



Galiano
Conservancy
ASSOCIATION

Millard Learning Centre Management Plan



Sculpted sandstone shoreline of Chrystal Cove











Originally Published: 2013

Revised and Updated: 2023

10 Years on the Land...

In 2012, the 76 hectares of the globally-rare Coastal Douglas-fir ecosystem known as 'DL 57' consisted of a curious patchwork of well-preserved and highly degraded lands hugging a magnificent, undeveloped shoreline. In the first decade of the Galiano Conservancy's tenure on the Land, we have protected intact ecosystems and transformed disturbed areas into world-class learning facilities for ecological restoration, sustainable food production, and climate adaptation. Known today as the 'Millard Learning Centre', this Land is now the heart of the Galiano Conservancy's operations and network of protected areas.













Highlights from the evolution of our relationship with these Lands include:¹

-  Adoption of a unique zoning - **Environmental Education & Nature Protection** - and the publication of a variety of detailed planning documents to facilitate our vision for the Land
-  Establishment and care of over 8 km of scenic and interpretive **public hiking trails**
-  **Growing partnerships with Indigenous people** in events, educational programs, and activities on the land, with a vision for long-term comanagement
-  **Delivery of high quality outdoor educational programs** to over 10,000 youth participants, as well as over 1,000 adult and post-secondary participants in workshops and field schools
-  **Ecological restoration** of over 16 ha of degraded land, informed by diverse perspectives and resulting in the planting of over 4,500 native plants, the creation of over 80 individual wetland pools, and the safe disposal of over 6500 kg of waste
-  Ecosystem-based management resulting in **significant reductions of introduced species** across the property, as well as management of problematic native species
-  Creation and operation of productive Food Forest, nursery, and composting facilities to provide **food and nursery plants** for the island community and for use in our programs
-  Construction of **office, classroom, and campsite facilities** to support organizational operations, educational programs, and public events
-  Installation of **climate adaptation demonstration infrastructure**, including 24 kW of solar power (making us a net-zero facility!) and over 28,000 gallons of rainwater storage capacity
-  Robust environmental protection of 49 ha of intact Coastal Douglas-fir ecosystems, including over **2 km of undeveloped shoreline**

¹ See Appendix B in this document for a detailed list of accomplishments

A wide variety of planning documents, student technical reports, internal reports, and public facing media - including brochures, short films, podcasts, and virtual tours - have been produced to document and communicate the accomplishments, lessons learned, and changes on the Land from the past decade.²

Looking ahead at the next 10 years, this revised and updated Millard Learning Centre Management Plan outlines an equally ambitious set of priorities and proposed actions. These include the following:

-  Strengthen relationships with Indigenous people on and around Galiano Island by continuing to pursue partnerships in the management, use, and creation of learning opportunities on the land
-  Complete primary ecological restoration activities within the Chrystal Creek watershed, maintain restored areas, and undertake restoration of the 'waterfall creek' watershed
-  Remove remaining unused skid roads, structures, ditches, and debris from the property
-  Continue to control and eliminate target introduced species across the property
-  Identify, detect, and protect Species at Risk (SAR) on the property by developing a prioritized list and implementing site-specific recovery and restoration plans
-  Protect culturally-significant species and ecosystems, identify opportunities for enhancement, and facilitate harvest in partnership with Indigenous partners
-  Promote and conduct research in partnership with students and Indigenous partners, and publish results in an accessible and appropriate format
-  Complete a Safety and Emergency Preparedness Plan for the Millard Learning Centre that incorporates and expands upon existing safety documents and procedures
-  Circumscribe and formalize the designation of trails, roads, parking areas, infrastructure, and learning areas to concentrate sustainable use within the smallest area possible
-  Explore opportunities to contribute locally to the conservation and restoration of the marine environment of the Salish Sea
-  Explore models for sustainable, ecologically-driven forestry on the Land
-  Enhance interpretive infrastructure and climate demonstration facilities on the Land

A detailed management plan awaits for those who would like to read further...

² These can be found in the 'Knowledge Hub' on our website - www.galianoconservancy.ca

Executive Summary

District Lot 57 (the Land) is a 76-hectare parcel that was acquired for conservation and to provide a centre of operations for the Galiano Conservancy Association (GCA). The Millard Learning Centre (MLC) Management Plan (the Plan) describes the vision, goals, and principles that the Galiano Conservancy uses to manage the property and provides broad direction and guidance for associated uses and activities.

The Plan uses an ecosystem-based approach that looks first at the most important areas for ecological protection, and then at the suitability of remaining sites for other desired uses, activities, and infrastructure. It includes goals and objectives focused on:

- practising ecological stewardship
- practising ecological restoration and eco-cultural restoration
- creating opportunities and providing facilities for learning, research, and innovation
- contributing to local food security
- contributing to local economic development
- providing public access to nature
- creating opportunities for recreation
- demonstrating climate-positive approaches to energy, water, shelter, and food
- facilitating access for Indigenous people to areas and species of cultural significance

The Plan also provides guidance for where identified uses, activities, and infrastructure should be located on the Land. The designation and description of Management Areas is broadly based on the permaculture approach to “zones,” with a graduation from high-intensity use areas (facilities, intensive agriculture) to moderate intensity (integrated agriculture, agroforestry, eco-forestry, and ecological restoration) to low-intensity use (hiking, outdoor learning sites, ecological protection, traditional harvesting). While ecological health and resiliency are considered in all areas, the degree to which this is considered and the intensity of suggested uses varies.

In the years since the original Plan was published, many of the objectives have been realised. This updated Plan provides a summary of objectives for years 10 through 20 of the Galiano Conservancy’s tenure on the Land. The MLC Committee - made up of GCA staff, GCA Board Members, and volunteers - will oversee, monitor, and review the progress of ongoing management activities.

Preamble

The Millard Learning Centre lies within the shared, asserted, unceded and traditional territories of the Hul'qumi'num-speaking First Nations Peoples and those who hold traditional rights, responsibilities, and Indigenous rights and title in and around what is now known as Galiano Island. The Land is home to relationships, obligations, and stories dating back to time immemorial that members of the Galiano Conservancy Association are only just beginning to understand, appreciate, and reckon with. This is a process that demands immediate attention and requires short-term actions and long-term vision in partnership with Indigenous people.

The Land consists largely of a narrow valley nestled between forested ridges that slope in a series of mossy benches to sandstone cliffs along Trincomali channel. The 2 km seaward ridge is covered by largely undisturbed Douglas-fir and arbutus forest, with patches of Garry oak. It is one of the largest unbroken shoreline forests remaining in the Gulf Islands. The interior valley and the inland ridge which runs parallel to it have been used over the past century for logging and agriculture.

The property is linked through an extensive trail system to a great diversity of other protected locations: open ridgelines, beaver wetlands, streams draining to both sides of the island, beaches, rocky intertidal zones, and a variety of forest types ranging from old-growth to tree plantation. These areas - which together form the 666-ha Mid-Island Protected Areas Network (MIPAN) - have been the focus of decades of restorative, educational, and scientific work conducted by the GCA, with thousands of visiting students of all ages. Acquired in 2012, the Millard Learning Centre has expanded and diversified the Conservancy's restorative and educational work in many ways:

- The size and location of the property - along with the diversity of ecosystems and mandated uses - provide significant opportunities for practising reconciliation with Indigenous peoples and working together to support the health, productivity, and accessibility of the Land.
- Two overnight campgrounds in the valley allow groups to stay for longer periods, permitting detailed and extensive programs in natural and human ecology through an outdoor immersion experience.
- Environmental damage resulting from historical uses of the land provides opportunities for practising ecological restoration along with long-term ecological monitoring and research.

- The waters of Trincomali Channel and their interface with the land allow visitors to learn about and research sustainable coastal living and marine biodiversity.
- The establishment of two forest gardens, a container nursery, and other agricultural infrastructure (with a significant portion within the Provincial Agricultural Land Reserve) enhances island food security, provides an opportunity for social enterprise, and enables visitors to become more connected to their food.
- Year-round facilities provide a permanent home for the day-to-day activities of GCA staff and expand capacity for learning, personal growth, and organizational stability.
- Renewable energy, and energy and water conservation infrastructures, offer models for lessening dependence on fossil fuels, achieving net zero emissions, and increasing local self-reliance.
- Large areas set aside for environmental protection provide spaces for observation, contemplation, research, evolution, and harvest of culturally-significant species.



View of the Classroom and "Grandmother Cedar" overlooking restored wetlands

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Management Plan Context

Plan Purpose

This management plan is a general statement of how District Lot 57 - referred to as DL 57 or 'the Land' or 'the Millard Learning Centre (MLC)' - is and will be managed. It states in a broad but comprehensive manner the long-term management goals and objectives for the property, as well as general guidelines and zoning that inform where and how intended uses of the land should be carried out. The document provides a framework from which more detailed site-specific planning can occur. General content should be viewed within the context of a timeline that spans several decades. The document also determines more specific short-term actions that are intended to be carried out over a 10-year period. It reflects the progress made and lessons learned from the first decade of Galiano Conservancy Association (GCA) management activities on the property.

Description of the Management Organization

Formed in 1989 as an instrument for community-based acquisition, management and conservation of land and habitat, the Galiano Conservancy Association has become a broad-based organization whose primary purpose is *"To protect, steward and restore Galiano Island ecosystems by creating a network of natural areas where a healthy environment, learning and a love of nature flourish."* From its beginning, the Conservancy has been devoted to:

- land and marine conservation
- stewardship and restoration; and
- environmental education and public awareness

The GCA has successfully protected important ecological communities on Galiano Island through direct land purchase and cooperative partnerships. It has conducted extensive long-term biological monitoring, implemented award-winning ecological restoration programs, and has established its own native plant nursery and sustainable food systems program. The Galiano Conservancy sustains a dedicated staff and offers ongoing education programs for local and regional communities.

The GCA has developed long-standing partnerships with a wide variety of conservation, environmental and educational organizations, several of which provided key contributions to the original plan.

Organizational Capacity and Sustainability

Achieving the full range of goals and objectives determined in this Plan will require sufficient capacity within the Galiano Conservancy Association. The Conservancy currently has a solid organizational structure, membership and volunteer base, committed leadership, and key partnerships in place. The requirement for financial capacity depends on the support of our members and the continued development of partnerships with organizations and institutions that will participate in and help deliver programs at the MLC.

Acquisition and Related Requirements

The Galiano Conservancy purchased DL57 in February 2012 from William (Bill) and Lennis Campbell. The parcel of waterfront land had remained unsubdivided since its original Crown Grant and was zoned for rural residential and agricultural use. Mr. Campbell had owned the Land since 1958, and had used it accordingly for residential, agricultural and forestry activities. The acquisition was accomplished with matching funds from the Natural Areas Conservation Program (NACP), administered by the Nature Conservancy of Canada (NCC) on behalf of Environment Canada. It fulfilled many ecological criteria and provided a potential home for the facilities and activities that characterise the Millard Learning Centre. The purchase of the Land was assisted by a loan from the Vancity Resilient Capital program together with a substantial bequest from the Betty Kleiman Estate and many individuals who donated funds, guaranteed the loan and committed to servicing the loan payments. The loan has since been repaid in full and the property is owned by the GCA outright; however, to secure the natural amenities protected through NACP funding, a mortgage in favour of NCC remains registered on the land title.

The management plan must be revised and renewed every 10 years, with an interim review at the five-year mark; or, as otherwise agreed to by the Galiano Conservancy Association and NCC.

Management Philosophy³

What is best for the ecosystems of the land and nearshore should figure highly in any decisions. The land should be regarded as a community to which we belong that both

³ Based on excerpts from Aldo Leopold's *A Sand County Almanac* and Eric Higgs' *Nature by Design*

sustains us and is sustained by us; to be honoured, loved and respected. Activities on the land should bring us closer to natural processes, to ourselves and to one another.

Management Principles ⁴

1. Protect intact ecosystems and native biodiversity first.
2. Recognize the hierarchical relationship between ecosystems, cultures, and economies - that economies are part of human cultures, which are part of ecosystems. Maintaining the integrity of ecosystems provides the basis for sustainable cultures, including their economies.
3. Apply the precautionary principle to all plans and activities.
4. Restore ecological connectivity and the composition, structure, and function of native ecosystems where they are lacking.
5. Work with Indigenous people to facilitate the protection and restoration of Indigenous land use.
6. Ensure that planning is inclusive of the range of values and interests held by GCA members and Indigenous people.
7. Contribute to a diverse, ecologically sustainable local economy.
8. Practice adaptive management.

Description of the Land

Lot Size

76.1 hectares (188 acres)

Title

Registered Owner in Fee Simple: Galiano Conservancy Association

⁴ Adapted from Silva Forest Foundation - Definition and Principles of Ecosystem Based Conservation Planning

Legal Description: District Lot 57, Galiano Island, Cowichan District, PID: 002-025-175

Legal Notations: Title may be affected by the *Agricultural Land Commission Act*: See Agricultural Land Reserve Plan No. 4, July 11, 1974

Mortgage: CA2394335, 2012-02-15, The Nature Conservancy of Canada

Location

The Land is located at 10825 Porlier Pass Road, roughly in the middle of Galiano Island. From the ferry terminal, follow Sturdies Bay Road to the intersection ('Triangle') with Porlier Pass Road. Veer to the right onto Porlier Pass Road and follow for roughly 10.8 kilometres to the main access driveway on the left about 400 metres beyond the intersection with McClure Road. See **Map 1** for the Location of DL 57 on Galiano Island.

Local Land Use Zoning and Designation

The property is split zoned: Environmental Education & Nature Protection (EE/NP; 60.25 hectares) and Agriculture (AG; 15.85 hectares). The property was successfully rezoned in October 2018 from the original zoning of Rural 2 (R2).⁵

Environmental Education and Nature Protection is a unique zoning created specifically for the Millard Learning Centre, based on the definition that:

“Environmental education means the promotion of attitudes and value systems, through structured educational activities and programs, that influence environmentally ethical behaviour by developing understanding, skills and values that will enable people to participate as active and informed citizens in the development of an ecologically sustainable and socially just society.”

This special zoning allows for the following uses:

- Environmental education and nature protection
- Research and educational activities and facilities with accessory camping
- Ecological restoration
- Passive recreation including publicly accessible trails

⁵ Galiano Island Official Community Plan and Land use Bylaw documents can be found at <https://islandstrust.bc.ca/island-planning/galiano/bylaws/>.

- Accessory rustic camping
- Accessory residence
- Accessory structures including wood and storage sheds
- Demonstration Gardens

The following structures are permitted:

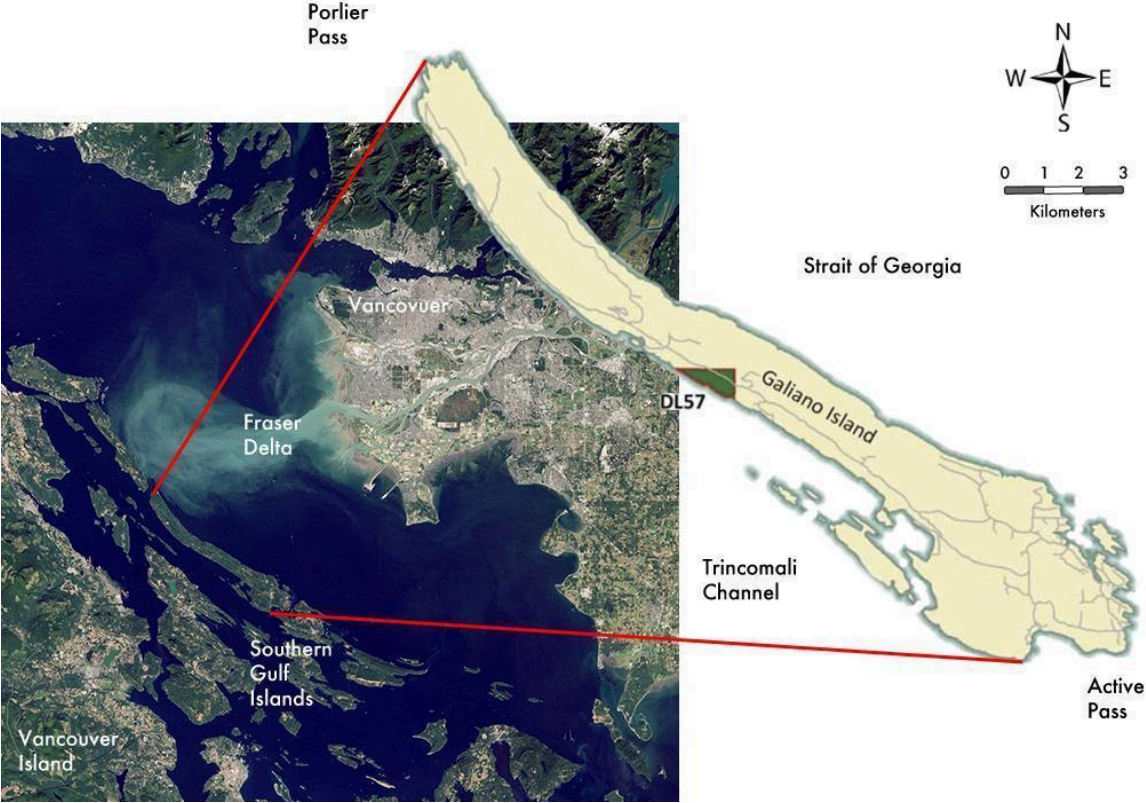
- In association with research and education facilities:
 - Classrooms and laboratories
 - Administration buildings containing offices and a library
 - Kitchen and dining facilities including traditional pit cooking area
 - Sleeping quarters for staff and program participants, not to exceed 76 persons, which may include up to 12 structures and up to 18 tent platforms with floor areas not to exceed 10 m²
 - Showers and washing facilities
 - Outdoor amphitheatre
 - Information kiosk
- In association with accessory rustic camping
 - A maximum of 18 tent platforms with floor areas not to exceed 10 m²
 - An outdoor pavilion (no walls) for dining, food preparation, and teaching
 - Outhouses
 - Fire pit area
- Campsites and tent platforms shall be sited in designated areas and shall not exceed a combined total of 36
- Permanent structures are not to exceed a total of 2,250 m² in area, or 9 metres in height; accessory structures are not to exceed 5 metres in height
- Total lot coverage is not to exceed 0.5%
- No more than one accessory dwelling is permitted

SRoW and Provincial Agricultural Land Reserve

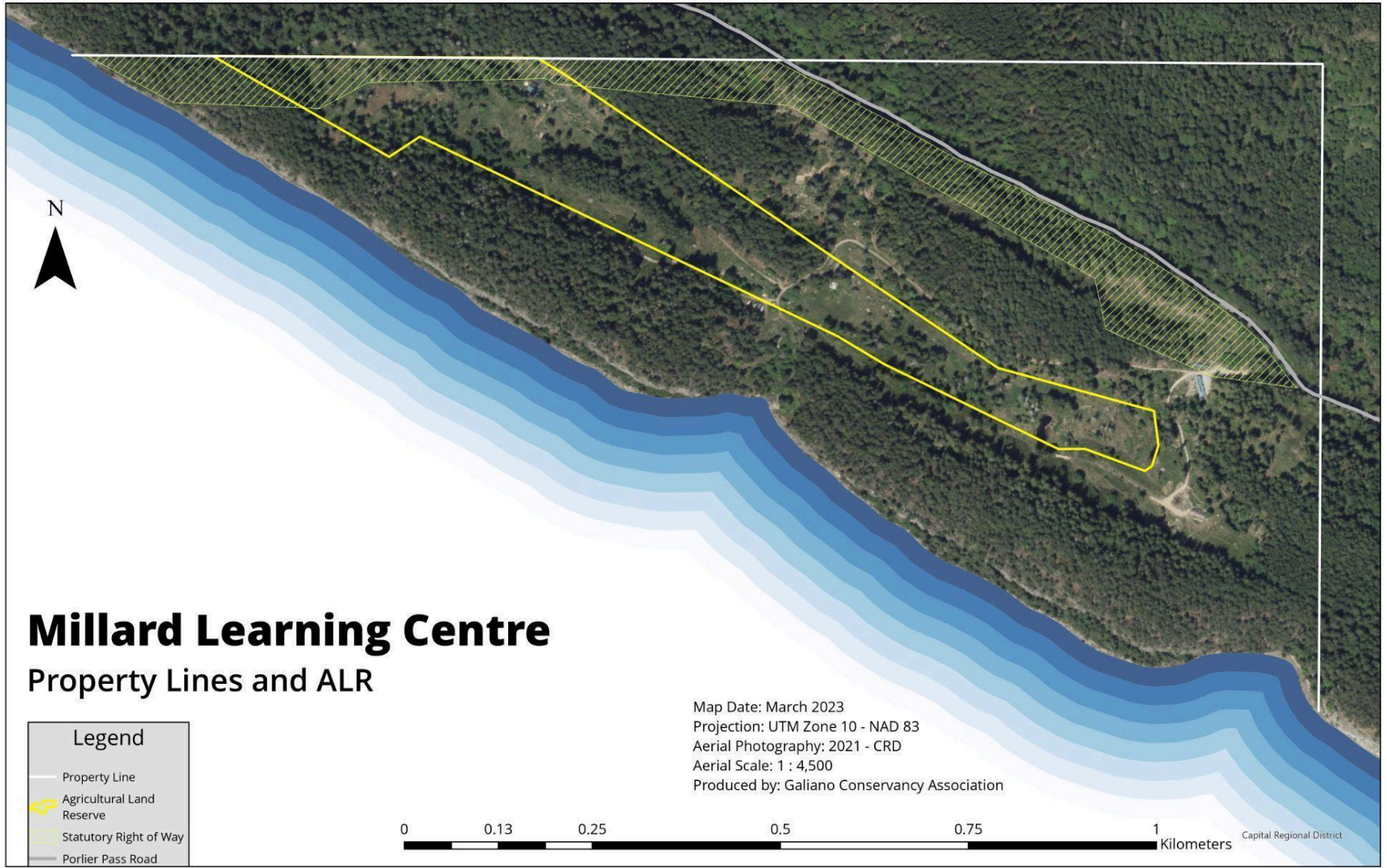
As a condition of rezoning the Local Trust Committee required a Statutory Right of Way (SRoW) be applied to an area of land adjacent to boundaries of Porlier Pass Road and northwest property line. The purpose of the SRoW is to ensure public pedestrian access to the Tranquility Bluff Trail (completed in 2023), and also allow for the Regional District to build a bicycle path adjacent to Porlier Pass Road should they wish to do so in future.

A 13.4 ha piece of the property is designated as Agricultural Land Reserve (ALR) under the Agricultural Land Commission Act. See **Map 2** for approximate SRoW and ALR boundaries.

Map 1: Property Location Within the Salish Sea



Map 2: Property Lines and ALR



Ecological Significance

District Lot 57 lies in the heart of the Coastal Douglas-fir zone (CDFmm), an ecological classification that is ranked as imperilled both provincially and globally.

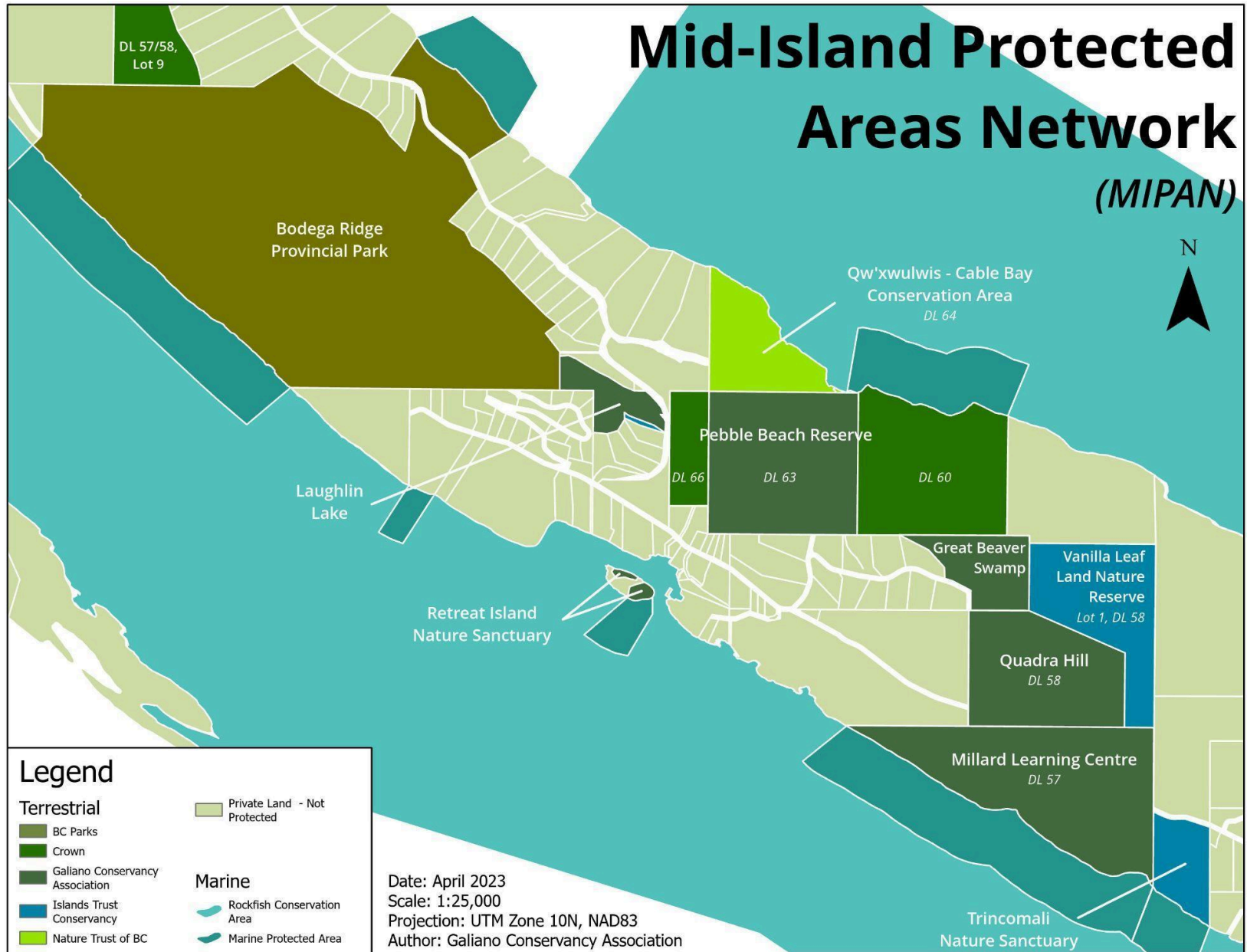
“The Coastal Douglas-fir biogeoclimatic zone (CDF zone) is the smallest and most at-risk zone in British Columbia. As home to the highest number of species and ecosystems at risk in B.C., many of which are ranked globally as imperilled or critically imperilled, it is of great conservation concern. The global range of the CDF lies almost entirely within B.C., underscoring both its global uniqueness and B.C.’s responsibility for its conservation... Of all the zones in the province, the CDF has been most altered by human activities.”⁶

The protection of District Lot 57 (DL 57) was identified as a high priority in the Islands Trust Conservancy’s Regional Conservation Plan (2011-2015), which was endorsed by the Islands Trust Council (December, 2010), and the protection of DL 57 is consistent with the goals of NCC’s Salish Sea Natural Areas Conservation Plan. The property is part of the Mid-Island Protected Areas Network (MIPAN), a 666-ha contiguous network of conservation properties that protects a significant portion of Galiano Island’s topographic variation and associated ecological diversity, and secures valuable pathways for plant and animal migration from sea level to Galiano’s highest ridgeline. The network also includes marine areas adjacent to its shoreline boundaries that have been designated for protection under local land use bylaws. **Map 3** provides an overview of MIPAN.

While DL 57 includes tracts of healthy old growth and mature forest, wetlands and sensitive coastal bluff, it also has an extensive history of agricultural use, grazing and small-scale forestry. The context of landscape-level connectivity within MIPAN, the high conservation value of the land and the history of land-use, make DL 57 ideal for learning, research, and demonstration focused on ecological restoration and sustainable rural living. The Land’s significance for this purpose is rooted in the close proximity of healthy, intact ecosystems to altered and damaged areas. Restoration activities over the past decade have enhanced ecological values across the property, improving connectivity and setting damaged ecosystems on a path to recovery.

⁶ Coastal Douglas-fir and associated ecosystems Conservation Partnership. (2021). *Conservation Strategy 2021-2025*. Retrieved from: <https://www.cdfcp.ca/conservation-strategy/>

Map 3: Mid-Island Protected Areas Network (MIPAN)



Marine Environment

Galiano Island lies within a proposed National Marine Conservation Area (NMCA) for the Southern Strait of Georgia, which would extend from the southern portion of Gabriola Island south to Haro Strait, near Victoria, with a total area of 1,400 km². This area is considered significant in its capacity for marine biodiversity, and contains critical habitat for a wide variety of species, from endangered southern resident orca and rockfish populations to migrating birds and sea lions. It is home to a number of the largest species of marine invertebrates, including the Giant Pacific Octopus, the Giant Nudibranch, Giant Acorn Barnacles, and many more. This area has also been flagged as having high human impact and marine traffic, with anthropogenic threats including coastal and shoreline development, shoreline and offshore industry, heavy marine traffic, and direct harvesting of marine resources. The NMCA would promote best practices for the preservation of this important marine area, from the shoreline to the seabed.

The adjacent portion of Trincomali Channel is designated as a Rockfish Conservation Area (RCA 17-2) by Fisheries and Oceans Canada (DFO) for the protection of sensitive rockfish populations. The marine foreshore of the property is zoned 'Marine Protection' as a result of the rezoning process.

Cultural History and Significance

Specific knowledge related to Indigenous use and history of the Land has not yet been documented or recounted; this remains an area of active inquiry for the Galiano Conservancy. The Millard Learning Centre lies within the shared, asserted, unceded and traditional territories of the Hul'qumi'num-speaking First Nations Peoples, including those who hold traditional rights, responsibilities, and Indigenous rights and title in and around what is now known as Galiano Island. Upon completion of the acquisition, a blessing ceremony performed by Penelakut Tribe elder, Thyus (Florence James), was conducted on the Land.

Since European settlement of the region, the Land has had an extensive history of ownership and use. Land clearing for farming and forestry is evident in aerial photography dating back to 1932. Residential use, food gardens, livestock grazing, subsistence fishing, and hunting have been documented on the Land and associated waters back to the 1920's. These uses continued on the land right up to the acquisition by the Galiano Conservancy

Association, with an increase in intensity of small-scale forest harvesting and milling occurring over the previous two decades.

Table 1. Comprehensive list of settler ownership since colonial preemption of the Land.

Name	Tenure	Date
G. Dishaw	Preemption	?
Joseph Ganner	Preemption	6 March 1888
W. W. Beall	Preemption	25 February 1889
J. W. Walker	Preemption	9 May 1892
John W. Walker	Crown Grant	27 Nov. 1896
John Shaw	Fee Simple	6 January 1897
Edith Elizabeth Scholefield	Fee Simple	26 January 1932
Francis Austin Graham	Fee Simple	6 January 1948
The Olympia Co-operative Association later known as Galiano Co-operative Association	Fee Simple	6 January 1948
William Alexander Campbell	Fee Simple	14 March 1958
William Alexander Campbell and Lennis Shirley Campbell	Fee Simple	10 August 2007
Galiano Conservancy Association	Fee Simple	15 February 2012

Ecological Conditions

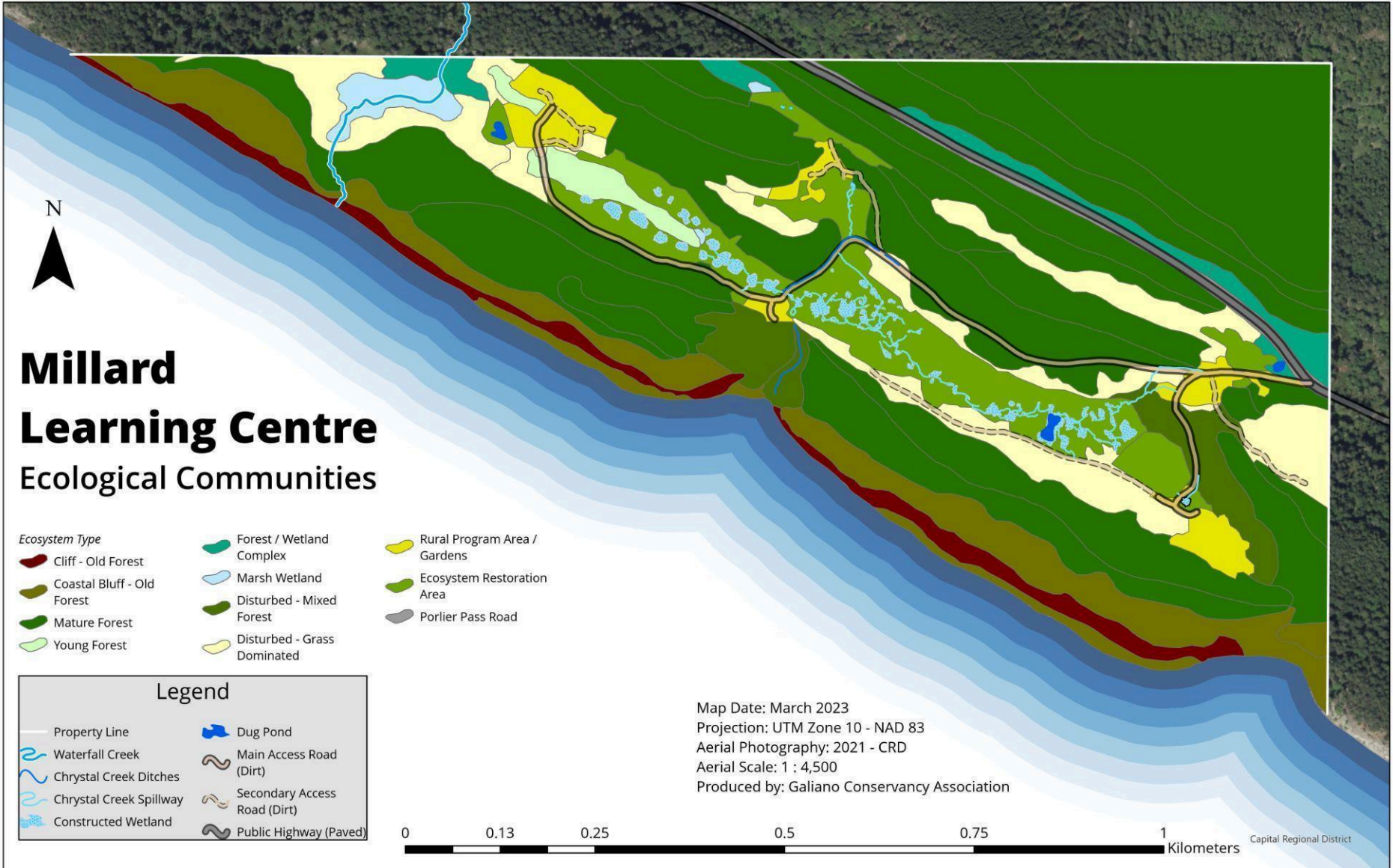
A detailed baseline inventory and mapping of the property was conducted over the summer of 2012. Mapping of the property revealed 40 different ecological communities. These communities were delineated based on their position on the slope (*i.e.* valley vs. ridge), their history of disturbance (*i.e.* logged 10 years ago vs. logged 100 years ago), the steepness of the slope (*i.e.* cliff vs. flat) and their aspect (*i.e.* north vs. south). **Map 4** shows these communities grouped into broad categories.

Forest and Woodland: Almost 20 ha of old growth and mature forested coastal ridge run the length of the Millard Learning Centre's 2-km shoreline, forming a matrix of red-listed ecological communities. Below the forested ridgetop lies approximately 7 ha of contiguous steep southwest-facing coastal bluff including patches of red-listed Garry oak communities, moss and herb-dominated seepage sites, and exposed rock or cliff. A large portion of DL 57 (28 ha) is characterised by 70 to 100 year-old Douglas-fir and western redcedar dominated forest with scattered remnant old-growth trees and snags. Most of the moist valley bottoms and lower slopes on DL 57 (22 ha) were logged over the past century and maintained through grazing as open grass, sedge, and rush-dominated fields. A small portion of this area (approximately 2 ha) was used for gardens and orchards.

Freshwater: There are two small seasonal creeks and a number of associated sedge and rush-dominated marsh and swamp communities in forested and cleared depression areas on DL 57. 'Waterfall Creek' appears not to have been significantly altered, despite passing through a large clear-cut area; it culminates in a 20 m waterfall that cascades down a rocky bluff into Trincomali Channel. 'Chrystal Creek' was heavily altered by a century of agricultural development, and is the subject of restoration efforts; it also culminates in a waterfall down into Chrystal Cove. Both creeks are seasonal, and neither support fish.

Species at Risk: The property provides habitat for several recognized Species at Risk (SAR), including the band-tailed pigeon (*Columba fasciata*; Blue-listed), the common nighthawk (*Chordeiles minor*; Blue-listed), the peregrine falcon (*Falco peregrinus*; Red-listed), the double-crested cormorant (*Phalacrocorax auritus*; Blue-listed), and the red-legged frog (*Rana aurora*; Blue-listed).

Ecological Restoration: Ecological restoration projects undertaken between 2012 and 2023 have focused on moist valley bottoms and lower slopes where forestry and agriculture had heavily impacted the ability of forest and wetland ecosystems to recover on their own. Restoration sites include approximately 16 ha of the property, of which slightly more than 5 ha have been treated with an excavator to remove roads and ditches, construct wetlands, distribute coarse woody debris, and leave the soil in a 'rough and loose' condition. Regeneration following these treatments consists of weedy introduced grasses and forbs, native pioneering trees and shrubs, live-stakes, and planted nursery stock from the GCA nursery. Some of these sites are in the very early stages of recovery and are dominated by herbaceous and shrubby growth, while others have progressed to develop a pole - sapling deciduous forest canopy.



Map 4: Ecological Communities

Long-term Vision, Goals and Objectives

Vision

The Millard Learning Centre focuses our learning about the remarkable coasts, islands, and waters of Galiano and the Salish Sea. We aspire to learn the life lessons and history of this particular place, and look clearly and imaginatively into the future. This experience with the Land will reinforce the lesson that as we restore a place we also restore ourselves and our communities.

Mission

Steward the Land in a manner that restores and maintains healthy, resilient ecosystems and models innovative approaches to sustainable living.

Goals and Objectives

Stewardship, Conservation, and Ecological Restoration:

Maintain and restore the integrity of terrestrial, freshwater, and marine ecosystems.

Objectives:

1. Maintain a protected ecosystem network that includes all endangered, threatened, or at-risk ecological communities, is representative of more common ecosystems and contributes to wildlife corridors outward from the property.
2. Help to heal damaged or impacted areas through ongoing ecological restoration programs.
3. Protect and manage endangered, threatened, or at-risk species and their habitat.
4. Maintain and restore hydrologic processes.
5. Prevent wildfire and manage fire risk with consideration of traditional disturbance regimes. Where appropriate, explore the restoration of cultural fire to the land.

6. Control or eliminate, if possible, introduced plant and animal species when their presence conflicts with management goals and threatens ecological integrity.
7. Take steps to mitigate herbivory from Columbia black-tailed deer (*Odocoileus hemionus columbianus*) to achieve long-term viability of restoration programs.
8. Implement a collaborative stewardship outreach program with adjacent landowners and neighbours.
9. Protect, steward, and restore the marine ecosystems adjacent to the Land.

Sustainable Living and Nature-Based Learning:

Provide opportunities for and facilities to accommodate single and multi-day sustainable living and nature-based learning for people of diverse age, culture, ability, and background.

Objectives:

1. Provide experiential learning opportunities with a focus on ecology, applied ecological restoration, and sustainable living.
2. Provide access to the diversity of ecosystems found on the property - including shoreline and marine ecosystems - for the purpose of educational programming and research.
3. Maintain facilities and infrastructure that support single and multi-day learning opportunities, and model sustainable systems or green methods for energy and food production, waste management, water supply, and construction.
4. Create publicly accessible nature interpretation and learning opportunities.

Indigenous Relations:

Strengthen relationships with Indigenous people by pursuing partnerships in the management, use, and creation of learning opportunities on the Land.

Objectives:

1. Create enduring relationships of trust and accountability with local Indigenous families and leadership through shared activities and decision-making on the Land.
2. Prioritize and subsidize learning opportunities for Indigenous youth as a core component of educational programming.
3. Facilitate access for the harvest and management of culturally important species and ecosystems.

4. Invite and support Indigenous partnership and participation in public events, workshops, and event planning.
5. Build capacity to involve Indigenous leadership in long-term planning and decision making.

Research and Innovation:

Provide opportunities for research and innovation on effective methods in ecological restoration, conservation biology, and sustainable living - as well as the relationship between human well-being and time spent in nature.

Objectives:

1. Facilitate and provide support for collaborative, long-term research programs on ecological, economic, and social processes aimed at generating critical knowledge and innovation for sustainable living in the Southern Gulf Islands/Salish Sea.
2. Provide opportunities for long-term research into the relationship between human well-being and time spent in nature.
3. Provide opportunities for research into the physical and biological features of terrestrial and marine ecosystems.
4. Develop facilities and infrastructure that will support and encourage research opportunities and model sustainable systems or green methods for energy production, waste management, water supply and construction.

Sustainable Food Systems:

Contribute to food security through the practice of small-scale sustainable agriculture.

Objectives:

1. Develop appropriate partnerships and contribute to community food programs.
2. Maintain working forest garden, farm, and nursery facilities to provide useful products to the community.
3. Provide opportunities for controlled, sustainable hunting for food of species such as Columbia black-tailed deer, which threatens ecological restoration efforts due to overpopulation and absence of natural controls.
4. Provide accommodations and infrastructure as necessary for the ongoing management of sustainable food systems.

Economic Development:

Create opportunities for local economic initiatives and diversification based on development and operation of the Millard Learning Centre, sustainably harvested resources, and value-added production.

Objectives:

1. Engage in social enterprise that furthers the Vision of this plan and offsets management, educational program, and operating costs.
2. Produce economic value through sustainable food production.
3. Integrate the sustainable use of the Land's timber and non-timber forest resources into the development of facilities and infrastructure on the land.
4. Provide a financial model for the Millard Learning Centre that demonstrates how social enterprises operating in an environmentally sound manner contribute to the long term economic viability of the Southern Gulf Islands.

Public Access and Recreation:

Provide managed public access to the property that is compatible with program participant safety, security, and privacy. Provide opportunities for low impact, typically self-propelled recreation for program participants.

Objectives:

1. In consultation with neighbouring landowners, create and maintain publicly accessible trails that link to routes on adjoining lands.
2. Create and maintain publicly accessible interpretive information and educational opportunities.
3. Provide access to the ocean for non-motorized personal water-craft.
4. Provide opportunities for swimming.
5. Provide outdoor recreational areas to accommodate group activities and games.

Guidelines and Actions

Generally Applicable Management Guidelines

1. Appropriate ecological assessment should be part of every use or decision.
2. Minimize fragmentation to natural areas and work to reduce existing fragmentation with a priority on rare and sensitive ecological communities.
3. Consideration should be given to using non-motorized techniques.
4. Use of the land and development should draw from and demonstrate new and old technologies. Efforts should be made to incorporate Indigenous land management.
5. Local materials and labour should be utilized whenever possible.
6. Machinery involved with any use should be scaled to the task being performed.
7. Opportunities for learning and/or demonstration should be explored at every stage of development and management.
8. Populations of culturally-important species should be protected and enhanced. Access for traditional harvesting should be maintained where possible.
9. Opportunities for contributing to ecological health and reducing the ecological footprint should be explored at every stage of development and management.

Management for Climate Mitigation and Adaptation

Management of the Land should consider long-term ecosystem health in light of potential significant shifts in local climate conditions resulting from global warming. Minimizing the impacts of climate change will depend on the level of ecosystem resilience, or the ability of ecosystems to adapt to shifting conditions. In turn, ecosystem resilience is dependent on a healthy biodiversity and maintaining connectivity or protecting pathways of species migration. Creation of the Ecosystem Protection Area supports ecosystem resilience at the property scale. Restoration activities should promote ecological resilience and carbon sequestration.

Guidelines

1. Management and use should contribute to ecological resilience.
2. Minimizing the carbon footprint of any management or use of the land is a priority.

3. Management of the land in a manner that sequesters carbon over the long-term is desired.

Ecological Management

Hydrology

The highly variable topography of the Land and the presence of bedrock fractures create complex patterns of subsoil and surface water flow. The land exhibits a diverse mosaic of moist soils, dry soils, wetlands, springs, and streams. Natural hydrological patterns have been highly disturbed over the past century through road building, ditching, drainage, vegetation removal and soil compaction. Consideration of current hydrological conditions and historical, pre-disturbance conditions is vital for ecological restoration and planning for all proposed uses in this plan. Areas characterised by moist soils are particularly sensitive to compaction from machinery, grazing, or repeated use by people. Diversion, dispersal, or concentration of surface and subsurface water flow can cause major shifts in 'downstream' ecological composition, structure and function. **Map 5** illustrates terrain and elevation for the Land.

Guidelines

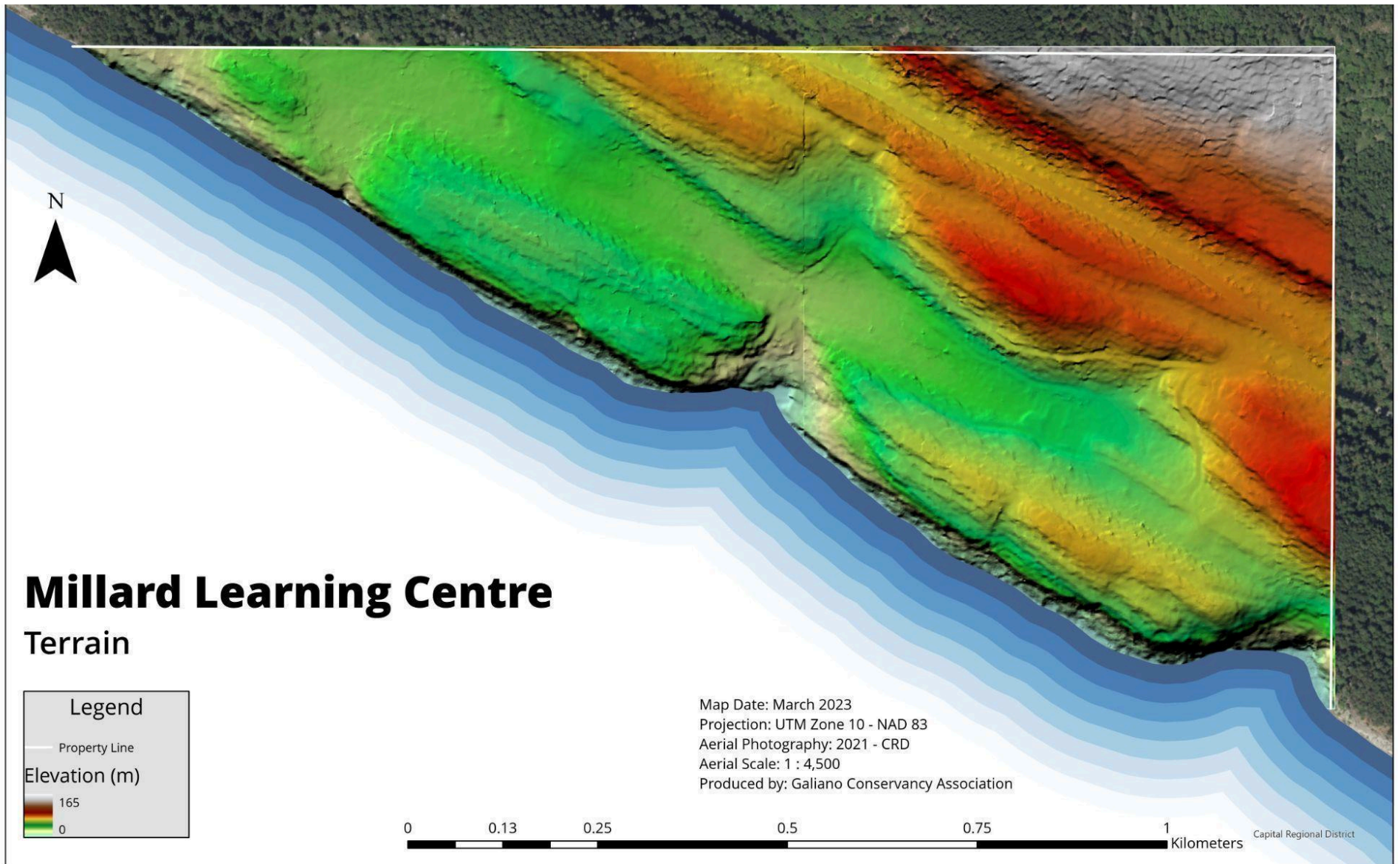
1. The restoration of hydrological conditions must be considered first, and inform all ecological restoration treatments, forest use, agricultural activities, and development.
2. Modifications to hydrology must maintain freshwater on the Land for as long as possible, allowing it to slow, spread, and infiltrate into the groundwater table.
3. Do not locate infrastructure in areas characterized by moist soils.
4. Endeavour to monitor and reduce water use across the property, easing pressure on groundwater and surface water.
5. Consider the cumulative impacts of development and use on hydrological conditions.

Actions

1. Remove roads and remaining infrastructure from unsuitably moist areas; provide for proper passage of surface and groundwater beneath retained roads.
2. Complete the restoration of the Chrystal Creek watershed.

3. Plan and undertake restoration activities in the 'waterfall creek' watershed in the northwest of the property.
4. Monitor creek flow, groundwater levels, and water use across the property.

Map 5: Terrain



Ecological Restoration

Small-scale forestry operations, road building, and agricultural use have resulted in damage to soils, compaction, alteration of hydrology, loss of wildlife habitat, spread of introduced species, and an overall reduction in native biotic diversity and ecological productivity. Over time, natural processes will heal the damaged landscape. However, there is potential for helping the land heal through the initiation of ecological restoration projects. The Society for Ecological Restoration (SER) defines ecological restoration as:

"The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed."

Guidelines

1. The integration of ecological restoration principles and/or activities into all aspects of the management of the land is a priority.
2. Proposed ecological restoration projects or programs should adhere to the International Union for Conservation of Nature's (IUCN's) World Commission on Protected Areas (WCPA) 'Ecological Restoration for Protected Areas Principles, Guidelines and Best Practices' (Prepared by the IUCN WCPA Ecological Restoration Taskforce, 2012). The degree to which projects or programs must adhere to the guidelines is dependent on the scope and impact of the proposal.
3. Ecological restoration activities should be undertaken within the scope of the UN Decade on Ecosystem Restoration.
4. Ecological restoration should include long-term monitoring strategies that help to evaluate success and inform management.

Actions

1. Continue to develop partnerships with the University of Victoria's Restoration of Natural Systems Program and with other appropriate university programs, organizations and individuals - to help research, plan, carry out and monitor ecological restoration projects.
2. Update the 2014 Ecological Restoration Plan for the Millard Learning Centre property.
3. Complete the restoration of the Chrystal Creek watershed.
4. Plan and undertake restoration activities in the 'waterfall creek' watershed in the northwest of the property.

5. Manage introduced species across the property according to the 2021 Introduced Species Management plan.
6. Prioritize removal of introduced vegetation in the main cove area, as it represents the primary fragmentation of the otherwise continuous old growth Douglas-fir/Arbutus coastal bluff area.

Species and Ecosystems at Risk

The Land is home to several ecological communities and Species at Risk (SAR). Maintaining or improving the health and resilience of the 'at risk' species and communities found on the Land will require their consideration in all aspects of planning and use.

Guidelines

1. Habitat deemed as critical to the survival of species or communities at risk should be protected from disturbance and designated as a high priority for restoration.
2. In the event of conflicting goals, objectives or actions, protecting the health and resilience of species or communities at risk should take precedence.

Actions

1. Initiate research and inventory directed at detecting, identifying, and assisting in the recovery of species and ecosystems at risk on the property.
2. Develop a prioritized list of SARA species and ecosystems to be restored on the property.
3. Develop and follow a site-specific protection and recovery plan for identified species or ecosystems at risk; if possible, tie planning and actions to recognized Provincial and Federal recovery strategies.

Culturally-Important Species

The property includes habitat for plants, animals, and other organisms of high cultural significance to Indigenous peoples. Some of these species and their importance are known to the GCA through ethnobotanical publications and personal communication with knowledge holders; others may remain unknown. Indigenous peoples' abilities to interact with, steward, and harvest many of these species has become highly restricted in our region due to colonial settlement and regulation.

Guidelines

1. Culturally-important species should be identified and managed in partnership with Indigenous people.
2. Management activities should incorporate and prioritize benefits to culturally-important species wherever this is consistent with the overall health of the ecosystem.
3. Management activities that may harm culturally-important species should be avoided unless absolutely necessary to promote the health of the ecosystem as a whole, and should then be undertaken in consultation with Indigenous people.

Actions

1. Partner with Indigenous people to identify key culturally-important species and associated traditional / current management practices on the Land.
2. Explore opportunities to directly engage local Indigenous youth in use and management of the Land.
3. Incorporate the protection and enhancement of culturally-important species into conservation and restoration planning.

Control of Introduced Species

Introduced species may pose a threat to the ecological health of the land. Introduced vegetation such as common velvet-grass (*Holcus lanatus*) and Scotch broom (*Cytisus scoparius*) are dominant in cleared areas with disturbed soils, or in naturally open areas along cliffs and ridgelines. Controlling the spread of introduced species will reduce impacts to biodiversity and improve the general ecological health of the land.

Guidelines

1. Methods used to manage introduced species should be chosen to minimize disturbance or negative impact to ecosystems.
2. Methods used to control introduced species should be humane.
3. Introduction of pesticides or herbicides may only be considered under the following conditions:
 - a. There are no other effective options for treatment,
 - b. The ecological threat posed by the target introduced species far outweighs the threat posed by the control agent over the long-term,

- c. There is high probability that the treatment will result in successful control or elimination of the target species,
- d. The treatment will not impact future pursuit of organic farm designation, and
- e. Authorization for their use has been provided through a resolution by the GCA Board of Directors.

Actions

1. If resources are available, remove or control introduced species according to the 2021 Introduced Species Management Plan.⁷
2. Encourage owners of neighbouring lands to undertake similar measures to control introduced species.

Deer Population

Aggressive native species can also pose a threat to ecological health and resilience, and to the success of ecological restoration treatments and agricultural activities. Native species can become problematic when humans facilitate their population growth to a point where they deplete or displace other native species. On Galiano Island, Columbian black-tailed deer (*Odocoileus hemionus columbianus*) exhibit this characteristic. The absence of large predators, past forest management practices, and limited hunting on the island has released the deer population, resulting in changes to plant species abundance, community composition and the architecture of common palatable shrubs. This in turn affects populations of native bird species that use the understory for feeding or nesting.

Guidelines

1. Deer are an important and valued component of island ecosystems. Hyper-abundant deer populations, however, are to be considered a barrier to the recovery, regeneration, and long-term viability of native ecosystems.
2. Natural predation is the preferred method for the control of deer populations.
3. Hunting is the preferred method for the control of deer populations where natural predation is lacking. All hunting activities on the Land must take place in partnership with Indigenous people.

⁷ GCA. (2021) *Millard Learning Centre Introduced Species Management Plan*. Available at: <https://galianoconserv.wpengine.com/wp-content/uploads/2022/10/2021-Introduced-Species-Management-Plan.docx.pdf>

4. Methods to exclude deer from restoration areas must be robust to ensure deer do not become trapped. Exclosures should never constitute more than 10% of the Land at any given time.

Actions

1. Continue to organize hunting activities with Indigenous people as laid out in the “Facilitating Traditional Food Harvesting”⁸ policy.
2. Employ fencing and caging as necessary to prevent excessive herbivory in restoration sites and other sensitive areas.
3. Conduct site-specific research into the effects of Columbian black-tailed deer browse on native plant communities and on the success of ecological restoration treatments.

Fire Management

There is a high risk of fire during months of low precipitation and warm temperatures. The risk is generally at its greatest in late July, August, and early September, and in many cases has been amplified by the cumulative impacts of fire suppression over the past century. The potential consequences of uncontrolled wildfire to property and ecosystems on Galiano would be severe. Fortunately, the risk of wildfire ignition on Galiano Island is almost exclusively limited to human ignitions, which may be mostly prevented through restrictions on certain activities, public education, and preventative risk-reduction efforts.

At the same time, fire is one of the driving forces of natural successional processes in this area and its suppression has contributed to shifts in the composition, structure, and function of ecological communities. The re-introduction of fire, in a controlled manner to certain areas, may provide a powerful tool for ecological restoration.

Guidelines

1. All steps that can be reasonably taken to prevent and reduce the risk of human ignitions should be prioritized, including:
 - a. Use of FireSmart practices in and around buildings and structures
 - b. Prohibition of the use of heavy machinery and tools that rely on internal combustion engines during the dry season

⁸ Policy available at: <https://galianoconserv.wpengine.com/wp-content/uploads/2023/01/MLC-Indigenous-Hunting-Policy-2022-2024.pdf>

- c. Proactive and regular vegetation management around roads, trails, and areas of high human activity
 - d. Clear communication to visitors about restricted activities and the risk of careless ignitions
2. Rainwater should be collected and stored in ecologically appropriate and road-accessible locations on the landscape, and where possible in accessible storage cisterns near areas of high human activity
3. Open fires should be limited to designated fire pits or burn piles, and occur only in accordance with local volunteer fire department regulations.
4. Public use of the land may be restricted in the event of an extreme forest fire rating.
5. Controlled burning for ecological restoration or fuel reduction purposes - if indicated - should be undertaken in accordance with the policies of all appropriate authorities, including the local volunteer fire department and the BC Forest Service Fire Protection Branch. Controlled burns should have guidance or oversight from a qualified and experienced Fire Boss.
6. Indigenous knowledge holders should be consulted on any plans for controlled burning / cultural burning.

Actions

1. Complete a formal Safety and Emergency Plan for the Millard Learning Centre, including a section on fire prevention, management, and emergency preparedness.
2. Continue regular and proactive efforts to minimize the risk of human ignitions.
3. Continue to implement FireSmart principles for Classroom and Office structures by identifying opportunities to improve risk mitigation.
4. Improve access to existing water resources for use in the event of a fire.
5. Investigate the potential for using controlled fires to achieve ecological restoration objectives, as well as to reduce forest fuel loads.

Chemical Pesticides and Fertilizers

No chemical pesticides or fertilizers shall be used or applied on the land with the exception of applications for ecological restoration purposes in accordance with the Guidelines under the "Control of Introduced Species" Section of this plan.

Marine Ecosystems

With over two kilometres of coastline, management of the Land must consider the health of surrounding marine ecosystems. The Land's shoreline and adjacent upland ecosystems provide habitat for a diversity of marine associated wildlife (*i.e.* bald eagle, double-crested cormorant, river otter) and significantly influence the health of intertidal and nearshore ecosystems.

Guidelines

1. Management of the Land should provide a model for coastal living, following best practices for coastal development and providing learning and research opportunities on the surrounding marine environment.
2. Impacts to sight lines from personal watercraft in the Trincomali Channel such as buildings, forest clearing, or agricultural areas should be minimized.
3. Impacts from proposed learning, research, and recreation activities that occur within marine riparian, intertidal, and nearshore ecosystems should be minimized. Consideration to the cumulative impacts of these activities over time should be given.
4. Any harvest of marine life from adjacent waters must be done in compliance with all applicable regulations, in a manner which ensures that target populations are sustained over the long term and through use of current best practices.

Actions

1. Support the designation of the marine waters surrounding Galiano as part of the Southern Strait of Georgia National Marine Conservation Area.
2. Offer educational opportunities highlighting the marine waters and the marine/terrestrial interface contiguous to the Land.
3. Continue to manage the shoreline in alignment with the Kleiman Estate bequest to ensure protection of the Land's coastal bluffs and associated forest.
4. Inform users of the Land and its shoreline that a Rockfish Conservation Area exists along the full extent of the Land.
5. Explore opportunities to contribute locally to the restoration of the marine environment of the Salish Sea.

Coordinating Stewardship with Neighbouring Properties

Recognition of the fact that ecosystems do not coincide with property boundaries provides impetus for developing relationships and partnerships with stewards of properties neighbouring the Land.

Guidelines

1. Exploring opportunities for broadening the protection of ecosystems and coordinating stewardship is highly desired.

Actions

1. Contact and inform neighbouring landowners about the conservation of the Land, the locations of Management Areas and priorities and the intended uses and vision for the Land.
2. Provide information and/or advice to surrounding landowners regarding management activities that could benefit ecosystems on the Land.
3. Develop formal or informal stewardship agreements with adjacent landowners.
4. Ensure that property lines are well marked.
5. Conduct regular monitoring of areas that are accessible from adjacent private lands.

Accessibility and Safety Management

Trail and Road Network

The network of trails and roads provides critical access and infrastructure for the ongoing operation of all programs and uses on the Land.

An extensive network of skid trails and logging roads were constructed over the past several decades. These routes exhibit a variety of conditions: some were well-built on suitable ground, and many were poorly built on soils that are seasonally wet. Depending on age and historical use, many of the older roads and trails are now densely vegetated while some remain wide open. Some have been improved and adopted into the road network for the property; others have been removed as a result of ecological restoration projects.

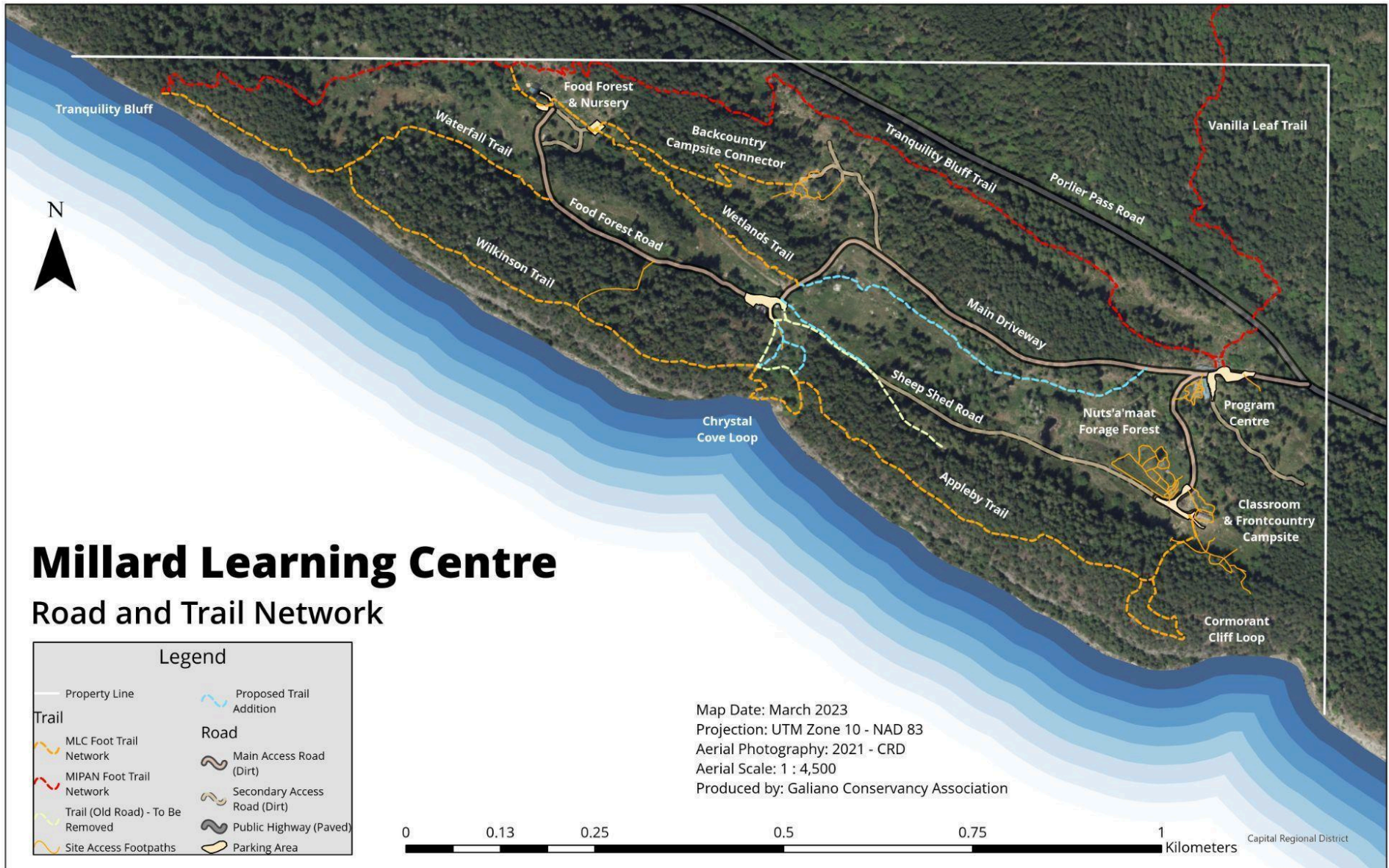
Two major access routes or driveways are generally well constructed, have been maintained, and suitable for ongoing use. Some sections require improvement for long-term use.

The Millard Learning Centre road and trail network is intended to provide:

- Reliable vehicle, pedestrian (includes wheelchair users) and bicycle access to major facilities and infrastructure.
- Pedestrian and where appropriate bicycle access to areas of the land designated for learning.
- Pedestrian and where appropriate bicycle or vehicle access to active agricultural, ecological restoration and forest-use sites.
- Emergency vehicle access to areas in proximity of group learning or activity sites.
- Pedestrian access to marine ecosystems.
- Limited pedestrian access to the Land's natural features for the public.

Map 6 shows the road and trail network as of March 2023, indicating where additional trails are planned for construction and designating old roads to be restored and removed from the trail network.

Map 6: Road and Trail Network



Guidelines

1. In general, the least area of compaction and disturbance is desired for any road or trail, and routes should be in scale with the type of access required.
2. Access routes should be planned to minimize the total distance of road or trail required - with the exception of pedestrian trails designed for nature observation.
3. Improvements to roads and trails should be designed for extreme hydrological events beyond those of historical precedent.
4. Roads should avoid areas with moist soils, shallow soils, or steep slopes.
5. Non-motorized access and movement around the property is preferred.
6. The network should follow existing skid trails and roadbeds whenever possible.
7. Existing skid trails and roadbeds that are not part of the trail network will be decommissioned and considered for ecological restoration treatments.
8. Hiking routes should be clearly identified and easy to navigate.
9. Hiking routes must be safe and should minimize impacts to ecosystems. Use appropriate structural elements such as stairs, railings, bridges or boardwalks when required. Structural elements should blend in with the surrounding natural environment.
10. Guidance for development and maintenance of trails is provided by the BC Parks Trail Design and Construction Standards Manual ⁹
11. Emergency access roads should be designed and maintained at a standard that is acceptable to the local volunteer fire department.

Actions

1. Maintain key trails required for the delivery of learning programs. Establish new trails as needed to access features of interest and for nature observation.
2. Close roads and trails that are not being maintained and/or are not part of the detailed trail and road network plan, using signage or other appropriate means.
3. Maintain current vehicle access roads.

Parking

Areas designated for parking are required to accommodate visitors and people working on the Land.

⁹ Retrieved from <https://www.trailstobuild.com/articles/bc%20trail%20standards/contents.htm>

Guidelines

1. The area required for parking facilities should be minimized through car-pooling or group transportation and preference for bicycle and pedestrian transportation.
2. Parking areas should use green techniques that minimize soil compaction, allow for absorption of surface water and provide habitat for limited vegetation growth.
3. Parking sites should be limited to existing areas of soil compaction.

Actions

1. Limit parking to designated parking areas.
2. Institute passive techniques to limit erosion, runoff, and dust from parking areas.

Public Access

Access to some of the natural features of the Land and to interpretive learning sites for Galiano Island community members and visitors is a high priority. However, public access must be carefully balanced with requirements for the privacy and safety of participants in Millard Learning Centre programs, the impacts of human disturbance on research programs, the security of agricultural areas and infrastructure, as well as safety concerns arising from activities such as eco-forestry and hunting. Taking this balance into consideration, year-round public access is limited to a small portion of the Land within the Ecosystem Protection Area. Public access to a broader portion of the Land and to additional interpretive sites is achieved through coordination and control of trail openings/closures.

Guidelines

1. Public access to the property for hiking, picnicking, nature observation, accessing interpretive features and demonstration facilities, and volunteering is generally desirable.
2. Public access to the property should not threaten the security or success of ongoing operations of the Millard Learning Centre, and should be evaluated on an ongoing basis.
3. Publicly accessible trails will be limited to pedestrian use.
4. With appropriate consultation, public access to the property should tie in to existing public trail networks and broader Galiano Island trail planning initiatives.

Actions

1. Maintain trails that are publicly accessible on a full-time basis that link with a public parking area and with public trails on neighbouring properties.
2. Maintain trails and interpretive sites that have limited access to the public. These trails should be clearly marked as “Limited Access” on any maps, and should be clearly signed and appropriately blocked when they are not available for public access. Consider public access associated with uses such as community gardens.

Derelict Buildings, Structures, and Debris

Historical logging, agriculture, and residential use of the Land left behind a legacy of buildings, structures, and debris. The vast majority of garbage and debris has been removed from the Land by the previous owner and GCA staff. Some small piles of rotting logs and slash remain scattered throughout recently harvested areas. Only a few of the original structures remain, and are used for storage. Garbage is present throughout the disturbed areas of the property, often buried under layers of weeds, wood, and soil.

Guidelines

1. Materials from derelict structures and debris piles should be salvaged whenever possible.
2. Innovative use of debris for ecological restoration projects or other initiatives is encouraged.
3. Materials and/or debris should only be removed from the site when all other possibilities for their safe use or storage have been exhausted, and should be disposed of appropriately.

Actions

1. Identify log and slash piles for utility as future material for ecological restoration projects.
2. Assess remaining structures for their structural integrity and utility, and consider removing, replacing, or improving structures as needed.
3. Locate, gather, and store remaining garbage and non-composting debris. Remove from site for recycling or, if posing a safety hazard, for appropriate disposal.

Safety Management

The Land includes both natural and human hazards that are capable of causing serious harm to human users. At the same time, the climate crisis is increasing the frequency and severity of (un)natural disasters in the region. In the context, formalized systems for safety and emergency preparedness are essential for the operation of a public-access property with a wide variety of educational programs, land management projects, and recreational uses. Safety is a concern for staff working in the outdoor environment, educational program participants interacting with natural systems (often for the first time), and visitors exploring the property. Emergency planning is necessary for preparedness in the event of wildfires, windstorms, floods, earthquakes, or other potentially catastrophic events.

Guidelines

1. When conducting field work on the Land, staff should work in groups of two or more. For outdoor tasks that involve minimal risk (i.e. seed harvesting, nursery watering, ect.), staff may work outside alone but must check in with a colleague or supervisor before and after the work, with specific instructions on the location, nature, and expected duration of the work.
2. Outdoor work should immediately cease under dangerous conditions, including severe windstorms, thick smoke, or other obvious environmental hazards.
3. Up-to-date workplace safety plans should be adopted and available to all participating staff for dangerous work (i.e. fall-restraint work, etc.).
4. Staff members, interns, and volunteers should be provided with the necessary training, safety equipment, tools, and personal protective equipment for the work they are undertaking.
5. Adequately stocked medical kits with unexpired epipens should be located at key sites across the property.
6. Staff supervisors leading work or educational activities should be trained at minimum in wilderness First Aid.
7. Staff should endeavour to minimize any potential hazards to visitors, participants, interns, or volunteers through proactive means, such as trail clearance, disposal of hazardous debris, wildlife management.
8. Potential environmental hazards that are in close proximity to trails and not reasonably evident to first-time visitors should be clearly identified on signage, in trail guides, or through some other obvious method.
9. Formal safety and emergency procedures should be adopted and communicated clearly to all staff and educational group leaders.

10. Incident reports should be filed for any injury that occurs to staff, interns, volunteers, or program participants on the property.
11. When higher-risk activities are occurring on the property (i.e. hunting, excavation, etc.), public access should be restricted and all personnel should be equipped with high-visibility clothing and safety equipment.

Actions

1. Complete a Safety and Emergency Plan for the property that incorporates and expands on existing safety documents and procedures, including sections on:
 - a. Workplace safety for staff, interns, and volunteers
 - b. Operational safety for educational programs
 - c. Risk reduction for visitors
 - d. Emergency planning and preparedness
2. Update signage and other public information materials as needed to conform to the above guidelines and the Safety and Emergency Plan
3. Continue to take practical steps to reduce hazards on the Land, including:
 - a. Removing danger trees where they occur near roads, trails, or buildings
 - b. Activities to mitigate the risk of human ignitions (see 'Fire Management', above)
 - c. Identifying and appropriately disposing of materials from dilapidated buildings, defunct fencing, and other garbage from previous owners
 - d. Maintaining trails on a regular basis
 - e. Managing the risk of potentially harmful contact between wildlife and humans, including stinging insects

Education and Research Management

Learning Programs and Experiential Learning

Managing the Land in a manner that creates opportunities for experiential learning programs is a primary goal of this plan. The ecosystems on the Land and within the terrestrial/marine interface provide a foundation for study of the natural world. Programs incorporate and contribute to ecological restoration, agriculture and forest-use activities, benefitting from innovative methods used to develop infrastructure and operate systems.

Guidelines

1. Disturbance to sensitive areas such as those with steep slopes, shallow soils or wet soils by large groups should be minimized when access to these areas for learning is required.
2. Access for learning should be limited to established trails and to designated indoor or outdoor group learning areas and land-use or restoration sites.

Actions

1. Establish a comprehensive plan for learning programs that designates group learning trails and sites, addresses accessibility for participants of all ages and abilities, and makes recommendations for minimizing impacts on the health and resiliency of ecosystems.
2. Develop a version of the Safety and Emergency Plan that is specifically oriented towards education group leaders and participants (see 'Safety Management').
3. Continue to develop and offer learning programs on the Land.

Interpretive and Naturalist Activities

Self-guided interpretive and naturalist activities provide key learning opportunities for the public and for participants in Millard Learning Centre programs. These activities rely on the creation of a trail network and interpretive media.

Guidelines

1. The trail network should be designed to maximize opportunities for interpretive learning and for nature observation while minimizing impact on nature.
2. Interpretive signage should be carefully considered, composed of materials that are durable or biodegradable, and be placed in locations where they do not detract from the natural aesthetic.

Actions

1. Incorporate existing interpretive elements into the Road and Trail Network Plan, and identify areas where additional interpretive elements are desired.
2. Maintain interpretive elements, and replace them when they are no longer in good repair or relevant.
3. Identify and plan for additional self-guided interpretive sites along publicly accessible trails and trails designated for Millard Learning Centre participants.

Research and Innovation Activities

Research activities are encouraged as a way of learning about the Land, our relationships with it, and ways of fulfilling the Vision, Mission, and Principles of this Plan. They are also an important way of sharing information about the land with a broader audience, and contributing to a larger body of knowledge about natural systems and the place of humans within those systems.

Guidelines

1. Research should originate from a wide variety of disciplines and approaches.
2. Interdisciplinary research is encouraged to examine questions at the boundaries of traditional approaches. Time-tested, interdisciplinary approaches are at the heart of environmental and sustainability research.
3. Research and learning are inextricably connected, and should be brought together through research apprenticeships, teaching opportunities, and other learning-based research programs.
4. Collaborative, community-based research is encouraged as a means for bringing local and traditional knowledge to light, and to build knowledge capacity within the community.
5. Partnerships should be sought with diverse organizations, institutions and individuals.
6. All research must adhere to the highest standard of appropriate and ethical conduct.

Actions

1. Develop a living document of prospective research areas to guide the development of research programs and potential partnerships.
2. Cultivate partnerships with organizations, institutions and individuals who can make lasting contributions to understanding the ecology of the Land and the social possibilities that can be created on the Land.
3. Maintain detailed and organized spatial and tabular data sets from monitoring activities, preserving useful information for research.

Agriculture, Agroforestry and Forest Use Management

Agriculture, agroforestry, and forest use activities contribute to food security objectives, provide materials for the development of facilities and infrastructure on the Land and generate opportunities for small-scale economic development. These uses also provide opportunities for experiential learning, research programs and the development of innovative practices for sustainable production of food, timber, and non-timber products. These activities should always take into account how each activity and the sum of all activities relates to the ecology on the Land.

Guidelines

1. Agricultural and agroforestry activities should integrate with surrounding ecosystems in a manner that will be sustainable over the long term. Activities should generally be carried out in accordance with the Canadian Standards Board “Organic Production Systems General Principles and Management Standards.”¹⁰ The general principles of organic production include the following:
 - a. Protect the environment, minimize soil degradation and erosion, decrease pollution, optimize biological productivity and promote a sound state of health.
 - b. Maintain long-term soil fertility by optimizing conditions for biological activity.
 - c. Maintain biological diversity within the system.
 - d. Recycle materials and resources to the greatest extent possible within the enterprise.
 - e. Provide care that promotes health and meets the behavioural needs of livestock.
 - f. Prepare organic products, emphasizing careful processing, and handling in order to maintain the integrity and vital qualities of the products at all stages of production.
 - g. Rely on renewable resources in locally organized agricultural systems.
2. All timber related forestry activities should be carried out in accordance with the “Summary of Silva Forest Foundation Standards for Ecologically Responsible Timber

¹⁰ Standards Council of Canada. (2020). *Organic Production Systems: General Principles and Management Standards*. Ottawa, ON. Retrieved from <https://publications.gc.ca/site/eng/9.894375/publication.html>

Management”¹¹ produced for the Silva Forest Foundation Ecosystem-Based Certification Program. While no specific guidelines are available for the harvest of Non Timber Forest Products (NTFP’s), any such activity should generally follow the principles and criteria outlined in this document.

3. Activities should contribute to learning and research through demonstration and through opportunities for participation in monitoring, planning and operations.
4. Agricultural and forest use plans should integrate with planning for ecological restoration.

Actions

1. Continue to maintain sustainable food systems activities and infrastructure, expanding as needed to improve production and sustainability of operations.
2. Explore models of sustainable forestry. Forestry activities should prioritize ecological restoration first, then fuel-management, then income.
3. Explore opportunities for partnerships with local artisans and carpenters to develop value added products made with wood or non-timber forest products harvested from the Land.

Facilities and Infrastructure Management

The development and maintenance of facilities and infrastructure is required to support the intended uses of the Land. Facilities to support environmental education, sustainable food systems, and organizational operations have been constructed at the Millard Learning Centre. Development of facilities and infrastructure contributes to learning opportunities focused on sustainable or green approaches to building, energy production, water and waste management.

Guidelines

1. The construction of major facilities and infrastructure should be guided by the International Living Future Institute Living Building Challenge Standard.¹² The standard includes provisions for such desired outcomes as:
 - a. The project will be constructed on previously developed sites.

¹¹ Silva Forest Foundation Certification Program. (1999). *Summary of Silva Forest Foundation Standards for Ecologically Responsible Timber Management*. Retrieved from: <http://www.silvafor.org/assets/silva/PDF/Certification/ArchivesEcoCertSum.pdf>

¹² International Living Future Institute. (2019) Living Building Challenge 4.0. Retrieved from: <https://living-future.org/lbc/>

- b. The project should contribute towards the creation of pedestrian-oriented communities.
 - c. Water needs should be supplied by captured precipitation or other natural closed loop water systems that account for downstream ecosystem impacts, or by recycling used project water. Water must be appropriately purified without the use of chemicals.
 - d. Storm water and project water discharge will be managed onsite to feed the project's internal water demands or released onto adjacent sites for management through acceptable natural time-scale surface flow, groundwater recharge, or agricultural use.
 - e. Energy needs will be supplied by on-site renewable energy on a net annual basis.
 - f. The project will have a nourishing, highly productive and healthful indoor environment that includes fresh air, natural light and design elements that nurture the innate human attraction to natural systems and processes.
 - g. Materials will be sustainably harvested, procured on-site, locally or salvaged and will be third party certified whenever possible. Material waste will be minimized and toxic chemicals absent.
 - h. The project will contain design features intended solely for human delight and the celebration of culture, spirit and place appropriate to its function.
 - i. Educational materials about the operation and performance of the project should be provided to the public.
2. Infrastructure should generally serve multiple purposes and be developed in a manner providing the greatest utility using the least resources, creating the smallest ecological footprint over the long-term.
3. Drinking and waste water infrastructure will conform to the requirements of the Vancouver Island Health Authority.
4. Local labour should be utilized whenever possible.
5. Facilities should be grouped in designated high-impact areas, instead of sprawling out across the property.
6. Waste should be processed on site whenever possible and contained to avoid impacting wildlife or water quality.

Actions

1. Maintain existing facilities to a high standard of care, reducing the need for costly repairs.
2. Continue to review and make upgrades to water infrastructure to ensure compliance with evolving regulations in the region.
3. The 'Field House' and accessory structure are in poor condition and used for storage of materials that are poorly organized and may no longer be needed. Assess these structures and their contents, and develop a strategy for their long-term maintenance and use. Consider repurposing these facilities to provide housing, lab facilities, and/or to support educational programming involving Indigenous youth.
4. Explore other opportunities to construct staff accommodations and/or research facilities on the property.

Recreation Management

Recreational activities are an important component of providing an enjoyable, healthy visitor experience to the Millard Learning Centre. While not a primary Goal for the Land, the provision of recreational activities will create opportunities for informal learning, team building, self-growth, relaxation, and general fun.

Guidelines

1. Infrastructure, resources or modifications to the Land required to support recreational activities should generally be smaller rather than larger in scale, and secondary to any competing uses of the Land.
2. Appropriate precautions should be taken and improvements to the Land, where necessary, should be made to ensure participant safety during all recreational activities. Appropriate liability insurance must also be in place.

Actions

1. Improve the existing field at the Classroom and Front Country Campsite area, removing stumps and creating a more even surface.
2. Make improvements to camping facilities as needed.
3. Explore opportunities and develop appropriate partnerships to provide guided sea kayaking or other non-motorized watercraft tours for visitors participating in organized Learning Centre programs.

4. Investigate the feasibility of including swimming opportunities during youth educational programs.
5. Research funding sources to support an Indigenous Youth Environmental Circle, with the intention of this circle being a youth-driven advisory committee to participate in shaping the vision, organization, and direction of educational programming and management activities on the Land.

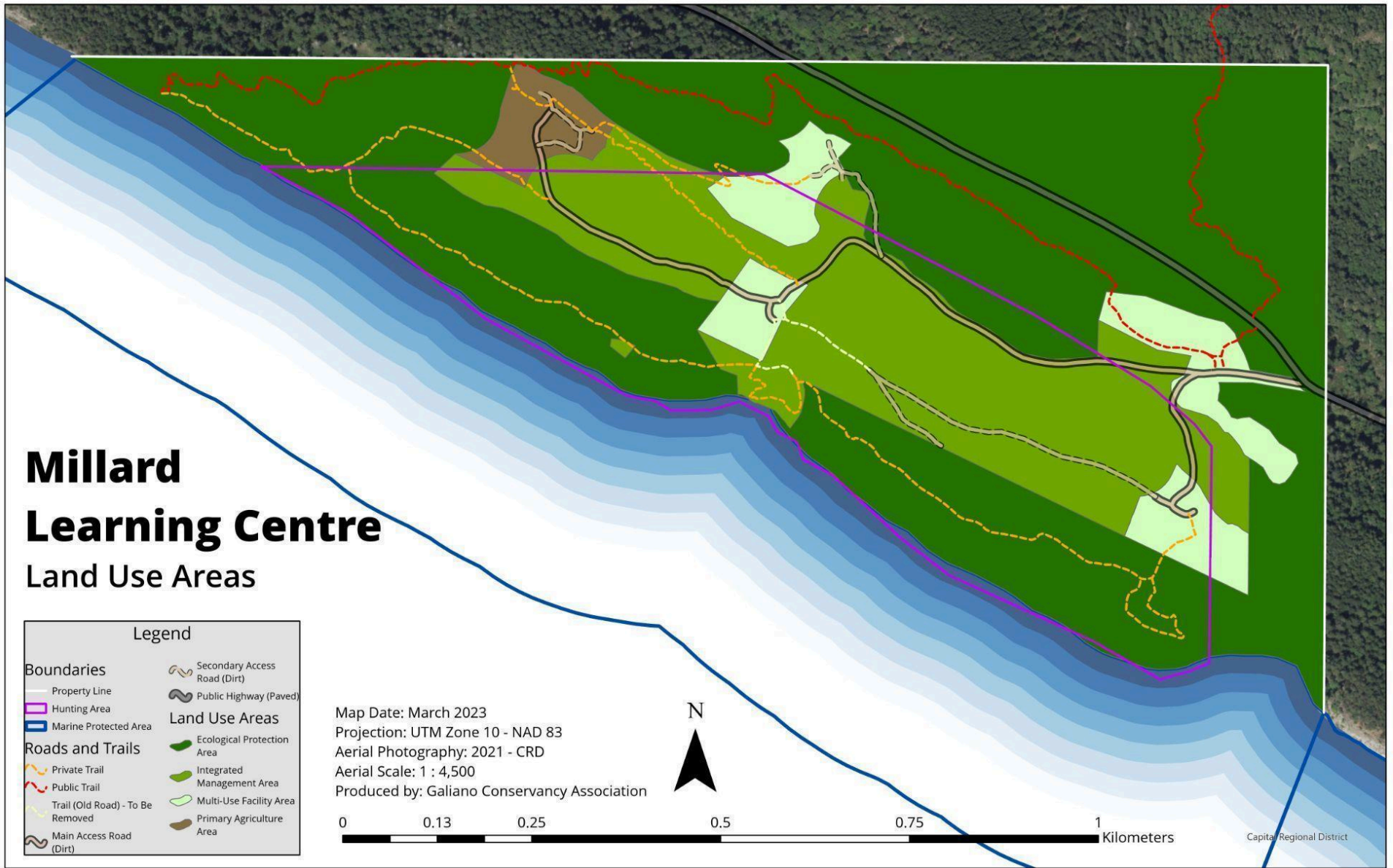
Management Areas and Intended Use

The Goals and Objectives of this Plan identify a wide variety of desired uses of the Land, along with related activities and infrastructure. This section provides guidance for where identified uses, activities and infrastructure may be located on the Land through the designation and description of broad Management Areas. The areas, shown on **Map 7**, were created through extensive mapping and ground based analysis of the Land looking first at the most important areas for ecological protection, and then at the suitability of remaining sites for desired uses, activities, and infrastructure. The designation of Management Areas uses an ecosystem based approach, with a graduation from high intensity use areas (facilities, intensive agriculture) to moderate intensity (integrated agriculture, agroforestry, eco-forestry, ecological restoration) to low intensity use (hiking, outdoor learning sites, ecological protection). There are five Management Areas: the Ecological Protection Area, the Integrated Management Area, the Primary Agriculture Area, the Multi-use Facility Area, and the Public Road. While ecological health and resiliency is considered in all areas, the degree to which this is considered and the intensity of suggested uses varies.

Table 2. Management Areas, sizes and associated uses.

Area	Size (Ha.)	% of Land	Main Uses
Ecological Protection	49.01	64.5	Ecological restoration, foot trails, education, research
Integrated Management	17.6	23.1	Integrated agriculture, agroforestry, forest use, ecological restoration
Primary Agricultural	1.64	2.2	Horticulture/annual crops, orchards
Multi-use Facility	6.05	8.0	Learning / research facilities, energy, water, waste systems, camping, staff accommodations, ecological restoration
Public Road	1.7	2.2	Porlier Pass Road and associated utilities

Map 7: Land Use Areas



Ecological Protection Area

The Ecological Protection Area was designed to protect the most ecologically important sites, and to include representation of the diverse ecological communities found on the property. The area was delineated through extensive analysis and interpretation of baseline ecological, hydrological, human use, and topographic data using ArcGIS software. The following criteria were used to identify the most ecologically important sites:

Current Condition of Ecological Community:

- Areas where historical disturbance is minimal were ranked very highly;
- Areas where logging or clearing occurred more than 80 years ago were ranked highly;
- Areas where logging or clearing occurred between 30 and 80 years ago were ranked moderately;
- Areas where logging or clearing occurred within the past 30 years were ranked low;
- Areas with a history of major, ongoing disturbance such as the mill site or residential area were ranked lowest.

Sensitivity to Disturbance and Rareness of Ecological Community:

- Rare ecological communities, wetlands and cliffs were ranked highly;
- Sensitive ecosystems with shallow and / or wet soils were moderately ranked;
- Abundant ecosystems with deep, well drained soils were ranked lowest;

Stream Riparian Areas:

Areas buffering seasonal creeks received additional value depending on whether they were within 30m, 60m or 90m of the creek channel.

Roads and Structures:

- Areas buffering roads were reduced in value according to the type and/or use of the road (old skid road vs. maintained access road).
- Areas within 15m of structures were reduced in value.

The following uses may occur within the Ecological Protection Area:

1. Education, research, and ecological monitoring activities.
2. Ecological restoration.

3. Low impact, non-motorized recreational activities on designated trails.
4. The construction of foot trails for routes where no existing road bed or trails exist.
5. Controlled public access.
6. Removal of timber as part of an ecological restoration initiative that has as its primary objective the initiation or acceleration of the recovery of an ecosystem with respect to its health, integrity, and sustainability.
7. Harvesting of non-timber forest products that are not readily available within any other Management Area. Such a product may only be harvested in a manner which does not compromise the integrity of the ecosystem from which it is being removed.
8. No permanent or fixed structures, with the exception of minor improvements related to public safety on designated foot trails.
9. No vehicle access roads with the exception of the existing road bed that links to the 'satellite' Integrated Management Area on the coastal ridgeline just northwest of the cove. Temporary access routes specifically designed to aid with restoration programs are also allowed.

Integrated Management Area

This Area provides a focus for ecological restoration, agriculture, agroforestry, and forest use that contributes to ecosystem composition, structure and function in some way. It is transitional between areas designated for more intensive use (Multi-Use Facility and Primary Agricultural Areas) and the Ecological Protection Area. While a variety of uses and infrastructure are allowed, they must reduce the ecological footprint of property-wide operations and/or contribute to the maintenance or recovery of ecosystems with respect to their health, integrity, and sustainability. Site level and/or project specific planning within this Area must take into account the cumulative impacts of all uses on the Land, must be accounted for in the broader strategy for maintaining ecological processes over time, and must be guided by the principles of adaptive management. This Area is primarily composed of historically cleared and heavily disturbed sites, but includes some small swamp and marsh wetland pockets, a seasonal creek, and some areas that are characterized by moist soils, more sensitive to disturbance. Uses in this area may include:

1. Timber harvest, NTFP harvest, and agroforestry areas.
2. Ecological restoration.

3. Food and therapeutic gardens, including raised beds and greenhouses for participant consumption and for educational and healing purposes.
4. Poultry and livestock raising.
5. Tree cutting in consideration of infrastructure and activities occurring in other management areas.
6. Low impact, non-motorized recreational activities.
7. Controlled public access.
8. Maintenance of vehicle access roads.
9. Small-scale infrastructure for delivery of outdoor education programming (boardwalk, outdoor seating, platform etc.) or required for agricultural activities.
10. Water extraction or collection (for use on the Land).
11. Construction and operation of infrastructure required for energy production (wind, solar, micro-hydro, etc.) and distribution, where a suitable location cannot be found within the Multi-use Facility Area.

Primary Agricultural Area

This area provides a focus for food production. In a broad level professional assessment of the property it was determined that the soils and microclimate/exposure within this area were the most suited for intensive horticulture and provide the widest range of opportunities for annual field cropping, perennial fruits, and nuts with the least requirement for water table control and possibly irrigation. This area is within the Provincial Agricultural Land Reserve. The following uses may occur within the Primary Agricultural Area:

1. Intensive horticulture/annual crops, including salad crops, root crops, cole crops, corn, potatoes etc.
2. Growing and harvesting of tree fruits, berry fruits, nuts, or other perennials.
3. Processing of harvested materials.
4. Poultry and livestock raising and processing.
5. Construction of infrastructure required for agricultural uses (i.e. Buildings, drainage, irrigation, and compost).
6. Vehicle access roads and foot trails.

7. Controlled public access.

Multi-use Facility Areas

The primary purpose of the Multi-use Facility Areas is to accommodate the buildings, systems, and infrastructure required to support day and residential learning, research, and retreat use of the property. Multi-use Facility Areas are generally located on previously logged and highly disturbed sites. They are accessible by maintained roads. Portions of the areas are characterized by moist soils that are more sensitive to disturbance and prone to surface runoff during winter months. Uses in this area may include:

1. Construction and use of learning facilities (classroom / theatre / meeting areas, etc.), research facilities (labs, computer / internet access, etc.), retreat facilities (studio, treatment room, etc.), and indoor group residential facilities (commercial kitchen, dining, sleeping accommodations, washrooms, etc.)
2. Camping use and construction of supporting facilities (tent pads, yurts, fire-pit, food preparation and dining area, covered or indoor gathering space, toilets etc.)
3. Construction and operation of infrastructure required for energy production (wind, solar, micro-hydro, etc.) and distribution.
4. Water extraction (for use on the Land), collection, storage, filtration, and processing.
5. Waste processing.
6. Construction and maintenance of temporary staff / volunteer and long-term residence accommodations.
7. Operation of Galiano Conservancy Association office and library facility.
8. Open space recreation areas suitable for playing.
9. Structures for storage and workshops.
10. Food and therapeutic gardens, including raised beds and greenhouses for participant consumption and for educational and healing purposes.
11. Timber harvest, NTFP harvest, and agroforestry areas.
12. Processing and storage of harvested materials.
13. 'Roadside sales' of products harvested or processed on the land, and construction of related structures or buildings.
14. Tree cutting in consideration of infrastructure and activities.

15. Low impact, non-motorized recreational activities.
16. Maintenance of vehicle access roads.
17. Public parking.
18. Controlled public access.

Public Road Area

The Public Road Area includes the surface of Porlier Pass Road and the area 10m on either side of the centre line. While Porlier Pass road is currently designated as a Section 42 road allowing public use and maintenance of the surface of the road – any rezoning may require the designation of a 20m wide gazette public road to be owned and managed by the Ministry of Transportation and Infrastructure. Uses within this area will include the maintenance of the road surface, ditches and vegetation for public safety and operation of BC Hydro Distribution Lines.

Implementation and Monitoring

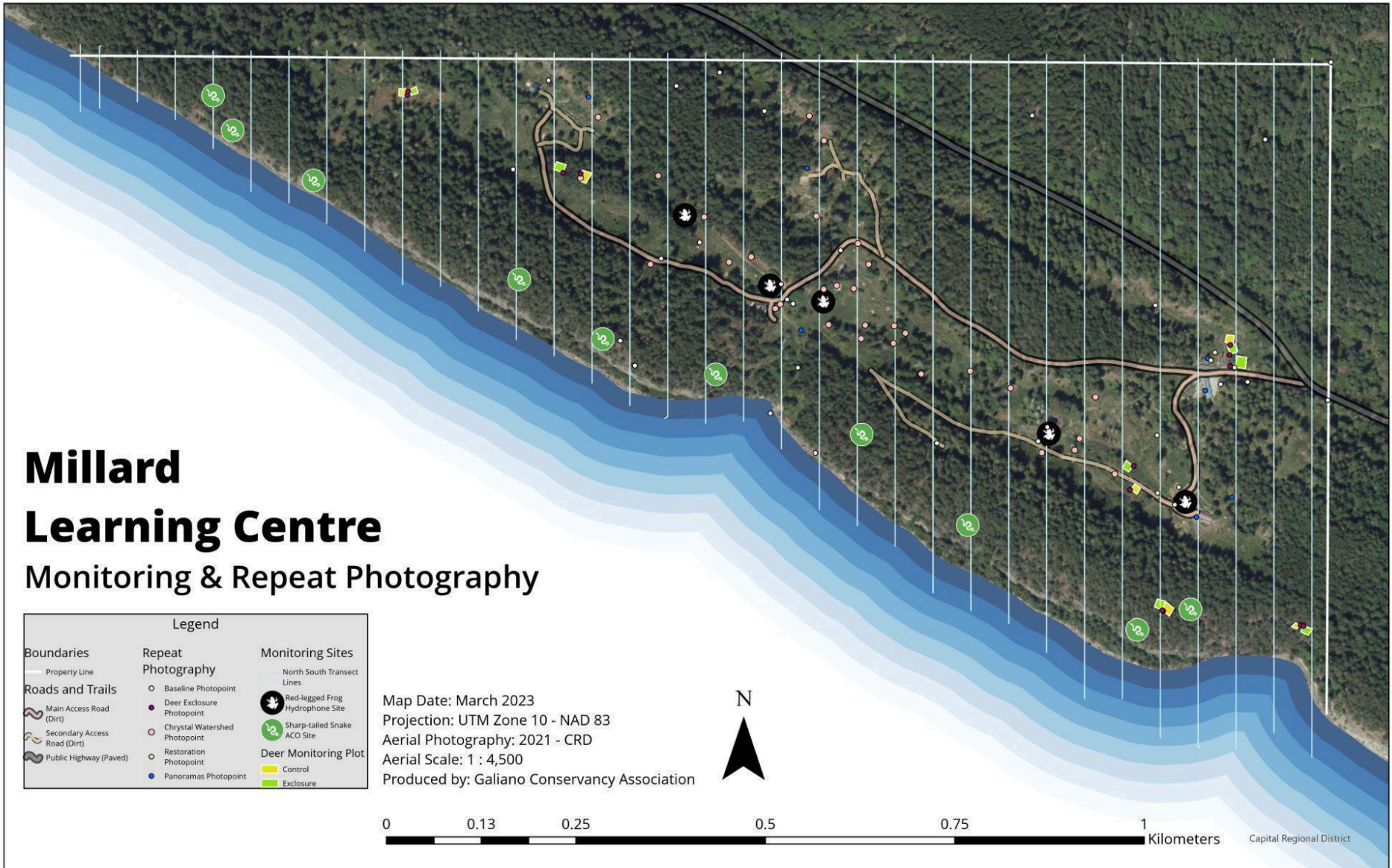
Actions determined in this Plan will depend heavily on donations and project based financial support from public and private foundations and various other funding agencies and organizations. Monitoring and evaluation of implementation progress will be conducted by a Galiano Conservancy Association Board appointed committee responsible for the ongoing management of the Land. The committee will be informed of and provide general oversight for ongoing operations and management of the Millard Learning Centre, and will conduct annual progress reviews to be reported to the Board. The committee will also have responsibility for the five-year review and update of the Management Plan.

In addition, a variety of ecological monitoring regimes and associated plots, transects, and points have been established at the Millard Learning Centre. These include:

- Repeat Photopoints
- Permanent deer exclosure monitoring plots
- Permanent transects (multi-purpose)
- Species at Risk monitoring sites

Map 8 provides an overview of these features and where they are located. Note that ecological monitoring associated with specific restoration projects also occurs annually, but on 2-3 year timescales. As a result, associated monitoring features are not depicted here.

Map 8: Monitoring and Repeat Photography Features



Appendix A: Detailed Maps

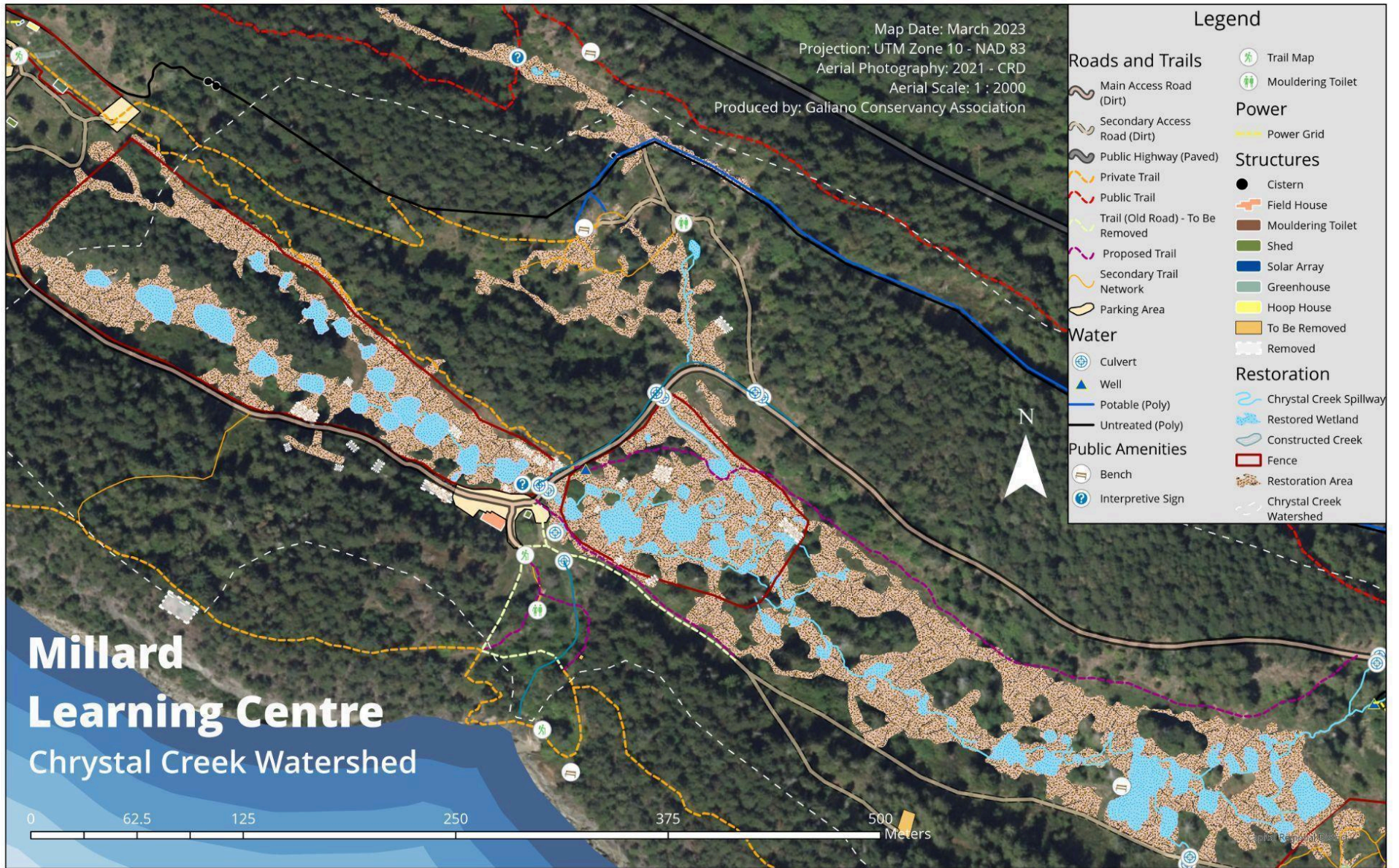
Five specific sites on the Land have been the focus of infrastructure development, ecological restoration, and sustainable food production activities. These sites are:

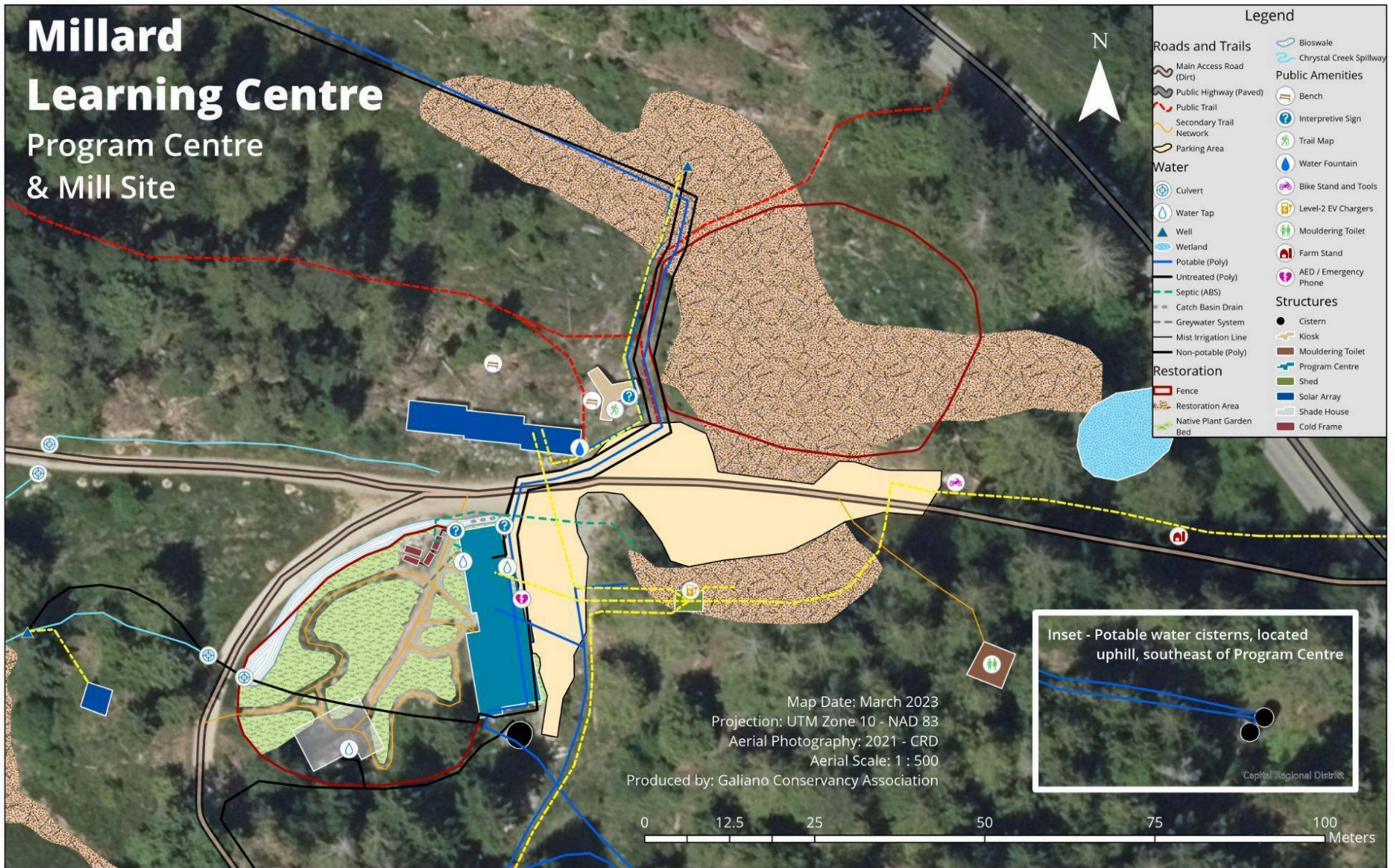
- The Chrystal Creek Watershed - *Integrated Management Area, Multi-Use Facility Area*
- The Program Centre and Mill Site - *Multi-use Facility Area*
- The Classroom and Frontcountry Campground - *Multi-use Facility Area*
- The Food Forest and Nursery - *Primary Agricultural Area*
- The Backcountry Campsite - *Multi-use Facility Area*

These sites are all located where previous human activities resulted in serious impacts to the Land. Educational infrastructure and food production facilities have been concentrated in these sites in order to minimize the human footprint associated with GCA programs. Areas within these sites that are not required for these uses have been restored or are scheduled to be restored.

Maps 9-13 provide a detailed look at each of these areas.

Map 9: Chrystal Creek Watershed - Detail



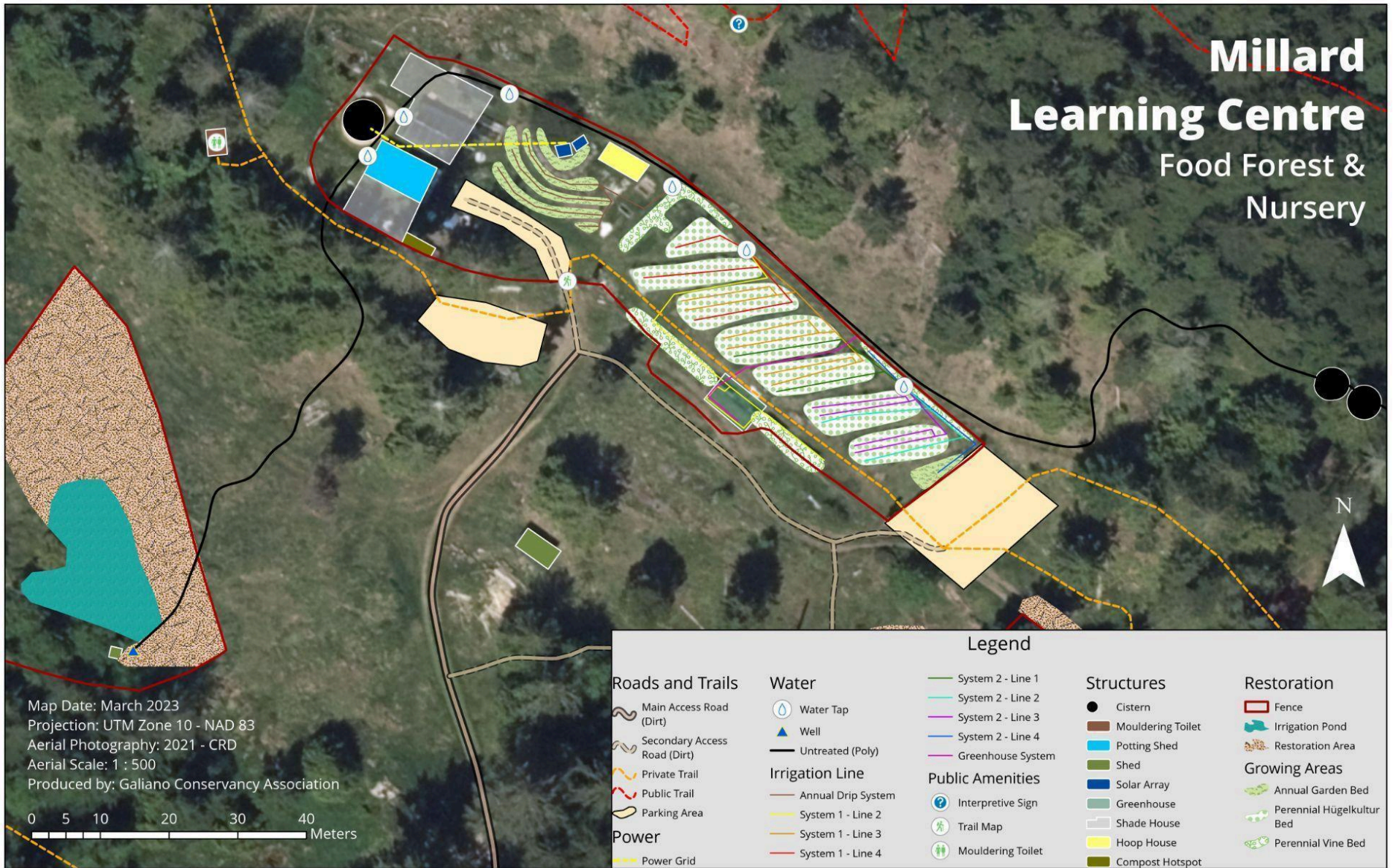


Map 10: Program Centre and Mill Site - Detail

Map 11: Classroom and Frontcountry Campsite - Detail



Map 12: Food Forest and Nursery - Detail



Map 13: Backcountry Campsite - Detail



Appendix B: Accomplishments

The 2013 Management Plan for the property presented an ambitious roadmap for the protection, restoration, and development of DL 57. Ten years later, many aspects of this plan have been carried out, and others are in progress. What follows is an outline of the progress made to date.

Management Planning

- 2012: Baseline Report completed
- 2013: Management Plan completed
- 2013: A Resource Guide to Collaborative Conservation Planning published
- 2014: Introduced Species Management Plan completed
- 2015: Framework for Ecological Restoration and Integrated Land-use Management completed
- 2021: Introduced Species Management Plan updated
- 2023: Management Plan updated

Students Reports Produced At / About the Millard Learning Centre

- 2013
 - ER 470 Field Course - 3 reports
- 2014
 - ER 411 Field Course - 3 reports
 - RNS Capstone Project - 1 report
- 2015
 - ER 411 Field Course - 6 reports
- 2016
 - ER 411 Field Course - 6 reports
 - University of Victoria - 1 thesis
- 2017
 - ER 411 Field Course - 7 reports
 - RNS Capstone Project - 1 report

- 2018
 - UVic Co-Op Directed Study - 1 report
 - ER 412 Field Course - 8 reports
- 2019
 - ER 412 Field Course - 6 reports
- 2020
 - ES 490 Directed Study - 1 report
 - ER 412 Field Course - 4 reports
 - RNS Capstone Project - 1 report
- 2021
 - ER 412 Field Course - 5 reports
 - ER 312B Directed Study - 1 report
 - RNS Capstone Project - 1 report
- 2022
 - ER 412 Field Course - 6 reports

Infrastructure

Roads and Trails

- 8 + km of foot trails established, including 6.6 km of hiking trails and 1.4 km of secondary, site-specific access trails
- 2.5 km of dirt access roads retained, maintained, and improved
- 4 designated parking areas maintained, accommodating approximately 55 vehicles
 - Program Centre - 25 parking spots
 - Classroom - 10 parking spots
 - Chrystal Cove - 12 parking spots
 - Food Forest and Nursery - 8 parking spots

Cisterns

- One 13,000 gallon ferrocement rainwater cistern constructed at Food Forest
- One 5,000 gallon rainwater cistern installed at Program Centre
- Two 5,000 gallon potable water storage cisterns installed above Program Centre
- One 3,000 gallon storage cistern installed above Backcountry Campsite

- Two 5,000 gallon storage cisterns installed above Food Forest

Wells

- Groundwater well drilled in Mill Site to provide potable water to staff and visitors
- Surface water well established below Program Centre to provide non-potable water for irrigation purposes
- Irrigation pond excavated and surface water well established below Food Forest to provide non-potable water for irrigation purposes

Energy

- 15.8 kW grid-tied ground mount solar array (48 modules) installed near Program Centre
- 5.2 kW grid-tied roof mount solar array (20 modules) installed and located at either Classroom or Program Centre to help achieve net-zero for the MLC
- 1.7 kW off-grid ground mount solar array (4 modules) installed in Food Forest
- 1.2 kW off-grid ground mount solar array (6 modules) installed below Program Centre
- Two Level-2 EV chargers installed at the Program Centre for public use and use by staff

Facilities

- 1225 ft² Program Centre constructed near property entrance to provide office facilities
- 1050 ft² square foot Classroom assembled to provide learning facilities
- 525 ft² square foot bathroom and shower addition made to Classroom facility
- Four mouldering toilet facilities constructed at key locations throughout property
- Potting shed constructed at Food Forest
- Greenhouse constructed at Food Forest
- Production plant nursery and shade structures installed at Food Forest
- Annex plant nursery and shade structure installed behind the Program Centre
- Frontcountry campsite with 17 tent pads established near Classroom facility
- Backcountry campsite with 12 tent pads established near centre of property
- Information kiosk established at property entrance

Ecological Restoration

- Restoration projects undertaken and/or underway at 7 distinct sites, comprising approximately 16.3 ha of land
- 5.3 ha treated with 'rough and loose' technique and planted with native species
- 4,500 + individual native plants established in restoration sites
- 80+ individual wetland pools excavated
- 2,125+ metres of deer fencing installed
- 955 metres of drainage ditches disabled and removed
- 105 metres of creek and bioswale constructed
- 6500 + kilograms of non-compostable, non-salvageable waste removed from the property
- 25 dilapidated or collapsed structures demolished
- 5000 + volunteer hours logged on restoration projects
- 1000 + volunteers engaged in restoration projects

Sustainable Food Systems

- Food Forest and plant nursery established on 0.5 ha in the Primary Agriculture Area
- 6 hügelkultur beds established in Food Forest
- 128 individual edible perennial food-bearing trees and shrubs established in Food Forest
- 'Compost Hotspot' demonstration site established in Food Forest
- Farm stand constructed near entrance to property for direct sales
- Retail container nursery propagating 120+ species of native and edible plants established, with 2,000 to 5,000 plants in stock

Appendix C: Acknowledgements

The original 2013 plan, on which this document is based, was made possible through the hard work and dedication of the members of the Galiano Learning Centre Planning Committee, which consisted of (as described at the time of drafting):

Ed Andrusiak - retired Manager of Metro Vancouver Regional Parks after a 35 year career with various park agencies and the private sector, is a member of the Galiano Island Parks and Recreation Commission and the CRD appointed Project Manager of Experience the Gulf Islands for the Southern Gulf Islands Economic Development Commission.

Keith Erickson - Conservation Coordinator, Galiano Conservancy: Keith Erickson is a professional biologist with experience in ecosystem-based planning, mapping, and ecological restoration.

Steve Goldberg - Steve Goldberg is a consultant-facilitator with multiple years of experience leading community planning and strategic initiatives nationally and internationally.

Emily Gonzales - Dr. Emily Gonzales is a Restoration Ecologist with Environment and Climate Change Canada and Adjunct Faculty at the University of Victoria, University of Guelph, and Queen's University.

Eric Higgs - Eric Higgs is a Professor in the School of Environmental Studies at the University of Victoria, with a focus on ecological restoration, novel ecosystems, and protected areas.

Mike Hoebel - Michael Hoebel is a retired provincial civil servant, with a background as an educator and ecologist, and current involvement in local community development initiatives.

Rose Longini - Board Member (Secretary): Rose Longini is an organic farmer & musician with almost 20 years experience with conservation on Galiano Island.

Ken Millard - Board Member (Coordinator): Ken Millard is a retired physicist and luthier with over 25 years experience in conservation on Galiano Island and in the Salish Sea region.

Risa B. Smith - Board Member: Risa Smith is an ecologist with 20 years of experience assessing status and trends of Canada's biodiversity and ecosystems.

Eric Touchburn - Board Member: Eric Touchburn is currently a kayak guide and massage therapist on Galiano Island with a background in volunteer and service management in the mental health sector and excursions management in the tourism industry.

Loren Wilkinson - Board Member: Loren Wilkinson is an author and theologian currently teaching at Regent College; his focus is on exploring the human relationship to the natural world in its environmental, aesthetic, scientific, and religious dimensions.

The updated 2023 plan was made possible by funding from the Habitat Conservation Trust Foundation's Land Stewardship program. It was undertaken by GCA staff under the guidance of the Millard Learning Centre (MLC) Management Committee, with feedback from local Indigenous educators and youth. The contributors include:

Lead Author:

Adam Huggins - Restoration Coordinator, GCA

Contributing Authors:

Michelle Thompson - Conservation and Climate Coordinator, GCA

Chessi Miltner - Executive Director, GCA

Contributors:

Tom Mommsen - MLC Management Committee member

Keith Erickson - MLC Management Committee member

Ian Chunn - Board Member, MLC Management Committee member

Emily Menzies - Educator

Levi Wilson - Educator

Indigenous youth

Appendix D: Planning Process

Summary of the 2023 Update Process

This 10-year update has been undertaken between January and April 2023 by GCA staff, with oversight from the Millard Learning Centre Management Committee (which is composed of GCA Staff, Board and community members). Two educators with a long history of involvement with the Millard Learning Centre and GCA educational programs solicited feedback from local Indigenous youth and provided additional input that has been included in the Plan.

It was agreed that the original Management Principles were sound, so the focus of the update process has been to:

- Provide detailed, up-to-date maps of the Land, its ecosystems, and the natural and human infrastructure found on it;
- Include updated information relating to the social and ecological context of the Land
- Revise management goals and objectives;
- Update management guidelines and proposed actions; and
- Detail the accomplishments of the GCA to date on the Land, many of which extend directly from the goals and the objectives of the 2013 Plan.

Summary of the Original 2013 Planning Process

The original 2013 Management Plan was developed by a planning committee consisting of members of the Galiano Conservancy Association (Board of Directors and staff), faculty from the University of Victoria School of Environmental Studies, and members of the Public. The planning committee completed an open planning process that included two public open houses for the Galiano Community and an Extraordinary General Meeting for the GCA membership. NCC (Tim Ennis, West Coast Program Manager, BC Region) was consulted throughout the planning process to ensure that the Management Plan was consistent with the GCA's proposal for acquisition funding through the NACP. The Islands Trust Conservancy (previously Islands Trust Fund) and the owners of Retreat Cove Farms, as adjacent landowners, were also directly informed and consulted throughout the process. Kate Emmings, Ecosystem Protection Specialist for the Islands Trust Conservancy,

was also consulted on how the management of DL57 tied into Islands Trust Conservancy Regional Conservation Plan goals and objectives. Kris Nichols, Island Planner for The Islands Trust, was consulted regarding the general content of the plan to ensure familiarity with the GCA's goals and objectives in preparation for the initiation of a local rezoning process, required to accommodate the desired changes in use for the property. Expert advice regarding the agricultural capability of the land was provided by Gary Runka (P.Ag.). Herb Hammond (R.P.F.) provided expert advice regarding ecosystem-based planning and sustainable forest-based activities. Ecological analysis and planning was conducted by Keith Erickson (R.P.Bio; GCA Conservation Coordinator) in consultation with local and provincial experts. The Management Plan was also informed through direct consultation with leaders and participants of groups that have past experience with the GCA's nature-based education programs.