-hand market, addressing the ongoing challenge of construction waste, reducing the need for virgin materials, and lowering the environmental impact of our community's construction projects. In the short-term REDIP funding is supporting innovation challenges such as this, however there is a need to address capacity for innovation activations and funding sources longer term.

See Appendix 4.0 for a complete list of built environment objectives and actions.

[7] District of Squamish 2022 Waste Composition Analysis.

Closing comments

In conclusion, the application of a CE framework to impact three initial thematic areas; textiles, the built environment, and food systems, while leveraging key drivers to build the foundations is a visionary and transformative step towards a more sustainable and thriving Squamish.

By adopting innovative practices and new business models and committing to responsible consumption and production, we pave the way for a CE that minimizes waste, conserves resources, and enhances the well-being of both our planet and its inhabitants. Policy support will act as the strong foundation upon which our CE principles will stand, ensuring a level playing field for businesses and aligning government objectives with sustainability goals. Communication and education are key to building awareness, drive behaviour change, facilitate knowledge sharing, engage partners and constituents, and inspire innovation and investment. Communication tactics influence internal District, as well as resident and business, awareness, and adoption. Collaboration, both within industries and across sectors is key to enabling the exchange of knowledge and resources to optimize our circular efforts. Lastly, strategic investments will empower our initiatives to scale and flourish, attracting capital and resources that drive sustainability into the mainstream.

The District's work to embed a local circular economy demonstrates alignment with our community values, and progressive approach to sustainability and economic development. This is especially notable given the relatively small size of our community. This demonstrated leadership emphasizes our innovative capacity, signalling to businesses and residents (and their families) seeking this orientation to community economic and social development, the commitment that the District has to creating a more sustainable future for its constituents.

Appendices

Implementation Plan

Appendix 1.0 – Foundation Setting

Focus Area	Core Elements			Key Drivers				Objectives	Actions	Outcomes	Timeframe	Prerequisites and noteworthy considerations	Roles and Responsibilities: District lead team	Roles and Responsibilities: Partners
1. Foundation setting								1.1 Programs, communication tools and campaigns create circular adoption and behaviour change, targeting resident and business audiences.						
					●		●	1.1.1	Develop and publish a circular asset map, to highlight the availability, and promote the use, of circular tools and resources.	Increase public awareness, and use of, shared circular assets.	Short-term	Trailblazer REDIP funding supports the development of a circular asset map.	Sustainability	
					●	●		1.1.2	Build an online platform to support communications campaigns, CE education, collaboration with content dedicated to the three thematic areas.	Businesses and residents access a central repository of information, tools and resources to support circular adoption.	Medium-term		Economic Development/ Sustainability	
	○				●	●		1.1.3	Local businesses participate in the Circular Trailblazer Program, undertaking circular opportunity assessments, identifying collaboration and resource allocation opportunities, and receiving support for implementation tactics. This program will focus on, but not be limited to, businesses within the 3 thematic areas. Create an operational plan that incorporates capacity for the continued use of these programs and resources.	Businesses are educated and supported in implementing circular processes, prioritizing regenerative resources, stretching the life of products, and using waste as a resource.	Short-term	Trailblazer REDIP funding supports the Circular Trailblazer Program in the short-term.	Economic Development/ Sustainability	
	○				●	●	●	1.1.4	Develop a platform/ app to enable sharing and exchange of tools, space and resources - asset sharing tool. Identify stakeholder to manage and promote the Asset Sharing Tool.	Businesses collaborate to share tools, space and resources. Through this tool the value of a collaborative and sharing economy is enhanced.	Short-term	Trailblazer REDIP funding supports the build of an Asset Sharing Tool	Economic Development	
	○	●	●			●		1.1.5	Develop internal capacity to implement behaviour change models. Leverage REDIP funding to develop communication campaigns, and circular assets, success stories, partners and influencers across the 3 thematic areas.	Residents and businesses adopt circular practices, reducing waste, as a result of impactful communitions, peer-to-peer influence and support, and access to tools and resources.	Short-term	Trailblazer REDIP funding supports a communications campaign to promote the Circular Trailblazer Program.	Economic Development	Partner
								1.2 A circular, resilient and innovative economy.						
	○	●	●	●	●			1.2.1	Seek financial support for community based, as well as business specific, circular implementations. Source and promote grants, direct investment, program loans, public-private-people partnerships, and angel investor network.	Businesses and entrepreneurs have access to funding to support circular innovations and implementations, advancing circular business, and/or community, assets.	Ongoing	Trailblazer REDIP micro-grant funding is an example of this, Angel Investors is another.	Economic Development	Innovation Working Group, Angel Forum.
				●	●		●	1.2.2	Through the establishment of Innovation Hubs (innovation and maker spaces) and supporting programs, spur circular innovation. This is enhanced by collaboration, and financial incentives essential to the development of a thriving innovation ecosystem.	Innovative solutions addressing the community's and businesses' circular needs are supported and implemented. Thereby contributing to the development of Squamish's circular ecosystem, and increasing local jobs and firms.	In progress		Economic Development	Innovation Working Group, SOARE
						●	●	1.2.3	Through the deveopment of the Labour Force Development Plan build an understanding skills gaps relating to a circular labourforce. Work with partners to develop skills and training opportunities, to support a circular-skilled labourforce.	Circular skills gaps are identified, education deveoped to fill the gaps, and local employees and students participate in training provided by District partners.	In progress		Economic Development	Partner
					●		●	1.2.4	Leverage partner-led project, utilizing a system to facilitate labourforce and circular business labour needs for opportunity matching.	Circular businesses are assisted to recruit equitable and inclusive labour.	In progress		Economic Development	Share, Reuse, Repair's NICE initiative.
	○	●	●				●	1.2.5	Create a Circular Idea Portal for identified community needs aligning with circularity. Implement opportunities through a procurement contract, partner support or grant funding (modeled after the IDaS portal, but within the bounds of local government regulations).	The District identifies issues and associated opportunities for investment and innovation, and demonstrates circular leadership by adopting, and making accessible, circular products and services that address the identified issues.	Medium-term		Economic Development/ Sustainability	

Focus Area	Core Elements	Key Drivers	Objectives	Actions	Outcomes	Timeframe	Prerequisites and noteworthy considerations	Roles and Responsibilities: District lead team	Roles and Responsibilities: Partners
			1.2.6	Create an investment attraction strategy to fill circular supply chain gaps.	The District identifies supply chain gaps, and attracts investment to meet the circular ecosystem needs. New businesses are integrated into the circular business ecosystem.	Medium-term		Economic Development	
			1.3. Continual improvement through research, education, collaboration, and progress tracking.						
			1.3.1	Partner to undertake research to identify opportunities for high-impact circular implementations, including but not limited to a materials flow analysis. Research relating to materials flow for the identified 3 thematic areas will provide baseline benchmarking, and opportunities for specific activations. A holistic materials flow analysis is recommended for identification of future/ additional thematic areas.	Through research, such as materials flow analysis, the District will identify further high impact circular implementations.	Medium-term	Prioritizing the built environment for the first materials flow analysis.	Sustainability/ Economic Development	Research partner
			1.3.2	Develop a circular impact score, and 'Impact Hub' to providing a public benchmarking interface to demonstrate circular impact and progress.	Data sources, and a reporting cycle are determined. Residents and businesses see the value and impact of the developing circular economy, the District can evaluate and improve upon implementation tactics.	Short-term		Economic Development	
			1.4 District wide circular engagement, adoption and activation.						
			1.4.1	Develop a cross-functional staff team to provide capacity to integrate circularity within the District. This team will contribute to identifying needs for communication, and systems and process change. Integration will consist of tactics such as staff lunch and learns, incorporation of CE into employee orientation, and building and maintaining a library of staff resources and implementation stories. Department specific sessions will identify circular opportunities through the review of adopted and developing plans, strategies and policies, identifying alignment with circular principles, and opportunities for advancing the CE in Squamish.	The District demonstrates leadership through consistent and ongoing consideration for, and application of, circular principles and practices.	Short-term		Economic Development/ Sustainability	
			1.4.2	Through staff and community engagement identify new policies, and policy change, that support the advancement of the circular economy.	Policy barriers are identified and addressed, supporting policies are developed.	Ongoing	1.4.1	Sustainability	
			1.4.3	Through the District's Social Procurement Policy, advance Squamish's circular economy objectives. Undertake internal and external consultation and implement a change management framework to support transition and adoption.	The District demonstrates circular leadership, and advances the development of a local circular business ecosystem, through adoption of circular procurement practices.	Medium-term		Procurement	
			1.4.4	Review and re-evaluate the thematic areas, and impact of the work to date, updating the CE Roadmap to ensure that the work, to advance circularity in Squamish, remains relevant and committed.	While it is expcted that the CE Roadmap and Implementation Plan will evolve a thorough review of the work Plan should be undertake every four years.	Long-term		Economic Development	

Prioritize regenerative resources	Short-term	2024
Stretch the lifetime	Medium-term	2025/ 26
Use waste as a resource	Long-term	2027+
Investment and procurement	Ongoing	Underway and ongoing
Innovation	In-progress	Term project underway
Policy, education and communication		
Collaboration and partnerships		

Appendix 2.0 – Food Systems

Focus Area	Core Elements			Key Drivers				Objectives	Actions	Outcomes	Timeframe	Prerequisites and noteworthy considerations	Roles and Responsibilities: District lead team	Roles and Responsibilities: Partners
2. Food Systems								2.1.Leverage the innovative local business ecosystem, and volume of organic waste, to pilot, scale and promote organic waste technologies.						
			●	●	●			2.1.1	Innovation food challenge to find a viable purpose for residual food or food waste.	Entrepreneurs implement solutions to divert and utilize residual food, and food 'waste'.	Short-term	Innovation challenges are supported by Trailblazer REDIP funding in the short term. 1.2.2	Economic Development	
								2.2. Develop a collaborative and sharing economy for businesses throughout the local food supply-chain.						
				●	●		●	2.2.1	Work with partners to undertake a Squamish Farm and Food Hub feasibility study. Based on the outcomes of the feasibility study, establish a food/ farm hub to facilitate local procurement, food production and processing, marketplace, commissary kitchen, distribution centre, warehouse, cold storage facility, or other, to shorten and localize the supply chain.	A food and/or farm hub is established, meeting the needs of local producers, creating a more resilient and collaborative local food ecosystem.	In-progress		Economic Development	Squamish Food Policy Council
	○			●	●		●	2.2.2	Develop local business-to-business food procurement and distribution systems, that facilitate local collaboration and product consolidation. Foster relationships, and develop food procurement programs and an online procurement platform.	Increased local procurement from local primary producers, and processors.	Medium-term		Partner	
	○	●	●			●	●	2.2.3	Work with partners focused on local, circular food systems, to develop, support and promote existing circular food system activations, as well as identify gaps, and collaboration and innovation opportunities.	Increase participation in existing circular food programs and networks, while identifying further programming, collaboration and innovation opportunities.	Ongoing		Sustainability/ Economic Development	
								2.3. Help consumers make informed circular food purchasing decisions						
				●	●	●		2.3.1	Support partner led branding campaign, promoting local food producers circular alignment, to inform consumer purchasing decisions.	Squamish's circular food businesses are easily identifiable, and supported through higher local consumer purchasing volumes.	Short-term	1.1.2, 1.1.5	Partner	

Prioritize regenerative resources ○	Short-term	2024
Stretch the lifetime ●	Medium-term	2025/ 26
Use waste as a resource ●	Long-term	2027+
Investment and procurement ●	Ongoing	Underway and ongoing
Innovation ●	In-progress	Term project underway
Policy, education and communication ●		
Collaboration and partnerships ●		

Appendix 3.0 – Textiles

Focus Area	Core Elements			Key Drivers				Objectives	Actions	Outcomes	Timeframe	Prerequisites and noteworthy considerations	Roles and Responsibilities: District lead team	Roles and Responsibilities: Partners
3. Textiles								3.1. Leverage the innovative local business ecosystem, and volume of post-consumer fibre, to innovate, pilot and scale textiles recycling and fibre recovery - especially as it pertains to the outdoor recreation sector.						
			●	●	●			3.1.1	Work with the Textiles Lab for Circularity to determine the opportunities for textiles recycling in Western Canada. Based on the outcomes of this research undertake feasibility study, and innovation or investment attraction work to see the fulfilment of recycling/ fiber recovery solutions locally or regionally. The solution will look to address fibres that have no value in their current form - no ability to extend the life of the product.	Identify and implement fibre recovery, or textiles recycling, opportunities for the Sea to Sky region.	In progress	Complementary to actions within ZWAP DG 4 - Create solutions for reducing textile waste. 3.2.2 3.2.3	Economic Development/ Sustainability	
	○	●	●	●	●		●	3.1.2	Support circular textiles innovation through access to investors, pilot funding, and partnerships.	Innovative circular solutions are piloted and scaled.	Ongoing	Trailblazer REDIP funding supports innovation challenges. 1.2.2		Partners
								3.2. Develop a collaborative, sharing, circular textiles economy.						
					●		●	3.2.1	Facilitate one year round table to understand barriers and enablers to a circular textiles economy.	Opportunities for collaboration and innovation are identified.	Short-term		Economic Development/ Sustainability	
	○	●		●	●		●	3.2.2	Feasibility study regarding the local opportunity for a centralized textiles hub to facilitate resource storage and sharing, maker and retail space. This hub will look to extend the life of products through repair and upcycling, and finding new markets or purposes for existing products.	Develop a fulsome understanding of the textiles hub opportunity for Squamish.	Medium-term	3.2.1	Economic Development	
	○	●	●				●	3.2.3	Create a collective to take ownership of the Textiles CE in Squamish.	Ongoing development of Squamish's circular textiles is self managed through the creation of a local collective/ community group.	Long-term	3.2.2	Economic Development	Partners

Prioritize regenerative resources ○		Short-term	2024
Stretch the lifetime ●		Medium-term	2025/ 26
Use waste as a resource ●		Long-term	2027+
Investment and procurement ●		Ongoing	Underway and ongoing
Innovation ●		In-progress	Term project underway
Policy, education and communication ●			
Collaboration and partnerships ●			

Appendix 4.0 – The Built Environment

Focus Area	Core Elements			Key Drivers				Objectives	Actions	Outcomes	Timeframe	Prerequisites and noteworthy considerations	Roles and Responsibilities: District lead team	Roles and Responsibilities: Partners
4. Built Environment								4.1. Use policy and education to develop and plan for a local circular built environment.						
	○	●	●			●	●	4.1.1	Consult with DoS staff, and the design and construction industry, on the limitations and opportunities related to repurposed building materials.	Enable and highlight opportunities to use repurposed building materials, increasing use of repurposed materials in renovations and new builds, reducing deconstruction waste, and supporting the development of a thriving secondary-building-materials market.	Ongoing		Sustainability	
	○	●	●			●	●	4.1.2	Through training partners, such as BCIT and BC building associations, develop education and training programs for building contractors - how to obtain and reuse materials, deconstruction skills development, and product usage applications, and limitations.	Increase building contractor's understanding of how to utilize second hand building materials based on the building codes, local market opportunities and policies. Thereby increasing reused and regenerative materials in renovations and new-builds, as well as reducing construction waste to the landfill.	Long-term	4.1.1, 1.2.3	Economic Development/ Sustainability	
	○					●		4.1.3	Develop policy and educational materials/ programs to support the reduction of upfront embodied emissions, adopting recommendations from the Community Energy Association, Embodied Emissions Guide.	Reduce embodied emissions through the strategies highlighted throughout the Embodied Emissions Report, reducing GHG emissions associated with the harvesting, transportation, manufacturing and installation of construction materials.	Ongoing		Sustainability	
		●	●			●		4.1.4	Advance waste diversion in the construction industry; visiting construction sites to facilitate education and enforcement, education process optimization, working with DoS staff cross-functionally.	Contractors and developers understand the requirements of, and adhere to, the construction industry's policies and Bylaws, thereby increasing waste diversion, and reducing waste to the landfill.	Short-term		Sustainability	
		●	●			●		4.1.5	Create and share industry resources and services for contractors and developers, relating to deconstruction, and construction and demolition waste diversion.	Contractors and developers use services and resources allowing them to deconstruct and divert waste, thereby reducing construction and demolition waste to the landfill, and increase the use of waste as a resource.	Short-term		Sustainability	
		●		●		●		4.1.6	Incentivise local contractors to leverage reused materials with regulations, policies and incentives (eg. permit free rebates and revitalization tax incentives).	Contractors are motivated to leverage the benefits of building with reused materials, thereby reducing construction and demolition waste to the landfill, extend the life of the construction materials.	Medium-term		Sustainability	
								4.2. Develop and promote the second-hand economy to support a circular built environment.						
		●		●			●	4.2.1	Facility/ infrastructure required for storage and resale of surplus, and repurposed building materials. Determine feasibility, space needs, and partner support.	Viable space, partners, and policies support a thriving second-hand building materials market, resulting in increased demand for a second-hand market, fewer building materials to the landfill, and extending the life of the construction materials.	Medium-term		Sustainability	
		●			●	●	●	4.2.2	Promote a shared platform for contractors to share experiences, events, skills development programs and success stories and challenges related to use of reused materials.	Through compelling communication and shared experiences, contractors increase their use of reused materials, resulting in few building materials to the landfill, and extending the life of the construction materials.	Medium-term	1.1.2	Economic Development	
		●			●	●		4.2.3	Create public facing information relating to buildings slated for demolition at building permit application stage so that salvaging companies can contact homeowners, deconstruction or demolition companies for potential moving or salvaging opportunities.	Increase opportunities to salvage building materials, thereby reducing deconstruction and demolition waste to the landfill, and extending the life of the construction materials.	Medium-term	1.1.2	Sustainability	
								4.3. Leverage the innovative local business ecosystem, and volume of deconstruction waste, to pilot, scale and promote wood recycling technologies.						
	○		●				●	4.3.1	Undertake a feasibility study of local wood waste technology adoption or innovation, considering the local and regional wood waste volumes and composition. This work relates to construction, demolition and deconstruction waste that is not viable to be used in the second-hand market.	The implementation of innovative solutions for wood waste results in reduction in waste to landfill, and conservation of natural resources.	Short-term	For example, REDIP funded innovation challenges	Economic Development	

Prioritize regenerative resources	○	Short-term	2024
Stretch the lifetime	●	Medium-term	2025/ 26
Use waste as a resource	●	Long-term	2027+
Investment and procurement	●	Ongoing	Underway and ongoing
Innovation	●	In-progress	Underway and term project
Policy, education and communication	●		
Collaboration and partnerships	●		

Appendix 5.0- District work, aligned to the principles of a CE

				Core Elements			Key Drivers			
Project	**Relevant actions**	**Department lead**	**Thematic area or Foundations**							
Improving deconstruction practices	Develop recycling targets as part of the construction, renovation, and deconstruction/demolition permit prosess. Support the prosesses with policy,fee/rebate structures and possibly a bylaw amendment	Sustainability	Built Environment			●			●	
Future Planning of Squamish Landfill	Upgrade Squamish Landfill Transfer Station including additional diversion options, better signage, and improved site design. Work with the business community to develop a circular economy network for inputs and outputs. Consider expanding it to a regional concept. Enforce construction materials separation at the Landfill.	Sustainability, Ec Dev, (Squamish Nation)	Foundations	○			●	●		
Future Planning of Squamish Landfill	Work with the business community to develop a circular economy network for inputs and outputs. Consider expanding it to a regional concept.	Sustainability, Ec Dev, (Squamish Nation)	Foundations							
Future Planning of Squamish Landfill	Enforce construction materials separation at the Landfill.	Sustainability, Ec Dev, (Squamish Nation)	Built Environment			●			●	
Single Use Item Bylaw	Reduce single use items through regulation.	Sustainability	Food Systems	○					●	
Supporting Municupal Retrofits, Brennen Park	Commission energy assessments of all corporate facilities and communicate results to the public as part of the future District Corporate Energy and Emissions Plan. Support energy assessments for higher energy consuming facilities, to facilitate energy efficiency retrofit project development and implementation activities.	Facilities (Sustainability, Fortis, Can. Gov.)	Built Environment	○					●	
Supporting municipal retrofits	Implement energy efficiency retrofits, reduce GHG emissions at corporate facilities and meet corporate reduction targets.	Sustainability, Facilities, Ec Dev	Built Environment	○			●			
Capacity Building for Residential Retrofits	Promote existing training and education programs to build industry capacity. Promote education for realtors on systems and selling high performance buildings. Collaborate with others to provide extensive training and development for heat pump system designers and installers.	Sustainability (Community Energy Association)	Built Environment	○			●			
Energy and Emissions Performance targets for new municipal projects	Establish a corporate policy to include an evaluation of the opportunities to lower energy consumption and greenhouse gas emissions as far as practical within all major capital projects.	Sustainability, Real Estate	Foundations						●	
Embodied Carbon Guide for BC Communities	Support or encourage wood-based building materials, or other materials that store carbon. Work with the business community to develop a circular economy network for inputs and outputs. Consider expanding it to a regional concept.	Sustainabvility (Community Energy Association, RMOW, Squamish Nation)	Built Environment	○		●		●		●
Public Works Facility	Establish a corporate policy to include an evaluation of the opportunities to lower energy consumption and greenhouse gas emissions as far as practical within all major capital projects.	Sustainability, Capital Projects	Built Environment						●	
Ongoing Implementation of Energy Step Code	Develop program roadmap for transition to the highest Step applicable for all buildings.	Sustainability, Building Planning	Built Environment						●	
Density Bonus for Mass Timber Construction	Support or encourage wood-based building materials, or other materials that store carbon.	Planning	Built Environment			●	●			●
Lower step code for commercial buildings	Incentivize low carbon energy sources or net zero construction through either a) a density bonus structure and/or reduced parking standards (preferred option if feasible), or b) allowing construction to a lower step code if a low carbon energy source is provided.	Planning	Built Environment						●	
Municipal Enery and Emissions Plan	Develop a corporate energy and emission plan. Establish energy benchmarking procedures for all municipal facilities.	Sustainability (RMOW, GHG Accounting)	Built Environment	○					●	
Implementing Emerging Sector Action Plan (Green Economy)	Pursue climate action items through business development activities. Support growth of local buisnesses, home-based workforce development and local start-ups with incubation, programming, shared resourses.	Ec Dev	Foundations				●	●		●
Supporting Green Sector Growth	Pursue climate action items (eg. pilots, supporting infustructure) through business development activities	Ec Dev	Foundations				●	●		●

				Core Elements			Key Drivers			
Project	**Relevant actions**	**Department lead**	**Thematic area or Foundations**							
Employment Land and Space Projects	Support growth local buisnesses, home-based workforce development and local startups with incubation, acceleration programming and shared resourses.	Ec Dev, Planning	Foundations		●				●	●
Ongoing collaboration with Squamish Nation, RMOW, SLRD and others	Collaborate with other local governments in the region on regional climate action plans.	Sustainability, Engineering	Foundations						●	●
Zero Waste: AM1. Develop and implement a DoS corporate zero waste policy and program and set up foundational systems (P)	Integrate zero waste into procurement policy by building on work done by other organizations, factoring in asset management, creating a template zero waste procurement standard and training, and factor in local economy loops. Enhance the impact by sharing this work locally and with other local governments such as through the BC Social Procurement Initiative.	Procurement, Capital Works, Facilities, IT, Construction (Kal)	Foundations				●		●	●
Zero Waste: AM1. Develop and implement a DoS corporate zero waste policy and program and set up foundational systems (P)	If external disposal capacity is needed, ensure purchasing contracts are set up to encourage waste reduction, not guaranteed waste levels.	Procurement	Foundations						●	
Zero Waste: AM4. Educate on waste reduction/zero waste and support a cultural shift towards reduced consumption, making educational initiatives fun and experience-based and using a community-based social marketing behaviour change approach (E)	Create a small grant funding program to support community-led reduction, reuse, recycling or circular economy programs/projects (e.g., neighbourhood grants in partnership with economic development).	Economic Development / Sustainability (depending on focus)	Foundations				●	●	●	●
Zero Waste: AM5. Support and grow local circular economy and sharing economy initiatives (P)	Work with partners to create a Circular Economy network locally (and possibly regionally).	Economic Development	Foundations				●	●	●	●
Zero Waste: AM5. Support and grow local circular economy and sharing economy initiatives (P)	Provide community granting or similar support to organizations that champion zero waste and circularity in Squamish.	Economic Development / Solid Waste (depending on focus)	Foundations				●			
Zero Waste: AM5. Support and grow local circular economy and sharing economy initiatives (P)	Reduce barriers for groups to host zero waste/circular economy related events at DoS facilities and parks (e.g. room rental fees).	Brennan Park - Rooms; Sarah Morris - park booking	Foundations						●	
Zero Waste: AM6. Engage and support the ICI sector and organizations to implement zero waste solutions (P, E)	Support businesses with development and implementation of their zero waste audits and plans. Conduct technical assistance and training, e.g., site visits, procurement review, walk-through audits, bin area assessment for front and back of house, access to colour-coded containers, distribution of displays and signs and awareness of reuse, repair and drop off options to increase rates of recycling and/or composting; make use of local groups e.g., Downtown Business Improvement Association, Chamber of Commerce, local volunteers.	Sustainability / Economic Development	Foundations	○	●	●				
Zero Waste: DG4. Create solutions for reducing textile waste (P)	Determine if a local program is suitable until EPR (regulated by province).	Sustainability / Economic Development	Textiles		●	●			●	
Zero Waste: FO1. Implement campaigns to encourage reduced food waste (E, A)	Provide waste prevention technical assistance to businesses and organizations to reduce wasted food.	Sustainability	Food Systems		●		●			
Zero Waste: FO2. Increase and support food recovery and redistribution efforts in the community, grocery stores and restaurants (E, P)	Support recommendations from the 2021 Sea to Sky Food Recovery Plan including ongoing surplus food tracking, removing access barriers to food programs, and building capacity.	Sustainability/ Economic Development	Food Systems		●	●	●			●
Zero Waste: PS7. Seed and support local reuse programs for cups, takeout-ware and food packaging (P)	Conduct research, convene interested participating businesses, seek funding and run a pilot.	Sustainability	Food Systems	○	●					

				Core Elements			Key Drivers			
Project	**Relevant actions**	**Department lead**	**Thematic area or Foundations**							
Zero Waste: FO2. Increase and support food recovery and redistribution efforts in the community, grocery stores and restaurants (E, P)	Educate on how to reduce food waste before composting.	Sustainability / Communications	Food Systems			●	●			
Zero Waste: FO4. Increase source separation of organics to avoid disposal in landfill (E, P)	Work with events and film productions to minimize and divert organics.	Events	Food Systems			●				
Zero Waste: PS1. Implement education and behaviour shift campaigns to reduce packaging and single-use items (E)	Develop a toolkit for consumers and businesses to understand preferred options.	Sustainability	Food Systems	○			●			
Zero Waste: PS1. Implement education and behaviour shift campaigns to reduce packaging and single-use items (E)	Educate on best options for compostable and recyclable materials as well as concerns (such as biodegradable, PFAS, etc.).	Sustainability / Communications	Food Systems	○			●			
Zero Waste: AM6. Engage and support the ICI sector and organizations to implement zero waste solutions (P, E)	Create audit templates for different types of businesses.	Sustainability/ Economic Development	Foundations	○	●	●	●			
Zero Waste: BEM2. Increase reuse and recycling of building materials and deconstruction requirements (E, P)	Support local deconstruction workshops/training	Sustainability	Built Environment		●				●	
Zero Waste: BEM3. Develop the infrastructure necessary to facilitate greater reuse and recycling of built environment materials (I)	Establish salvaging system at landfill for reuse/repurpose. Start with wood materials.	Sustainability	Built Environment			●	●		●	
Zero Waste: DG4. Create solutions for reducing textile waste (P)	Research textile recycling options and increase the local capacity.	Sustainability	Textiles			●		●		
Zero Waste: PS7. Seed and support local reuse programs for cups, takeout-ware and food packaging (P)	Lead by example by prioritizing reusables at municipal facilities, get DoS staff on board as early adopters.	Sustainability	Food Systems	○					●	
Zero Waste: DG4. Create solutions for reducing textile waste (P)	Gather data on local volumes and share this with the province.	Sustainability / Economic Development	Textiles	○	●	●		●		
Zero Waste: PS1. Implement education and behaviour shift campaigns to reduce packaging and single-use items (E)	Work with universities and schools to use reusables.	Sustainability	Food Systems	○			●			●

Prioritize regenerative resources	○
Stretch the lifetime	●
Use waste as a resource	●
Investment and procurement	●
Innovation	●
Policy, education and communication	●
Collaboration and partnerships	●