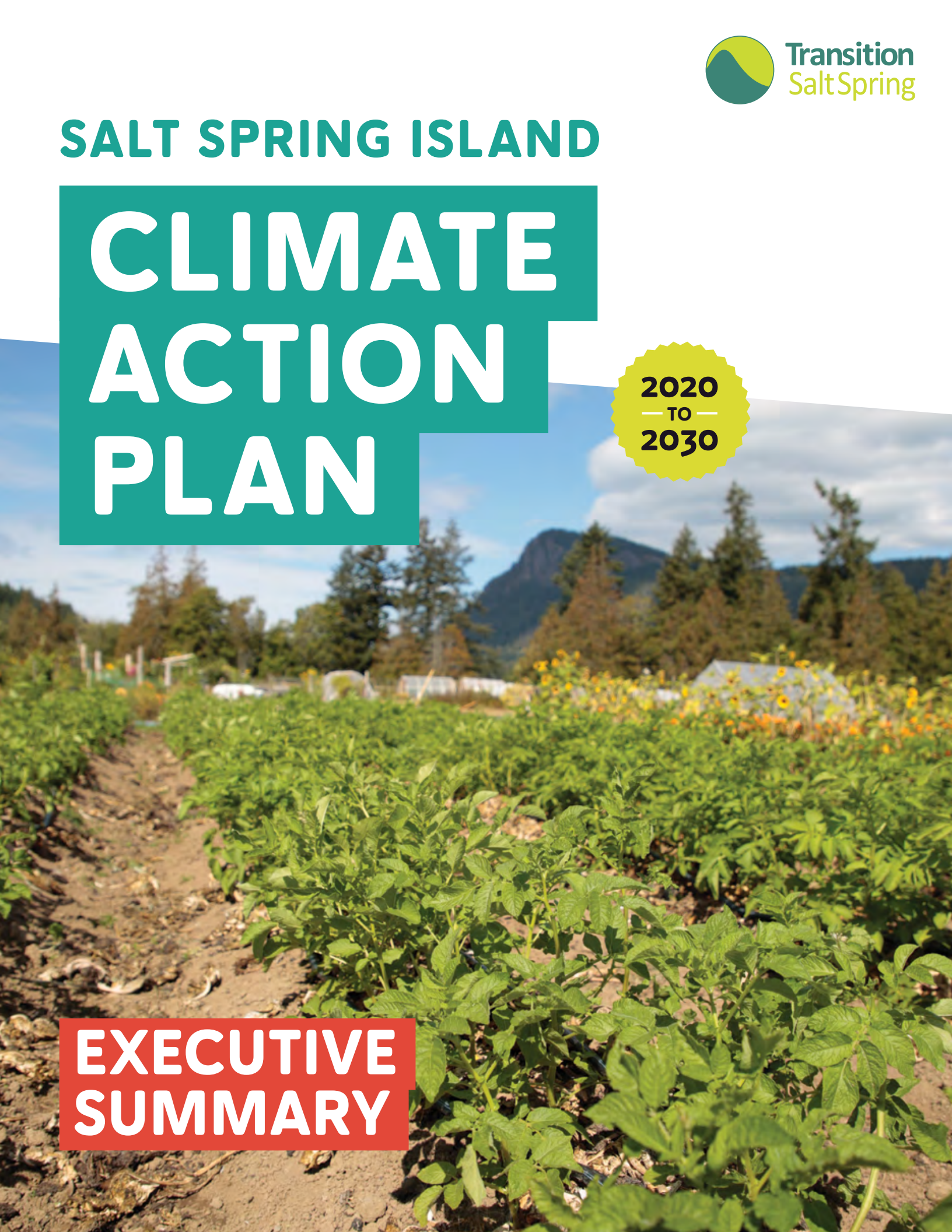


SALT SPRING ISLAND

**CLIMATE
ACTION
PLAN**

**2020
— TO —
2030**

**EXECUTIVE
SUMMARY**



This section of the Salt Spring Island Climate Action Plan 2.0 is offered as a standalone document for the convenience of our readers. Note that the standalone documents are missing the context for the plan as a whole and any references or other appendices. For a PDF of the whole Plan which includes all references, or for access to any of the appendices and climate risk maps and data go to <http://transitionsaltspring.com/responding-to-climate-change>

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EXECUTIVE SUMMARY

The Salt Spring Climate Action Plan 2.0 (CAP 2.0) outlines 250 recommended actions to address the climate change crisis on our island home. Taking these actions will:

- reduce emissions of greenhouse gasses 50% by 2030
- help adapt our island community and its ecosystems to the changes already underway.

The results:

- meaningful livelihoods and enterprises for islanders working to implement new climate smart infrastructure and initiatives
- increased availability of local food choices, adding to the island's economic vitality and resilience
- fewer hits to the island's economy due to damage to homes, buildings and infrastructure and loss of life from fires, flooding, and other climate change impacts
- preservation of the island's tourism values and natural amenities due to avoided environmental degradation

This Plan is intended for implementation by the entire community, including residents, landowners, non-government organizations, businesses, along with the three levels of government and related agencies that serve islanders.

This Plan was a community-led effort led by twenty-three Salt Spring volunteers, with the input of dozens of experts and input from more than two thousand islanders over more than a year, and builds upon CAP 1.0, which was published in 2011.

The climate crisis here on Salt Spring

No region of our planet is escaping human-induced climate change. The changes are already happening, and will accelerate in the years to come. Forest fires, like those in the western US and Canada, and increasingly damaging storms, like the one we experienced in 2018, are examples of the changes now underway. On Salt Spring, we will continue to see increases in the number and severity of:

- droughts leading to greater forest fire risk and water shortages
- intense windstorms causing costly road closures, power failures, and damage to homes and buildings
- health threats including cross-boundary forest fire smoke, novel insect infestations, and diseases
- sea level rise and intense winter storms inundating low-lying areas including Ganges
- migration pressure from regions harder hit by climate change-related disruptions like food supply collapse and political disruption

Like every community around the globe, Salt Spring has an obligation to do its fair share on climate action. Our average per capita income and emissions are much higher than most regions on the planet. This means a greater responsibility to take bold climate action now.

We enjoy relatively abundant clean hydro-electricity and a mild climate, putting our region in a better position than most to more easily transition to a zero-carbon, lower impact economy. By taking local action now, we help ensure that we can continue to enjoy access to a healthy natural environment that islanders and visitors alike treasure.

Our community can significantly reduce the risk of catastrophic loss by preparing now for the unavoidable impacts of climate change. In acting now, we can lower the costs of climate change by investing in

the hard infrastructure, ecological restoration, and regulatory changes we need to avoid much more costly and chaotic outcomes.

Risks to our community

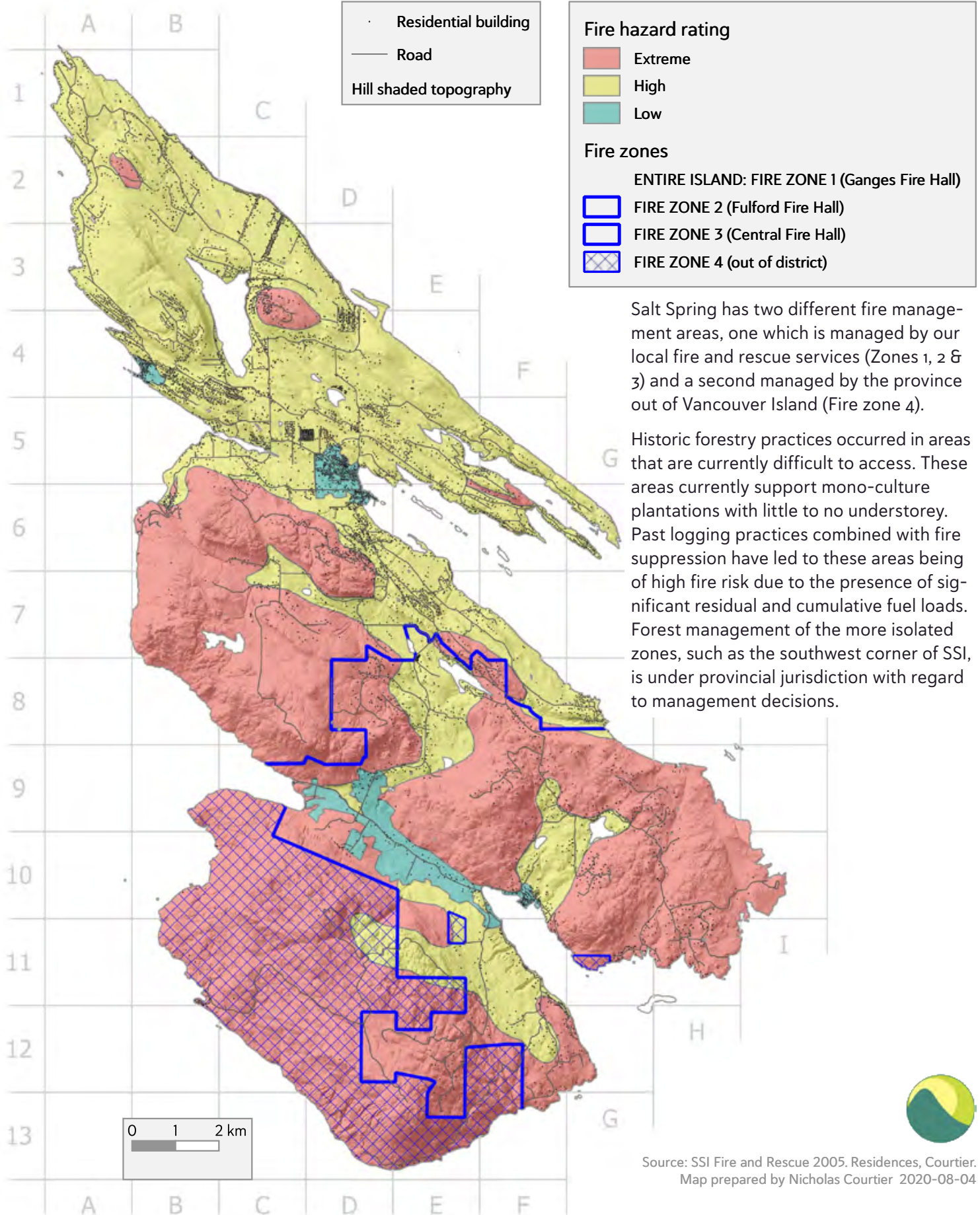
The greatest immediate risks to our community is from extreme weather events (Appendix 2). In particular, changing storm intensities and the changes in seasonal weather patterns, most notably less rainfall in the summer and heavier rainfall in the winter months. By far the biggest climate risk faced by Salt Spring is the increasing risk of forest and brush fires, with implications for human health and water quality. Usually human-caused, these events place lives at risk, but also put significant strain on emergency services and water resources, with attendant risks to our power supplies, transportation routes, and the economic stability of our community.

As part of CAP 2.0, a team conducted a risk assessment to look at changes in extreme weather to better understand how they impact our homes families, and livelihood as well as the natural environment of our island:

- the speed of onset of the different climate stressors differs, making some actions more urgent than others,
- fire and drought are both the most urgent and high impact aspects of climate change for our community,
- local forests store extraordinary amount of carbon and can reduce fire, washouts and associated risks to surface water flows and groundwater levels;
- land management choices significantly affect local risk and greenhouse gas emissions.

Each chapter of this Plan outlines the priority actions to reduce areas of high vulnerability. Each chapter also identifies those groups who are positioned to lead or contribute to these actions.

Fire



Salt Spring has two different fire management areas, one which is managed by our local fire and rescue services (Zones 1, 2 & 3) and a second managed by the province out of Vancouver Island (Fire zone 4).

Historic forestry practices occurred in areas that are currently difficult to access. These areas currently support mono-culture plantations with little to no understorey. Past logging practices combined with fire suppression have led to these areas being of high fire risk due to the presence of significant residual and cumulative fuel loads. Forest management of the more isolated zones, such as the southwest corner of SSI, is under provincial jurisdiction with regard to management decisions.



Recommendations

This Plan recommends that we accelerate efforts to meet or exceed GHG emissions targets set in CAP 2.0, and increase our resilience to help us survive and thrive in the challenging decades to come.

This will require significant investments, resulting in changes to systems, regulations, and processes that will impact residents, businesses, the CRD, the Islands Trust, and other organizations, including our water agencies and emergency services providers.

Following are a few critical prerequisites that will set us up for success. With these changes, the conditions for success will be present.

1. Foster systemic change: We need to bring together organizations and government to plan across silos and jurisdictions to deal with the climate crisis and implement ecosystem level planning. Agencies as varied as Salt Spring Fire Rescue, the water districts and authorities, and local non-profit organizations can accomplish much working across disciplines and jurisdictions to accomplish the climate action we need to meet CAP 2.0's, and indeed, the CRD's 50% emissions reduction target by 2030. To get there organizations like the CRD and the Islands Trust will need to adjust everything from their organizational structures to their compensation and performance systems in order to reflect the gravity of this emergency. Institutional inertia is simply not an option in an emergency.
2. Enable collaborative projects: Salt Spring has unique governance, necessitating intra-agency collaboration, together with joint government, agency, and non-governmental leadership. Collaboration on a large-scale can be accomplished through task forces that serve as vehicles for climate action. The Islands Trust housing working group is an example of the type of multilateral vehicle necessary to tackle challenging issues. Transition Salt Spring, with sufficient financial and community support,

is committed to playing a role as keeper of the Plan and as community convenor to facilitate collaboration leading to project development.

3. Build better policy frameworks: While concrete action in how we move around, build, eat, and play is critical, changing the legal frameworks that govern many of these activities is critical to enabling climate action. First, the Islands Trust needs to undertake a review of the Salt Spring Island Official Community Plan (OCP). How we build and where we build will become increasingly important as sea levels rise, forest fire risks increase, and in-migration continues. The OCP must be amended to keep our communities safe and to preserve and protect increasingly stressed ecosystems, and the Land Use Bylaw amended accordingly.

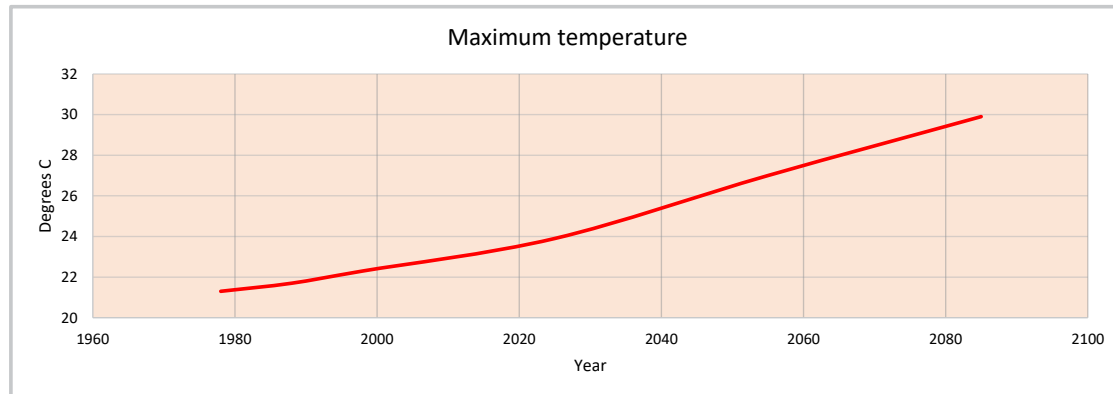
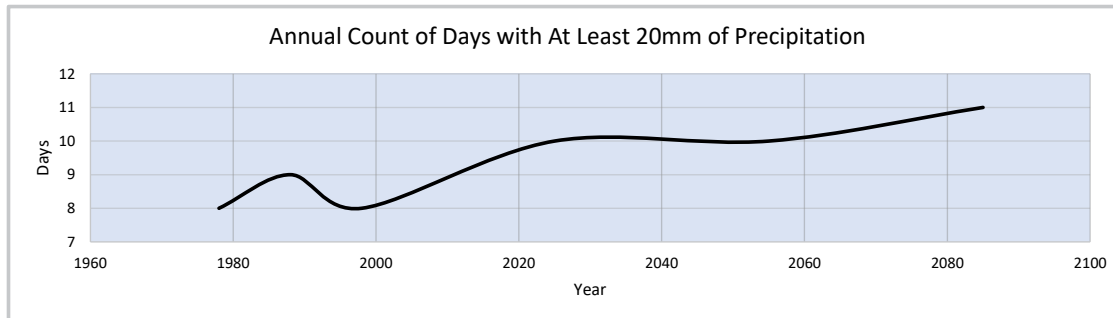
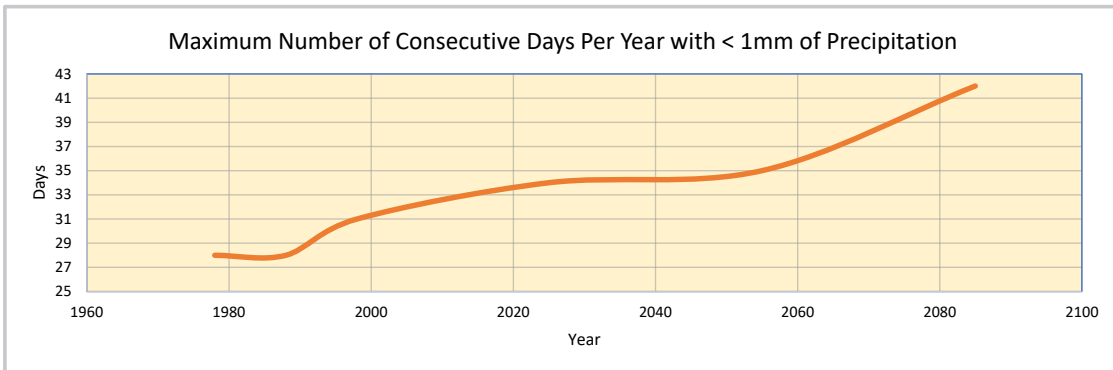
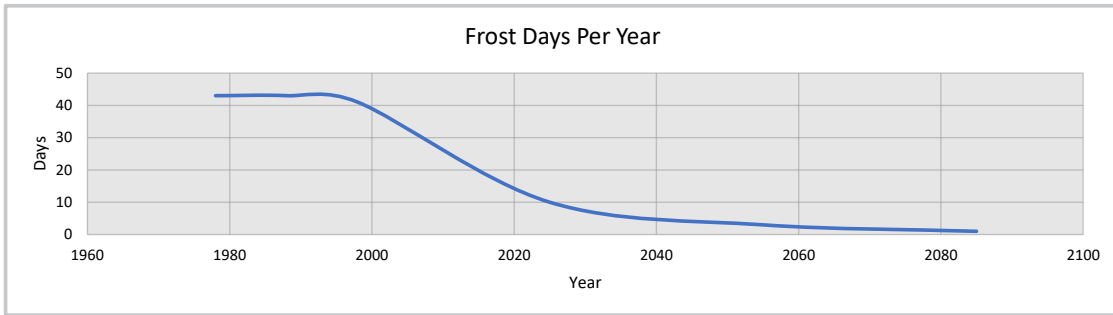
Second, the provincial price on carbon needs to reflect the actual costs and risks to our environment and to our economies. Raising the current price to \$200/tonne could provide the funding we need for innovative climate adaptation projects like large-scale forest-based carbon sequestration that provide high quality jobs.

“ We need to bring together organizations and government to plan across silos and jurisdictions to deal with the climate crisis and implement ecosystem level planning

While some climate action can be undertaken now, much of the work outlined in CAP 2.0 will require implementation of these three steps – which will demand much of our governments, agencies, businesses, and non-governmental organizations.

Work will also be needed to develop the policies, incentives, regulations, programs, projects, and built infrastructure to keep our island safe in the decades to come. The following is a summary of the key sector-specific priorities outlined in CAP 2.0.

Salt Spring Island Climate Change Projections



Source: PCIC Climate Explorer, CanESM2, rcp8.5, Salt Spring Island polygon.

The four graphs show how our weather cycles are expected to change over the next 80 years. From top to bottom: winter frost periods will be dramatically reduced, with implications for overwintering pests and extended growing season for some food crops. Although the same annual precipitation is expected, on average, there will be less rain in the summer and droughts will become longer and more severe. However, more rain will come as heavy downpours in the winter months. Most warming will be realized through the winter months as the lack of low temperatures. This is reflected in the final graph, showing the average annual maximum temperature increasing.

Transportation

Two key focuses for transportation are to reduce emissions by close to 40 thousand tonnes or 68% by 2030 and to develop mobility alternatives that promote healthy living and increase accessibility.

- Electrify cars, trucks, public transportation, and ferries, and install sufficient commercial charging
- Build trail infrastructure to make it easier and safer to get around on foot, by bicycle, and by mobility devices
- Expand public transit service and build ridership
- Implement programs to facilitate vehicle-sharing, fuel efficient driving, and trip planning to increase the efficient use of fossil-fueled vehicles



Food and Agriculture

Two key focuses for food and agriculture are to reduce food-related emissions by over 32 thousand tonnes or 48% by 2030, and to build local food security and climate change resilience by supporting sustainable local food production.

- Promote climate-friendly food choices, with a focus on locally grown food and regional food systems
- Reduce food waste by developing an on-island composting facility, and distribute the proceeds to island growers
- Increase food production, while increasing the sector's climate change resilience by building grower knowledge about regenerative agriculture to increase soil carbon and enhance crop yields organically

Forest Ecosystems

Climate risk mapping conducted as a part of this project revealed how important the restoration of our forest ecosystems is to our island's climate change resilience. The following priorities for forest ecosystems will help keep our community safe from forest fires and protect our limited fresh water supplies. In turn, we can increase biodiversity and reduce our emissions by 8,000 tonnes or 50% by 2030 by sequestering carbon in trees and soil through reduced clear-cut logging.

- Gain regulatory authority and introduce new tools for the Islands Trust to limit traditional clear-cut logging and properly incentivize landowner participation
- Implement a forest mapping, monitoring, and research program to inform public policy and landowner practices
- Actively manage and restore healthy forests to better protect our communities
- Rebuild forest understoreys by controlling deer and rabbit populations to preserve soil moisture, add fertility, and improve the climate change resilience of trees

Freshwater Ecosystems

The future viability and safety of our island's potable water supply will be under increasing threat if we do not act now to protect it in the face of increasing drought, higher temperatures, and more damaging storms. Forests and freshwater ecosystems are two key interlocking pieces that can help build community resilience in the face of multiple climate change related threats.

- Implement watershed level ecosystem-based planning to protect water supplies and wildlife, prevent flooding, augment low water levels, improve aquifer recharge rates, and boost water quality
- Promote widespread rainwater harvesting, water conservation, and better management practices to maintain water levels, reduce sedimentation, and decrease the number of bacterial or algal incidents
- Reduce forest fire risks to protect water quality and water levels

Built Infrastructure

We need to change how we build, where we build, and how we manage our island's buildings and infrastructure to both lower our emissions and improve our climate change resilience in the challenging decades ahead. Buildings and community infrastructure sited in locations facing very high fire risks or sea level inundation risks lower our resilience in the face of climate change.

- Reduce emissions from the construction and operation of new and existing buildings by encouraging the integration of low-carbon materials and systems
- Reduce water consumption through rainwater storage and greywater reuse, supported with public engagement, incentives, and streamlined regulations

- Phase out open burning to reduce emissions and reduce fire risk, converting the resulting woody debris into biochar or wood chips to provide valuable soil amendments
- Build climate change resilience by requiring continuity plans to account for climate risks, building electrical systems redundancy and self-generation, and enhancing island-wide radio and emergency preparedness networks



Save the Salish Sea event in Ganges. © GARY MCNUIT

Land Use and Settlement Patterns

Land use regulations are key to guiding development away from climate related risks like sea level rise and high forest fire risk. They can also lead to lower emissions by specifying or incentivizing certain building practices or by siting built infrastructure efficiently to decrease transportation-related emissions.

- Review Salt Spring Official Community Plan to address climate risk and align land use bylaws with it to reduce emissions, and integrate ecosystem-based planning
- Revise and simplify all land-use processes and procedures, especially as they relate to permitting, in order to encourage and facilitate climate-smart development, including clustered housing and more affordable housing options
- Implement plans, policies, and procedures to ensure our community is prepared for projected climate risks like sea level rise

Individuals and Families

A great number of climate actions can be implemented by all of us on Salt Spring. These changes reduce emissions and help adapt our homes and properties to the changes already underway. These changes can also improve our health and well-being while building our local economy. Transition Salt Spring will engage Salt Spring Islanders to help them take part in implementing climate action.

- Invest in upgrades to homes to reduce emissions and build resilience in the face of fire, storm, and water-related risks
- Ensure the next vehicle is a new or used electric car or bike
- Ask experts like those at the Salt Spring Island Conservancy how to minimize tree removal, better retain water, and build soil
- Advocate for climate action at all levels of government and help support some of the many groups on Salt Spring dedicated to climate action
- Make more climate-friendly and local food choices, and, if possible, grow a garden



Next Steps to Implement this Plan

Achieving the necessary changes to keep us safe in the years ahead will take significant effort and will involve everyone. Transition Salt Spring (TSS) is preparing to do its part by convening island groups and government to collaboratively develop climate action projects and set us on the road to meeting the targets outlined in this Plan.

In the first six months following publication:

- TSS convenes potential climate action partners to discuss collaborative frameworks for climate action
- TSS develops a detailed business plan
- CRD and the Islands Trust provide official response to CAP 2.0
- CRD and the Islands Trust commit funds for selected projects and commit to participation in a collaborative framework to implement climate action
- TSS collaborates with climate action partners to develop a climate action community engagement process for residents

Six months or more following publication:

- TSS and its climate action partners have secured funding to roll out climate action engagement programming for residents
- A collaborative framework for climate action on Salt Spring is operational and developing project plans for funding and implementation

The Plan we present here is a blueprint for climate action on Salt Spring across many key sectors. It envisions us working together to ensure a positive, vibrant, inclusive and diverse community set on an island with healthy forests, waters, and wildlife for future generations.