



Municipality of North Cowichan Parks and Trails Master Plan

Diverse. Connected. Expanded.



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Executive Summary

PLAN PURPOSE

This plan is a system-wide strategic plan that guides the resourcing, development, management, provision and expansion of our parks and trails over the next 15 years. Reflecting the desires of the community, the plan has identified strategies and actions to improve our extraordinary quality of life, as well as the health and well-being of our residents and the community as a whole. This Parks and Trails Master Plan will help make the Municipality of North Cowichan a leader in municipal protected area management. The Municipality will continue to gain recognition as a sought-after destination for active recreation, including hiking, mountain biking, hiking and whitewater paddling. As demand for the Municipality of North Cowichan's parks and trails grows, this Master Plan will provide a clear guide to decision-makers.

PLANNING PROCESS

The planning process was organized in four phases:

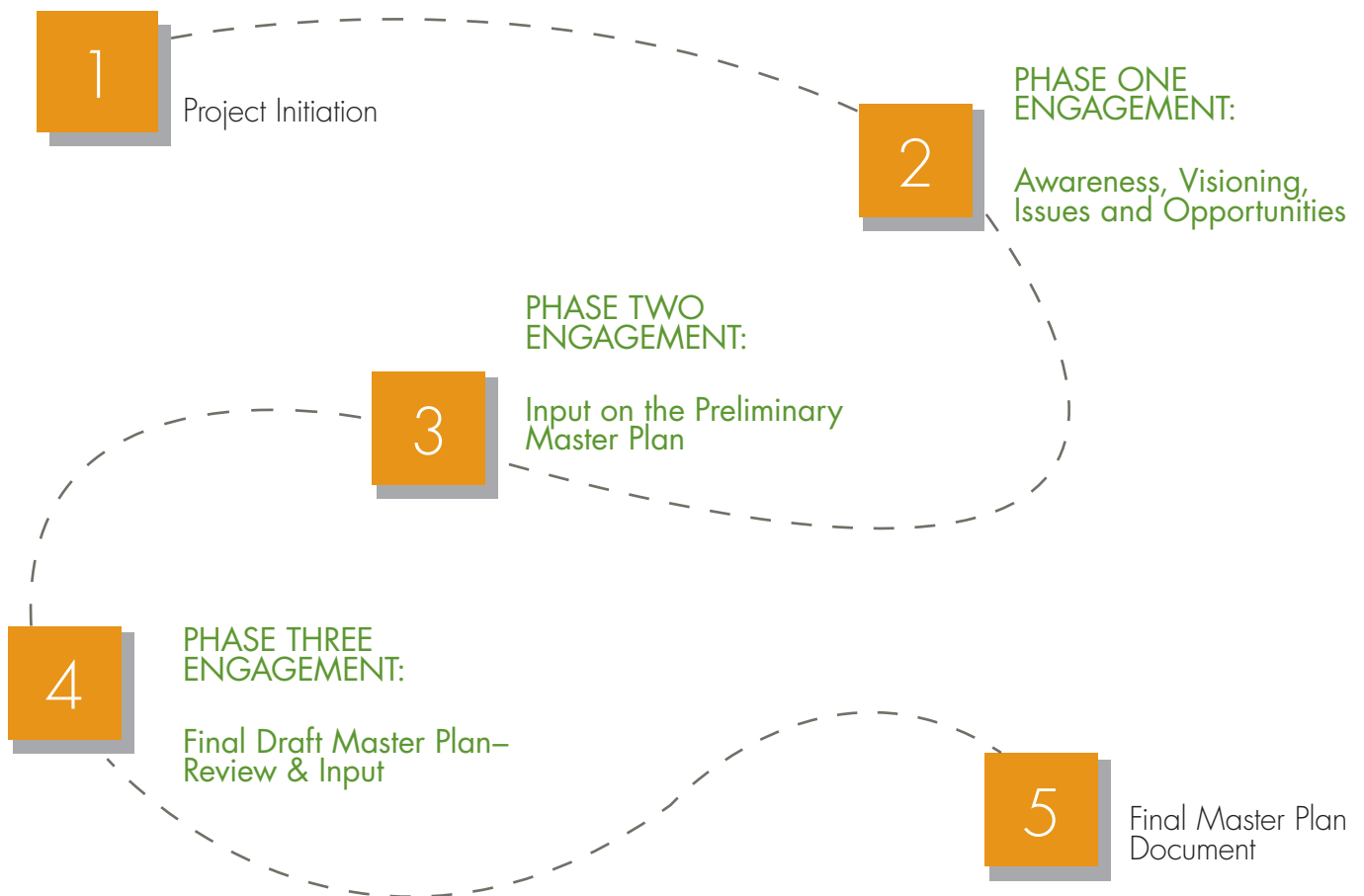


ES Figure 1 Planning Process

ENGAGEMENT PROCESS

Community engagement occurred in three phases:

1. Awareness, Visioning, Issues and Opportunities
The planning team focused on understanding the perceived issues facing the parks and trails system, opportunities to enhance the system, and garnering insights into a future vision for our parks and trails system.
2. Input on the Preliminary Master Plan
The preliminary master plan was presented to the public and stakeholders for review and input during interactive community conversations.
3. Final Draft Master Plan
The final draft master plan was presented for review and input at a final community conversation.



ES Figure 2 Community Engagement Process

WHAT WE HEARD: PHASE ONE

Key themes that emerged from the Phase One engagement sessions included:

- Wayfinding & Signage
- Accessibility
- Trail Connectivity
- New Destinations & Facilities
- Safety
- Trail Maintenance
- Resource Management

PHASE TWO

Community conversations were held in April 2016 to obtain input on a preliminary vision, outcomes, strategies and actions.

1. April 12, 2016–Crofton Community Centre
2. April 18, 2016–Chemainus Secondary School
3. April 19, 2016–Island Savings Centre, Duncan

ENGAGEMENT BY THE NUMBERS—Phase 2:

ENGAGEMENT BY THE NUMBERS—Phase 1:

200 sounding board comments

10 Government to Government workshop attendees

28 stakeholder workshop attendees

880 unique visitors to MindMixer

5,388 MindMixer page views

98 StanMAP comments

60 comments via StanMAP survey submissions

19 attendees at Crofton community conversation

15 attendees at Chemainus community conversation

41 attendees at South End community conversation

97 comments received

Through our community conversations, and written comments from participants, the following common themes emerged:

1. **Protect ecologically sensitive areas and restrict access to areas with designated Species at Risk.** Sensitive ecosystems and species, especially in Municipal Forest Reserve, are currently unprotected and subjected to damage from both motorized and non-motorized recreation. Unauthorized trail building in the Municipal Forest Reserve should be addressed. Portions of the Municipal Forest Reserve should be protected as parks.
2. **Enhance Access and Resolve Recreation Conflicts in Municipal Forest Reserve.** Conflicts and some safety concerns are arising between various user groups in the Municipal Forest Reserve, including motorized users, hikers, equestrian users and mountain bikers.
3. **Not all trails can be accessible to all users.** Improving accessibility is an important goal and a priority. However it is not feasible to make all trails and sites accessible due to funding limitations and geophysical constraints. Some participants commented that Stoney Hill Regional Park is currently not accessible to the public (although this has since been resolved).
4. **Create new and better playgrounds.** Comments expressed an interest in new, more exciting play opportunities for children, kept as natural as possible.
5. **A range of new amenities is needed.** These include boat/kayak launch improvements, parking facilities, footbridges across creeks, more dog waste bag dispensers, benches, wayfinding signage, trash bins, and trailhead kiosks throughout the parks and trail system.
6. **Develop safe new multi-modal connections between communities.** Participants were clear that improved on- and off-road trail and pathway connectivity is a priority. Priorities for development include hub areas, commuter routes, community centers, and community recreation/sports facilities. User safety is a major consideration.
7. **Introduce proactive invasive species management.** Aggressive exotic invaders, including Tansey Ragwort, English Ivy, Scotch Broom, and Giant Hogweed are on the rise.
8. **Address Dog compliance issues in problem areas.** Dog owners must act responsibly to avoid user conflicts related to leash restrictions and to the cleanup of dog waste. Monitoring and enforcement may be required in situations where user conflicts exist.
9. **Enhance the recreation quality of the Chemainus River.** Improved access facilities and associated amenities are desired by the paddling community.
10. **Separate Linear parks from water access in the Parks Classification.** These perform different functions and should not be together as one class.

Phase Two Open House Input Collection Results:

97% of respondents agreed with the draft vision

70% of respondents agreed with the desired outcomes

90% of respondents agreed with the park classification system

PHASE THREE

A Public Open House was held at the Municipality of North Cowichan Council Chambers on July 7, 2016. 45 community members, 4 Council members, 10 Municipal staff and Stantec staff attended the event. A presentation was delivered by Stantec staff. In total, 35 exit surveys were received following the event, and general support for the Master Plan was expressed.

Phase 3 Open House Exit Survey Results:

90% of respondents expressed overall support for the Master Plan

82% of respondents expressed support for a 1% tax increase to maintain and enhance parks & trails

PARKS & TRAILS INVENTORY & ASSESSMENT

Before beginning to identify new future direction for our parks and trails system, we first needed to understand our current supply of parks and trails and how well our current system is serving the needs of our community and visitors.

In comparing our total maintained park area with data from the National Recreation and Parks Association's (NRPA's) 2015 Field Report, we can see that our current supply of 20.9 acres (8.5 hectares) of park space per 1000 population is in the upper quartile for communities of similar population density to ours.

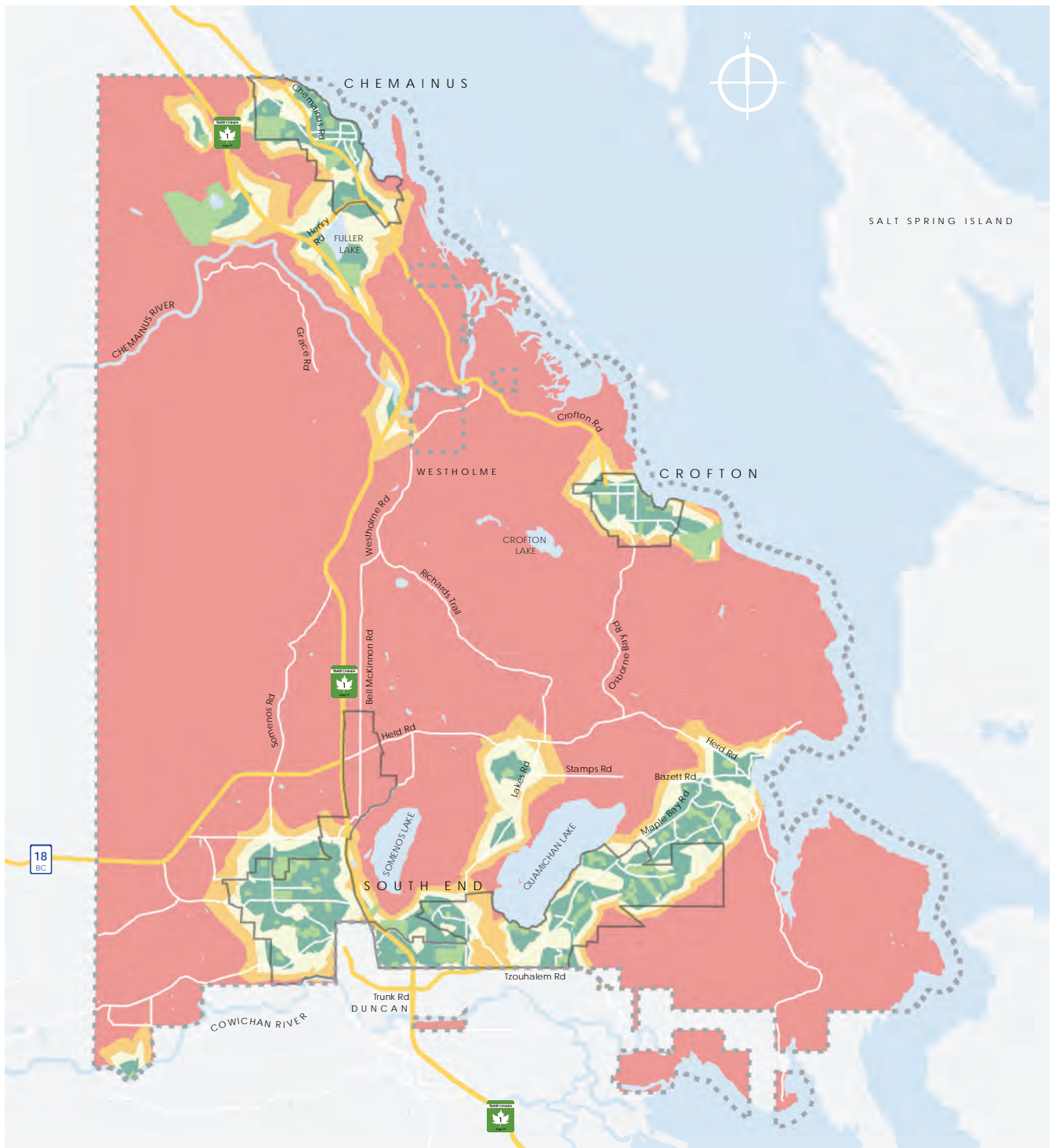
Park Supply by the Numbers:

65 actively maintained parks totalling 239 hectares

5,301 hectares
Municipal Forest Reserve

25.8%
of the Municipality is park space or Municipal Forest Reserve

8.5 hectares
of actively maintained park space/
1,000 residents



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Park Inventory
- Area within 400m Walking Distance of a Park
- Area within 800m Walking Distance of a Park
- Area within 1,200m Walking Distance of a Park
- Area greater than 1,600m Walking Distance of a Park

ES Figure 3 Park Accessibility

ACCESS TO PARKS

Research has found that most users of a park are drawn from within a 500-metre radius.

We identified what proportion of residential parcels (a proxy for residents' homes) are within walking distance to parks that meet or exceed quality expectations.

As shown in ES Figure 3, 79% of the Municipality is within walking distance to a park.

21% of residential parcels are **not** within walking distance to a park.

Trails Supply by the Numbers:

42 designated trails

59 km formally designated off-road trails

101 km (approx.) authorized and unauthorized trails in Municipal Forest Reserve

VISION AND PLANNING OUTCOMES

We have worked collaboratively with our residents, First Nations, partners and stakeholders to develop a shared vision for MNC.

By 2031...

We have become central Vancouver Island's pre-eminent outdoor recreation and nature-based tourism destination. Celebrating our iconic mountains, rivers, lakes, coastline and cultural resources, we offer residents and visitors, from near and far, memorable experiences in high quality, safe and well managed parks and trails that share our stories, those of our First Nations and our natural heritage. With easy walking access to quality parks and trails and a fully connected network of accessible multi-modal routes and trails, our residents have become more active more often as they engage in a diversity of outdoor pursuits. We are active stewards working collaboratively with our partners and First Nations to protect, enhance and celebrate our ecological network and sustain the flow of ecosystem services it provides us and our visitors. Through leading integrated resource management practices, our Municipal Forest Reserve has become a leader in effectively integrating sustainable forest harvesting, outdoor recreation, visual resource management, First Nations traditional use and conservation.

To get us closer to realizing our vision, we will work to achieve the following goals through our parks and trails system:

More Active More Often... In Nature

- Our parks and trails system will allow more residents to be more active more often while connecting with the natural world.

Accessible & Inclusive to All

- Our network of parks and trails will be equitably distributed across the municipality and be designed to minimize barriers for those with mobility and other limitations. Currently 73% of residents in urban containment areas are within reasonable walking distance (400-500m) of parks. Our goal is to reach 90%.

Enhanced, Diversified & Expanded

- Enhance the quality of existing parks and trails by upgrading them with clear wayfinding and signage, and comfort and convenience amenities. The recreational opportunities available will be expanded and diversified to meet the needs of our residents and tourists.

Physically Connected

- Our parks and trails will be physically connected to one another, our neighbourhoods, destinations within the municipality and to our regional neighbours.

Conservation & Ecosystem Services

- Our parks will conserve and, where needed, restore the quantity, quality and function of natural habitats and ecosystem services while contributing to ecological connectivity within the region.

Shared Stewardship & Well Managed

- Our residents will be actively engaged as partners and shared stewards in the planning and management of our parks and trails system. Our parks and trails will be actively managed and maintained to ensure they provide visitors with a safe and memorable experience.

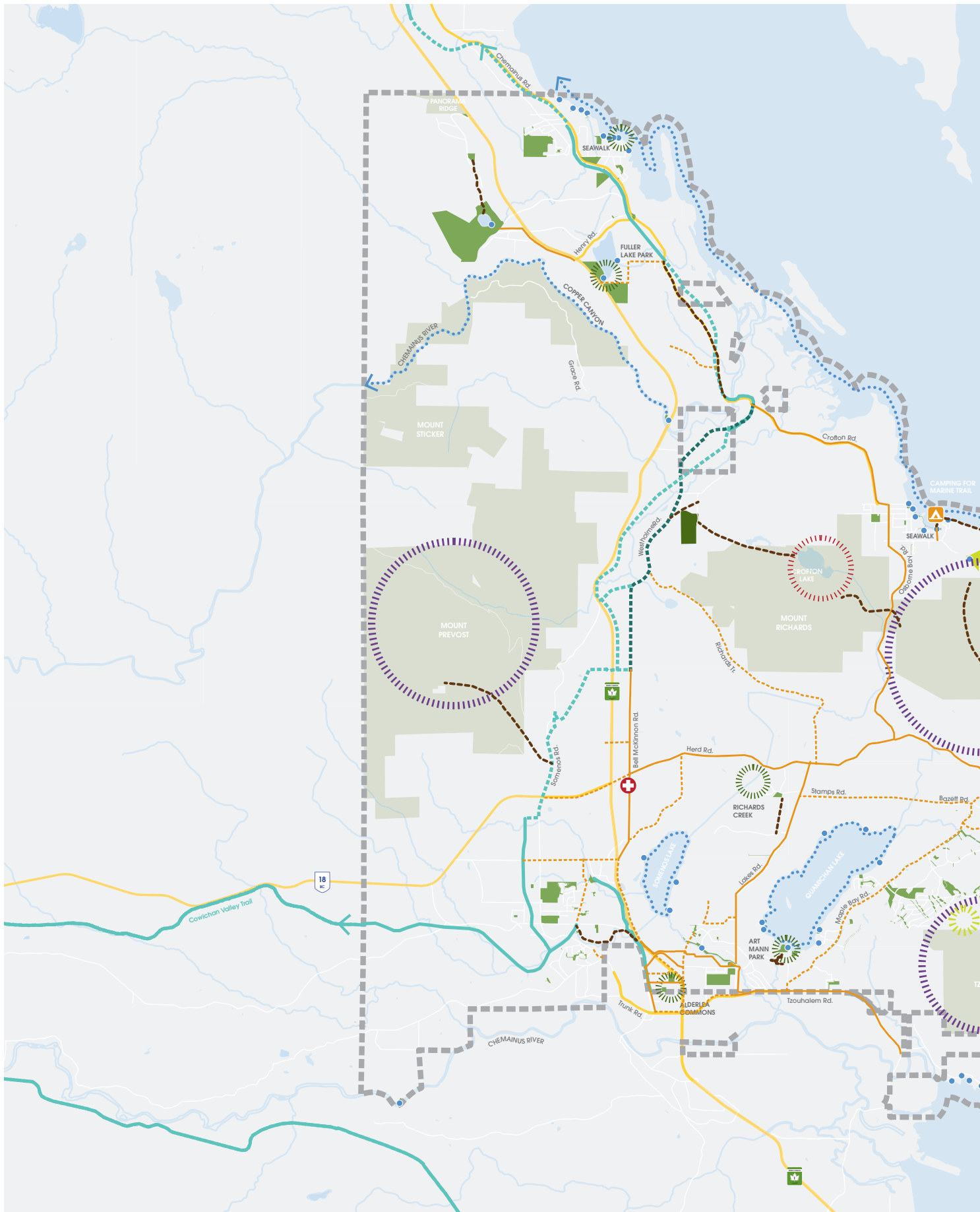
Economic Growth & Diversification

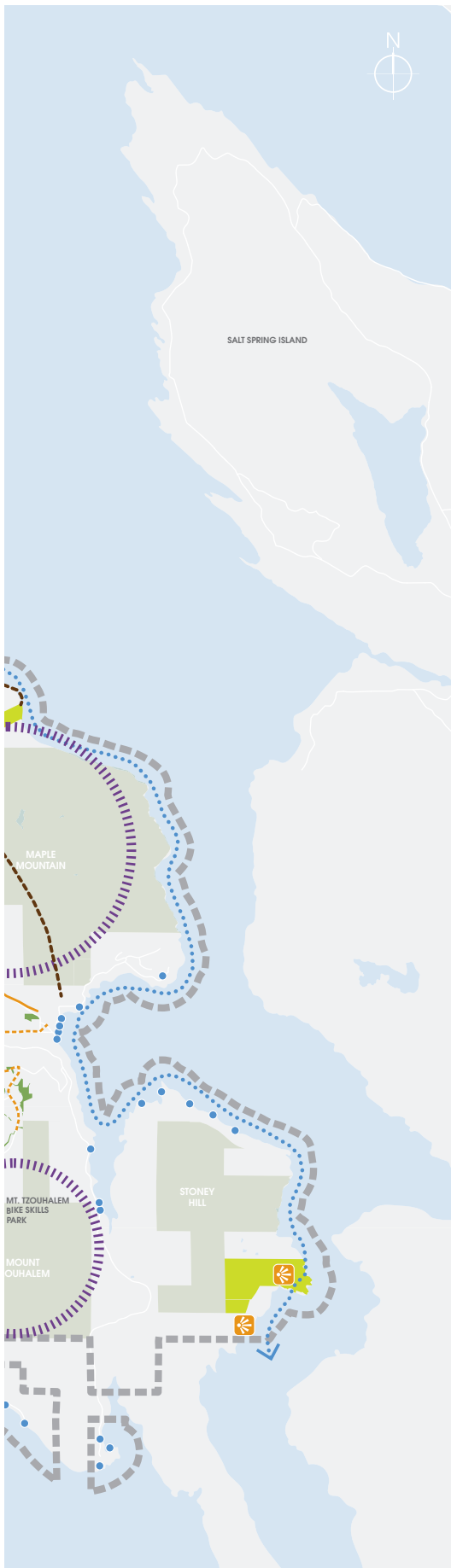
- Become central Vancouver Island's pre-eminent outdoor recreation and nature-based tourism destination.

MOVING FORWARD: STRATEGIES

To achieve our vision and outcomes, the following strategies and actions have been identified and will be implemented to advance our parks and trails system to where we want to be. These strategies and actions have been informed by what we learned from our review of the trends, our evolving demographics, our needs assessment and the ideas our community, stakeholders and First Nation's raised during engagements. The following strategies, as well as specific actions, are described in detail in the body of the document. Proposed actions are, where possible, shown on the Future Concept Map on the next page.

- Expand, Diversify and Connect the System:
 - Expand & Diversify Parkland Supply
 - Expand, Diversify & Connect our Network of Off-Street Trails
 - Expand, Diversify & Connect On-Street Multi-Modal Corridors
- Enhance the System:
 - Parks
 - Trails (Off-Street)
 - On-Street Multi-Modal Corridors
 - Water Based Outdoor Recreation Opportunities
 - Dog Off-Leash Parks
- Keep Nature In Our Future
- Enhance Outdoor Recreation & Tourism in our Municipal Forest Reserve
- Actively Manage the System:
 - Visitor Management
 - Risk Management
 - Signage & Wayfinding
 - Invasive Species Management
- Spread the Word about the System
- Collaborate
- Sustain our Capacity





LEGEND

- Municipal Forest Reserve
- Municipal Park
- MNC Lease Park
- Provincial Park
- CVRD Park
- Water Access
- Water Routes
- TCT/CVT Operational Trail
- TCT/CVT Proposed Trail
- Interim TCT On-Street Route
- Enhancements to Multi-Modal Routes
- Proposed Multi-Modal Routes
- Proposed Trail Corridor
- A Camping
- V Viewpoint
- + Proposed Hospital Location
- ☀ Destination Park
- ☀ Other Area of Interest
- ☀ Skills Park
- ☀ Mountain Bike & Nature-Based Tourism Destination
- North Cowichan Municipal Boundary

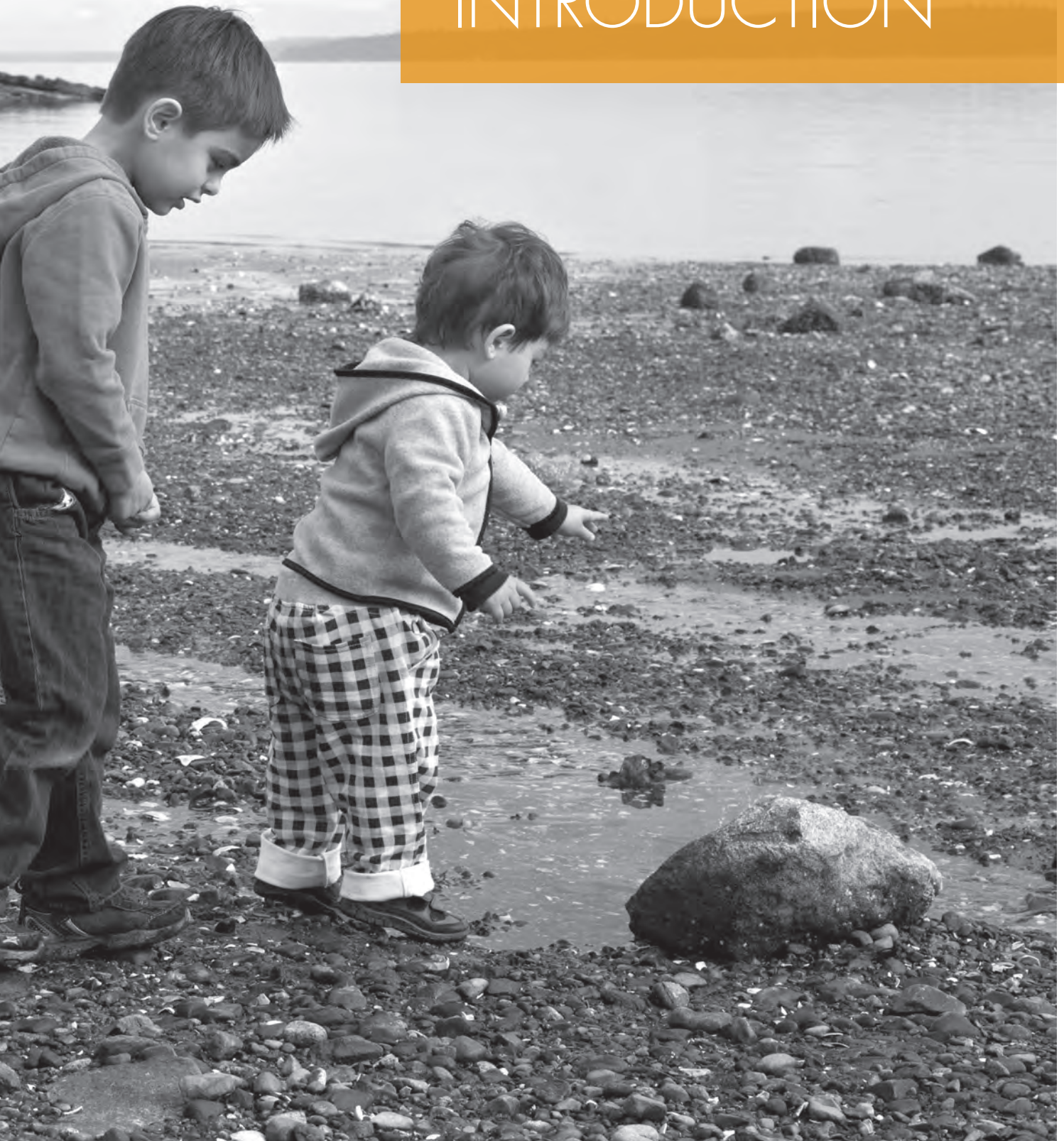
Future Concept

North Cowichan Parks & Trails Master Plan





INTRODUCTION



Master Plan Purpose

The Municipality of North Cowichan is a vibrant and growing community. Our parks, trails, rivers, lakes, oceanfront and our Municipal Forest Reserve are at the heart of our quality of life, our sense of place, our ecosystem services and our future economic diversification. Recognizing the importance of our parks and trails to our residents, and to those who visit our community, the Municipality has worked with the community and its partners to develop this comprehensive Parks and Trails Master Plan. Reflecting the desires of the community, the plan is a future-focused, system wide, strategic plan that guides the resourcing, development, management, provision and expansion of our parks and trails over the next 15 years. Through its development, the plan has identified strategies and actions to improve the extraordinary quality of life, as well as the physical and mental health and social and economic well-being of our residents and the community as a whole.

The Study Area

The parks and trails master plan is focused on the 214 square kilometres within Municipal boundaries (Figure 1). The plan also considers key regional connections to parks and trails managed by the Cowichan Valley Regional District, British Columbia Parks and local First Nations. The Municipality is large and diverse in terms of its development pattern, ecosystems and the outdoor recreation opportunities available to residents and visitors. The Municipality includes a number of distinct communities—Chemainus, Crofton, Maple Bay, Genoa Bay, University Village, and the Mount Prevost/Sherman Road area.

The area is known for its rugged and scenic coastline, with views to nearby Salt Spring Island and beyond. Distinctive topographic features include the iconic six mountains: Mount Tzouhalem, Mount Richards, Mount Prevost, Maple Mountain, Mount Sicker, and Stoney Hill. The rural character of the agricultural areas is highly valued by residents and visitors, as 25% of the Municipal land base is in the Agricultural Land Reserve. (Figure 2)



Legend

- Major Road
- City | Town
- MNC Boundary
- Rivers | Lakes | Ocean

Figure 1 Regional Context



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Agriculture Land Reserve

Figure 2 Agricultural Land Reserve

Planning Process

The comprehensive planning process, designed to incorporate and reflect the desires of the community, First Nations and parks and trails partners, kicked off in July of 2015 and was completed in July 2016. As shown in Figure 3, the process was organized in four phases:



Figure 3 Planning Process





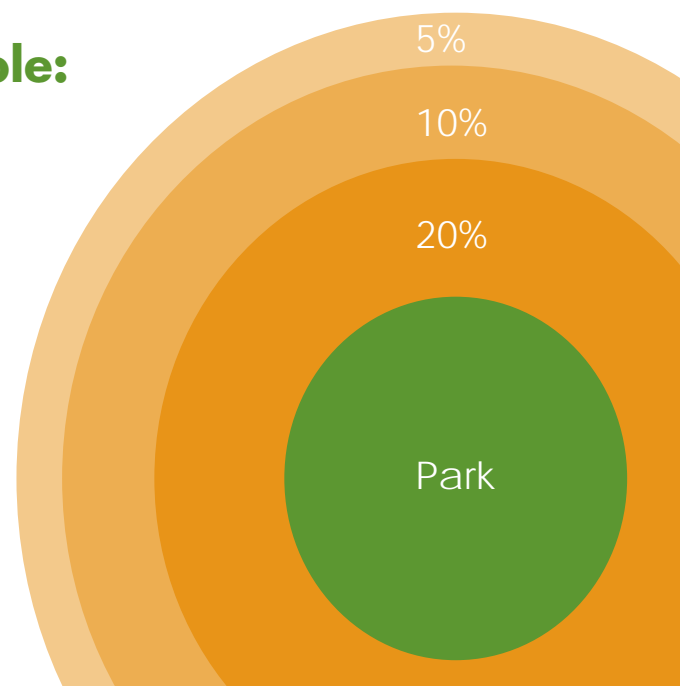
BENEFITS & TRENDS

Benefits of Parks & Trails

Regardless of how our residents and visitors use our parks and trails, these conservation and outdoor recreation spaces benefit everyone in our community. Our parks and trails are not just nice places. They are purposeful areas that help address some of our most challenging issues such as climate change, protecting native biodiversity, obesity, crime, economic development and many others. We know that a healthy parks and trails system creates a healthy and vibrant community with a quality of life second to none.

Proximity Principle:

Property values increase based on distance from a quality park



A WELL PLANNED AND QUALITY PARKS AND TRAILS SYSTEM CAN...

ENVIRONMENTAL

- Protect ecosystems and ecosystem services on which we depend.
 - Improve our stewardship ethic and connection to nature.
 - Maintain native plant and wildlife populations.
 - Support lake and river processes such as flooding.
 - Provide active transportation options, reducing carbon emissions and climate change.
 - Absorb carbon dioxide; reducing climate change.
-

PERSONAL & COMMUNITY HEALTH

- Encourage and enable people to be more active, more often.
 - Enhance mental health.
 - Strengthen community ties, bringing diverse populations together in one place.
 - Reduce crime and delinquent behaviours.
 - Improve focus and creativity.
 - Support early childhood development and physical literacy.
-

CULTURAL

- Celebrate First Nation's way of life and the Municipality's unique heritage.
 - Protect our iconic landscapes and sense of place.
-

ECONOMIC

- Reduce health care and incarceration costs.
 - Attract tourists and visitor spending.
 - Increase property values.
 - Draw new business and business investors.
 - Attract and retain skilled labour.
 - Revitalize repressed neighbourhoods.
-

Recreation... the experience that results from freely chosen participation in physical, social, intellectual, creative and spiritual pursuits that enhance individual and community wellbeing.

(Pathways to Wellbeing, 2015)

Trends

Taking stock of well researched trends is a vital component of any plan. An effective long-term plan embraces the positive trends and figures out how to respond to the more challenging trends within the local context. These trends will affect how we provide and manage our parks and trails system now and into the future. Though it's not an exhaustive list, our future vision and the strategies and actions contained within this plan were developed with consideration of the following trends:

DEMOGRAPHICS ARE SHIFTING

In general, Canada's population is getting older. Many communities have a declining proportion of children and an increasing proportion of older adults. In addition, the population is increasingly rich in diversity. Significant populations of immigrants are moving to Canadian communities from countries where parks, trails and public recreation is not widely available. There is also a growing presence of First Nations and Aboriginal populations in urban areas.

Implications? Participation in, and demand for, parks and trails opportunities will be different depending of the demographic composition of neighbourhoods. Parks and trails managers must understand the demographic character of their community, the parks and trail desires of these diverse populations and proactively plan for how those needs will be met.

INCOME GAP IS WIDENING

The income gap between the rich and poor continues to grow. Individuals and families with lower incomes participate in parks and trails activities significantly less than those with higher incomes.

Implications? Parks and trails opportunities need to remain affordable and easily accessible—ensuring those who have the most to gain from the opportunities have the ability to participate. Furthermore, parks and trails managers are working to develop targeted leisure education programs to help these marginalized populations access parks and trails opportunities. Finally, municipalities are refocusing their resources and priorities on providing parks and trails services that are at an introductory level, focus on basic skills development and are accessible to all.

LACK OF FREE TIME: A CASE FOR SPONTANEOUS OPPORTUNITIES CLOSE TO HOME

As a society, we are busier than ever. Many parks and recreation survey results site "a lack of free-time" as the single most significant barrier to participation in outdoor recreation activities in parks and trails. Participation in organized sports and activities is declining while the popularity of action sports has risen considerably. A lack of participation means achieving the benefits associated with parks and trails are not possible.

Implications? The trend is toward more spontaneous activities. Our parks and trails will see increasing visitation as the time crunch continues. Parks and trails must be planned to be conveniently accessible to all of our neighbourhoods and offer quality and diverse experiences.

THE PHYSICAL INACTIVITY EPIDEMIC

Our citizens are significantly less active than they were a decade ago as they turn to more and more to less active leisure pursuits. This is particularly true in our children and youth populations. Diseases associated with physical inactivity are rapidly rising as are health care costs.

Implications? Parks and recreation professionals are partnering with health professionals to design and implement programs via parks and trails to get citizens and our youth more active more often. Residents that are closer to parks and trails are more physically active than those who are not.

COMPETING DEMANDS

Demands for parks and trails opportunities are changing. Demand for opportunities such as mountain biking, cycling for recreation and transportation, walking and hiking is on the rise. There is also growing demand from motorized recreationists who desire ATV and off-road motorcycle experiences. As a result, there are competing demands for parks and trails opportunities and, in some cases, growing conflicts.

Implications? Parks and trails managers are facing growing management challenges as they try to balance the competing uses and navigate the complex user conflicts. Planning for diversity in the parks and trail system is essential to effectively meeting demands while simultaneously mitigating visitor conflict and environmental concerns.

ENVIRONMENTAL STEWARDSHIP

There is a societal trend toward greater environmental stewardship. Citizens are becoming more informed and aware of environmental issues and, in turn, have higher expectations that human impacts to the environment will be avoided or mitigated.

Implications? Parks and trails managers are under greater pressure to ensure their parks and trails systems protect environmentally sensitive areas and are managed in a way that avoids or mitigates impacts from visitation, development and management decisions. There is greater pressure to provide more naturalized park spaces (“maintaining” a site in its natural state or “returning” a site to its natural state), incorporation of green infrastructure (e.g., constructed wetlands, bioswales etc.) and to adjust procurement and management practices such as avoiding the use of herbicides, pesticides, non-native plantings, and irrigation while ensuring the use of local furnishings and energy and water efficient servicing.

NATURE DEFICIT

Our population is becoming increasingly urbanized. Furthermore, technology is providing citizens, and particularly youth, with other leisure opportunities that extract them and, in some cases, serve as a barrier to interacting with the natural world. A deficit of nature is directly tied to lower creativity, sedentary lifestyles, implications on early childhood development and a disconnect from the vital services nature provides us.

Implications? Parks and trails are the gardens to grow healthy individuals and communities that are connected to nature. Parks and trails managers are working with partners in the education sector to design and implement programming and opportunities that connect our families and youth with nature. In turn, they are growing the next culture of conservation.

INFRASTRUCTURE DEFICITS

Municipal infrastructure is aging, surpassing its useful lifecycle and, as such, most communities have significant infrastructure deficits. Parks and trails capital and operational budgets are competing against those of roads, water, sewer, bridges, emergency services and others. There is limited resourcing and competition is fierce.

Implications? Parks and trails need to be positioned as essential services that are as important to the community’s well-being as the traditional services. Managers need to make compelling cases using real data and information that show the immense benefits parks and trails bring to residents, the economy and the environment. In other cases, parks and trails should be positioned as municipal infrastructure such as active transportation routes and green infrastructure.

DATA DRIVEN & DIAGNOSTIC MANAGEMENT

More than ever, parks and trails managers have reasonable access to real time data and information about their system and the users of it. Elected officials and senior decision makers work to make informed decisions based on good data and analysis.

Implications? Parks and trails managers are implementing sound data collection and management systems that enable them to provide near real-time information about their systems. Data and other developing data sources such as “big-data” will continue to enhance park managers ability to rapidly evaluate development and management decisions and determine effective responses or interventions to improve their parks and trails services.



PLANNING CONTEXT



When preparing a parks and trails master plan, we need to be mindful of the planning context. Our community's demographics, regional district demographics as well as federal, provincial, regional and local policy influence our planning considerations.

Our Evolving Demographics

Based on the most recent 2011 Statistics Canada census, the population of North Cowichan was 28,240, which represents a 4.5% increase from 2006 when its population was 27,557.¹ This growth was slightly lower than the national average growth rate of 5.9% over the same time period. While our Municipality experienced a 4.5% increase in population, our total population increased slowly from 2001 to 2011. Based on some projections, our population could reach approximately 39,000 by 2030 (see Table 1).² The Cowichan Valley Regional District (CVRD) is forecasting a 10% increase (8,900 people) in population by 2021.³

Our community's population grew by 4.5% between the 2006 and 2011 census. One of the fastest growing demographics in our community is the 65 plus age category, which grew by 19.6% from 2006 to 2011.

YEAR	POPULATION	PERCENT CHANGE
2020	34,423	4.6%
2025	36,729	4.3%
2030	39,190	3.5%

According to the Official Community Plan (OCP), the proportion of residents in the 40-64 and 65+ age groups have increased more rapidly than any other age group.⁴ From 2006 to 2011, the 65 and over age group grew by 19.6%, much higher than the provincial average of 14.6%.⁵ Our relatively older population is also confirmed by the median age. In 2011, the median age of the population was 47.3 compared to the province's 41.9. About 29% of our population is over 60 years of age compared to 22% at the provincial level.

The data shows that the proportion of residents in the family formation stages of life is stagnating; from 2006 to 2011, those in the 0-14 and 15-64 age groups experienced population growth of -2.4% and 2.2%, respectively. Compared to the provincial averages, BC's 0-14 age group declined nominally by -0.3% over this time period, and the 15-64 age group grew by 7.1%.⁵ The proportion of younger and older adults is comparable (slightly lower than the province) and the youth and children age groups are about the same.

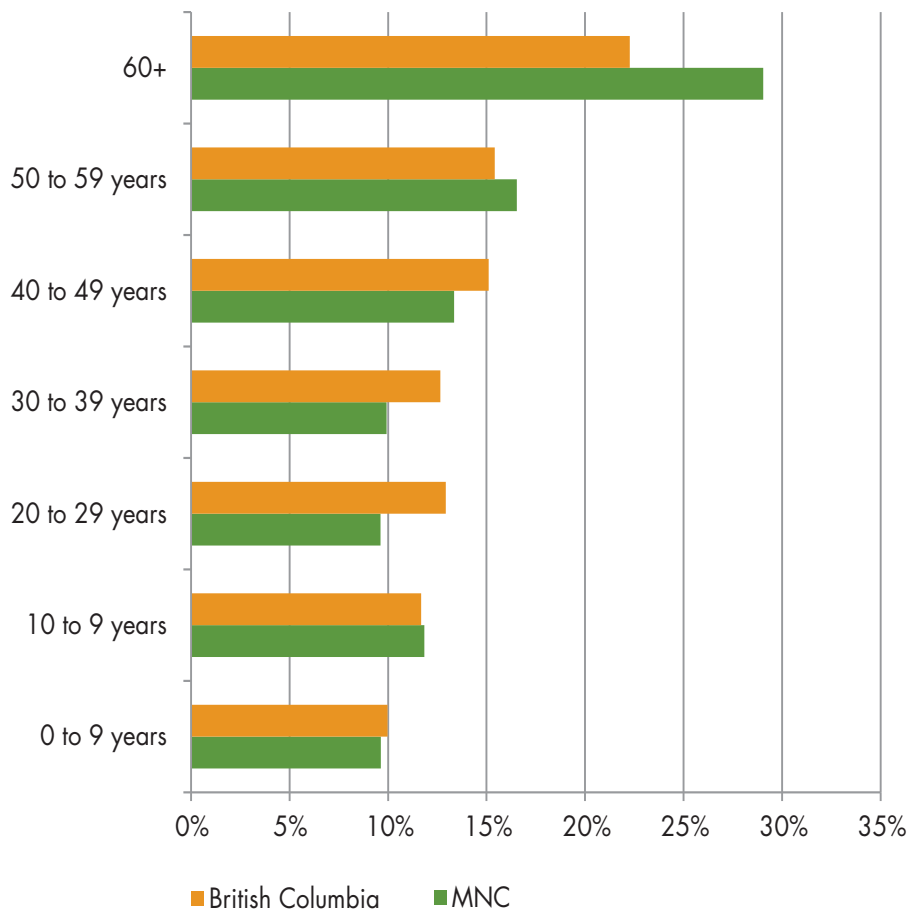


Figure 4 Population Age Distribution in the Municipality of North Cowichan (2011)

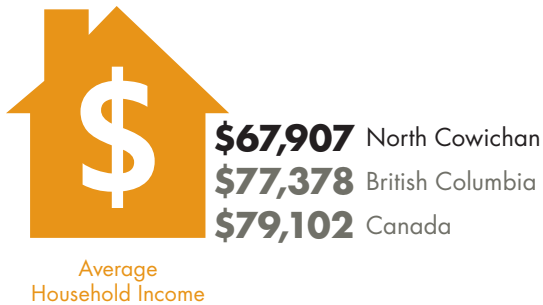
Results from the 2011 National Household Survey indicate that we are a relatively homogeneous community with only 1,375 visible minority residents, or about 5% of the total population. The immigration data indicate that about 13% of the population was immigrants as of 2011, compared to 27% at the provincial level. Our visible minority population is comprised of South Asians, Chinese, Filipino, Latin American, and Korean, among others. Our Aboriginal population was 2,720 as of 2011, or fewer than 10% of the total population (see First Nations Communities for a summary of First Nations communities within our Municipality).⁵

The majority of our residents (90%) identified English as their mother tongue, whereas 1.3% and 7.8% identified French and non-official language, respectively. The National Household Survey also provides demographic information such as income, education and the workforce, which furthers our understanding of how and where to plan for parks and trails in our municipality.

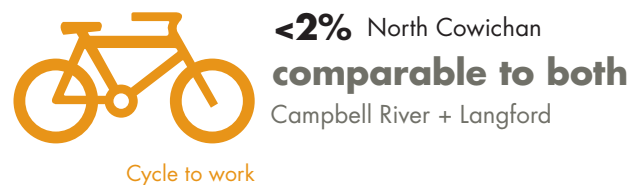
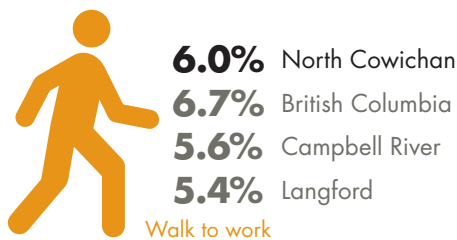
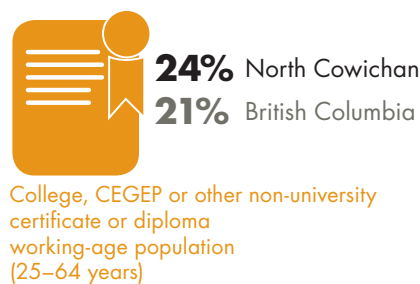
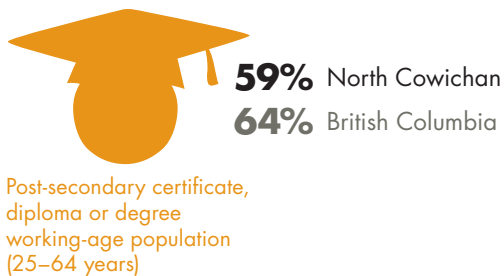
Our demographics can be summarized as follows:

- The average household income in North Cowichan (\$67,907) is below the provincial and national averages at \$77,378, and \$79,102, respectively

- The percent of working-age population (25 and 64 years), with a post-secondary certificate, diploma or degree is 59%, which is slightly lower than the provincial average (64%)
- Our sales and service, trades, and transport and equipment operators occupations are the most popular occupations
- The region has a slightly larger share of college, CEGEP or other non-university certificate or diplomas than province with 24% and 21%, respectively.
- About 6% of our population reported walking as their mode of transportation to work, which is slightly lower than the provincial average of 6.7%. However, walking as a mode of transportation to work was slightly higher than municipalities of comparable size such as Campbell River and Langford, whose stats were 5.6% and 5.4%, respectively.^{6,7}
- Less than 2% of our population reported bicycling as their mode of transportation to work, which was comparable to both Campbell River and Langford. Both the walking and bicycling statistics can help us better understand not only how our residents commute to work, but whether our trails have potential to increase overall use for these transportation modes

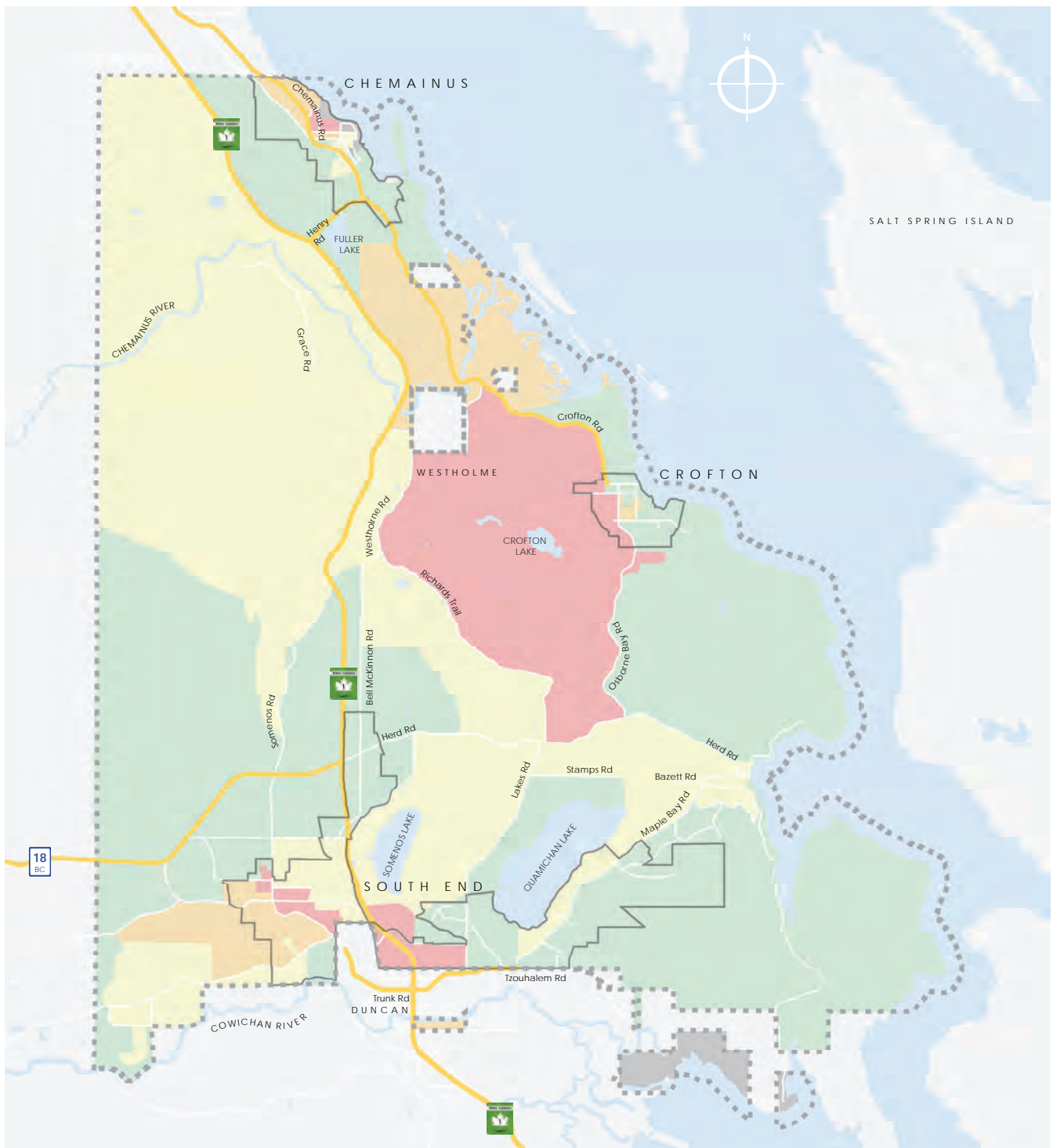


Our sales and service, trades, and transport and equipment operators occupations are the most popular occupations.



With an understanding of our demographic composition, it is important that we also understand the spatial patterns in how our population is distributed throughout the Municipality. The 2011 National Household Survey's dissemination area (DA) data were mapped to understand education, income and age distribution patterns. A DA is the smallest standard geographic area for which all census data are disseminated.⁸ As shown in Figure 5 and Figure 6, there are some disparities in education levels and household income across the Municipality. The percentage of persons with no certificate, diploma or degree ranges from as low as 5% to as high as 33%.

Differences in median household income also exist across dissemination areas, with a number of DAs registering below \$30,000, while others are higher than \$80,000. In addition, some DA's have a much higher concentration of poorer households where about 40% of households registered as low income. Understanding the spatial distribution of our citizens' educational and income levels is important for parks and trails planning as these populations face higher social and economic barriers to participation.



Legend

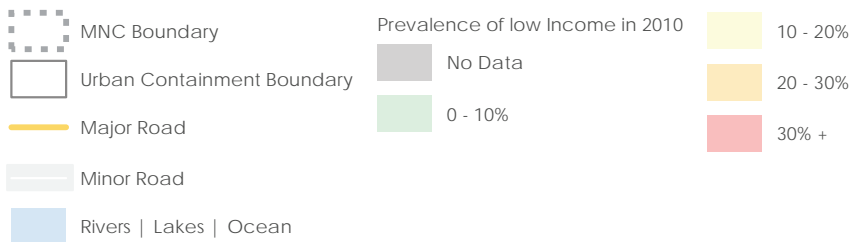
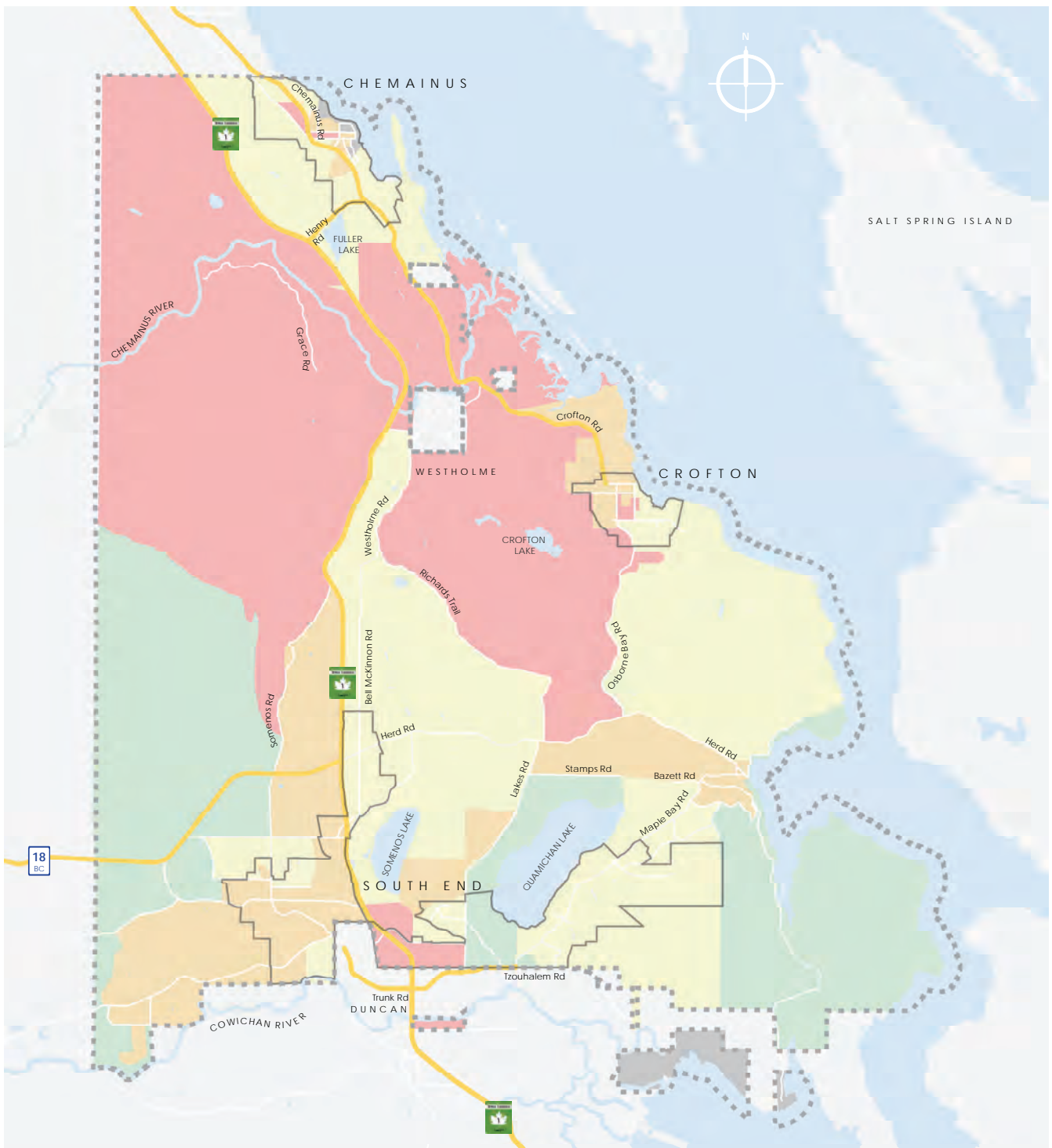


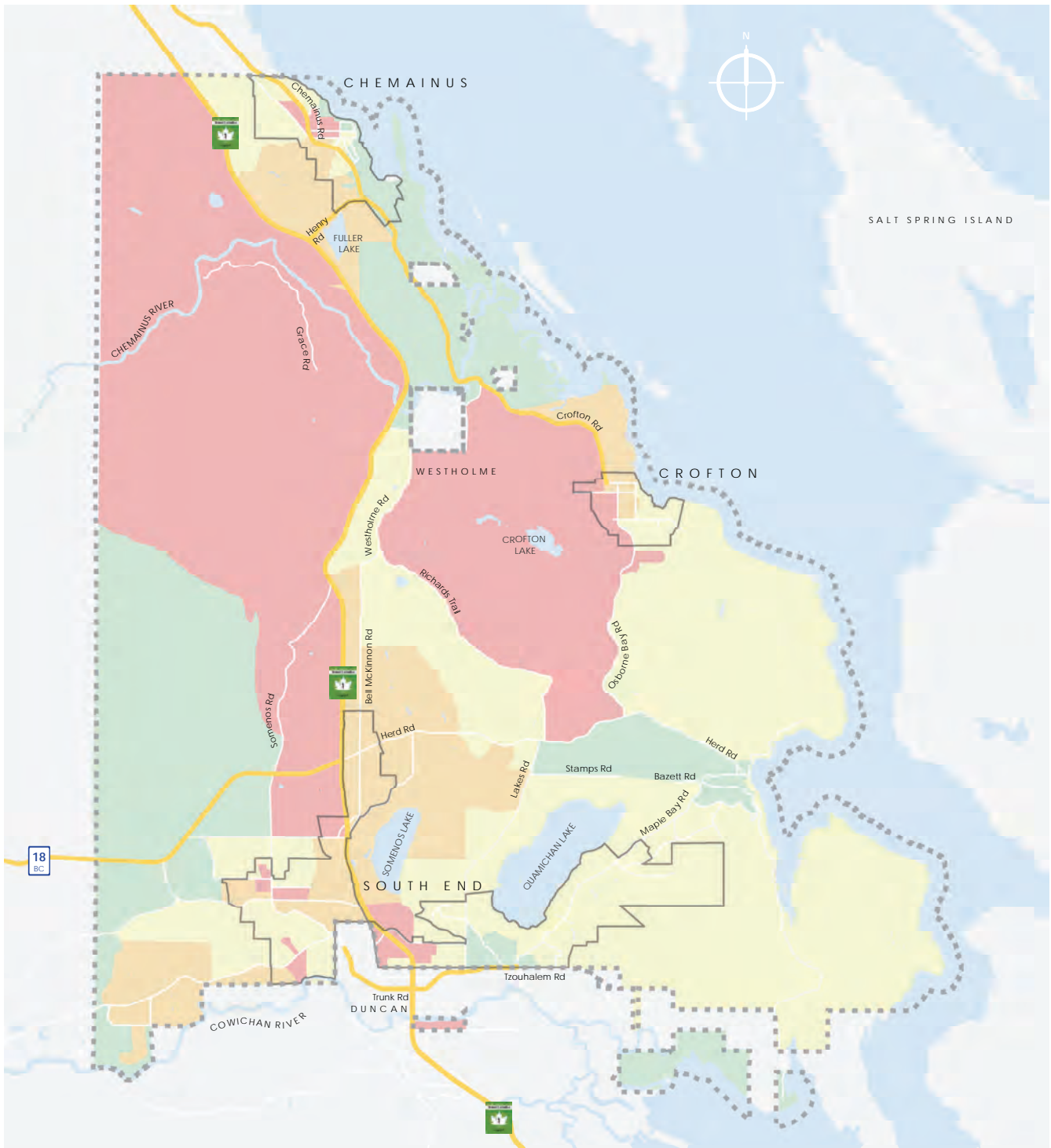
Figure 5 Prevalence of Low Income in 2010 Based On After-tax Low Income Measure by Dissemination Area



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- No Data
- 15 - 22.5k
- 30 - 37.5k
- 22.5 - 30k
- 37.5k +

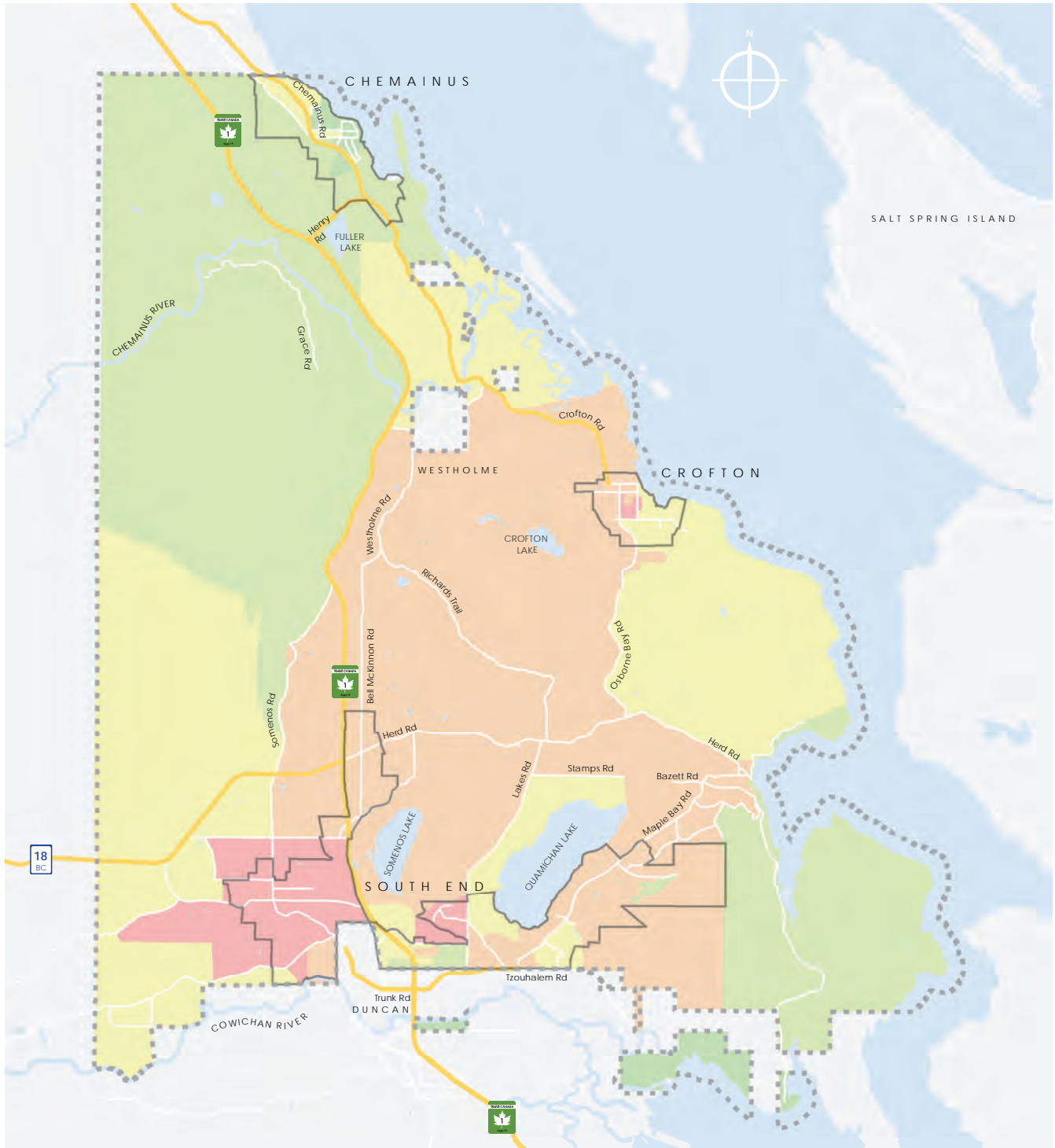
Figure 6 Percent Population with No Certificate, Diploma or Degree



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- 0 - 7%
- 7 - 14%
- 14 - 21%
- 21% +

Figure 7 Median Household Income



Legend

MNC Boundary	Percent Population of Youth	15 - 20 %
Urban Containment Boundary	0 - 10 %	20 - 25 %
Major Road	10 - 15 %	25% +
Minor Road		
Rivers Lakes Ocean		

Figure 8 Youth Population

First Nations Communities

The Municipality is within the traditional territory of Coast Salish First Nations and is a neighbour to three First Nation communities including Cowichan Tribes, Halalt First Nation and Penelakut Tribe. Cowichan Tribes has nine reserves adjacent to the Municipality of North Cowichan.⁹ The Halalt First Nation, much smaller by comparison, has one reserve adjacent to the Municipality.¹⁰ Finally, the Penelakut Tribe has one reserve adjacent to the Municipal boundary.

What Do our Current Demographics Mean for Our Parks & Trails?

- We have a growing percentage of older adults. Our parks and trails system must be planned to serve the needs and interests of an aging population along with young families.
- Disparities in income and education exist throughout the Municipality. We need to focus on ensuring a strong supply of parks and trails opportunities in all neighbourhoods, especially those with low to moderate educational attainment and incomes.
- Our permanent resident population is expected to grow. Demands will continue to increase by both residents and visitors and we need to understand and plan for the needs of each. Focused attention needs to be paid to planning parks and trails in new development areas as well as redevelopment areas.





ENGAGING OUR RESIDENTS, FIRST NATIONS AND PARTNERS

Providing a remarkable parks and trails system is only achieved through collaboration, partnerships and shared stewardship. Municipal staff cannot do it alone and need the support and help from many—residents, stakeholders and other municipal government departments. As such, it was essential that we provide meaningful opportunities for anyone with an interest in parks and trails to help shape the plan.

Engagement occurred in three phases:

1. Awareness, Visioning, Issues and Opportunities

The planning team set out to raise awareness about the project and opportunities to engage. Focused attention was paid on understanding the perceived issues facing the parks and trails system, opportunities to enhance the system and garnering insights into a future vision for our parks and trails system.

2. Input on the Preliminary Master Plan

The preliminary master plan was presented to the public and stakeholders for review and input during interactive community conversations.

3. Final Draft Master Plan

The final draft master plan was presented for review and input at a final community conversation.

ENGAGEMENT BY THE NUMBERS—Phase 1:

200 sounding board comments

10 Government to Government workshop attendees

28 stakeholder workshop attendees

880 unique visitors to MindMixer

5,388 MindMixer page views

98 StanMAP comments

60 comments via StanMAP survey submissions

To make the planning process as accessible and convenient as possible, a diverse suite of engagement tactics were applied (see Figure 9)



Figure 9 Example of Sounding Board Engagement Technique

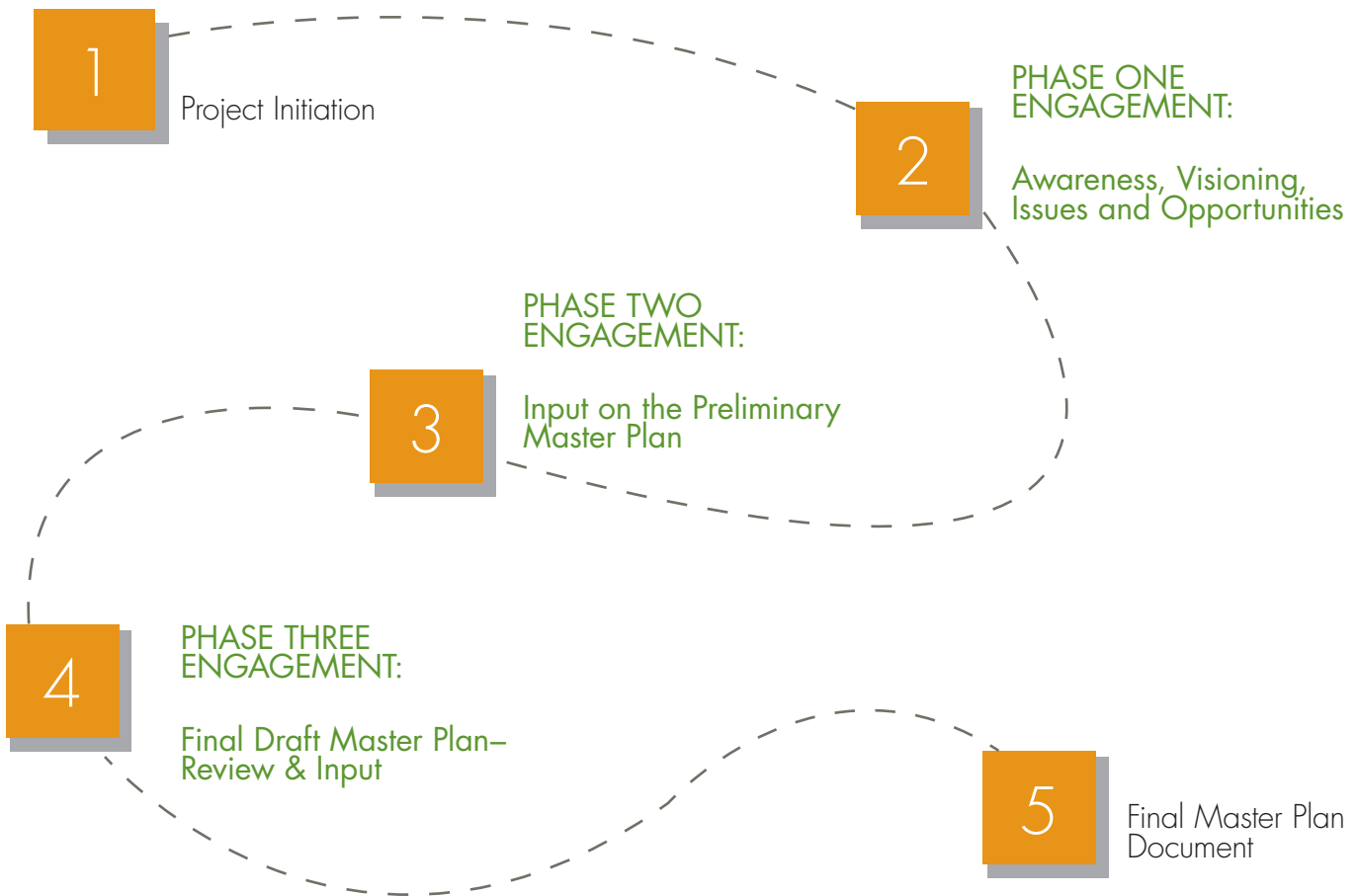


Figure 10 Community Engagement Process

What We Heard—Phase One Engagement

Through our review of input received through the many engagement opportunities, the following common themes emerged as the primary issues and opportunities to be addressed by the plan (see Appendix A for full Phase One engagement summary):

WAYFINDING AND SIGNAGE

Numerous comments expressed a desire for the development of electronic wayfinding “apps” and the expansion of the Municipality’s online trail and park map tools. Participants also identified the need for a comprehensive system of wayfinding signage posted on trails, featuring “you are here” maps and including outstanding features and viewpoints. Some commenters also requested more interpretive signage, posted park and trail classifications, and information signage.

ACCESSIBILITY

Participants requested barrier-free wheelchair access to facilities, parks and trails; and wide, moderately sloping trails (where possible) to ensure inclusion of the elderly and physically challenged. A related concern was expressed for accessible parking at popular feature areas such as Mount Tzouhalem.

TRAIL CONNECTIVITY

The trail system was described as “fragmented” and participants expressed the need for a planned, system-wide approach to trail connectivity. Suggestions included links to the Trans Canada Trail, and complete routes both north-south and east-west across the Municipality. Links were suggested between a broad range of communities, cultural and natural features, parks, and the neighbouring Cowichan Valley Regional District parks and trails. The extension of existing corridors, including the Friendship Trail, Dike trail, and numerous others, was requested. StanMap user feedback indicated the majority of requests were for new trails in and around the South End Figure 11. Comments supported the “Prevost Grind”, a high-intensity steep trail similar in concept to North Vancouver’s “Grouse Grind”.

NEW DESTINATIONS AND FACILITIES

Participants expressed a desire for new facilities such as washroom buildings, playgrounds, skate parks, and parking lots for high-use areas. Stoney Hill, Mount Tzouhalem, Maple Mountain, and Mount Prevost were identified as major mountain bike and nature-based tourism destinations. Most StanMap user comments suggested new parks around Stoney Hill, Mount Tzouhalem, and Maple Mountain (Figure 11). Since the Stoney Hill Regional Park is managed by the CVRD, there is a need to communicate to the CVRD the public desire for facilities in this park. The Government-to-Government workshop revealed a potential location for an adventure destination/ bike skills park on the northwest side of Mount Tzouhalem near Nevilane Drive.

SAFETY

Participants suggested safety enhancements including rails, fences, and edging for trail segments with steep grades, and at popular feature areas in terrain with potentially hazardous slopes. Concerns were also raised over dangerously positioned utility poles and signage presenting obstacles for cyclists on multi-use trails such as the Friendship Trail.

TRAIL MAINTENANCE AND IMPROVEMENT

Users identified trail maintenance issues specific to the Municipal Forest Reserve, including potholes, poor drainage, loose gravel surfacing, and erosion. Some participants suggested introducing asphalt paving on the Dike Trail. The need for additional site furnishings such as benches, trash bins, and picnic tables, was also expressed.

RESOURCE MANAGEMENT

Forest protection was the dominant theme expressed, as some participants voiced opposition to forestry operations on local mountains. Cultural resource conservation, including First Nations sites, cairns, etc. was also emphasized. StanMap data suggested trail re-classification, new land acquisition, and other management actions largely in the area of Stoney Hill and Maple Mountain (Figure 11).

CYCLING OPPORTUNITIES

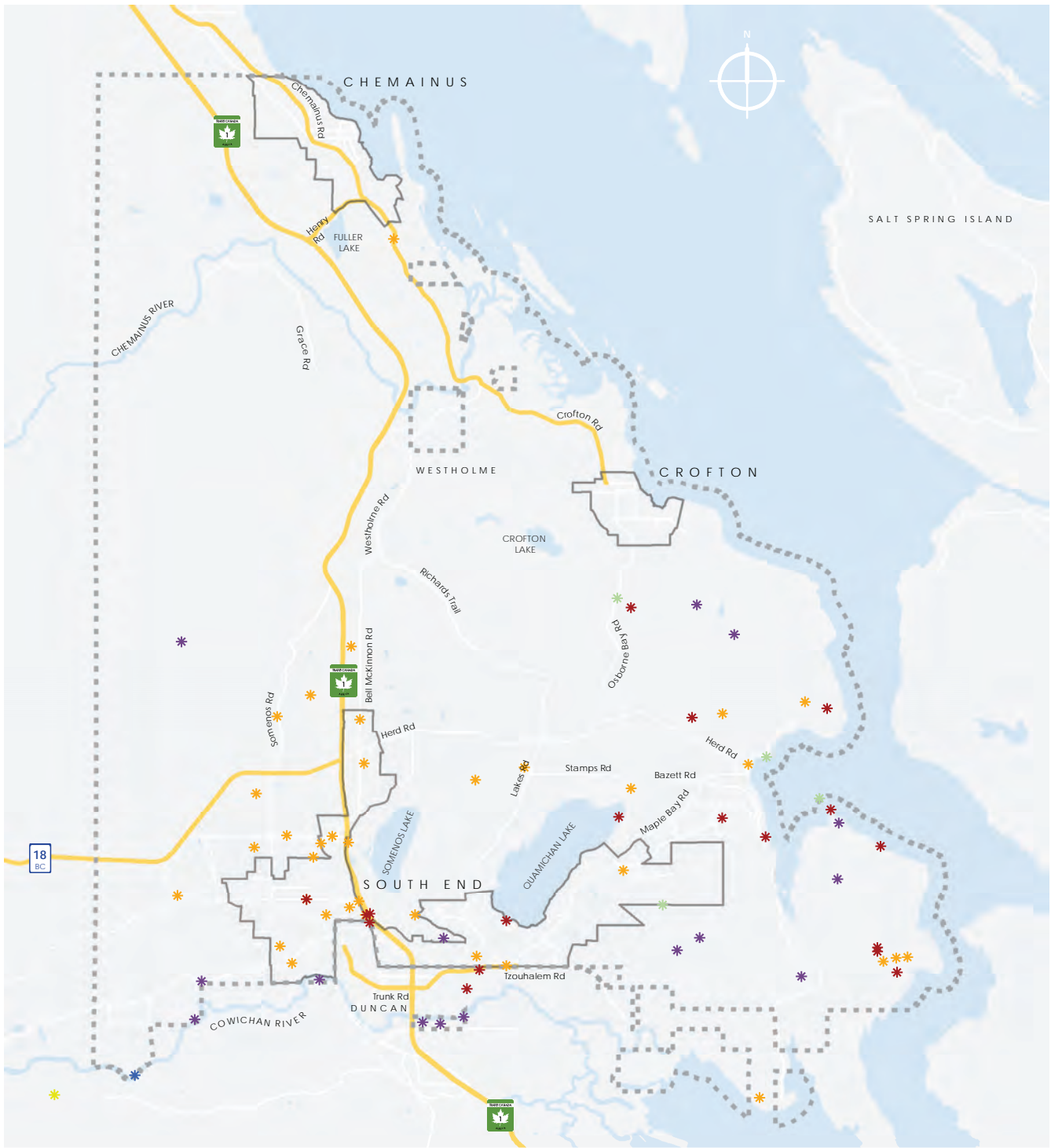
There were numerous requests for more designated and marked bike lanes, as well as paved active transportation routes separated from roads. As with other types of trails, the need for connectivity and system planning was emphasized.

DOG PARKS

Dog owners expressed the need for more fenced dog parks. The need for dog waste cans and owner compliance on trails and in parks was also identified. Some comments acknowledged the potential for conflicts between dog owners and other recreational users, and the need for regulation and enforcement.

WATER ACCESS

Requests included: more trail access to lakes (e.g., Crofton Lake); improved boat launches; waterfront boardwalks; more coastal access; designated waterways for canoes and kayaks; and whitewater access development at Copper Canyon. At the Government-to-Government workshop, the opportunity for a marine trail along the coast was identified. Potential new camping facilities at Crofton Beach, Kinsmen Beach Park, and Osborne Bay Park could be aimed at marine trail users.



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- * Amenity Comment
- * Management Improvement Comment
- * New Trail Comment
- * Trail Enhancement Comment
- * New Park Comment
- * Park Enhancement Comment

Figure 11 StanMap User Feedback

What We Heard—Phase Two Engagement

Community conversations were held in April 2016 to obtain input on a preliminary vision, outcomes, strategies, and actions.

1. April 12, 2016—Crofton Community Centre
2. April 18, 2016—Chemainus Secondary School
3. April 19, 2016—Island Savings Centre, Duncan

Information panels outlining a proposed Vision, Outcomes, and Strategies were displayed at the sessions. Attendees were invited to express their opinions directly on the panels by indicating the extent to which they agreed with the ideas. In general, participants to the open houses were supportive of the proposed content and direction as presented in the draft Master Plan (see Appendix B for Phase Two engagement summary). The most contentious topic involved strategies to improve the provision of off-leash dog walking opportunities and the management of dogs in parks and trails. Some participants strongly agreed with enhancing off-leash opportunities and improving dog management while others did not.

ENGAGEMENT BY THE NUMBERS—Phase 2:

19 attendees at Crofton community conversation

15 attendees at Chemainus community conversation

41 attendees at South End community conversation

97 comments received



We reviewed all written comments and considered them carefully. Through our review, the following common themes emerged:

- 1. Protect ecologically sensitive areas and restrict access to areas with designated Species at Risk.** Sensitive ecosystems and species, especially in Municipal Forest Reserve, are currently unprotected and subjected to damage from both motorized and non-motorized recreation. Unauthorized trail building in the Municipal Forest Reserve should be addressed. Portions of the Municipal Forest Reserve should be protected as parks.
- 2. Enhance Access and Resolve Recreation Conflicts in Municipal Forest Reserve.** Conflicts and some safety concerns are arising between various user groups in the Municipal Forest Reserve, including motorized users, hikers, equestrian users and mountain bikers.
- 3. Not all trails can be accessible to all users.** Improving accessibility is an important goal and a priority. However it is not feasible to make all trails and sites accessible due to funding limitations and geophysical constraints. Some participants commented that Stoney Hill Regional Park is currently not accessible to the public (although this has since been resolved).
- 4. Create new and better playgrounds.** Comments expressed an interest in new, more exciting play opportunities for children, kept as natural as possible.
- 5. A range of new amenities is needed.** These include boat/kayak launch improvements, parking facilities, footbridges across creeks, more dog waste bag dispensers, benches, wayfinding signage, trash bins, and trailhead kiosks throughout the parks and trail system.
- 6. Develop safe new multi-modal connections between communities.** Participants were clear that improved on- and off-road trail and pathway connectivity is a priority. Priorities for development include hub areas, commuter routes, community centers, and community recreation/sports facilities. User safety is a major consideration.
- 7. Introduce proactive invasive species management.** Aggressive exotic invaders, including Tansey Ragwort, English Ivy, Scotch Broom, and Giant Hogweed are on the rise.
- 8. Address dog compliance issues in problem areas.** Dog owners must act responsibly to avoid user conflicts related to leash restrictions and to the cleanup of dog waste. Monitoring and enforcement may be required in situations where user conflicts exist.
- 9. Enhance the recreation quality of the Chemainus River.** Improved access facilities and associated amenities are desired by the paddling community.
- 10. Separate linear parks from water access in the Parks Classification.** These perform different functions and should not be together as one class.



Phase Two Open House Input Collection Results:

97% of respondents agreed with the draft vision

70% of respondents agreed with the desired outcomes

90% of respondents agreed with the park classification system

What We Heard—Phase 3 Engagement

A Public Open House was held at the Municipality of North Cowichan Council Chambers on July 7, 2016. 45 community members, 4 Council members, 10 Municipal staff and Stantec staff attended the event. A presentation was delivered by Stantec staff. In total, 35 exit surveys were received following the event. Nine written comments were received by mail or email.

Information panels that outlined the proposed Vision, Outcomes, and Strategies in the draft Master Plan were displayed at the open house sessions. Attendees were invited to express their opinions on the exit survey. Complete results are documented in Appendix C. A summary of key findings and themes is provided below.

ENGAGEMENT BY THE NUMBERS—Phase 3:

35 exit surveys received following the Public Open House

9 written comments received

KEY FINDINGS & THEMES—WRITTEN SUBMISSIONS

As evidenced by the exit survey results (Appendix C), there is general support for the Master Plan as drafted. Support was also generally expressed by attendees for a 1% tax increase to improve resourcing and capacity for Parks and Trails. There were a number of considerations raised by attendees at the open house session, and comments were submitted in writing during and after the session. We reviewed all written comments and considered them carefully. The following summary of key considerations is based on our assessment of all written comments, and is also informed by the discussions at the open house session.

1. **Achieve a better balance between mountain biking and other recreational uses in the MFR.** Passive recreation, hiking, and a range of other recreational uses share the land base.
2. **Protect ecologically sensitive areas and plan recreation to minimize impacts to areas with designated Species at Risk in the MFR.** Sensitive ecosystems, rare plants and wildlife habitat are currently unprotected and subjected to damage from both motorized and non-motorized recreation. Unauthorized trail building in the MFR contributes to this degradation and should be addressed.
3. **Address conflicts between recreational user groups in the MFR.** Safety concerns are growing among hikers due to increasing Mountain Bike use. Off-leash dogs and motorized recreational use are also issues that sometimes result in conflict between user groups.
4. **Consider the appropriateness and need for the proposed bike skills park at the Municipal site adjacent to the Maple Bay Fire Hall.** Concerns have been raised about resource degradation at this site, conflicts with other users such as hikers, and unauthorized infrastructure development.
5. **Consider the water quality issues at Fuller Lake and its implications for Destination Park upgrades at the site.** The lake has a history of high bacteria levels which may prohibit swimming at times.

Phase 3 Open House Exit Survey Results:

90% of respondents expressed overall support for the Master Plan

82% of respondents expressed support for a 1% tax increase to maintain and enhance parks & trails

- 6. Re-Consider Khenipsen Rd proposed enhancements.** Issues related to access across First Nations land, as well as environmental concerns, have been raised.
- 7. Improve and secure access to the Chemainus River for paddling recreation.** Long-term access, facilities, and associated amenities are desired by the paddling community.
- 8. Consider trail development on the Lenora railway line from Eves Park to Crofton.** This trail has historical significance and could provide access from Eves Provincial Park to Crofton Lake.
- 9. Protect Bings Creek from potential impacts from the Friendship Trail connection between Sherman Rd. and Phillips St.** Bings Creek is a salmon-bearing stream.







PARKS & TRAILS INVENTORY & NEEDS ASSESSMENT

Before beginning to identify new future direction for our parks and trails system, we first needed to understand our current supply of parks and trails and how well our current system is serving the needs of our community and visitors. In line with recent trends in parks and trails planning, we utilized a data-drive approach to identifying answers to the following questions:

- Do we have enough parks space and trails?
- Do our residents have easy access to quality parks and trails?
- Do our residents and visitors have access to a diversity of recreational experiences?
- Do our parks protect the municipality's most environmentally sensitive areas?
- How well are our neighbourhoods connected to the community's and the region's key destinations via trails/active transportation options?
- Is our park and trail program effectively resourced?

Parks Inventory & Needs

PARKLAND SUPPLY

Currently, we offer residents and visitors 65 diverse parks to visit. This represents 239 hectares of maintained parkland plus an additional 5,301 hectares of non-parkland within the Municipal Forest Reserve. Together, parks and the Municipal Forest Reserve represent approximately 25.8% of the Municipal area. Comparing this overall level of service with other parks systems provides an effective benchmark to understand how well we are doing.

In comparing our maintained park area with data from the National Recreation and Parks Association's (NRPA's) 2015 Field Report, we can see that our current supply of 20.9 acres (8.5 hectares) of park space per 1,000 population is in the upper quartile for communities of similar population density to ours.

Park Supply by the Numbers:

65 actively maintained parks totalling 239 hectares

5,301 hectares
Municipal Forest Reserve

25.8%
of the Municipality is park space or Municipal Forest Reserve

8.5 hectares
of actively maintained park space/
1,000 residents

LOCATION	TOTAL AREA- HECTARES	TOTAL POPULATION	TOTAL PARK AREA- HECTARES	TOTAL NUMBER OF PARKS
Municipality of North Cowichan	21,256.4	28,807	239.1	65

FUTURE PARKLAND SUPPLY

Though we appear well supplied in terms of total acreage now, it is important that we ask whether we will continue to be well supplied into the future as our population grows. As discussed previously (see Planning Context), the Municipality is forecast to reach a population of 36,729 by 2025 and 39,190 by 2030. Based on these projections, we estimate that per capita park supply will be below the NRPA median level when compared to communities of similar population density, as our population reaches its projections (see Figure 12):

- **16** acres (6.5 hectares) /1000 population by 2025; and
- **15** acres (6 hectares) /1000 population by 2030

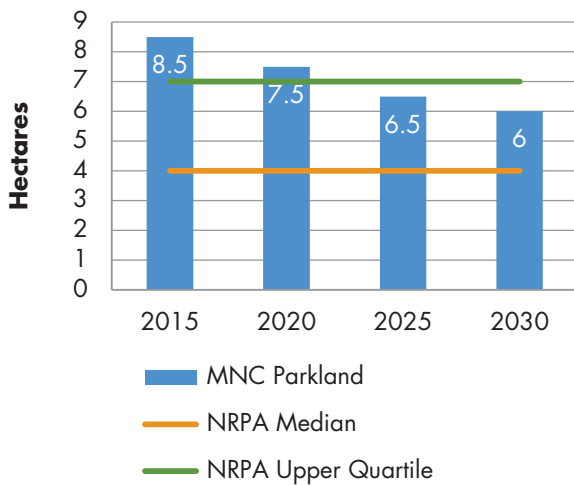
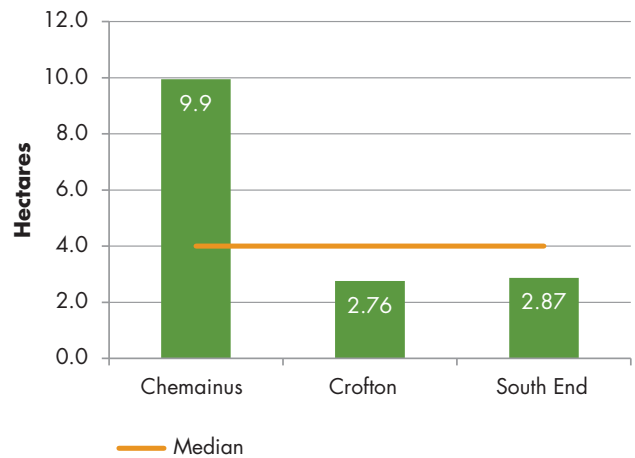


Figure 12 Current and Projected Parkland Supply per 1,000 Population

PARKLAND SUPPLY BY GROWTH CENTRE

Recognizing the diversity of our population, our settlement patterns and the distribution of our park space, it was important to investigate how our parks were distributed throughout the Municipality. As such, parkland supply was evaluated by Growth Centre, using the NRPA benchmarking described above. We discovered that:

- Chemainus has 9.9 hectares (24.4 acres) of maintained parkland per 1000 population. This figure is in the **upper quartile** for communities of similar population density.
- Crofton has 2.8 hectares (6.9 acres) of maintained parkland per 1000 population. This figure is in the **lower quartile** for communities of similar population density.
- The South End has 2.9 (7.1 acres) hectares of maintained parkland per 1000 population. This figure is in the **lower quartile** for communities of similar population density.



Urban Containment Areas

Chemainus is **well above the median** value (4 ha/1,000 pop.) for parkland supply when compared with similar communities.

Both Crofton and the South End **are below the median** when compared with similar communities.

PARK QUALITY

Parkland supply alone does not tell us the full story. Next, we looked at the condition and quality of our parks. A rapid on site condition assessment was undertaken to evaluate the quality of each park (see Appendix EX for further details). The assessment scored each park and categorized it into one of the following quality classes:

- Below expectations
- Meets expectations
- Exceeds expectations

As shown in Figure 13, the park quality and condition scores ranged from below expectations to exceeding expectations. The analysis showed that:

- 21 parks were below expectations
- 34 parks met expectations
- 9 parks exceeded expectations
- 2 parks are currently undeveloped and so were not assessed

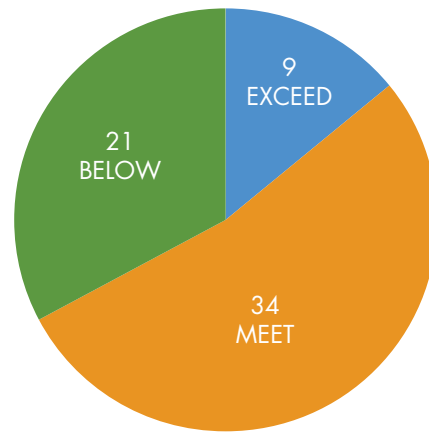
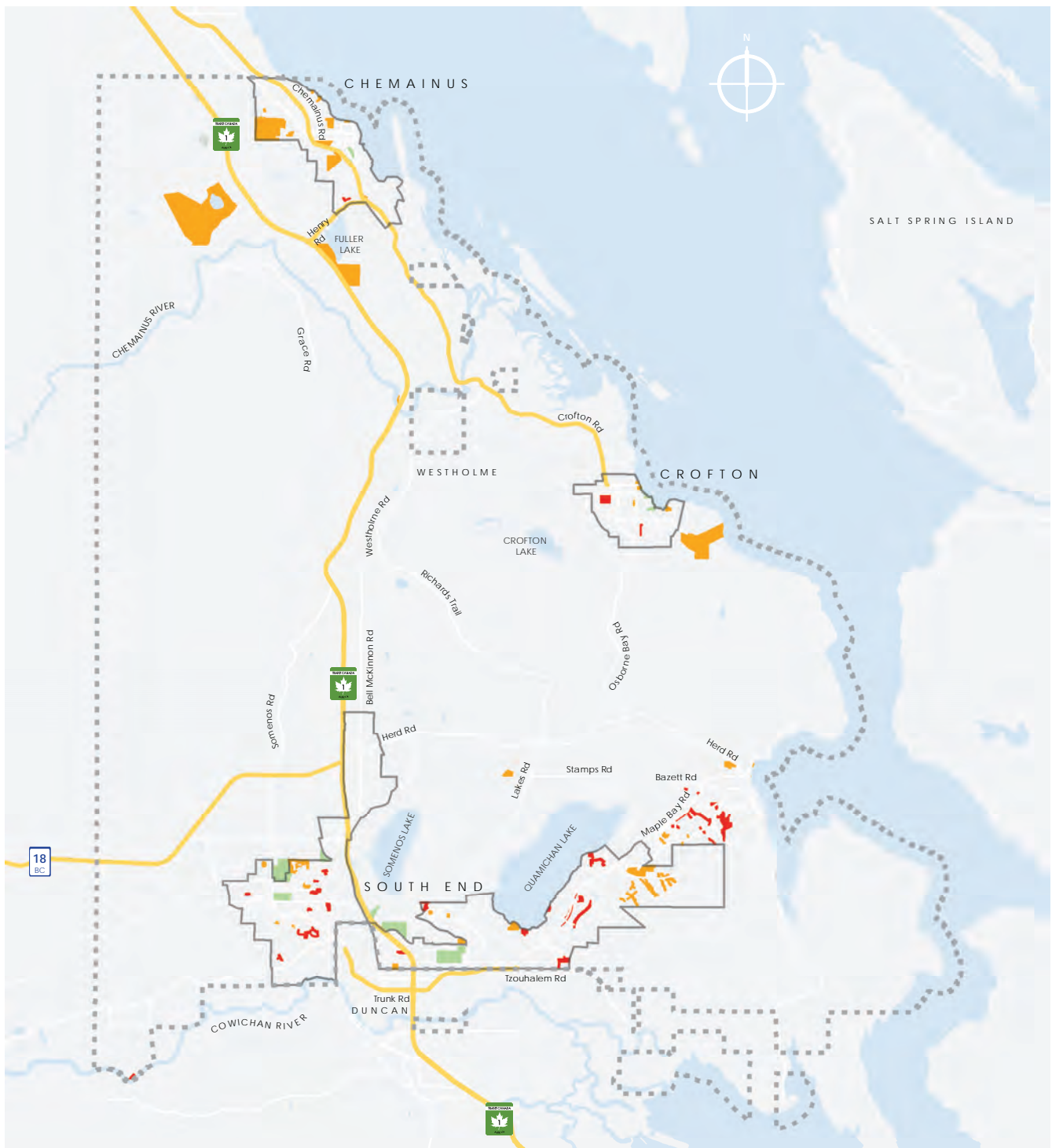


Figure 13 Park Quality and Condition Scores

Park Quality Criteria:

- Condition
- Comfort and Convenience Amenities
- Design & Ambiance
- Park Inclusivity
- Location & Access
- Intended Purpose
- Naturalness & Low Impact Design



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Park Quality & Condition Assessment
Below Expectations
- Meets Expectations
- Exceeds Expectations
- Vacant Lot

Figure 14 Park Quality and Condition

ACCESS TO QUALITY PARKS

Now that we understood the quality of each park, it was important to look at residents' access to our parks. As proximity to and quality of parks are a determinant of use, we worked to identify what proportion of residential parcels (a proxy for residents' homes) are within walking distance to parks that meet or exceed quality expectations. Research has found that most users of a park are drawn from within a 500 metre radius.

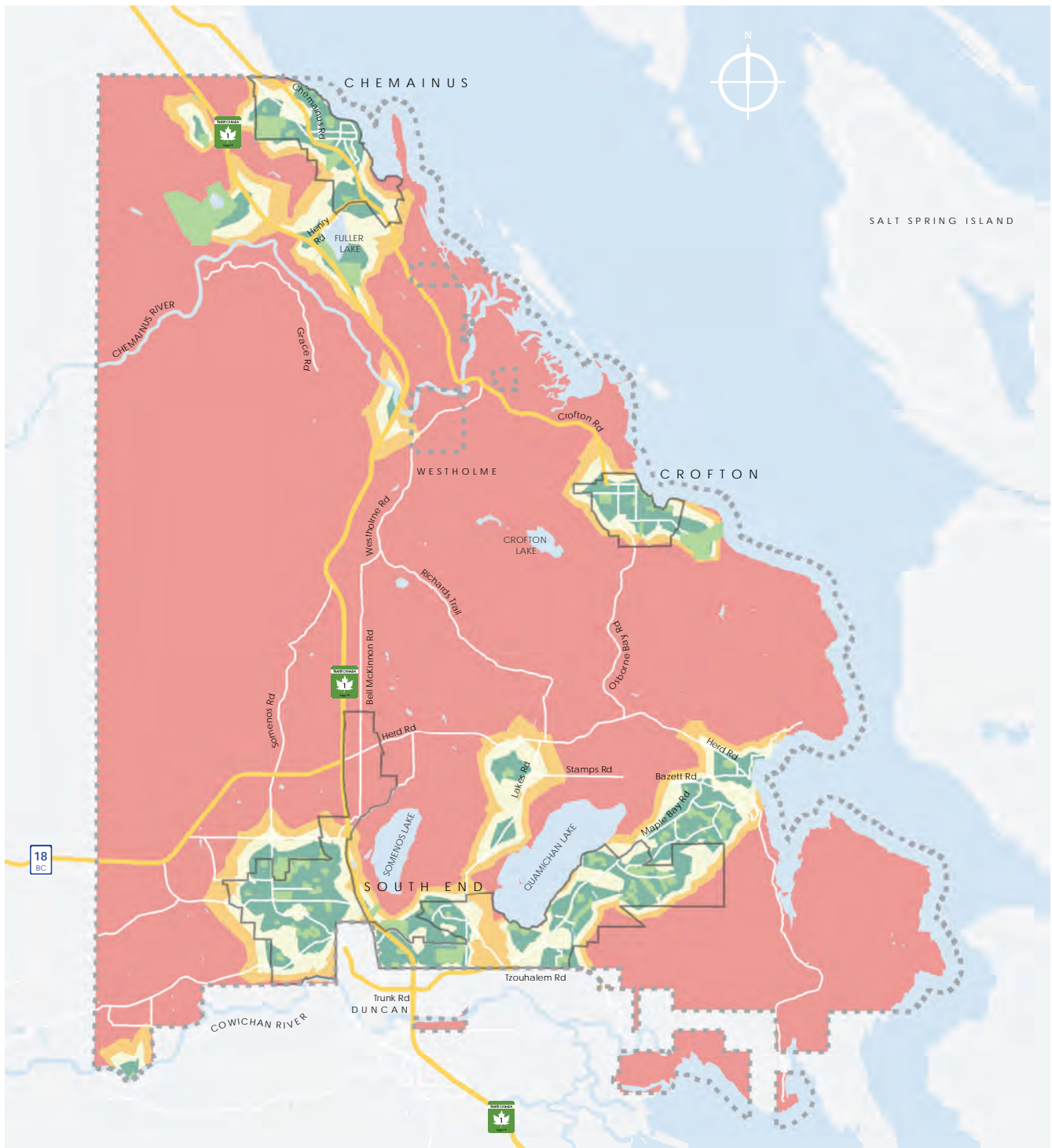
The walking analysis utilized a network analyst tool that accounted for trails and sidewalks within the Municipality. As shown in Figure 15, **79%** of the Municipality is within walking distance to a park. However, where we consider the quality of the park in which they have access to, we found that (see Figure 16:

- 53% of residential parcels have access to parks that meet or exceed quality expectations
- 26% have access to parks that do not meet quality expectations
- 21% of residential parcels are not within walking distance to any park

21% of residential parcels are **not** within walking distance to a park.

We also applied the same analysis to **growth centres** only. We found that:

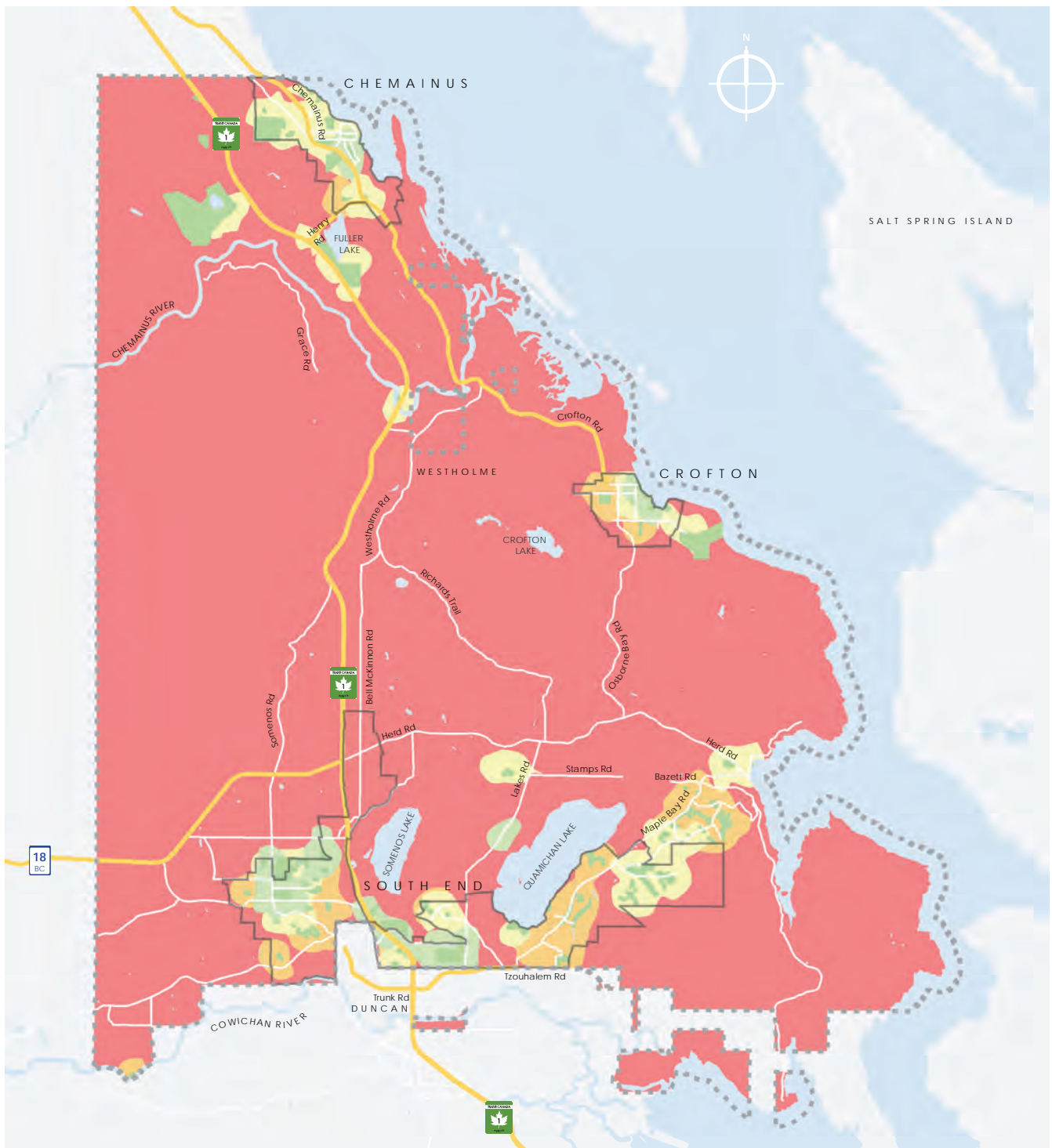
- 59% of residential parcels have access to parks that meet or exceed quality expectations
- 28% have access to parks that do not meet quality expectations
- 13% of residential parcels are not within walking distance to any park



Legend

 MNC Boundary	 Park Inventory
 Urban Containment Boundary	 Area within 400m Walking Distance of a Park
 Major Road	 Area within 800m Walking Distance of a Park
 Minor Road	 Area within 1,200m Walking Distance of a Park
 Rivers Lakes Ocean	 Area greater than 1,600m Walking Distance of a Park

Figure 15 Park Accessibility



Legend









 MNC Boundary	Park Quality & Condition Accessibility
 Urban Containment Boundary	 Areas with no Access to Parks within 400m
 Major Road	 400m Access to Parks that are Below Expectations
 Minor Road	 400m Access to Parks that Meet Expectations
 Rivers Lakes Ocean	 400m Access to Parks that Exceed Expectations
	 Park Inventory

Figure 16 Park Quality and Condition Accessibility

DIVERSITY OF OUTDOOR RECREATION OPPORTUNITIES

We offer residents and visitors a diversity of sport, play and other outdoor recreation amenities throughout our current system (see Table 2). In addition to the Municipality’s indoor facilities, these amenities facilitate the range of outdoor recreation opportunities that are available. Park visitors are diverse and so too are their outdoor recreation needs. A single park “cannot be all things to all people.” However, the park system as a whole can be. As such, we purposefully plan for recreation diversity across our system. The greater the recreational diversity of our network, the more likely we will be able to meet our residents’ and visitors’ diverse needs. Table 2 summarizes the types of amenities offered in our parks, and the number of parks that contain each amenity type.

In addition to understanding the proportion of residents that have walking access to a park, we also recognized the importance of determining the diversity of outdoor recreation opportunities residents have access to. Our analysis was based on the number of different amenity types available in each park within 400 m of residential parcels. As shown in Figure 18, the extreme north and east portions of the South End Growth Centre have generally poor access to amenities.

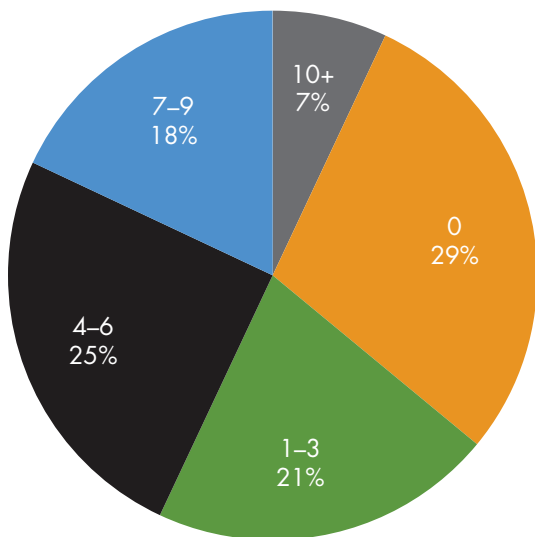
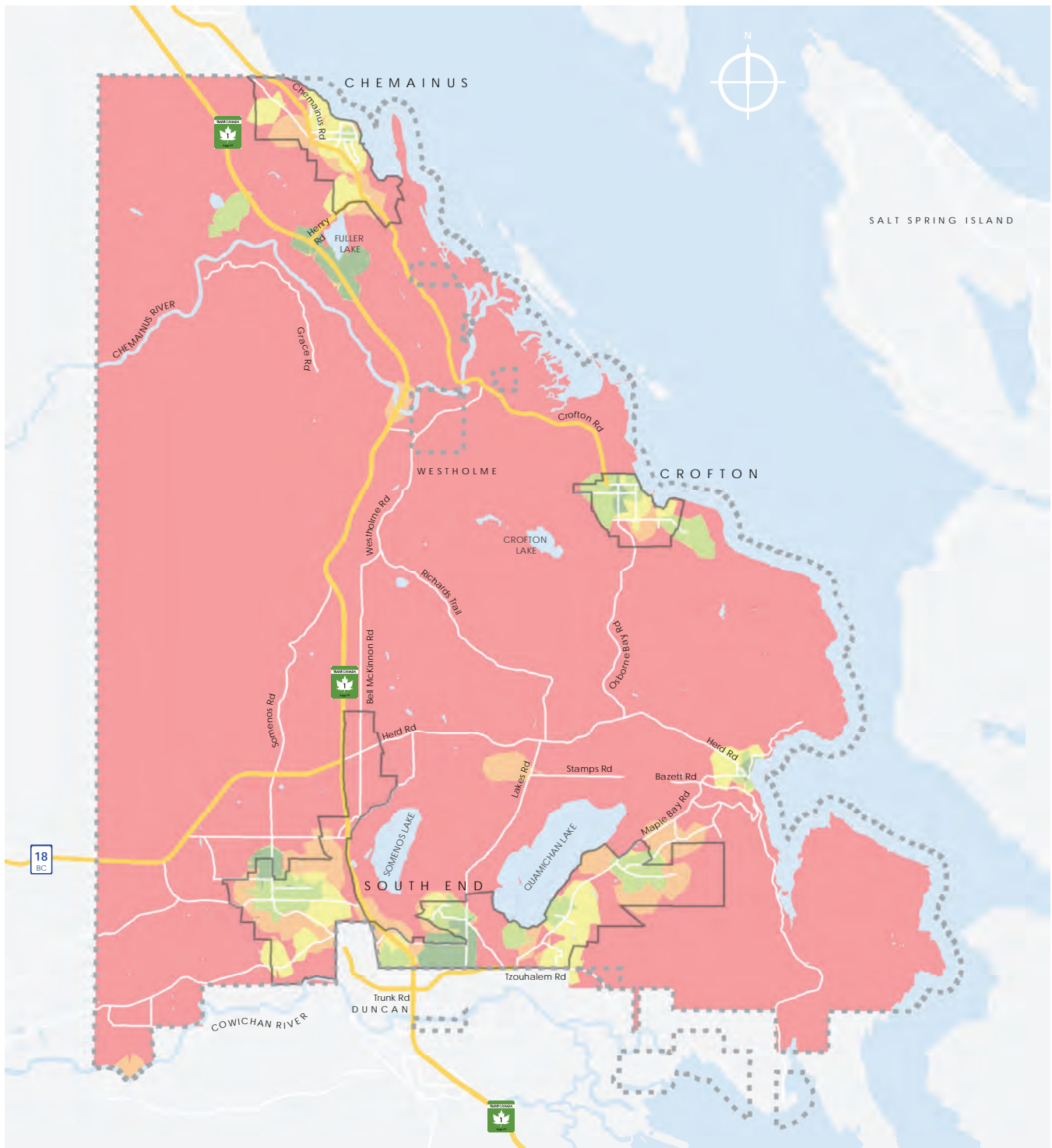


Figure 17 Recreation Amenities Within Walking Distance of Residential Parcels

A single park “cannot be all things to all people.” However, the park system as a whole can be. The greater the recreational diversity of our park system, the more likely we will be to serve our residents’ diverse needs.

Table 2 Parks and Amenities

AMENITY TYPE	NUMBER OF PARKS CONTAINING AMENITY TYPE
Baseball Diamond	7
Playground/Spray Park	23
Boat Launch	7
Trail/Pathway/Boardwalk	44
Information Kiosk	8
Tennis Court	4
Picnic Area	28
SkatePark	2
Soccer Field	7
Passive Green Space/Community Garden	40
Basketball Court	9
Dock	15
Off-leash Dog Park/Area	6
VolleyBall Court	2
Pickleball	2
Lacrosse Pitch	5
Outdoor Fitness Equipment	3
Field Hockey	1
Bandstand	1
Clubhouse	1
Adult Exercise Equipment	2
Concessions	2
Rink	2
Swimming Pool	1
Kayaking	11
Rugby	1



Legend

- | | |
|----------------------------|--|
| MNC Boundary | Outdoor Recreation Diversity Opportunity Accessibility |
| Urban Containment Boundary | Areas that have Access to no Recreational Amenities within 400m |
| Major Road | Areas that have Access to 1 - 3 Recreational Amenities within 400m |
| Minor Road | Areas that have Access to 4 - 6 Recreational Amenities within 400m |
| Rivers Lakes Ocean | Areas that have Access to 7 - 9 Recreational Amenities within 400m |
| | Areas that have Access to 10 - 13 Recreational Amenities within 400m |

Figure 18 Access to Park Amenities

AREAS OF HIGH NEED

To determine the areas of greatest need for park development or redevelopment, we built a Geographic Information System (GIS) analysis tool that took into account the following science based criteria:

Ecological Criteria

- Hydrology (buffered areas of land)
- Sensitive ecosystems
- Regional Corridor
- Garry Oak
- Flood plain
- Riparian zones
- Red listed species
- Steep slopes
- Ecological wildlife reserve

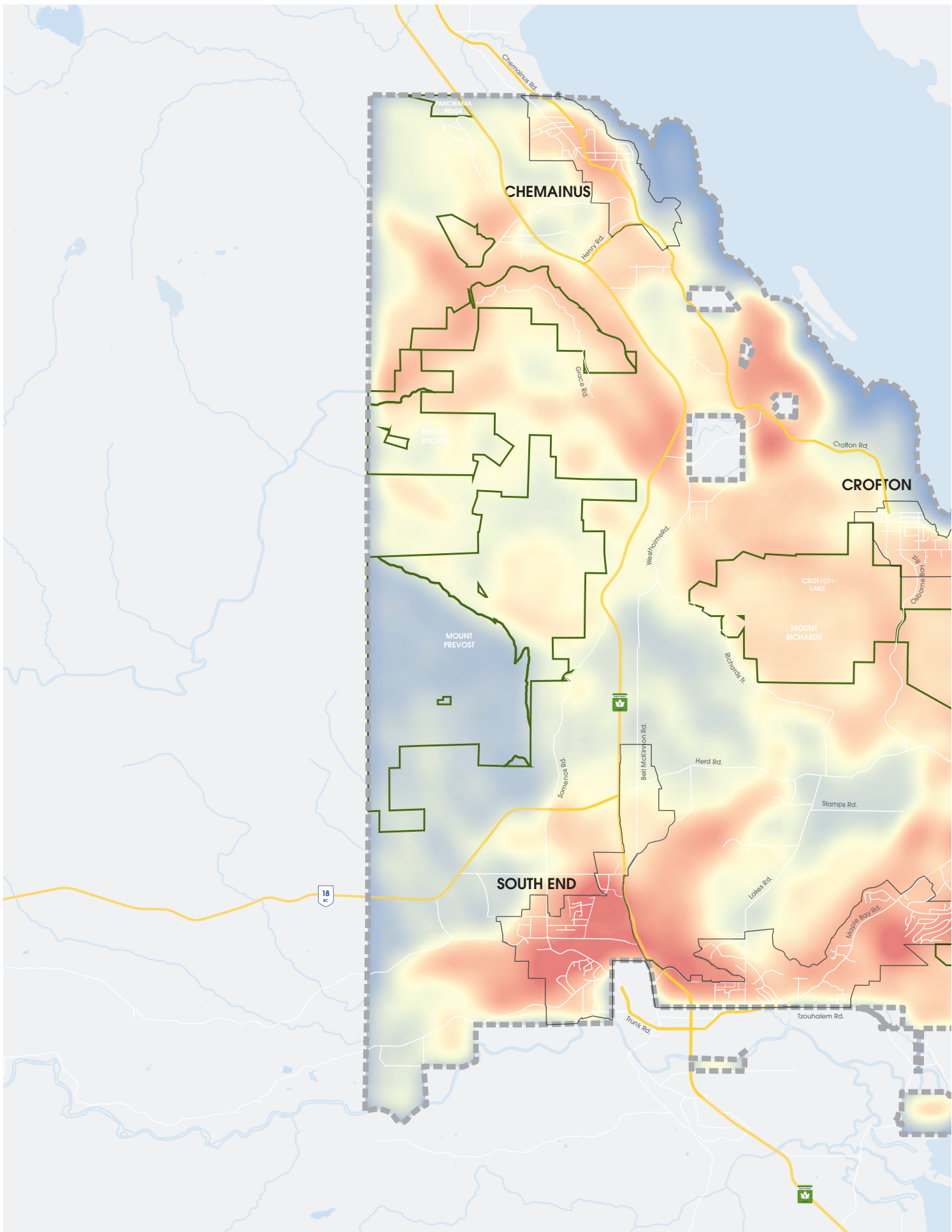
Socio-Economic Criteria

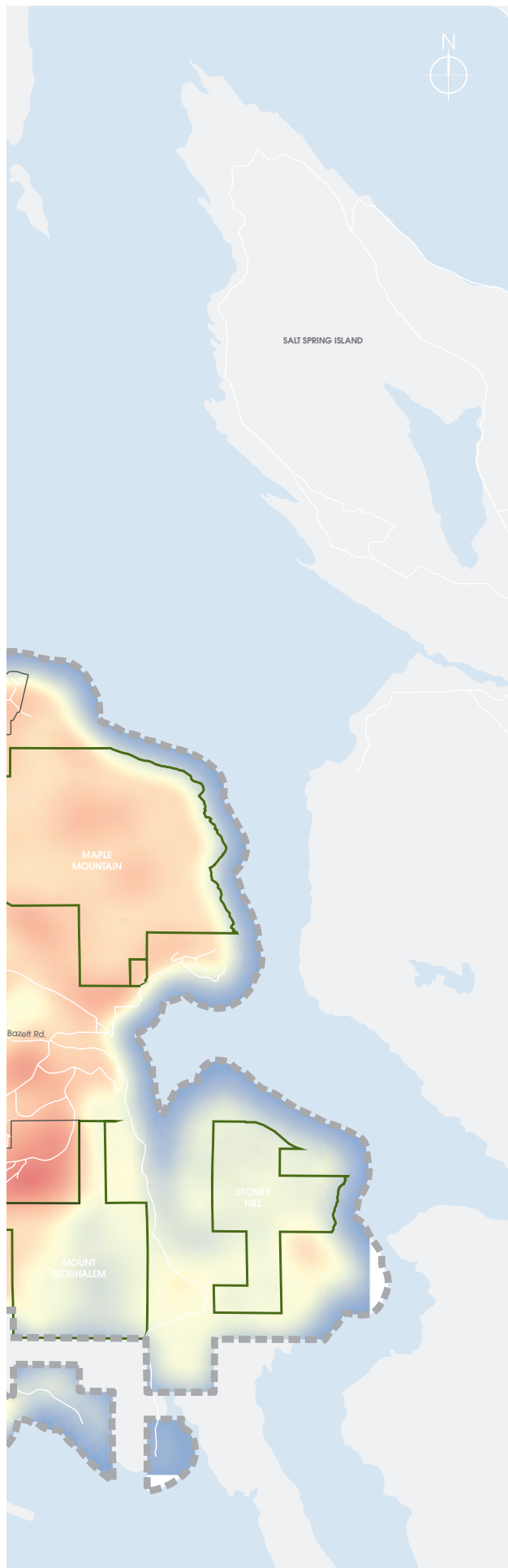
- Municipality of North Cowichan Parcels
- Trails Quality and condition access
- Parks Quality and condition access
- Development area plan
- Low education
- Low income
- Youth populations
- Senior populations
- Population density

Each of the criteria above are important for determining where parks are needed most. For example, youth may have demand for playgrounds and active recreational facilities to support their physical activity needs. Our senior population has different needs; they may desire passive recreation parks with opportunities for benches for sitting, certain types of games, and gatherings. Importantly, parks must be located close to homes so access is possible. Median household income and low education are two other socio-economic variables that represent “higher need” areas, these populations may face social and economic barriers to participating in outdoor recreation. Areas with greater residential density are suitable for park investments because of the larger number of residents the parks can serve. In addition, the ‘New Growth Areas’ will also demand natural assets and outdoor recreation opportunities which will make them attractive to prospective buyers. Finally, the park needs assessment incorporated and prioritized areas with poor access to parks, access to parks that are below expectations and areas within the municipality that have limited outdoor recreation diversity. The combination of these criteria resulted in the areas of greatest need for park acquisition and/or redevelopment (see Figure 19).

The highest priority areas, with a rationale for their inclusion, are:

- Chemainus River and estuary. This area has been identified as having very high ecological value, as measured using the above listed criteria. Currently the Municipality does not have a park in the estuary.
- Richards Creek and Somenos Lake area. This area is recognized for its high ecological value, yet Richards Creek is currently not protected.
- Bing’s Creek corridor. Bing’s Creek is a fish-bearing stream that has been identified as high ecological value as determined by the above listed criteria.
- Gibbins Road area. This residential area was identified based primarily on needs reflected in the socio-economic criteria listed above, including high youth population and low to moderate income.





LEGEND

 Municipal Forest Reserve

 High

 Low

Figure 19 Areas of High Need-Parks

Our Nature

Our parks and Municipal Forest Reserve system is part of something much bigger. In addition to providing outdoor recreation and active transportation, our parks and trails system is part of a larger ecological network. Our system plays an important role in conserving regional biodiversity, providing critical ecological connections between larger regional and provincial protected areas and continuing the flow of vital ecosystem services.

The Municipality is situated predominantly in the Coastal Douglas-fir Biogeoclimatic zone (Figure 21). A relatively small upland portion of the Municipality is in the Coastal Western Hemlock Biogeoclimatic zone. Douglas-fir is the dominant tree species, while grand fir, western redcedar and bigleaf maple are also found in moister areas. In upland Douglas-fir forests, salal and Oregon grape are common understory plants.

The Chemainus River is a major watercourse that flows through the Municipality; its estuary is also within the Municipal boundary. Estuaries are highly productive and important ecosystems, providing habitat for a wide variety of life. The river is home to spring and summer runs of steelhead, as well as coho salmon and a variety of freshwater species. The river is recognized as a wildlife movement corridor.

A number of lakes and wetlands are found in the Municipality. Somenos Marsh is a highly biodiverse wetland recognized as an Important Bird Area (IBA) for supporting key populations of Trumpeter Swans and Great Blue Herons. Significant lakes in the Municipality include Chemainus Lake, Fuller Lake, Somenos Lake and Quamichan Lake. Quamichan Lake's watershed ecosystem supports many fish and wildlife species, including: stickleback, rainbow and cutthroat trout, brown catfish, amphibians, mink, otter, beaver, Trumpeter Swans, ducks, heron, eagles, osprey, and more.

Garry oak ecosystems (Figure 20) are one of the most endangered ecosystems in Canada. Somenos Garry Oak Protected Area, a remnant Garry oak woodland and grassland, is home to threatened and nationally endangered species such as Yellow Montane violet, as well as Chocolate Lily and Blue Camas which only occur in Garry oak ecosystems. Garry Oak groves and wildflower meadows are also found at Mount Tzouhalem Ecological Reserve.

Sensitive Ecosystems identified and mapped in the Municipality include (Figure 20):

- Coastal Bluff: vegetated rocky shoreline
- Riparian areas: all stages of floodplain vegetation
- Older forest: dominant age class >100 years
- Sparsely vegetated: cliffs and outcroppings
- Woodland: open Garry oak woodlands
- Wetlands: bog, fen marsh, swamp, meadow

Biodiversity...

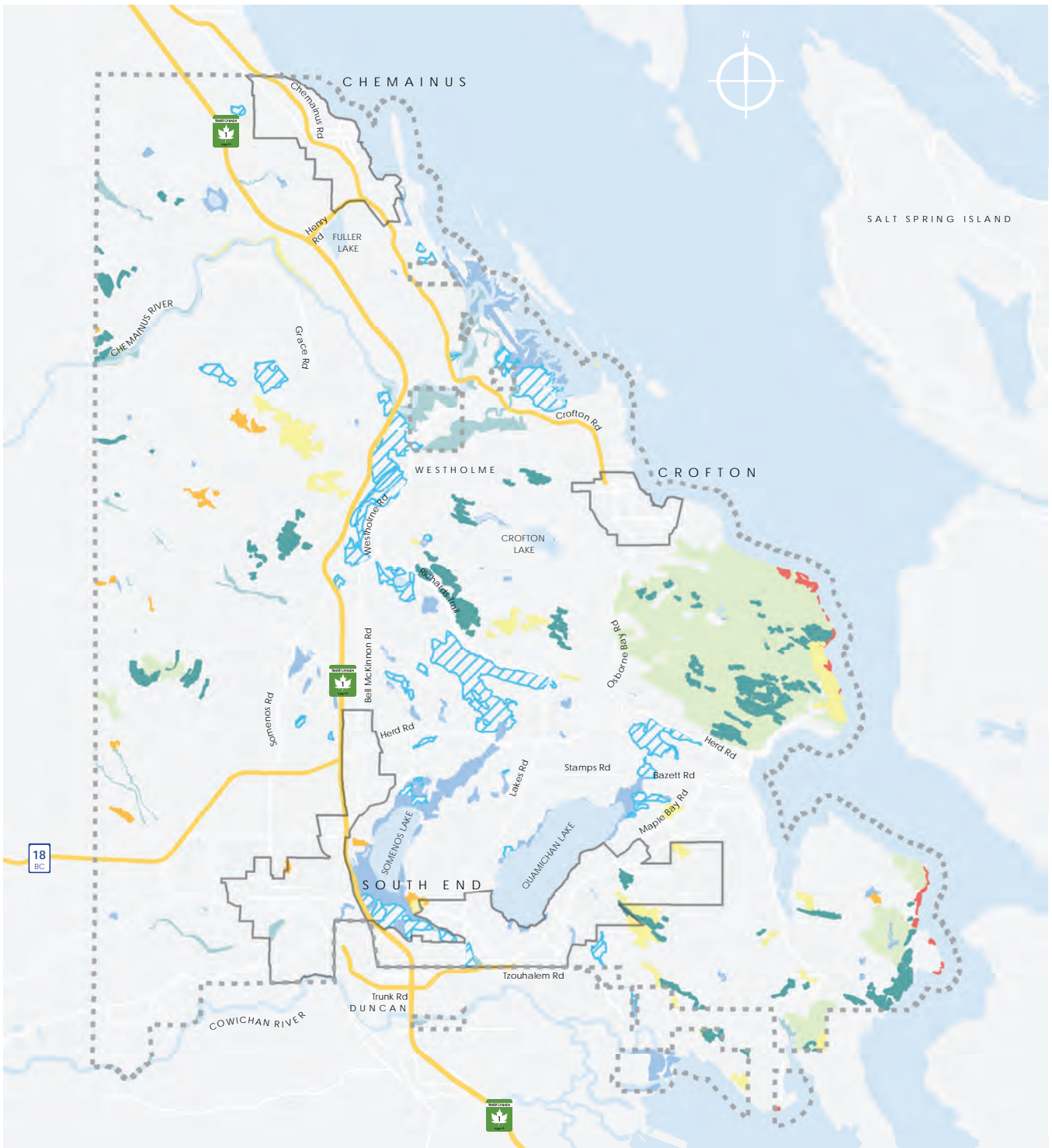
short for biological diversity—the variety of life in all its forms that many people think of simply as “nature”



The Chemainus River



Great Blue Heron



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Coastal Bluff
- Older Forest
- Other - Older second growth forest
- Other - Seasonally flooded agricultural fields
- Riparian
- Sparsely vegetated
- Terrestrial herbaceous
- Wetland
- Woodland

Figure 20 Environmentally Sensitive Ecosystems

Ecosystem services are the benefits people obtain from ecosystems. Services provided in the Municipality of North Cowichan may be broadly categorized as:

- Provisioning Services (e.g., food and water)
- Regulating Services (e.g., air quality, flood and disease control)
- Cultural and Amenity services (e.g., Spiritual, recreational, and cultural benefits)
- Habitat Services (e.g., lifecycles, genetic diversity)



Bald Eagle

RED LIST:

Includes any ecological community, and indigenous species and subspecies that is extirpated, endangered, or threatened

BLUE LIST:

Includes any ecological community, and indigenous species and subspecies considered to be of special concern



Legend

- Major Road
- MNC Boundary
- Rivers | Lakes | Ocean
- Coastal Douglas-fir
- Coastal Western Hemlock
- Coastal Mountain-heather Alpine
- Mountain Hemlock

Figure 21 Biogeoclimatic Zones



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Garry Oak MOE

Figure 22 Garry Oak Ecosystems

Trail Inventory

TRAIL SUPPLY

Currently, we have 42 designated trails offering residents and visitors 59 km of formally designated off-road trails to explore. Residents also frequently make use of an additional 27 neighbourhood connector trails within the Municipality—these total 2.7 km in length.

The Municipal Forest Reserve also contains 101 kilometres of hiking and mountain biking trails but at the moment these are mostly unofficial, unauthorized trails.

Trails Supply by the Numbers:

42 designated trails

59 km formally designated off-road trails

101 km (approx.)
authorized and unauthorized trails
in Municipal Forest Reserve



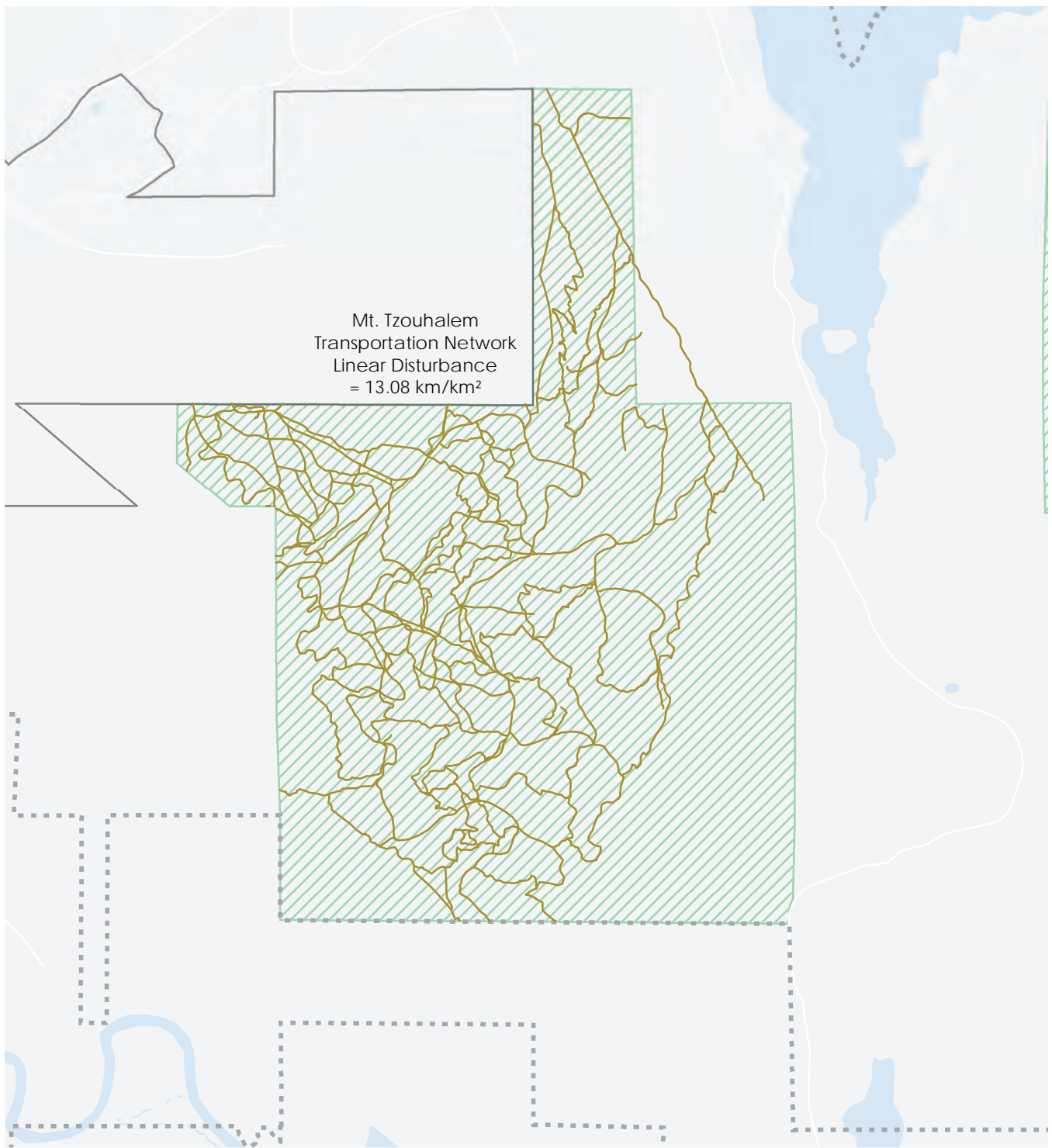


LEGEND

- Municipal Forest Reserve
- TCT/CVT Operational Trail
- TCT/CVT Proposed Trail
- Interim TCT On-Street Route
- Existing Trails
- Proposed Trail Corridor
- Provincial Park
- CVRD Park
- North Cowichan Municipal Boundary

Off-Street Trail Connectivity
North Cowichan Parks & Trails Master Plan





Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Mt. Tzouhalem Transportation Network = 51.14 km
- Municipal Forest Reserve = 3.91 km²

Figure 23 Mount Tzouhalem Linear Disturbance Density

A Case Study on Trail Density—Mount Tzouhalem

Linear Disturbance Density (LDD) is a measure of the total length of a linear corridor (e.g., road or trail) divided by the total area of the site. LDD is a common indicator of the intactness of habitats and ecosystems. As the density of trails and roads increases, the presence of native species often declines while the presence of invasive species often increases. At 13.08 km/km², Mount Tzouhalem has a very high linear density which is likely having a detrimental effect on the ecological integrity of the area. There is a need to enhance proactive planning of the future trail system while focusing efforts on identifying and restoring old, inactive roads and trails that are in poor condition or will not form part of the future trail network. A restoration approach will also allow limited maintenance resources may be focused on the remaining open trails, ensuring a high-quality recreational experience for trail users.

TRAIL QUALITY

Trail design and siting, location, ambiance, the supply of comfort and convenience amenities such as benches, accessibility/inclusivity can affect the quality of a trail, and therefore its appeal to users. A rapid on site evaluation of trails outside of the Municipal Forest Reserves was undertaken to assess their quality. The trail quality and condition scores ranged from below expectations to exceeding expectations.

Forty-two trails inventoried and assessed:

- 4 trails exceeded expectations
- 20 trails met expectations
- 18 trails were below expectations

Twenty-seven trails were classified as short connector or other and were not assessed.

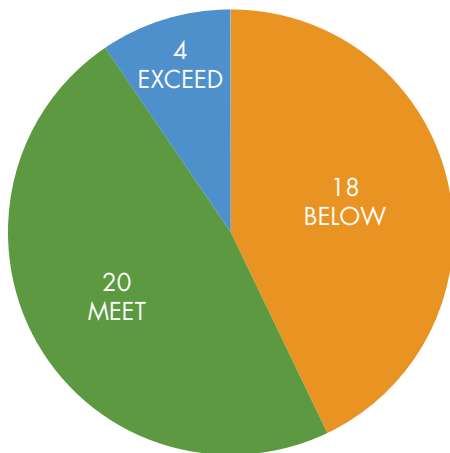


Figure 24 Trail Quality Assessment

Due to the dense network of trails within the Municipal Forest Reserve, condition assessments were not completed. However, recognizing the historical adhoc and unauthorized approach to trail development within Municipal Forest Reserves, many existing trails are below expectations. Trails that are meeting or above expectations are most commonly trails that have been planned, designed and appropriately constructed by the Cowichan Trail Stewardship Society. The society recently undertook an inventory and assessment of single-track trails within the Mount Tzouhalem Municipal Forest Reserve. They found that common factors impacting trail condition included erosion, poor alignment, poor drainage, and lack of maintenance.¹¹ Their condition ratings may be summarized as follows:

- 58% of trails were classified as "Good Condition"
- 27% of trails were classified as "Very Good Condition"
- 8% of trails were classified as "Poor Condition"
- 7% of trails were classified as "Excellent Condition"

ACCESS TO TRAILS AND TRAILHEADS

Like parks, proximity to trails can have a direct influence on trail use. Trails that are of a good quality and connect our neighbourhoods to key community destinations and assets tend to be used more frequently. With an understanding of the quality of each trail, we determined what proportion of residential parcels (a proxy for residents' homes) are within walking distance to a trail head, which provides access to a formal Municipal trail that meets or exceeds quality expectations (Note: the analysis did not account for sidewalks). We found that:

- 51% of residential parcels have access to trails that meet or exceed quality expectations
- 17% have access to trails that do not meet quality expectations
- 32% of residential parcels are not within walking distance to any trailhead.

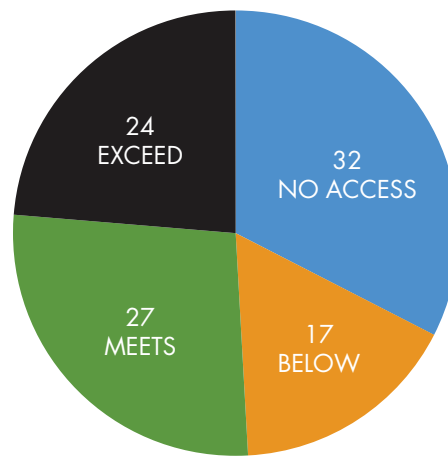


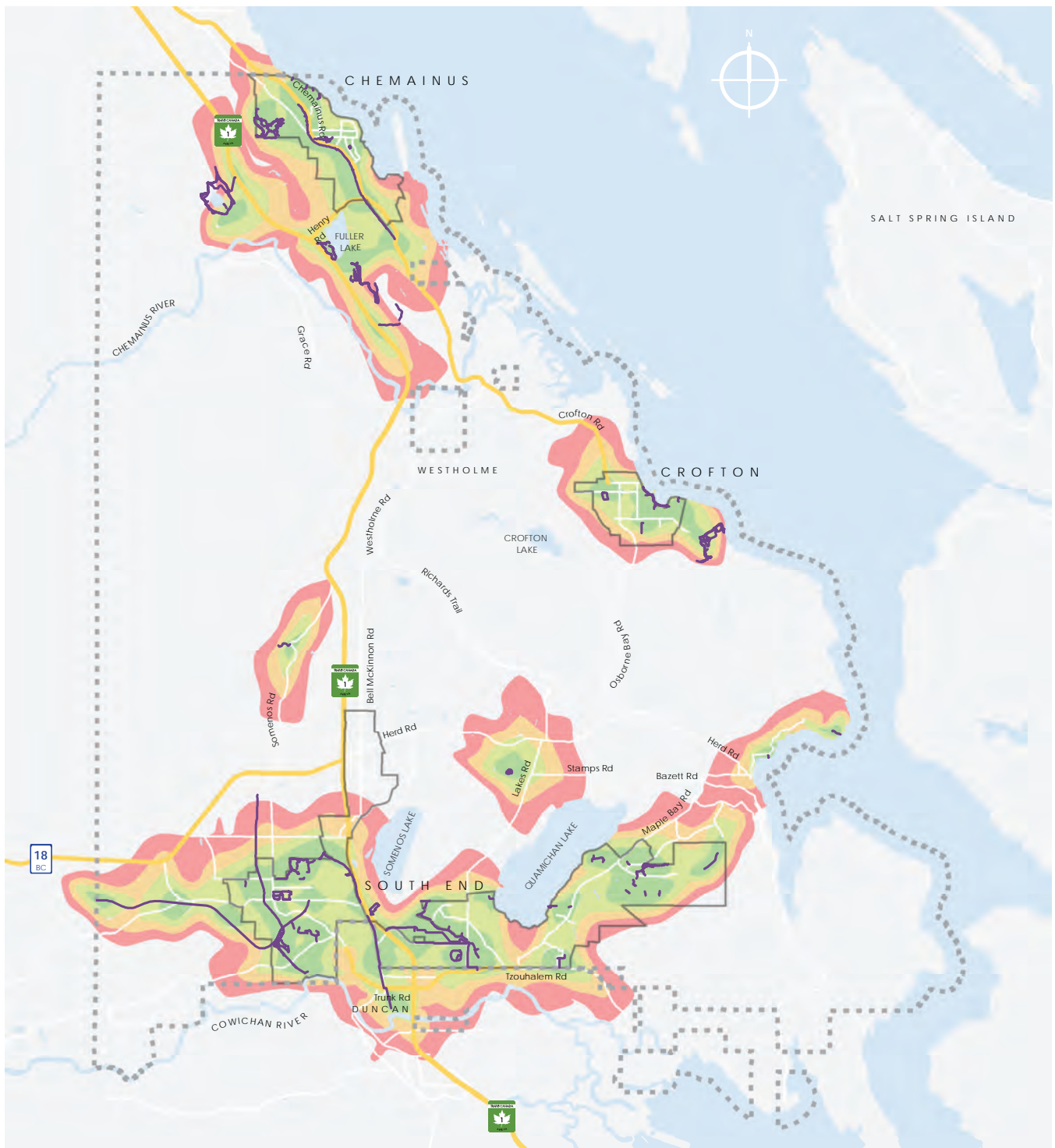
Figure 25 Trail Accessibility Assessment

Local Benchmarking

The Municipality of North Cowichan has one FTE dedicated to parks and trails planning. Municipality of North Cowichan staff manage:

- 239 ha of parkland per FTE
- 59 km of community trail per FTE
- Approx. 101 km of trail in the MFR per FTE

Neighbouring Vancouver Island and British Columbia Municipalities and Regional Districts with similar populations and size should be examined more thoroughly. A preliminary review of neighbouring governments indicated that parks senior staffing levels within the Municipality of North Cowichan are comparatively much lower.



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Formal Trail
- 400m Access to a Major Trailhead
- 400-800m Access to a Major Trailhead
- 800-1,200m Access to a Major Trailhead
- 1,200-1,600m Access to a Major Trailhead

Figure 26 Trail Accessibility

Resourcing & Capacity

Our Municipality, like all municipalities in Canada, face difficult decisions about where to allocate budgets and staff time. Staffing and budget decreases to parks and trails programs are well documented throughout the Country in the 2016 Canadian Infrastructure Report Card. In 2015, our parks and trails operational budget was \$1,842,711 with a five year average operational expenditure of \$1,535,342. Since 2011, the operational budget has increased by 27% from a low of \$1,342,399 in 2011. Though the budget has increased during this time period, we have developed and/or expanded ten parks, representing over 33 hectares of new parkland. Twelve new trail development/upgrade projects, encompassing over 23 linear km, were completed and another fifteen infrastructure projects within our parks and trails were also completed. In addition to growing land base and infrastructure, our staff and our budgets have faced very significant increased demands from the growing outdoor recreational use of the Municipal Forest Reserve. Currently, the Municipality does not have any staff dedicated to planning or managing the outdoor recreational use of the MFR.

On average, approximately 5% of the total parks and trails annual operational budget has been allocated to operating trails with the remaining being spent on parks related operations. Of the budget allocated to parks, over 90% of that is invested in maintain "active" parks with the remaining budget being allocated to the maintenance of natural parks. In 2015, we spent over \$600,330, or 33% of the total operational budget, to operate and maintain our sports fields.

A look at our average financial performance over the past 5 years tells us that:

- We are investing less per acre in our parks system than benchmarked communities. Our operating expenditure per acre of parkland was \$3,118.86 which is below the NRPA's median of \$3,546 for communities of similar population density.
- Residents are investing more per capita in our parkland. As \$65.25 per capita per year, we are above the median (\$33.98) per capita investment for communities of similar population density. We are, however, below the upper quartile (\$84.27).
- Our parks generate very limited revenues which results in a very low cost recovery rate for our parks system.

32% of residential parcels are **not** within walking distance to a trailhead

5% of operational budget allocated to trails.

95% of operational budget allocated to parks.

In 2015, we had 8 Full Time Equivalent (FTE) staff (management and maintenance) who were involved in the planning and operations of our parks and trails system. There has been little to no change in staffing over the past five years despite an expanding parks and trails supply and growing demands. To understand how well we are resourced from a staffing perspective, we compared how many acres of park land our staff is maintaining per FTE with communities of a similar size. We discovered that, as of 2015, our acres of parkland maintained per FTE was 73.9, which is 61.1 more than the 2014 NRPA median of 12.8 acres. As such, we are understaffed compared to the benchmark communities. This assessment does not include current or future time required to plan, manage, maintain and operate outdoor recreation use of and amenities in the Municipal Forest Reserve.

Key Learning—Financial & Staffing

Our budgets have been increasing consistently over the past five years. However, the area of land, infrastructure and amenities have significantly increased at the same time.

Our staffing levels have not increased in the past five years despite increasing supply and demands for parks, trails and outdoor recreational use of the MFR.

The majority of the operational budget and staff time are dedicated to sports fields with minimal operational investment in our trails or MFR.

Current operational expenditures per acre and investment in parks per capita are below the median for similar benchmarked communities and significantly below staffing levels in the CVRD.

Revenues earned by our parks are limited, leading to a very low cost recovery ratio.

Our staff is required to manage more parks space and trail length per FTE than similar communities.

Our Emerging Priorities

Meaningful community and stakeholder engagement, First Nation and staff input together with robust research and analysis into our population, our current parks and trails and our current resourcing, yielded a number of clear priorities that need to be addressed. As such, the plan will focus on:

Expanding, Diversifying and Connecting the System

- Enhancing the System
- Keeping Nature In Our Future
- Enhancing Outdoor Recreation & Tourism in our Municipal Forest Reserve
- Actively Managing the System
- Spreading the Word about the System
- Collaborating
- Sustaining our Capacity

It's not the acreage or park type standard that should motivate cities, but the direct awareness of the need for different kinds of parks and activities. Instead of setting a standard to measure against, such as certain number of hectares per 1,000 people, what's important is understanding how residents want to use their parks and trails and devising a plan to meet those desires.

—Urban Green





PARKS & TRAILS CLASSIFICATION

The Municipality of North Cowichan manages a diversity of parks and trails. Each site's and each trail's size, setting, the amenities provided, accessibility and environmental values combine to provide a unique character and visitor experience. Recognizing the uniqueness of each site, we know that providing consistent park and trail design guidance to staff, contractors, developers, and the community is an important foundation in ensuring the delivery of safe, quality, sustainable and diverse visitor experiences. A classification system also allows our users to better select parks and trails that are likely to meet their skill level and desired experience. As such, there is value in categorizing parks and trails based on common characteristics and establishing high level design, development and management guidance that ensures a desired level of service while being careful not to homogenize our parks and trails experiences or infringe upon future design processes.

The intent of this section is to establish a clear classification structure for parks and trails in our community. The result is consistent direction for the planning, design and programming of parks, off-road trails, on-road multi modal corridors and associated staging areas. Brief descriptions of each park class are provided below. More detailed design guidance for each class of park is available in Appendix G. A classified map of Municipality of North Cowichan parks is shown in Figure 27.

Park Classification

1. NATURAL AREAS

Purpose: to conserve provincially, regionally and/or locally significant native habitats, protect species at risk and maintain ecosystem processes. Enhance and/or continue the supply of ecosystem services to the community



Askew Creek—Natural Area Park

2. COMMUNITY PARKS

Purpose: to provide for the spontaneous and, to a lesser extent, programmed recreational needs of multiple neighbourhoods. May also conserve locally important habitats and provide for functioning ecosystem processes.



Chemainus Lake—Community Park

3. NEIGHBOURHOOD PARKS

Purpose: to provide for the spontaneous recreational needs of the surrounding neighbourhood.



Carmel—Neighbourhood Park

4. POCKET PARKS/PUBLIC PLAZAS

Purpose: to provide residents and visitors respite from busier urban environment, places to rest and space for performers and vendors to enhance visitor experiences.



Heritage Park, Chemainus—Public Plaza

5. WATER ACCESS PARKS

Purpose: to provide public access to ocean, river or lake frontage. Secondary uses include natural area protection and viewing opportunities



View from Maple Bay Dock—Water Access Park

6. SPECIAL PURPOSE PARKS

Purpose: stand-alone parks that are designed for a particular use such as BMX parks, mountain bike skills parks, skate parks, sports field complex or specialty gardens. Industry best practices should be used to guide the design parameters.



Chemainus Skatepark—Special Purpose Park

7. SPORTSFIELD/ATHLETIC PARKS

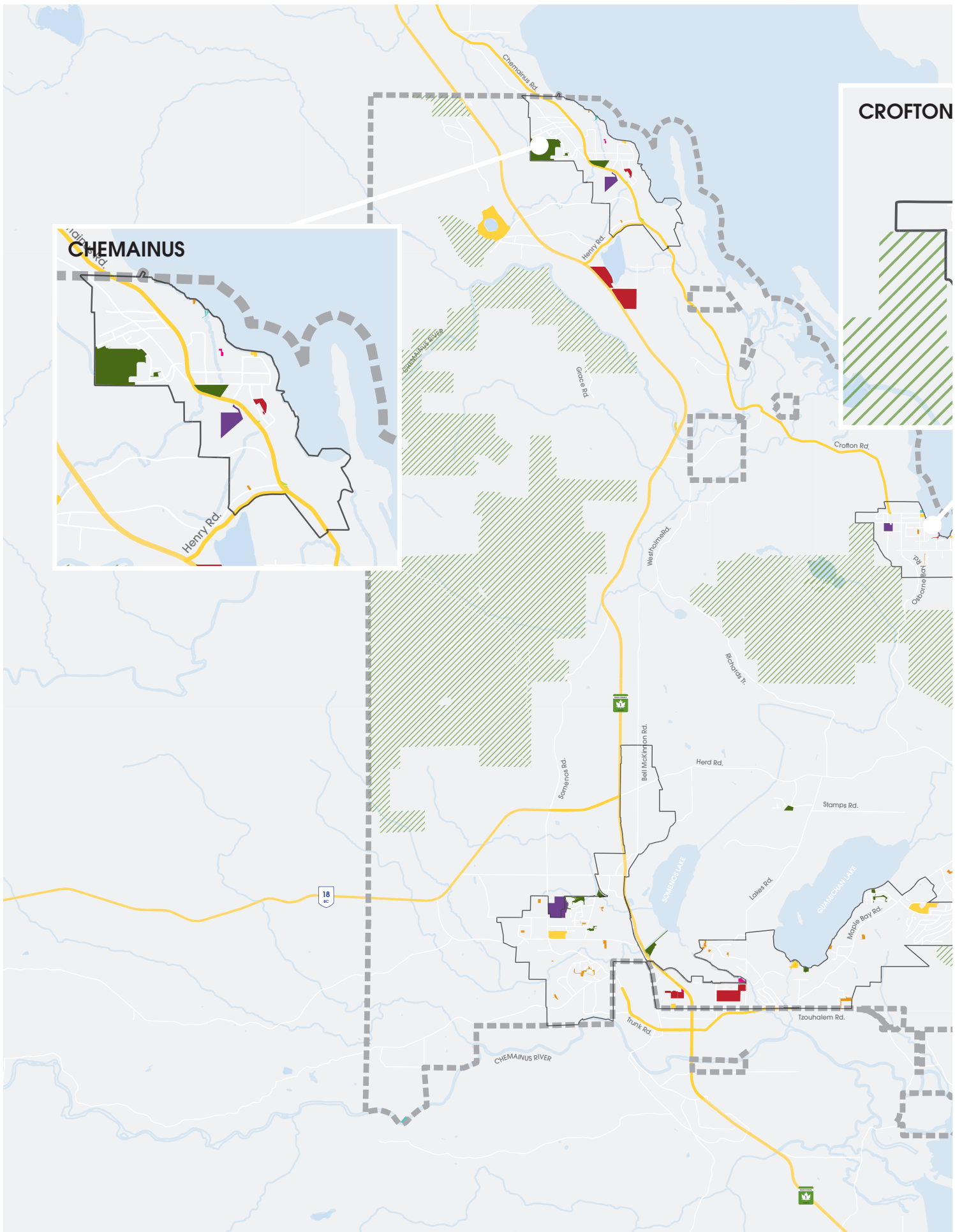
The primary focus of athletic/sportsfield parks is to provide outdoor sports facilities that serve the community's needs for active recreation and organized outdoor sport. These parks have a strong sports focus, but they often include walking trails and children's playgrounds. Subsequently, these parks also serve the local neighbourhood and provide families the opportunity for active play while siblings and friends are engaged in sporting activities.

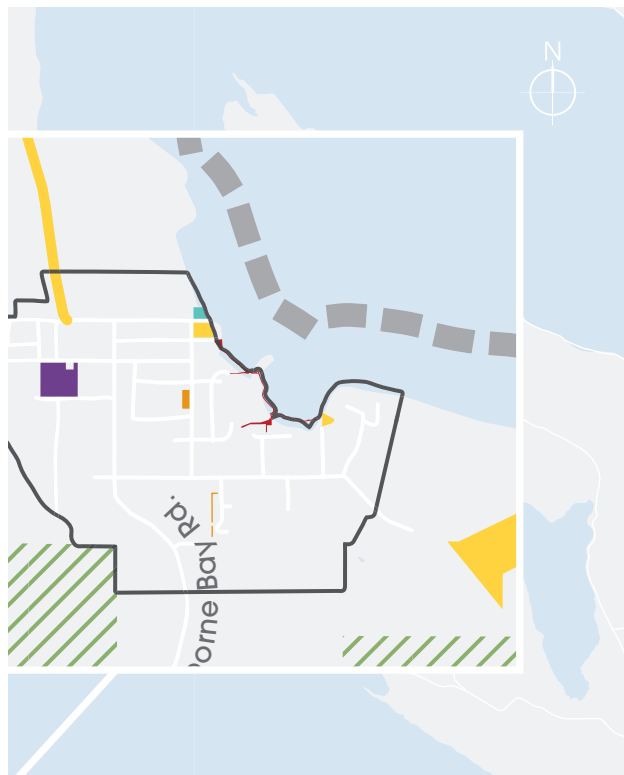
8. DESTINATION PARKS

Major parks that offer unique features and recreational opportunities as well as numerous amenities. These significant parks may be designed for single or multiple use and are travel motivators of the calibre to attract people from both within the Municipality and abroad.



Waterwheel Park, Chemainus—a Destination Park.





LEGEND

- Water Access Park
- Special Purpose Park
- Pocket/Public Plaza Park
- Neighbourhood Park
- Natural Area Park
- Destination Park
- Community Park
- Athletic & Sports Field
- Municipal Forest Reserve
- North Cowichan Municipal Boundary

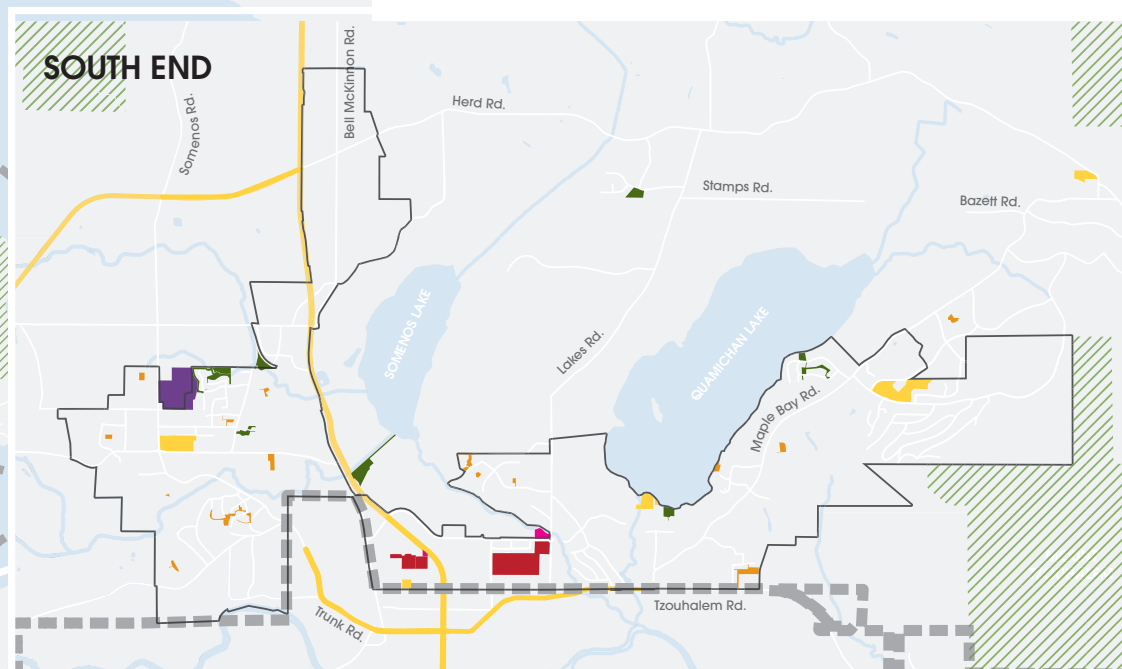


Figure 27 Park Classification

Figure 28 shows the number of parks in each class for the Municipality as a whole. It also shows the total parks in each class in each of the Growth Centres: Chemainus, Crofton, and South End.

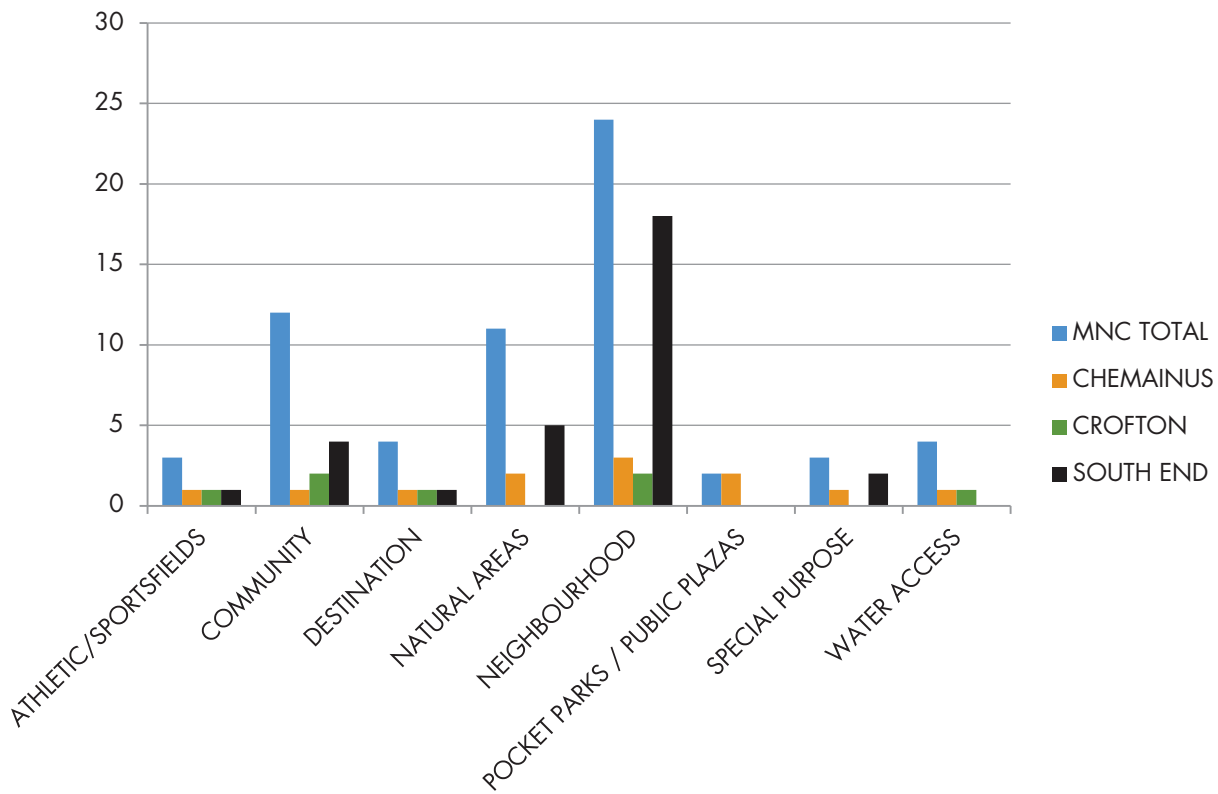


Figure 28 Parks by Classification by Growth Centre

The graph illustrates that:

- Neighbourhood Parks are the most common park class for the Municipality as a whole
- In total there are a relatively large number of Community Parks and Natural Areas

Table 3

Park Classification	No. of Parks
Athletic/Sportsfield park	3
Community park	12
Destination park	4
Natural area	10
Neighbourhood park	25
Pocket Park/Public Plaza	2
Special Purpose park	3
Vacant Lot	3

Trail Classification & Difficulty

The following trail classes and design guidance will be applied. Refer to Appendix H for graphics that illustrate design guidance for each class of on-street multi modal corridor and off-street trail. Cross sections and typical construction details, as well as direction regarding design elements, amenities, staging areas and maintenance levels, are outlined.

Water Access Park	4
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BEYOND DESIGNATED PARKS

Parks are not the only open spaces in the Municipality. The Municipal Forest Reserve, golf courses, school sites, cemeteries, streetscapes, boulevards and even vacant lots contribute to our network. These spaces can provide valuable aesthetic, recreational, health and ecological benefits.

MUNICIPAL FOREST RESERVE

The Municipal Forest Reserve is managed for long-term sustainability. New tourism, recreation, conservation, economic development and education partnerships will complement the activities of a sustainable forest harvesting practice. Visitors will continue to be drawn to these destinations throughout the Municipality of North Cowichan. These areas will contribute to the supply of ecosystem services to the community.

Trail & Technical Feature Design

All trails in the Municipal Forest Reserve will be designed in accordance with International Mountain Bike Association standards. These standards will make the trails appealing to a variety of different user groups.

All technical trail features will be designed in accordance with the Whistler Technical Trail Feature standards.

ON-STREET MULTI-MODAL CORRIDORS

■ Class 1 – 2-way Separated with Green Boulevard

This 2-way on-street multi-modal corridor separates cyclists from vehicle traffic with a vegetated green boulevard. If located properly, cycling lanes can make active transportation more desirable for day-to-day activities by connecting various community amenities. Some of the connected amenities may include; parks, community facilities (e.g., the seniors centre, the recreation complex), offices, and shops within residential areas.

■ Class 2 – 2-way Separated with Delineator Post

This 2-way on-street multi-modal corridor separates cyclists from vehicle traffic with a delineator post. This class is not ideal for all situations but where right of way widths are constrained and class 1 is not feasible this class is recommended. If located properly, cycling lanes can make active transportation more desirable for day-to-day activities by connecting various community amenities. Some of the connected amenities may include; parks, community facilities (e.g., the seniors centre, the recreation complex), offices, and shops within residential areas.

■ Class 3 – 1-way on each side of road (no barrier)

The on-road bike lane is an extension of the road shoulder and does not have a physical barrier between vehicle traffic and bicycles. Line painting and bike lane symbols will be utilized, along with approved signage to identify this bike lane. Bicycles will be required to travel one-way with the direction of vehicle traffic. This style of bike lane is considered the least desirable to cyclists and should be developed only when conditions are unsuitable for class 1 and 2.

OFF-STREET TRAILS

■ **Class 1 – Greenway/Urban Trail**

These trails are completely separated from vehicular traffic and support high volumes of users. Paving options include asphalt, unit pavers, concrete or compacted gravel. Class 1 trails will typically provide universal access to a variety of community amenities and are intended to function as an active transportation route for residents and tourists alike. Examples: Friendship Trail, Cowichan Valley Trail.

■ **Class 2 – Double Track**

Class 2 Trails typically provide a mid-country and neighbourhood level recreational experience. They are typically more challenging than Class 1 trails as they are constructed of softer surface materials (gravel, sand, etc.) and cover a more varied terrain. Example: Herons Wood Park

■ **Class 3 – Single Track Natural Surface**

This trail class is typically not universally accessible due to surfacing and terrain. It provides a mid-country to more back-country experience with very few amenities. The narrow natural surface trail has fewer environmental impacts, protects sensitive ecosystems, and enhances user experience. Examples: Askew Creek Trails

■ **Class 4 – Single Track Mountain Bike Trails**

Single-track trail that may include sections of very rough terrain. Boardwalks may be used to traverse sensitive areas. Tread width 30-50 cm maximum; no tread grubbing.

Examples: Trails in Municipal Forest Reserve







Single-Track Trail, Maple Mountain

TRAIL DIFFICULTY GUIDELINES

Trail difficulty is a key consideration in our visitors' decision making process. Some seek a challenge while others look for less adventurous trail opportunities. Ensuring visitors understand the difficulty of each trail is essential to helping visitors remain safe while on our trails. As such, it is essential to classify the difficulty of our off-street trails. Table 4 Trail Difficulty Standards identifies the classes of trail difficulty—from easy to extremely

difficult—and presents the characteristics that are evaluated in assigning each. These classes are to be applied to all existing and future off-road trails in the Municipality of North Cowichan including walking, hiking and mountain biking. Additionally, detailed descriptions of natural obstacles and mountain bike Technical Trail Features (TTFs) that could be associated with each difficulty rating are referenced.

Table 4 Trail Difficulty Standards

	Easy	Moderate	Difficult	Extremely Difficult
Difficulty Rating Sign Graphic				
Trail Width	4 m	1–1.5m	0.5–1 m	0.25–0.5 m
Tread Surface	Paved or compacted gravel hard surface	Gravel or natural surface	Natural surface	Natural surface
Average Trail Grade	0–5%	10% or less	15% or less	20% or more
Max Trail Grade	10%	25%	30%	30% or more
Natural Obstacles and Mountain Bike Technical Trail Features (TTF)	None	<ul style="list-style-type: none"> • Unavoidable bridges 1 m or wider • Avoidable obstacles may be present 	<ul style="list-style-type: none"> • Unavoidable obstacles 0.25 m tall or less • TTF's 1.25m high or less, width of deck is less than 1.2 the height • May include loose rocks • Avoidable obstacles may be present • Short sections may exceed criteria 	<ul style="list-style-type: none"> • Unavoidable obstacles 0.25 m tall or greater • TTF's 1.25 m high or greater, width of deck is unpredictable • Avoidable obstacles may be present • May include loose rocks • Many sections may exceed criteria
Associated with following Trail Classification	Trail Class 1	Trail Class 1, Trail Class 2, Trail Class 4	Trail Class 3 Trail Class 4	Trail Class 4

Staging Areas & Furnishings

Staging areas are situated at the entrance of certain parks and trails. Staging areas create a first impression and set the tone for the recreation experience. Staging areas vary, based on the type of park or trail, location, usage level, demand, and space provided. Considering the diversity of conditions throughout the Municipality of North Cowichan, staging areas are grouped into three distinct classes, each with unique design guidelines and amenities. The following matrix outlines the three different types of staging areas:

Staging Type	Vehicle Parking	Handicap Parking	Bicycle Parking	Toilets	Garbage Receptacles	Map kiosk Directional	Seating
1 High Use							
2 Medium/Low Use							
3 Access Point							



Required



Optional

¹ Minimum of 10 stalls

² Minimum of 5 stalls

³ If trail is universally accessible

TYPE 1 STAGING AREA–HIGH USE

The high use staging area is designed for large multi or single use trails or popular parks with a high demand and substantial traffic flow.

- The parking area should have a minimum of 10 parking stalls, and must include a minimum of one accessible parking space, if the trail is universally accessible (indicated by designated wheelstops/signs).
- If space allows and there is a high level of equestrian use, then the design should include space for horse trailers as well as hitching rails and/or corrals.
- Design of the staging area must consider the needs of emergency vehicles and should also consider the need for bus access.
- Bicycle parking should be provided.
- Toilet facilities, mainly portable toilets, should be provided.
- Garbage receptacles should be provided and should include an option for recyclables.
- A map kiosk of the park or trail is required. Information should include orientation signage which shows the user's current location, rules and regulations of the park or trail, permitted uses, and potential hazards.
- At least one picnic table or bench should be provided for seating.

TYPE 2 STAGING AREA–MEDIUM/LOW USE

The medium use staging area is designed for multi or single use trails and parks and trails with intermediate demand level, and less traffic flow than the high use staging area.

- The parking area should have a minimum of 5 parking stalls, and must include an accessible parking space if the trail is universally accessible (indicated by designated wheelstops/signs).
- Design of the staging area must consider the needs of emergency vehicles and also have trailhead barriers for ATVs (e.g., bollards).
- Bicycle parking, washrooms, and seating are typically not provided, except in certain situations.
- A map kiosk of the park or trail is required. Information should include orientation signage which shows the user's current location, rules and regulations of the park or trail, permitted uses, and potential hazards.

TYPE 3 STAGING AREA–ACCESS POINT

The access point staging area is designed for trails or parks with a low traffic flow and demand level. This trailhead may also be used at a secondary access point of a higher demand trail, or as an access point to a trail where no parking is required, such as a small trail in a community neighbourhood.

- There are no parking spaces, and bicycle parking and washrooms are not provided.
- Barriers (e.g., bollards, boulders) are included to restrict motorized access.
- Garbage receptacles are not required.
- Generally no kiosk is provided, but directional signage and maps showing the user's location, rules and regulations of the trail, trail uses, and potential hazards should be included.



NORTH COWICHAN'S PARKS & TRAILS IN 2026



Vision

Future planning, investment and management decisions about our parks and trails system will be based on a shared vision of where we want to be in the future. We have worked collaboratively with our residents, First Nations, partners and stakeholders to develop this shared vision.

By 2031...

We have become central Vancouver Island's pre-eminent outdoor recreation and nature-based tourism destination. Celebrating our iconic mountains, rivers, lakes, coastline and cultural resources, we offer residents and visitors, from near and far, memorable experiences in high quality, safe and well managed parks and trails that share our stories, those of our First Nations and our natural heritage. With easy walking access to quality parks and trails and a fully connected network of accessible multi-modal routes and trails, our residents have become more active more often as they engage in a diversity of outdoor pursuits. We are active stewards working collaboratively with our partners and First Nations to protect, enhance and celebrate our ecological network and sustain the flow of ecosystem services it provides us and our visitors. Through leading integrated resource management practices, our Municipal Forest Reserve has become a leader in effectively integrating sustainable forest harvesting, outdoor recreation, visual resource management, First Nations traditional use and conservation.

Proximity Matters...

Organizations like the NRPA have recommended that all residences should be within 800 m of a park.¹² In the United Kingdom, it is recommended that city residents have access to a natural green space of minimum 2 ha (4.9 acres) within a distance of 300 m (0.18 miles) from home.¹³ Another study, which looked at public open space, found that distance is indeed a major determinant of park use with most users being drawn from within a 500 m (0.31 miles) radius of the park.¹⁴

Plan Outcomes

To get us closer to realizing our vision, we will work to achieve the following goals through our parks and trails system:

MORE ACTIVE MORE OFTEN... IN NATURE

- Our parks and trails system will allow more residents to be more active more often while connecting with the natural world.

ACCESSIBLE & INCLUSIVE TO ALL

- Our network of parks and trails will be equitably distributed across the municipality and be designed to minimize barriers for those with mobility and other limitations. Currently 87% of residents in urban containment areas are within reasonable walking distance (400-500m) of parks. Our goal is to reach 95%.

ENHANCED, DIVERSIFIED & EXPANDED

- Enhance the quality of existing parks and trails by upgrading them with clear wayfinding and signage, and comfort and convenience amenities. The recreational opportunities available will be expanded and diversified to meet the needs of our residents and tourists.

PHYSICALLY CONNECTED

- Our parks and trails will be physically connected to one another, our neighbourhoods, destinations within the Municipality and to our regional neighbours.

CONSERVATION & ECOSYSTEM SERVICES

- Our parks will conserve and, where needed, restore the quantity, quality and function of natural habitats and ecosystem services while contributing to ecological connectivity within the region.

SHARED STEWARDSHIP & WELL MANAGED

- Our residents will be actively engaged as partners and shared stewards in the planning and management of our parks and trails system. Our parks and trails will be actively managed and maintained to ensure they provide visitors with a safe and memorable experience.

ECONOMIC GROWTH & DIVERSIFICATION

- Become central Vancouver Island's preeminent outdoor recreation and nature-based tourism destination.





MOVING FORWARD... STRATEGIES & ACTIONS

To achieve our vision and outcomes, the following strategies and actions have been identified and will be implemented to advance our parks and trails system to where we want to be. These strategies and actions have been informed by what we learned from our review of the trends, our evolving demographics, our needs assessment and the ideas our community, stakeholders and First Nation's raised during engagements.

- Expand, Diversify and Connect the System
- Enhance the System
- Realize the Potential of our Municipal Forest Reserve
- Keep Nature in our Future
- Actively Manage the System
- Spread the Word about the System
- Collaborate
- Sustain our Capacity

- ST** = SHORT TERM 0–5 YEARS
- MT** = MEDIUM TERM 5–10 YEARS
- LT** = LONG TERM 10–15 YEARS

Expand, Diversify & Connect the System

EXPAND & DIVERSIFY PARKLAND SUPPLY

As shown in the needs assessment, we have some gaps in our parks network. Acquisition of new parklands in these locations would help us ensure a more equitable distribution of parks throughout the Municipality providing for better access to our most prized outdoor recreation opportunities. Additional parkland supply affords us the opportunity to provide a greater diversity of visitor experiences; while expanding the network in key areas will improve protection for sensitive ecosystems, while enhancing local and regional habitat connectivity.

Strategy

What we will do!

Action

How we will do it?

Actions:

1. Work with partners and the development community to assemble land and dedicate new parks in priority areas (Figure 30), including:
 - MT** Community Park in Alderlea Commons. In alignment with the University Village Local Area Plan, this proposed linear open space will be multi-purposed to provide both active and passive recreation opportunities. It will also have a stormwater management component.
 - ST** Destination Mountain Bike Skills Park and
 - MT** Adventure playground at Mount Tzouhalem. Planning and design should follow the mountain bike skills park design guidelines from the International Mountain Bicycling Association (IMBA).
 - MT** Officially permit recreational use of a portion of the Crofton Lake watershed area. As this lake is the back-up water source for Crofton, detailed planning and stakeholder consultation will be required to determine appropriate use types and zones. Priorities include improved trail accessibility and wayfinding.
 - MT** Develop a detailed site plan for the parcel adjacent to the Maple Bay Fire Hall, which will balance the interests of hikers and mountain bikers.
 - LT** Natural Area Park at Richards Creek/Somenos Marsh area. Continue to partner with the Somenos Marsh Wildlife Society. The purpose of the park will be to provide wildlife viewing infrastructure (viewing blinds, viewing tower, etc), accessible pathways, interpretive program and signage, and biodiversity protection.



Figure 29 Alderlea Commons (University Village LAP 2015)



City of Victoria Cecilia Ravine Mountain Bike Skills Park



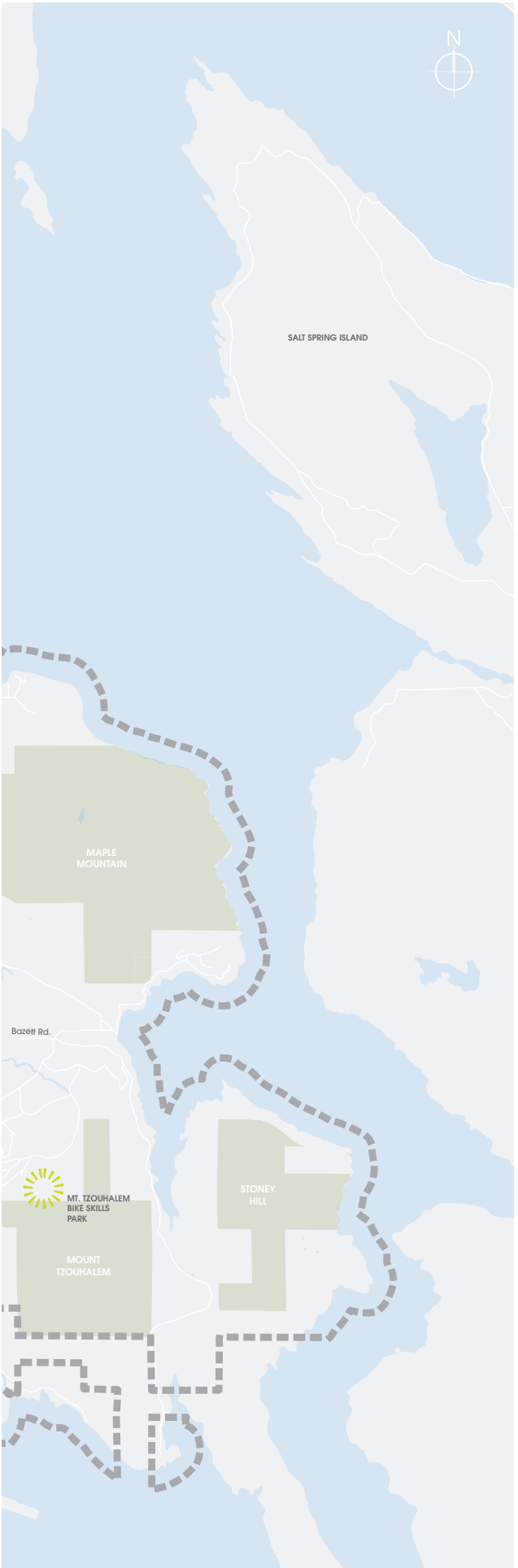
Goldstream Provincial Park Youth Mountain Bike Skills Park

2. Through collaborative partnerships, identify and pursue opportunities to establish community gardens/food forest in each Growth Centre within the Municipality, following a similar model as the Kinsmen Park Urban Youth Farm.
 - MT**
3. Undertake the preparation of collaboratively-developed plans to provide design, development and specific management direction for all new parks.
 - MT**
4. Work collaboratively with the Cowichan Valley Regional District to develop an outdoor recreation park for motor sports.
 - MT**
5. Pursue and support initiatives to implement temporary “pop-up places” including parks, plazas, markets and art displays in the urban cores of South End, Crofton, and Chemainus. Pop-up places can be sited in parking stalls, vacant public lots, streets and other unused public spaces. These temporary park spaces can provide fun, unique and appealing places for residents and visitors while building community.
 - ST**



Community Garden





LEGEND

- Municipal Forest Reserve
- Destination Park
- Other Area of Interest
- Skills Park
- North Cowichan Municipal Boundary

Figure 30 Priority Areas for Parkland

Community Amenity Contributions

Parks and Trails are community amenities. In general, the Municipality will seek to negotiate appropriate community amenity contributions to the parks and trails system on a site-by-site basis through the rezoning process. Alternatively, the Approving Officer will consider parkland dedication requirements through the subdivision process.

In such cases, the Municipality may choose, at its own discretion, whether to request land or cash-in-lieu. In general, the Municipality may prefer to assemble land, rather than cash-in-lieu when one or more of the following conditions exist:

- There is a gap in parks and/or trails supply as identified in this plan
- The current quantity and/or quality of land is unsuitable to meet the current or future needs of the community
- Residents will not be within a reasonable proximity to an existing park or trail

When considering the nature of the land to be assembled, the Municipality will prefer parcels of land that meet one or more of the following conditions where the land:

- Suitable and cost effective for the development of recreation amenities
- Enables completion of gaps in the Municipal trail system
- Within reasonable proximity to the populations they are intended to serve (e.g., 400m in growth centres)
- Contains proven ecological and cultural resource of importance to the green network and local and First Nation heritage



Pop-Up Places are temporary park places that are tactically used to convert underutilized street and urban spaces into vibrant community oriented places. These initiatives can breathe new life into spaces while bringing people together in fun, creative and invigorating ways.

EXPAND, DIVERSIFY & CONNECT OUR NETWORK OF OFF-STREET TRAILS

As shown in the needs assessment, many areas of the Municipality are not connected to the off-street trail system, and the system is often disconnected from key destinations. A number of key local and regional connections were identified during the engagement process. Important local destinations that the Municipality is working to connect include:

- Eves Provincial Park
- Stoney Hill Regional Park (CVRD)
- Somenos Marsh
- BC Forest Discovery Centre
- Cowichan Valley Trail

Actions:

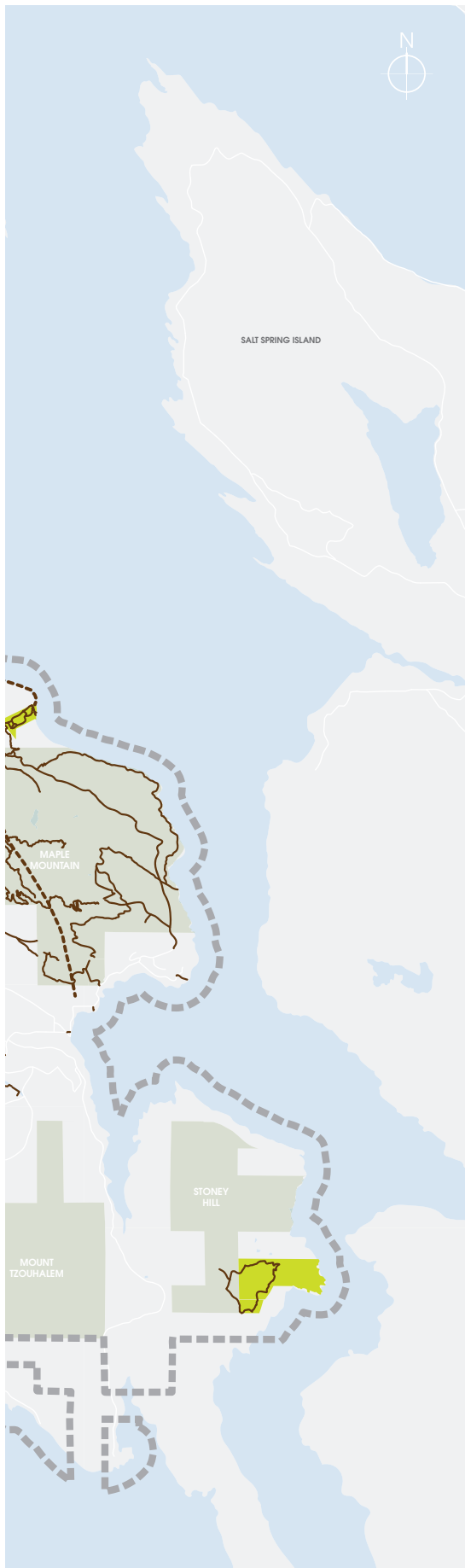
1. Complete the Crofton to Maple Bay trail connection over Maple Mountain utilizing existing forest access roads to the extent possible. Suitable for hiking, mountain biking, and equestrian use.
ST
2. Extend the Dike trail to the BC Forest Discovery Centre.
ST
3. Support the CVRD initiative to complete the Cowichan Valley Trail/Trans-Canada Trail.
ST
4. Work with private landowners to discuss a potential access strategy to connect Eves Provincial Park with Crofton Lake.
MT
5. Establish a new Nature trail at Bing's Creek near Falaise Rd – a possible candidate for "Pathways for Play" to infuse play and learning value into pathways.
MT
6. Address all gaps necessary to complete the Friendship Trail - notably Phillips to Sherman Rd. Ensure that an ecologically sensitive solution is implemented for the Bing's Creek crossing.
ST
7. Continue to support the CVRD's initiative to create a permanent staging area on Genoa Bay Road to provide trail access, via the MFR, to Stoney Hill Regional Park .
MT
8. Establish a trail connection from Mum's Park south to Calais Road.
MT
9. Establish a trail connection between Panorama Ridge and Chemainus Lake Park.
MT
10. Explore the feasibility of acquiring and developing the historic Lenora railway line from Eves Provincial Park to Crofton, as identified in the 2001 Trail Network and Cycling Plan.
MT



Pathways to Play Design Principles:

1. Infuse play and learning value into pathways
2. Create shared-use, inclusive pathways
3. Connect pathways to meaningful destinations
4. Locate pathways where children live
5. Apply appropriate themes for learning





LEGEND

- Municipal Forest Reserve
- TCT/CVT Operational Trail
- TCT/CVT Proposed Trail
- Interim TCT On-Street Route
- Existing Trails
- Proposed Trail Corridor
- Provincial Park
- CVRD Park
- North Cowichan Municipal Boundary

Figure 31 Off-street Trail Connectivity

EXPAND, DIVERSIFY & CONNECT ON-STREET MULTI-MODAL CORRIDORS

One of the key goals in expanding the on-street multi-modal corridor system is the establishment of community-to-community connections. These connections increase recreation opportunities while also creating alternatives for commuters. Key regional destinations (outside Municipal boundary) will also be better connected through multi-modal links (Figure 32, Figure 33, Figure 34).

These destinations include:

- Lake Cowichan
- Town of Ladysmith
- Salt Spring Island
- Cowichan Bay



Figure 32 Key Off-Road Connections

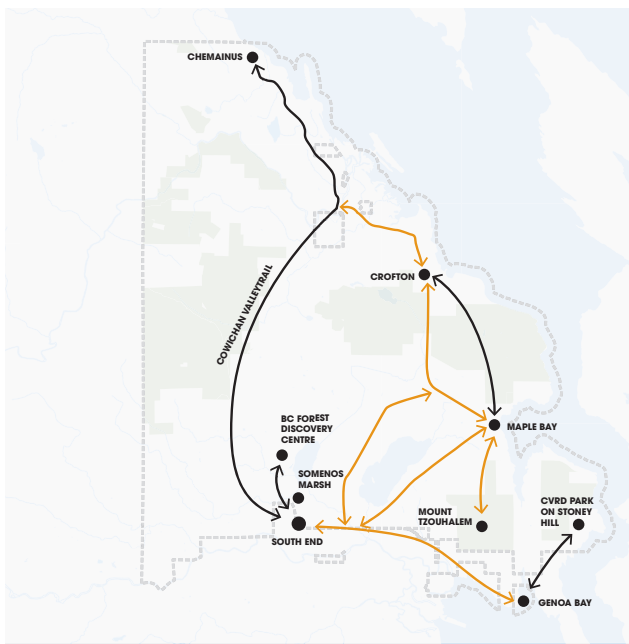


Figure 33 Key Multi-Modal Routes

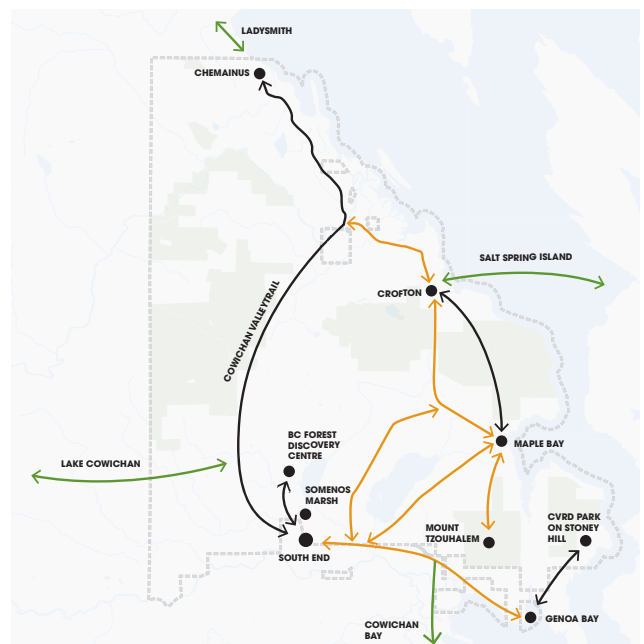
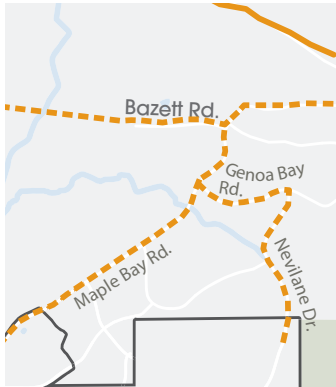


Figure 34 Regional Destinations

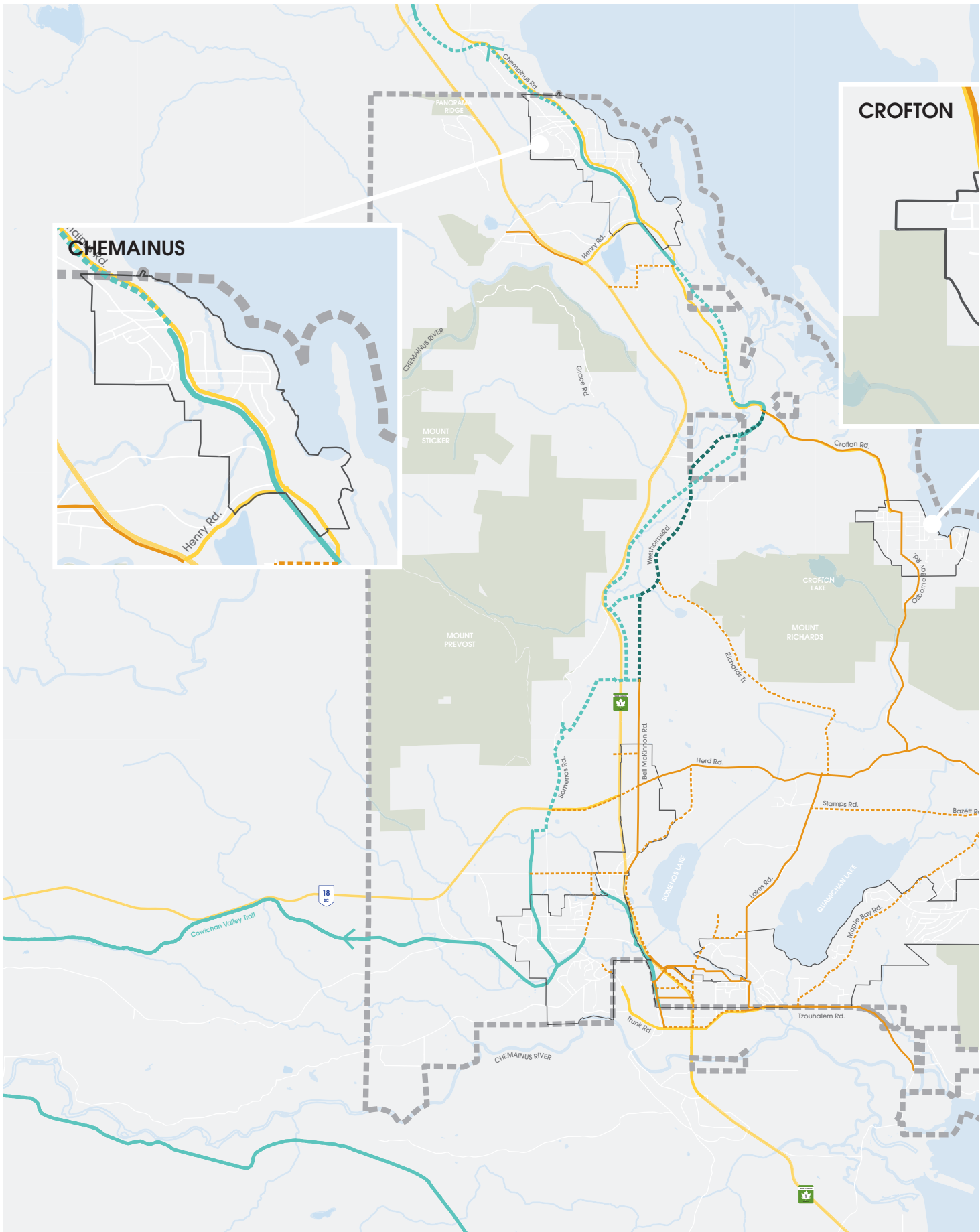
Actions:

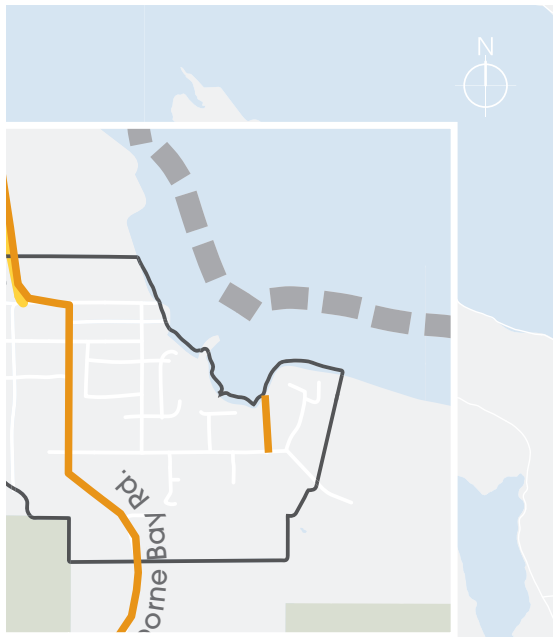
- 1. Establish an East – West multi-modal connection utilizing Herd Road, Stamps Road, and Bazett Road. This will necessitate a new trail connection in the existing road dedication between Stamps Rd and Bazett Rd. ST
- 2. Connect Maple Bay to Mount Tzouhalem via Nevilane Drive. MT
- 3. Establish Multi-Modal connections to the Trans-Canada Trail. ST
- 4. Connect Genoa Bay Road to Nevilane Drive. LT



Proposed Multi-modal Connections linking to Mount Tzouhalem via Nevilane Dr.

- 5. Connect Fuller Lake Park to the Cowichan Valley Trail via Cottonwood Rd and Crozier Rd. MT
- 6. Establish a multi-modal corridor on Tzouhalem Rd. MT
- 7. Connect to Chemainus Lake Park via a multi –modal corridor from Henry Rd. MT
- 8. Connect the gap in York Road across Somenos Marsh. LT





LEGEND

- Municipal Forest Reserve
- Enhancements to Multi-Modal Routes
- Proposed Multi-Modal Routes
- TCT/CVT Operational Trail
- TCT/CVT Proposed Trail
- Interim TCT On-Street Route
- North Cowichan Municipal Boundary

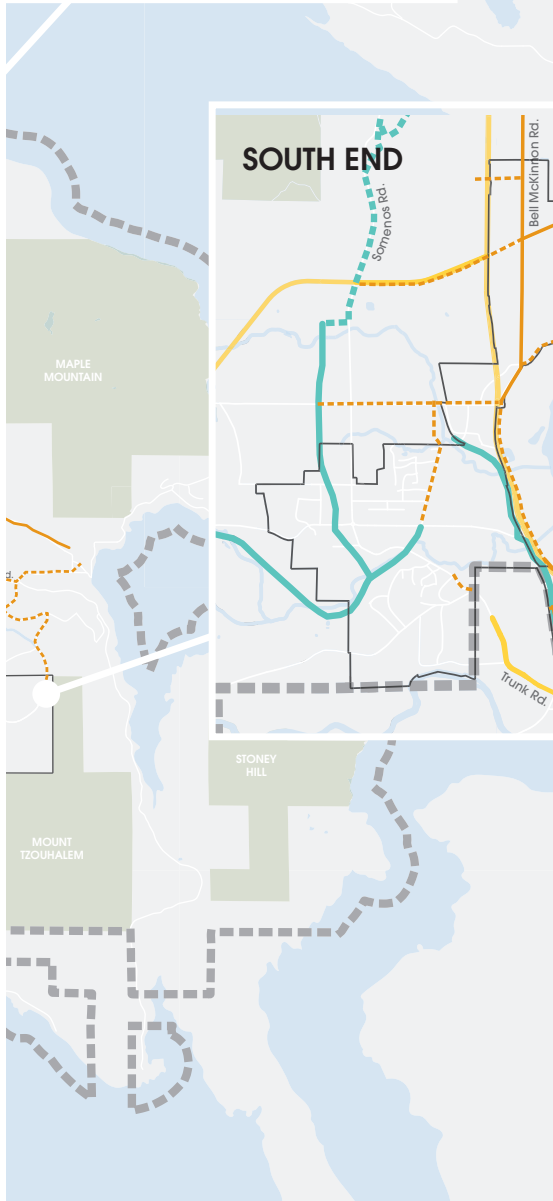


Figure 35 Priority Multi-Modal Routes

Enhance The System – Upgrades, Amenities & Programming

PARKS

The greater the diversity of park amenities, the more likely a park is to serve our residents' diverse needs. The park needs assessment found that 29% of residential parcels either have access to no park amenities or few amenities. These areas therefore lack the important amenities needed to support the diverse recreational needs of our community, from active and unstructured recreation to more passive recreation activities. While many of our parks contain a variety of park amenities, our planning carefully considers how park amenities can be more efficiently distributed throughout the Municipality to offer the diversity that our residents are looking for.

Actions:

1. Redevelop Fuller Lake Park into a Destination Park.
LT Undertake a more detailed park planning and design process to determine a community supported design. Consideration should be given to incorporating the following program elements:
 - Natural Playground & water play elements
 - Enhanced water access—swimming and boat launch
 - Amphitheatre/Event space
 - Picnic area
 - Enhanced comfort amenities such as washrooms and servicing
 - Concession(s)
 - Interpretive programming—e.g., lake ecology, fish habitat
 - Enhanced vehicle circulation and parking
2. Invest in improving the quality of parks that are below expectations; upgrade these parks to ensure they are meeting the current expectations of visitors. Emphasis should be placed on:
ST
 - Improving basic comfort and convenience amenities in all parks including washrooms, benches, wayfinding, signage, garbage and recycling containers and picnic areas
 - Improving the diversity and appearance of existing and future parks (e.g., more trees, lighting, natural areas, gathering areas, benches, water features etc.)
 - Spaces for social and cultural gatherings (e.g., picnics and concerts) and inclusion of infrastructure to support these gatherings (e.g., power, potable water)
 - Diversifying the recreational amenities available to respond to the community's need and desire for spontaneous recreation (e.g., exercise equipment in parks, pathways to play)

7 C's – Guide to Young Children's Outdoor Play Spaces¹⁵

The study found that children had quality outdoor play experiences in environments that had the following characteristics:

- Had elements for children to manipulate and make their own;
- Contained living things;
- Were sensitive to climate;
- Designed to the scale of the child;
- Allowed the child's imagination to shape the play experience; and
- Provided areas for children to play alone or in groups.

The Municipality will encourage future play space designs to integrate promising practices such as the 7C's, PlayEngland's "Design for Play", and the Natural Learning Initiative's "Nature Play and Learning Places" (2014).

3. Undertake a neighbourhood park revitalization program to enhance the quality and appeal of neighbourhood parks.
ST Current and anticipated local demographics should drive the redesign elements so that areas of higher population density and identified need are prioritized.
4. Initiate new playgrounds in the underserved areas to ensure all children have walking access to 'door-step' and 'local spaces' for play. Refer to the Playground Supply Assessment in Figure 36. Prioritize the upper portion of The Properties development, which is not within reasonable walking distance to a playground, especially considering the steep grade on which the community is situated. The development has a significant number of children (approximately 180).
ST

“Play England” Play Space Classification

Type A: ‘Door-step’ spaces and facilities for play and informal recreation

A small space, within sight of home, where children, especially young children can play within view of known adults.

Type B: ‘Local’ spaces and facilities for play and informal recreation

A larger space which can be reached safely by children beginning to travel independently and with friends, without accompanying adults and for adults with young children to walk to with ease.

Type C: ‘Neighbourhood’ spaces and facilities for play and informal Recreation

A larger space or facility for informal recreation which children and young people, used to travelling longer distances independently, can get to safely and spend time in play and informal recreation with their peers and have a wider range of play experiences.

5. Undertake a playground revitalization program to enhance the appeal, play value and quality of playgrounds. In general, play equipment in parks is ageing and some playgrounds appear to be near the end of their life cycle. Continue to conduct condition assessments of existing play structures and prioritize their replacement based on assessed condition and neighbourhood demographics. Play structures or surfaces where safety has been compromised should be prioritized. Refer to the CSA Standard for Children's Playspaces and Equipment (Z614-14).
 - MT**
6. As new playgrounds are planned and existing playgrounds are redeveloped, gradually shift the design guidelines to focus on the provision of natural playgrounds and incorporate natural play space design best practices. Pursue the development of a natural playground pilot project at Fuller Lake Destination Park.
 - MT**
7. In alignment with the park classification, continue to design, develop and manage parks to provide and enhance universal access to the extent practicable.
 - LT**
8. Develop a sustainable maintenance schedule and plan for each park to ensure adequate time for mowing, cleaning of washrooms and guidance on pruning and other plant management, as well as aeration of grass. Ensure adequate tools and equipment to meet established landscape maintenance standards.
 - ST**
9. Work with Cowichan Tribes, Halalt and Penelakut First Nations, historical societies, conservation organizations and other partners to develop and deliver a visitor experience programming strategy for the Municipality's major parks and trails. Content could focus on educating visitors about:
 - MT**
 - Coastal Douglas Fir, aquatic and marine habitats and species at risk
 - Ecosystem processes
 - Ecological restoration initiatives
 - First Nations history, cultural practices and stories
 - Archaeological sites
 - History of North Cowichan
10. Work with partners to make visitor programming available through new and evolving technologies such as smart phones and web or App based programs and virtual reality.
 - MT**
11. Formalize a joint-use agreement with School District 79 to allow public access to school playgrounds during school hours. Collaborate with SD79 on planning and design of new playgrounds.
 - ST**

Best Practices for Creating and Retrofitting Play Environments¹⁶

- Conserve topographical variation as an existing site feature or create playful topography by design
- Connect the playground area to and existing park trail or local trail system
- Conserve existing mature trees as they add shade and aesthetic quality to the site
- Promote accessibility and usability for individuals that have physical, communication, social/motional, sensory and cognitive needs
- Integrate planting pockets
- Use wheelchair accessible safety surfaces like Engineered Wood Fibre (EWF) or poured-in-place rubber
- Include elements for hands-on water play



Play Structure at Art Mann Park

Criteria for Playground Provision

As our current supply of playgrounds is, for the most part, equitably distributed throughout the municipality and well positioned to serve areas with higher density of children, provision of new playgrounds is not a major priority. Instead, focus will be on reinvesting in our existing playground supply.

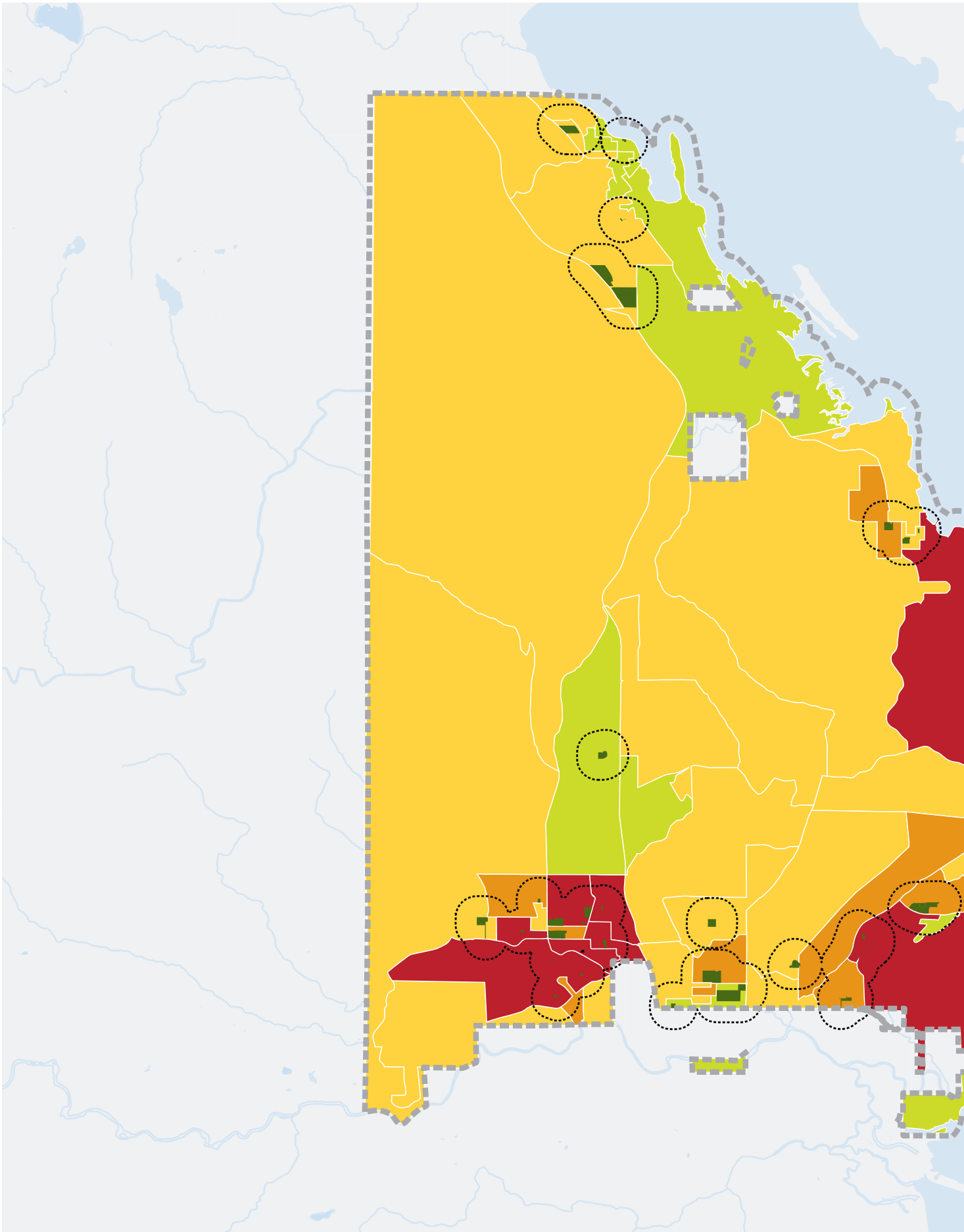
However, it is recognized that instances may arise where new playgrounds may be required or cost sharing opportunities with schools may present themselves. To guide us in those decisions, the following criteria will be used to evaluate the need:

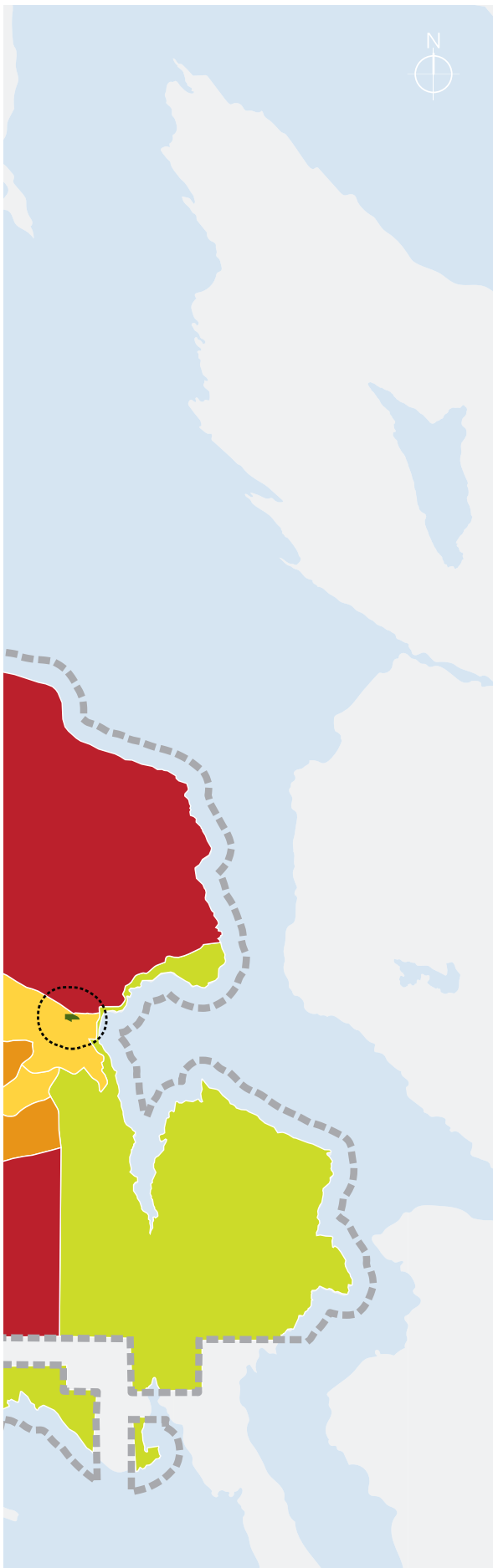
- The playground would address a gap identified in this plan
- There is no playground within 400m (in urban areas) of the neighbourhood
- Quality of existing playground in the neighbourhood is below expectations
- Existing playground space is insufficient to meet the contemporary needs of the neighbourhood
- The neighbourhood contains or is expected to contain a high density of children

Playground Supply Assessment

Quality, interesting and appropriately designed playgrounds need to be located near our children. In order to determine priority areas for new playgrounds, we determined where the highest percentage of the Municipality's child population lives. As most playgrounds are designed for ages 2-12 years, data representing children aged 0-14 years were reviewed and summarized by dissemination area. Representing a measure of walkability, a buffer of 400m was placed around each playground to identify which residential parcels are within walking access to a playground.

As shown in Figure 36 the Municipality is generally well supplied with playgrounds in the residential areas with the most children. However the assessment reveals that The Properties development may be currently under-served. Though playgrounds are well distributed within the Municipality, rapid on-site conditions assessment revealed that playgrounds are aging, may not reflect best practice designs and some are approaching the end of their functional life. Concerted re-investment efforts will be needed within the planning horizon.





LEGEND

Age Cohorts 0–12 Years of Age

0–50

50–100

100–150

150+

Parks & Schools With Playgrounds

400 m Playground Buffer

North Cowichan Municipal Boundary

Figure 36 Playground Assessment

TRAILS (OFF-STREET)

Actions:

1. In alignment with the trail classification, continue to design, develop and manage trails to provide universal access to the extent practicable, so that trails may be enjoyed by people of all ages and abilities. Implement barrier-free design standards for:
 - Trail access grades
 - Edge protection for safety
 - Tactile strips and guides
2. Continue to implement a scheduled trail inspection and maintenance program including:
 - Surfacing
 - Drainage
 - Vegetation maintenance
3. Development/improvement of major trailheads with improved comfort amenities for visitors:
 - Washrooms
 - Site furnishings including benches and picnic tables
 - Potable water
 - Garbage and recycling containers
 - Doggy bag dispensers
4. Upgrade the Dike trail to a paved, fully accessible multi-use pathway.
5. Encourage local stewardship, trail activity based businesses and groups to undertake education based events on the trails and to participate in trail promotion activities:
 - Adopt-A-Trail Partnerships
 - Trail Stewardship Teams
 - Interactive Trail Inventory
 - Public Volunteer Trail Events
 - Sponsored Events
 - Public campaign initiatives and trail etiquette education
6. Conduct Crime Prevention Through Environmental Design (CPTED) audits to determine where site specific actions may be required. Utilize the CPTED principles:
 - Natural Surveillance—provide unimpeded sightlines through techniques such as vegetation thinning and pruning
 - Territorial reinforcement—to ensure that public space is distinguished from private space through signage or surface treatment
 - Natural Access Control—clearly signal trail access and egress points to guide users through appropriate means such as fencing or hedging



Friendship Trail

The Universal Trail Assessment Process (UTAP)

The UTAP is a tool that may be used to monitor, improve, and document any outdoor path of travel. Data collected during an assessment can also be provided to trail users for specific conditions, such as grade, tread width, features, obstacles, and trail surface.

The Five Access Characteristics used in the UTAP assessment are:

- Grade
- Cross Slope
- Width
- Surface
- Trail Length

ON-STREET MULTI-MODAL CORRIDORS

1. Upgrade the multi-modal corridors along Lakes Rd, Herd Rd, Osborne Bay Rd, and Bell McKinnon Rd to at least the Class 3 standard described in Trail Classification & Difficulty.
MT
2. Install temporary signage on Bell McKinnon/Westholme/Cheminus Road designating the route as interim CVT/TCT on-road route connection in support of the TCT's goal to connect the TCT from coast to coast to coast by 2017. This route will be temporary only, while the CVRD establishes the "Northern Completion Initiative".
ST
3. Improve the Crofton to Chemainus connection to at least the Class 3 standard described in Trail Classification & Difficulty.
LT
4. Install bike maintenance station facilities at key areas along the cycling routes.
ST
5. Improve the Tzouhalem Rd to Cowichan Bay connection to at least the Class 3 standard described in rail Classification & Difficulty.
MT

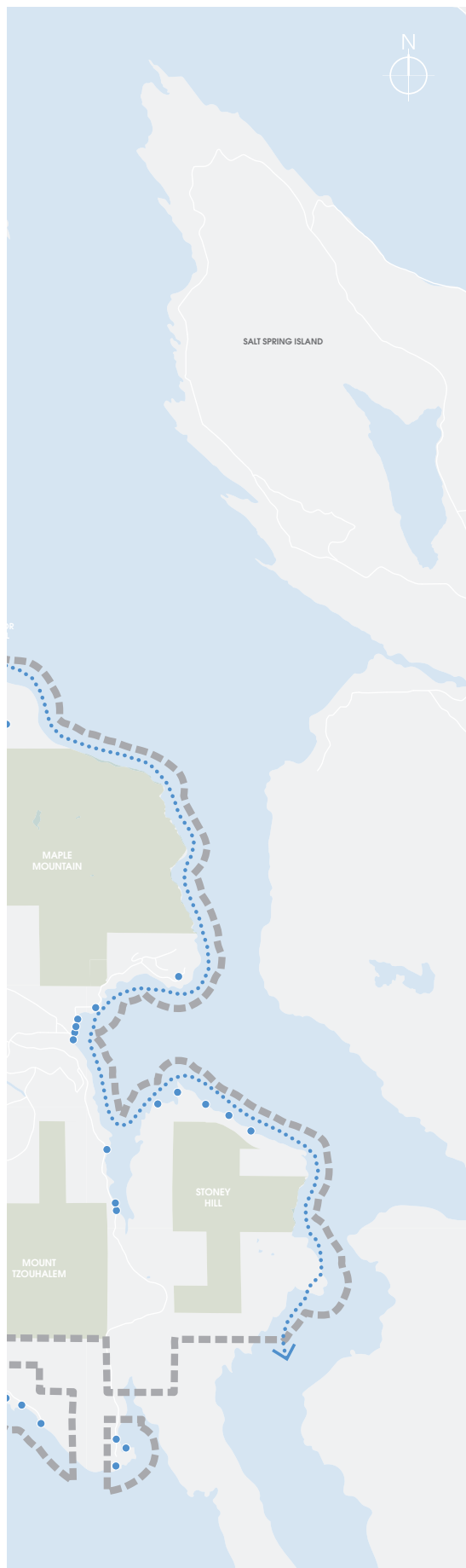
WATER BASED OUTDOOR RECREATION OPPORTUNITIES

The Municipality has an abundance of opportunities for water based recreation (Figure 37). The rugged and diverse coastline offers opportunities for sea kayaking and boating, while the Chemainus River is internationally known for white water paddling. Several lakes in the Municipality offer further opportunities for canoeing, kayaking and swimming.



Roadside Bike Maintenance Station (Example)





LEGEND

- Municipal Forest Reserve
- Water Access
- Water Routes
- Camping
- North Cowichan Municipal Boundary

Figure 37 Water-Based Recreation Opportunities

Actions:

1. Work with Municipal partners and adjacent jurisdictions to develop a connected and themed coastal marine trail that features unique parks, sites and visitor experiences along the coast. Undertake the development of a Marine Trail Strategy to identify the network of visitor experiences, amenities and overnight accommodations for paddlers such as campgrounds at Maple Bay and Osborne Bay.
LT
2. Building upon the success of the Crofton Seawalk, work with partners to develop a Chemainus Seawalk.
ST
3. Whitewater rafting and kayaking opportunities exist at Copper Canyon and other areas of the Chemainus River. The Municipality will work with the Halalt First Nation, Cowichan Valley Regional District and the paddling community to create a seamless paddling experience on the Chemainus River that respects the cultural and ecological values on the river. Working with these partners, the Municipality will provide managed access and egress opportunities off of Grace Road and at the Chemainus River Park which will be promoted as the terminus of the paddling route. Basic improvements, which may include washrooms, change rooms, signage, and day use amenities will be provided at the access and egress points.
MT
4. Develop interpretive water trails and paddling experiences around Quamichan and Somenos Lakes including enhanced public access and amenities to support access (e.g., docks).
ST
5. Develop and install branded signage and recognizable gateway features identifying public water access points, as well as signage on the local roads identifying the water access (Example shown in Figure 46).
MT



Quamichan Lake viewed from Art Mann Park

Interpretive water trails are routes on navigable waterways such as rivers and lakes that foster an interactive recreation and education experience. Signage posted on land or on bridge crossings highlight themes related to the waterway. A companion guide may provide a more detailed presentation of the material in addition to acting as a more conventional water trail guide with maps, put-in points, take-out points, rest stop locations, paddling conditions, etc.



Quamichan Lake viewed from Art Mann Park



Figure 46 Coastal Water Access Trailhead Kiosk (California example)

DOG OFF-LEASH PARKS

In the Municipality, “off-leash areas” refer to unfenced portions of parks where leashes are not required. These areas may include trails. “Dog parks” are fenced areas designated exclusively for dogs, as with Somenos Dog Park.

Actions:

1. Expand the supply of dog off-leash parks the Southern areas of the municipality (see Figure 38). Designate new dog off-leash areas where dog ownership is moderate to high and current walking access to off-leash parks is limited. ST
2. Enhance the quality and appeal of off-leash parks for both dogs and dog owners. Include the following amenities at dog off-leash parks: ST
 - Ensure dog bag dispensers and waste disposal bins are available at all sites, and collect waste regularly.
 - Ensure full perimeter fencing is in place. Minimum required fence height is 1.5m (5’).
 - Provide drinking water for dogs.
 - Utilize double-gated entries for user safety, and multiple entry points where feasible.
 - Clearly post off-leash area rules in a least one location at each site to ensure that they are visible by all park users.
 - Install site furnishings including seating, shelter, and lighting where feasible.
 - Incorporate appealing walking trails where feasible.
 - Implement a maintenance plan for each site.
 - Encourage “self-policing” and have a designated method (e.g., smartphone app) to report violations.
 - Adopt and post a “Code of Conduct” at each site.

The map compares the number of registered dogs in each community with the size (ha.) of existing off-leash dog parks. It is clear that—with 684 dogs per hectare—the greatest demand for new dog park space is in the Southern area of the municipality. ➔

Off-leash Park Site Selection Criteria

- Informed by public consultation
- Avoid poorly drained soils
- Estimate and consider development costs
- Ensure vehicle and maintenance access
- Avoid environmentally sensitive areas in site selection.

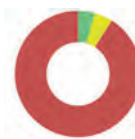


Osborne Bay Park - Off Leash Park



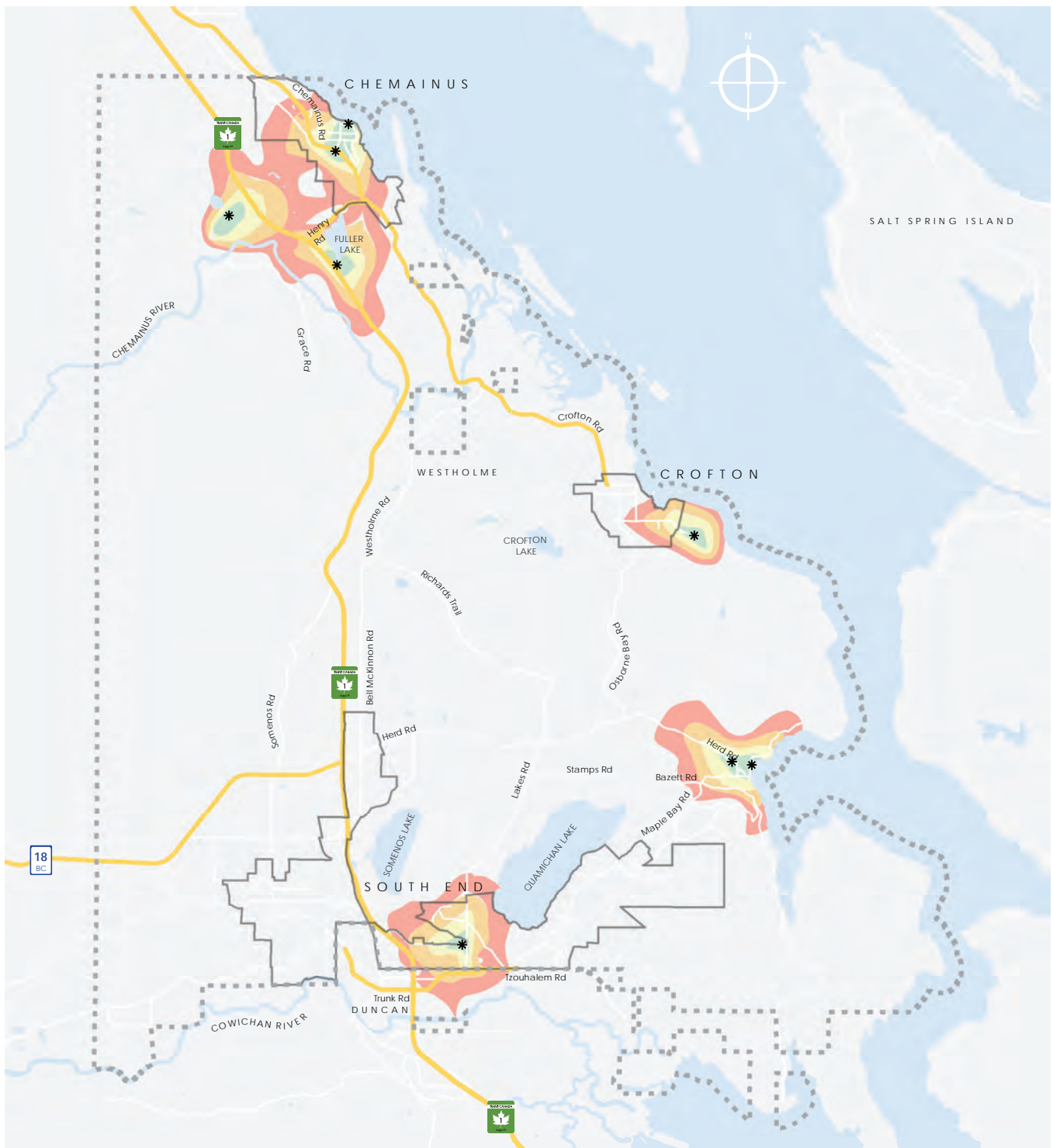
Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- Dog Park Locations
- Greater Chemainus Area
- Greater Crofton Area
- Greater Duncan Area



- Chemainus - 12 Dogs/Ha
- Crofton - 11 Dogs/Ha
- Southern Region - 684 Dogs/Ha

Figure 38 Off-leash Dog Park Demand



Legend

- MNC Boundary
- Urban Containment Boundary
- Major Road
- Minor Road
- Rivers | Lakes | Ocean
- * Dog Park Locations
- 400m Walking Distance of a Dog Park
- 800m Walking Distance of a Dog Park
- 1,200m Walking Distance of a Dog Park
- 1,200m - 1,600m Walking Distance of a Dog Park

Figure 39 Off-leash Dog Park Accessibility

← The map shows existing dog off-leash parks (including seasonal) and associated walking distances (400–1,600m).

Enhance Outdoor Recreation & Tourism In Our Municipal Forest Reserve

At 25% of the Municipality's land base, we have an amazing network of Municipal Forest Reserve. Established in 1946, the Municipal Forest Reserve has been managed under a multiple use management philosophy in accordance with the Forest Development Plan (2003). The Municipal Forest Reserve is managed to protect water quality and fish habitat, conserve soil productivity, grow trees for harvesting and facilitate outdoor recreation. In recent years, the MFR has experienced a dramatic increase in outdoor recreational use. Demands for additional infrastructure and amenities to provide the desired outdoor recreational experiences (e.g., mountain bike trails and staging infrastructure) are growing as are the concerns over ecological impacts, visitor conflicts and trespass on adjacent lands. The growth in outdoor recreation in the MFR has also placed significant added strain on both Municipal staff and available capital and operational budgets. Current staffing and operational and capital budgets are not positioned to keep pace with the growth of current outdoor recreational use in the MFR.

Though we are facing growing challenges with outdoor recreation, we have heard from the community that there is great opportunity with the MFR. With the growth in outdoor recreation and nature-based tourism, there is an opportunity to enhance the quality of life of our residents, make the Municipality even more appealing to potential residents and businesses, diversify the economic benefits the MFR brings to the community and better manage the outdoor recreational use to avoid or mitigate impacts to the MFR's environmental and cultural values.

GOING FORWARD

The Municipal Forest Reserve will continue to be managed to achieve multiple resource objectives including:

- Protecting water quality and quantity
- Protecting biological diversity
- Protecting sensitive ecosystems and habitats such as the Garry Oak Ecosystems
- Maintaining wildlife and fish habitat
- Sustainable forest harvesting
- Continuing First Nations traditional uses and protecting First Nation sacred sites and cultural resources
- Continuance of recreational and subsistence hunting

What will be different?

Though outdoor recreation and nature-based tourism has been a management objective in the past, we will enhance our focus on developing an appealing network of outdoor recreation and nature-based tourism experiences within our MFR. Through the application of leading integrated resource management practices, enhanced municipal staffing and resourcing and collaborative partnerships with First Nations and outdoor recreation and conservation organizations, the MFR will enable our municipality to become one of Vancouver Island's sought after mountain biking, hiking and whitewater paddling destinations while serving as an example of how to effectively integrate forestry operations and conservation with high quality outdoor recreation and tourism experiences. Though the MFR will become known for its mountain biking, hiking and white water paddling experiences, it will also support equestrian experiences and, in some areas, motorized recreation on designated roads and trails. These outdoor recreation experiences will be supplemented with opportunities for users to learn about and experience local First Nation culture as well as nature interpretation.

This added emphasis will:

- Improve the integration of forestry, conservation, First Nations and outdoor recreation and tourism values.
- Diversify our economy and the economic benefits our Municipal Forest Reserve provide the Municipality.
- Enhance quality of life for residents.
- Enhance the attractiveness of the Municipality to business investors and skilled labour.

Our MFR is diverse and so too are the demands of residents and visitors who visit the reserve. To appeal to as many different residents and visitors as possible, attention will be paid to ensuring each unique area of the reserve offers a suite of unique resident and visitor experiences that reflects and celebrates its ecological sensitivities, physical characteristics, history and First Nations stories and cultural sensitivities.

The focus for each Municipal Forest Reserve will be:

- **Mount Tzouhalem**—provide cross-country mountain-biking and hiking experiences for all abilities
- **Maple Mountain**—provide more advanced all-mountain biking and hiking experiences as well as equestrian experiences
- **Stoney Hill**—provide inland and coastal hiking experiences that connect residents and visitors through the MFR to Stoney Hill Regional Park
- **Mount Richards**—provide hiking experiences for all abilities, as well as equestrian experiences
- **Mount Prevost**—provide more advanced downhill, shuttle based, mountain biking experiences for intermediate to advanced riders; as well as hiking experiences
- **Mount Sicker & Copper Canyon**—enhance whitewater paddling experiences

North Cowichan's Municipal forest Reserve is home to some of the best downhill mountain bike riders in the world. Stevie Smith, formerly ranked second in the world Downhill Mountain Bike circuit, got his start on trails of Mount Prevost.

The MFR hosts multiple mountain biking events for various disciplines each year including the Island cup race series:

- Mount Prevost Enduro
- Maple Mountain XC 6

The reserve also hosts other race series such as the Mt Tzouhalem GutBuster which is part of the Vancouver Island Trail Running Series.

Actions:

To advance this renewed vision for the Municipal Forest Reserve, we will:

1. Develop the necessary supporting visitor infrastructure and amenities at key staging areas in each MFR such as:

- MT**
 - Branded gateways/entrances
 - Sufficient parking
 - Washrooms
 - Bike Wash Stations
 - Bike Parking
 - Picnic Tables
 - Day Use Shelters
 - Signage
 - Water access and paddling support amenities
- 2. In partnership with the Cowichan Valley Trail Stewardship Society, First Nations, Tourism Vancouver Island and other partners, prepare detailed trail development plans within each Municipal Forest Reserve. The purpose of the plans are to:
 - MT**
 - Engage First Nations prior to detailed trail network planning in order to avoid large tracts of traditional use and culturally-sensitive areas
 - Identify the desired future trail network. Unauthorized trail construction is prohibited.
 - Identify authorized parking and staging areas.
 - Plan approved connections from Municipal lands to adjacent lands (e.g., Nature Conservancy of Canada and British Columbia Provincial Parks). Pursue cooperative agreements where trail connections and visitor experiences cross boundaries.
 - Identify the location, style and design of technical trail features.
 - Identify the location of bridges, river crossings and other necessary trail infrastructure necessary to avoid/mitigate ecological and cultural impacts.
 - Identify current trails to be decommissioned and restored to avoid ecological impacts as well as conflicts and trespass onto adjacent lands including unauthorized trespass onto First Nation reserve lands.
 - Determine the location of wayfinding and signage including installation of signs to advise users of boundaries with local First Nation Reserve and to communicate to the public that traditional First Nations uses are taking place.



Mountain Bike Wash Station

3. Develop new visitor trip planning tools including maps, websites, and downloadable track logs.
 - MT**
4. Integrate the future trail plans into the Forest Development Plan. Ensure forest harvest sequences, trails and trails features are integrated during harvesting operations. Where avoidance isn't reasonably possible, work to minimize the disturbance to the trails from harvesting operations and maintain trail connectivity.
 - LT**
5. Examine the appropriateness and feasibility of private sector investment in the MFR such as:
 - MT**
 - Developing visitor accommodations such as comfort camping, camping and cabins.
 - Concessions to service visitors such as rentals, repairs, food and refreshments.
6. In response to ever growing popularity of motorized recreation and the potential tourism benefits that can come from motorized recreation, the Municipality of North Cowichan will encourage the Cowichan Valley Regional District to lead the planning, design, development and management of a regional motorized recreation park. The park should be sited, designed and managed to mitigate impacts related to noise, user conflicts and environmental impacts. Efforts should be taken to coordinate and integrate motorized recreation trail planning with the decommissioning of forestry roads. Motorized vehicles are prohibited in the MFR.
 - LT**

7. In accordance with the BC Visual Resource Management procedures, update the Visual Landscape Inventory and establish visual quality objectives to maintain the visual quality of each Municipal Forest Reserve.
 - LT**
8. In response to conflicts between recreational user groups in the MFR, foster communication between user groups, educate users, and install signage that clarifies regulations and promotes respect for other recreational users. Site-specific trail design and management options will be evaluated, implemented and monitored. Alternative forms of recreation to mountain biking will be promoted and enhanced on Mount Richards, Mount Sicker, and Stoney Hill.
 - ST**



Maple Mountain Branded Gateway Feature

Keep Nature In Our Future

Within the Municipality, an essential green network of wetlands and well-vegetated and well-connected land operates within the growth centres and the rural countryside to provide essential ecosystem services. The network includes formally protected areas such as ecological Reserve, parks and those areas conserved through the stewardship of private lands and working landscapes (farms, forests). The green network differs from simple open space because it is multi-functional, providing environmental /ecological services as well as economic benefits and scenic or cultural amenities where appropriate.

The key elements of North Cowichan’s “Green Network” of ecological infrastructure (Figure 40) consist of:

- Wetlands: important for water storage, flood control, groundwater recharge, specialized wildlife habitat
- Riparian Corridors: the vegetated areas adjacent to rivers and streams that maintain water quality.
- Environmentally Sensitive Areas: Recognized as vital to biodiversity and ecological processes
- Chemainus River Regional Corridor: A linear network of private and public open space that provides habitat connectivity and watershed conservation.
- Steep Slope ecosystems (greater than or equal to 30 degrees): sensitive areas that provide habitat for small vertebrates.
- Large forest patches

The Green Network provides the following ecosystem services:

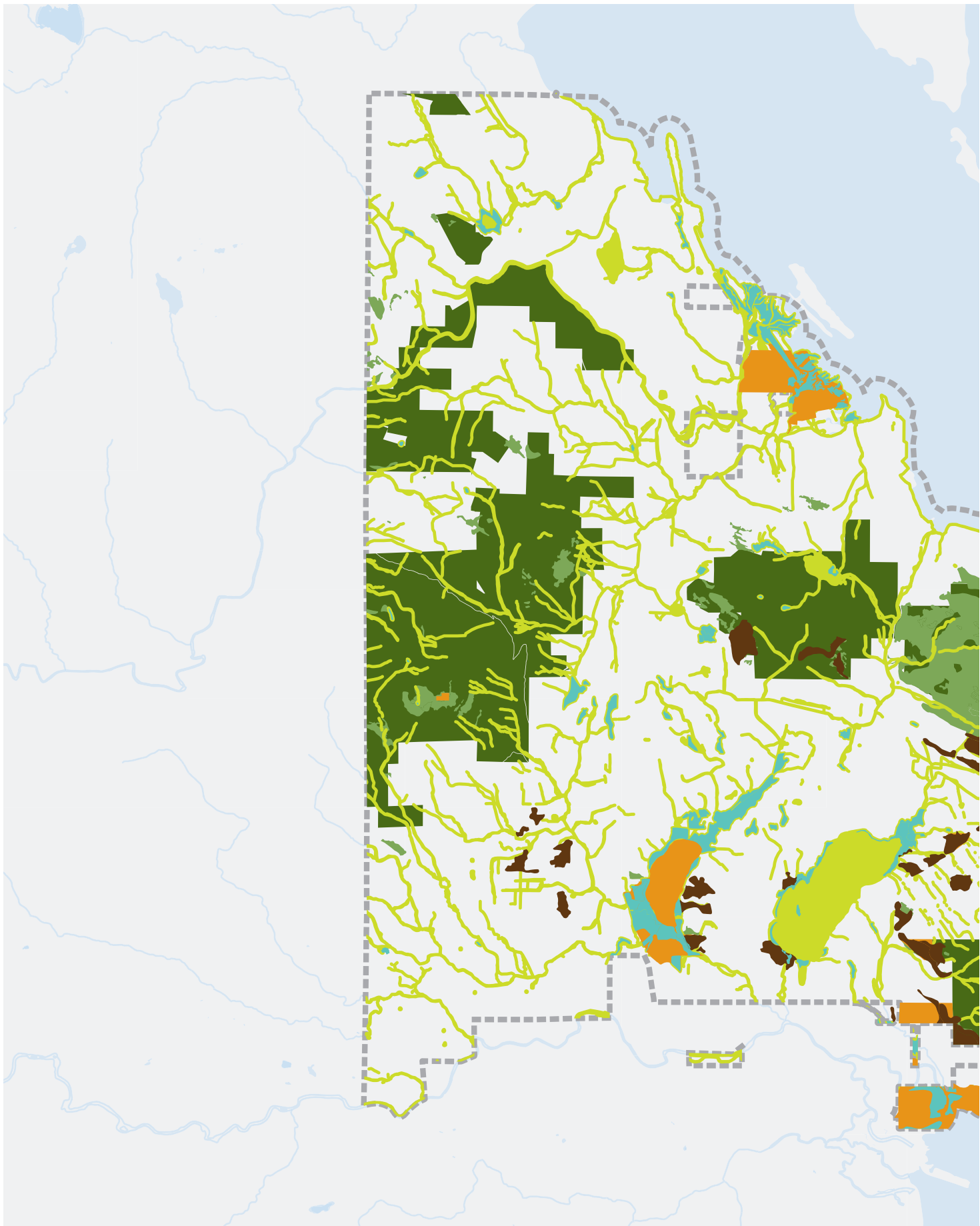
- Conserving and recharging water supplies
- Managing peak flows and providing flood control
- Filtering and conveying storm water runoff
- Fostering and conserving biodiversity
- Allowing wildlife to move across the landscape
- Recycling of nutrients
- Removing particulates pollution from the air
- Absorbing other gaseous pollutants
- Reducing greenhouse gases by sequestering and storing CO₂
- Moderating the heat island and other climate change impacts



Beaver

Actions:

1. Protect the Green Network of Ecological Infrastructure
LT
2. Work with conservation partners, including the Cowichan Valley Naturalists' Society, Cowichan Land Trust, Quamichan Stewards, and Somenos Marsh Wildlife Society, to assess ecologically sensitive areas and ensure that trails and other outdoor recreation opportunities in areas of high conservation importance avoids, or mitigates, impacts to ecological values.
ST
3. Continue to conduct ecological assessments of all parks that contain lands of conservation importance. Develop policies and plans for the management and monitoring of ecological values in these parks.
MT
4. Work with conservation partners to identify and prioritize areas for restoration within existing and future natural area and other parks. Develop, and as feasible, implement restoration plans.
MT
5. Actively manage recreational use (see Actively Manage the System) within parks and Municipal Forest Reserve to avoid or mitigate visitor impacts on ecological values.
ST
6. Educate parks maintenance staff about the ecological values in parks and appropriate management practices to sustain those values.
ST
7. Enhance opportunities for visitors to learn about our biodiversity, ecosystem and ecosystem services through visitor education programs (e.g., interpretive signage, interpretive programming, online information etc.).
MT
8. Encourage the design and construction of new park buildings and facilities that achieve energy efficiency. Work towards a program standard such as Leadership in Energy and Environmental Design (LEED) Green Building Rating System.
LT





LEGEND

- Environmentally Sensitive Area
- Wetlands
- Garry Oak
- Ecological Wildlife Reserve
- Riparian Corridor
- Municipal Forest Reserve
- North Cowichan Municipal Boundary

Figure 40 Green Network

Actively Manage the System

Our parks and trails attract tens of thousands of visitors each year. We are committed to providing safe and memorable visitor experiences but we are also committed to balancing those opportunities the need to protect the plants, animals and ecosystems that we have within our community. Visitation can, at times, lead to undesirable environmental impacts, visitor conflicts and effects on the visitor experience. The community has expressed concern about the potential environmental damage that can occur with growing visitation. The community was clear that visitor use of our parks and trails needs to be actively managed to ensure a quality visitor experience and minimal negative impacts to environmental values.

The most effective approach to managing visitor impacts is through the application of a comprehensive visitor management program consisting of:

- Effective engineering and design;
- Proactive educational programs;
- Timely and targeted enforcement in problem areas; and
- Ongoing monitoring and evaluation.

Good planning and management decisions require good data and information. Understanding visitation to and within our parks and trails is vital to a sound visitor management program. We know that we need to better understand who is using our parks and trails, when, where, how and how often. In addition, tracking our current resourcing and budgets and projecting needs for future resourcing and budgets is essential to maintaining an effective level of service for our residents.

VISITOR MANAGEMENT

DIRECT STRATEGIES

- Rationing use based on carrying capacities
- Activity restrictions/prohibitions
- Site closures – temporary and/or permanent
- Enforcement officer presence
- Enforcement

INDIRECT STRATEGIES

- Infrastructure design and/or alterations
- Visitor information & education programming through the Leave No Trace program
- ParkWatch/Steward Program

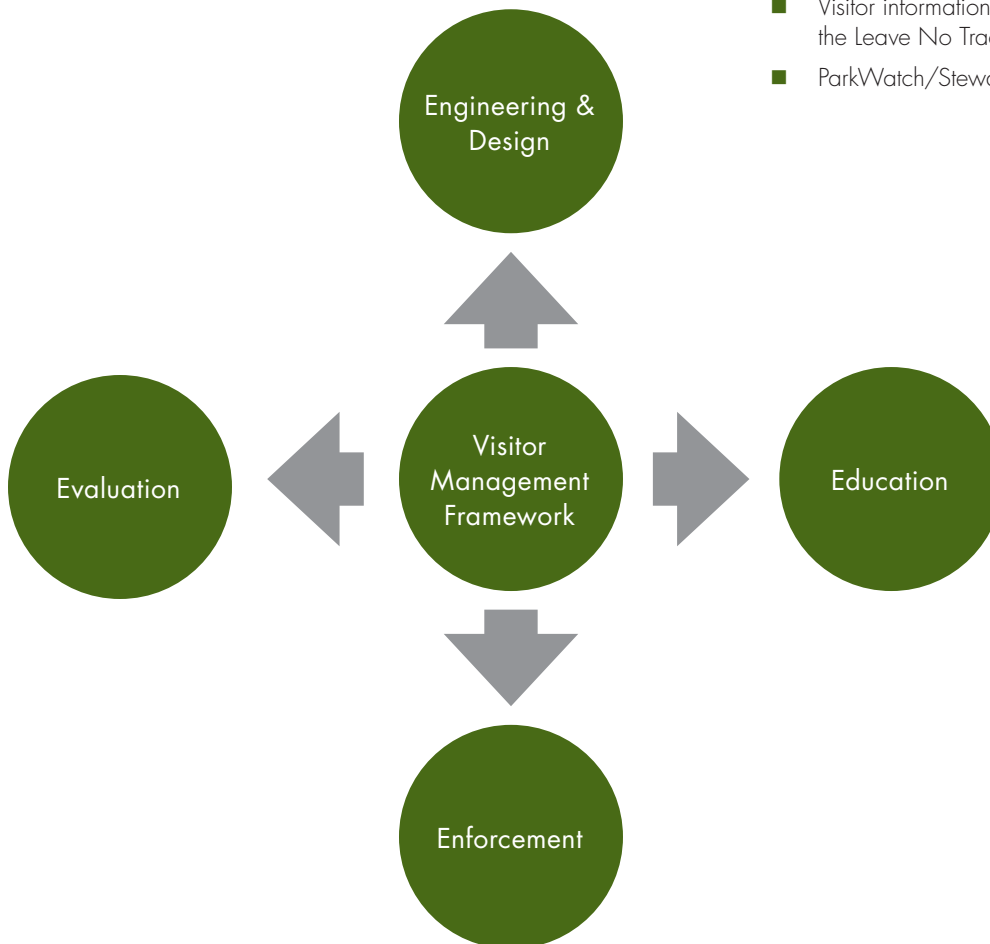


Figure 41 Visitor Management Framework

Actions:

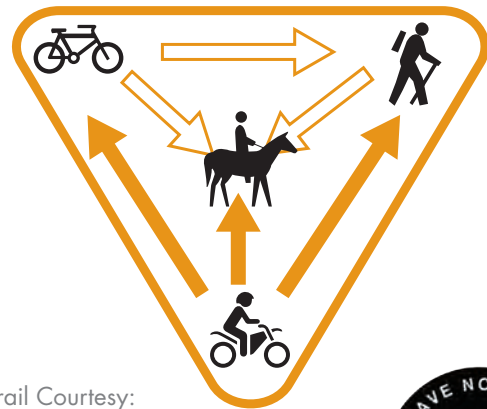
1. As necessary, the Municipality will apply the full range of direct and indirect visitor management strategies to proactively avoid and/or manage environmental and social impacts in parks, trails and in the Municipal Forest Reserve.
ST
2. Maintain an up to date spatial inventory of parks and trails assets. Consider the acquisition or development and deployment of a GIS based mobile asset management program that is capable of tracking the supply of assets and servicing at each asset and its condition, characteristics, maintenance backlogs and maintenance reports.
MT
3. Design and implement a visitor monitoring/counting program for parks, trails and the Municipal Forest Reserve using TrafX or other similar visitor counter tools. The purpose of the program is to identify trends in use, collect comparative data over the long-term, support and direct compliance efforts and to assist in measuring the success of future capital projects as they are implemented.
ST
4. Recognizing limited resourcing, partner with bylaw enforcement, RCMP, recreational organizations and others to augment the resources available to implement targeted visitor education campaigns promoting responsible, safe and lawful use of parks, trails and the MFR. Focus on recurring compliance problems such as illegal dumping, vandalism, off-leash use and failure to clean up after pets. The start of the summer and long-weekends are priority periods for these efforts.
ST
5. Adopt the Leave No Trace program and integrate the program's educational materials into all visitor information, signage and other communication tactics.
ST

Potential biophysical impacts:

- Vegetation and habitat damage
- Wildlife harassment & encounters
- Erosion and soil compaction
- Water pollution
- Waste disposal

Potential visitor experience impacts:

- Crowding
- Conflict between users
- Aesthetics



Trail Courtesy:
Yielding Guidelines



Leave No Trace

Leave No Trace is a national non-profit organization dedicated to promoting and inspiring responsible outdoor recreation through education, research and partnerships. Leave No Trace builds awareness, appreciation and respect for our parks and natural areas. www.leavenotrace.ca

6. Adopt or develop a Trail Etiquette program to clearly educate trail users about respectful use of trails and the yield hierarchy for multi-use trails and other trail use best practices.
ST
7. Review the financial procedures and coding processes related to tracking parks and trails maintenance expenditures and revenue generation. Ensure expenditures and revenues are accurately tracked and can be easily analyzed by parks and trail facility.
ST
8. Consider the implementation of a regular visitor survey to maintain an understanding of residents' and visitors' changing demands for and satisfaction with parks and trails services.
ST

RISK MANAGEMENT

Outdoor recreation in the Municipality's parks and trails involves varying amounts of risk. Risk management techniques are used by park and trail managers to assess risk, make decisions and implement appropriate controls. The following are the basic steps recreation managers should employ for proper risk management:

- Identify potential exposures to loss
- Evaluate the risk
- Examine the options
- Determine the favoured option
- Implement the chosen option
- Monitor results

The following are some examples of risk management strategies:

1. Avoidance—not routing in areas of significant risk; temporary closing or re-routing trails in situations such as poor weather;
2. Transfer—transfer risk to another party through the use of waivers or by obtaining proper insurance;
3. Retention—retained risk is any risk that cannot be avoided or transferred;
4. Reduction—employ measures so that the likelihood and/or severity of the risk is reduced. Example measures include limiting trail user numbers, regular monitoring and maintenance, & adequate tread surface.

Actions

1. The Municipality will work to mitigate and minimize risk through the following practices:
 - Identify trails users - especially the potential for unaccompanied children and special needs individuals;
 - Identify user requirements, including suitable trail surfaces, appropriate gradients for trails, potential conflicts between user groups and methods of mitigating this conflict;
 - Identify and mitigate hazardous conditions;
 - Provide adequate signage and way-finding; and
 - Regular inspections of park and trail facilities and documentation of results.
 - Assess the forest wildfire hazard in high use areas

SIGNAGE & WAYFINDING

Effective signage and wayfinding systems are essential to providing memorable visitor experiences and effective trail and park management. They provide valuable information to visitors, allowing them to make informed decisions, enhance their experience and help them stay safe. However, having too many signs can detract from the visitor experience. Signage should be used sparingly and should be appropriate for the service level and setting of the park or trail. For example, signage in backcountry areas should be limited to the most essential notices, while signage in front-country areas should be concentrated in the parking areas, trail entrances and the access points and to interpret points of interest.

Sign Typology

A successful signage system, based on a standardized typology of signs, typefaces and graphics not only helps to ensure the successful communication of parks and trails information to our residents and visitors, it will also build on the Municipality's unique identity and brand. The consistent use of the Municipality's logo, colours and typefaces will increase visitor awareness of the Municipality's role in providing memorable visitor experiences.

At a minimum, all such signage:

- Must use simple, direct and clear language;
- Should consist of wording, symbols or a combination, and
- Should be the only sign on a post where possible.

Text for all trailhead/park entrance and wayfinding signage should have high visual contrast with the background in order to assist with visual recognition and should include solid characters and appropriate use of fonts.



Kin Beach Regulatory Signage

	Recommended Location	Precedent Image #1	Precedent Image #2
Park/Trailhead Entrance Signage/Kiosk	Near main entrance(s)/parking/staging area(s)		
Trail Wayfinding Markers	At trailhead and all intersections		
Regulatory/Responsible Use Signage	Near main entrance/parking lot		





	Recommended Location	Precedent Image #1	Precedent Image #2
<p>Informational Signage (Safety/Hazard/Conservation)</p>	<p>Where there are specific hazards or conservation concerns to visitors</p>	 <p>A warning sign with a yellow diamond icon showing a person falling from a cliff. The text reads: "WARNING Hazardous Cliff! The ground may break off without warning and you could be seriously injured or killed. Stay back from the edge."</p>	 <p>A sign with a dark background and a red circle with a diagonal slash over a drawing of plants. The text reads: "Give Plants a Chance! Please Stay Off".</p>
<p>Interpretive Signage</p>	<p>Near main entrance, along trails at rest areas where unique natural and cultural heritage is present</p>	 <p>An interpretive sign titled "A TASTE OF SALT" with a blue background and text about salt. It is placed outdoors near a body of water.</p>	 <p>A sign featuring a QR code and the text: "Discovery Awaits on the Long Beach Peninsula Scan this code with your smart phone: m.funbeach.com".</p>

Figure 42 Park and Trail Signage Typology

Trailhead and Park Entrance Signage

Trailhead and Park entrance signs should be integrated at all major access points to managed trails and parks. These signs orient users, communicate and teach trail and park etiquette, and provide cautionary information about safety concerns and hazards - ensuring that park and trail users understand and assume risks associated with their activities in the parks and along the trails. The signs should warn of major dangers (e.g., steep drop offs, etc.), postings regarding maintenance, and details outlining that users are responsible for their own safety and use the park and trails at their own risk. Also we recommend that the trailhead signs include a Universal Trail Assessment Process (UTAP) based description for each trail which helps users make a decision if the trail is appropriate for their ability before they attempt it.

Trail Wayfinding

Wayfinding signs should be used along trails in conjunction with trailhead maps to orient trail users and assist in route planning. These signs inform the user that they are on a network trail, inform the user how far they are from the next junction or destination, and illustrate the route of the trail or road from their point forward. Signage at trail intersections should be limited to signage regarding the level of difficulty of the trails, direction to the closest "exit" with distance noted, numbered markers to assist with map reading (i.e. 'You Are Here') and directions for emergency services. Typically these are 15x15 cm cedar post with sign mounted at 1.5 m height with the trail name, directional arrow, Municipality logo, and contact information.

Trailhead signage should include contact information, addresses for emergencies, code of conduct, applicable bylaws, orientation maps and QR codes linked to online maps and information. Standard symbols, as provided in this plan, should be used to indicate the level of trail difficulty. Other information such as that specified in the Universal Trail Assessment Process (UTAP) should also be included to provide information for users with mobility constraints.



Figure 43 Example of Trailhead and Wayfinding Signage

Regulatory/Responsible Use Signage

All park and trailhead entrance points will have signs noting allowable and prohibited activities. Examples of a regulatory sign are “pedestrians only” or “pets must be on leash at all times”. This information will be conveyed by the use of icons and the prohibited red slash. For parks, these signs will be installed on the entry kiosk and for trailheads, they will be installed on the kiosk if entry point is a major trailhead; otherwise, a 15x15 cm post will be used to mount the signs in a totem fashion.

Other signs may be needed in parks to relay information that is not included elsewhere such as park or trail hours, seasonal use information, restoration and ecologically sensitive areas, user etiquette, etc. Some of this information can be included in kiosks but other information, such as park hours, needs to be located in the area where the subject of the sign is.

Informational Signage (Safety, Hazard & Conservation)

Informational signs inform users of hazards, safety precautions, and park or trail insight. They are used to notify users of important aspects of the park or trail to benefit their recreation experience.

Safety signs are used to alert visitors of possible dangerous conditions/ hazards within the park or on the trail. Considerable care must be taken to ensure the most effective placement of these signs. Any hazardous or unexpected obstacles, conditions, or natural landscape features must be assessed for risk management to determine if their existence requires the installation of such signage.

Safety signage is divided into two categories: 1) Danger and 2) Caution.

1. Danger signs are red, display strong messages and are used in situations where the visitor should not proceed or must take a specific course of action.

2. Caution signs are yellow, alerting visitors to potential hazards and suggest the action to be taken. Safety signs must be concise and use universally recognized iconography wherever possible.



Regulatory Sign at Carmel Park

Some examples of information signs includes:

- Hazards/risks
- Park boundary
- Park or trail hours
- Seasonal use
- User etiquette
- Restoration areas

Interpretive Signage

Interpretive and educational signage could be integrated to provide users with information on the natural and cultural history of the parks and trails. In an effort to reduce “signage pollution”, or over-signing, of the parks and trails, this signage could be integrated at trailheads/park entrances, in tandem with wayfinding signage or sensitively incorporated at key viewpoints.

Developing smartphone apps and incorporating QR codes onto interpretive park and trail signage could allow users with smartphones to scan the code to link directly to more in-depth web based information on the park and trail system, or upcoming stewardship events. It could also allow users to upload information on park and trail issues (degradation, disrepair, illegal dumping, garbage), including their GPS location. For those without access to a smartphone a web address (URL) could be included on park entrance and trailhead kiosk signage.



Interpretive Kiosk – Somenos Marsh

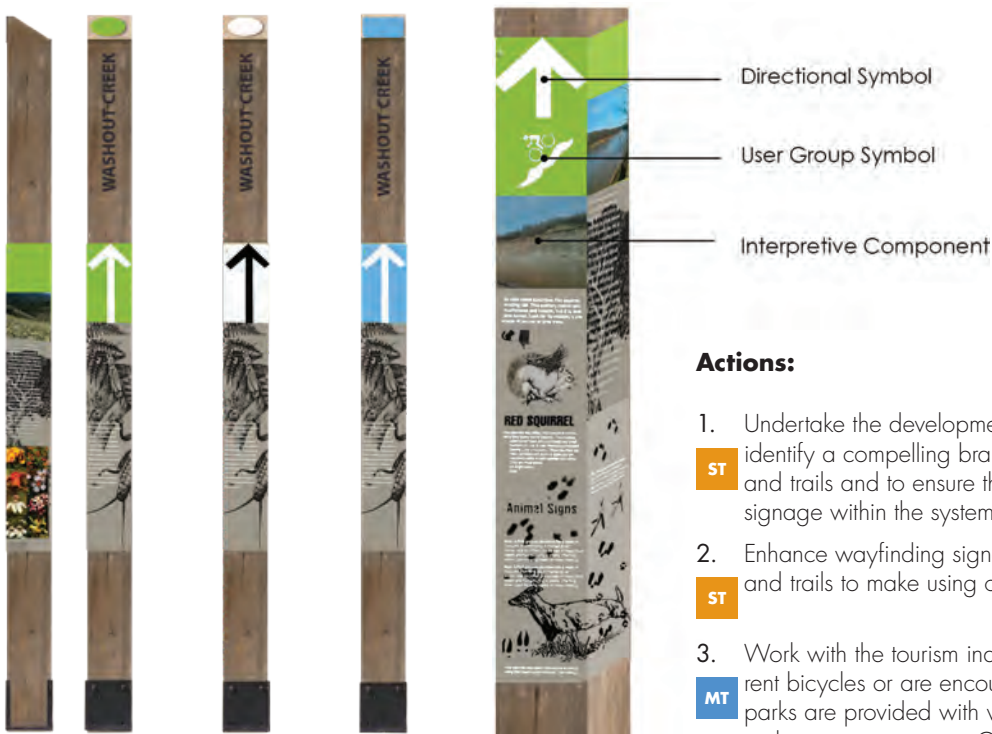


Figure 44 Example of Interpretive Signage incorporated into a Wayfinding Sign Post

Actions:

1. Undertake the development of a signage manual to identify a compelling brand for the Municipality’s parks and trails and to ensure the consistent application of signage within the system. **ST**
2. Enhance wayfinding signage within and between parks and trails to make using our system as easy as possible. **ST**
3. Work with the tourism industry to ensure that tourists who rent bicycles or are encouraged to experience trails and parks are provided with visitor friendly way-finding help such as maps, apps or GPS. **MT**
4. Install Trailhead kiosk signage with maps at parking and staging areas. **ST**
5. Develop a park and trails interpretation strategy to identify the strategic locations for interpretive signage and messaging in the Municipality’s parks and trails. Interpretive signage should be installed throughout the park and trail system to interpret the region’s rich First Nations history, unique ecosystems and biodiversity, and local history. **MT**

INVASIVE SPECIES MANAGEMENT

Invasive plant species can spread rapidly and displace native plants and harm ecosystems. Common examples include Scotch Broom, Japanese Knotweed, Knapweed, and Tansy Ragwort.

Actions:

1. Educate recreational users about invasive species, their spread and active management practices at park sites and online
ST
2. Develop a long-term funding strategy to control invasive species in parks and trails
ST
3. Minimize soil disturbance in all construction and maintenance activities
ST
4. Treat new infestations quickly - work with local invasive plant groups to deal with new infestations.
ST
5. Contain neighbouring infestations and restrict movement of invasive plants from adjacent lands.
ST
6. Monitor corridors like roadways, railroads and waterways for invasive plant establishment.
ST
7. Use native plant materials for restoration efforts in natural areas. In urban park settings, use native trees and shrubs in plantings.
ST
8. Ensure authorized vehicles are clean of invasive plants and seed.
ST

Prevention, early detection and eradication are the most effective means of invasive plant management.



Scotch Broom



Japanese Knotweed

Spread the Word About the System

In addition to physical improvements, our parks and trails system needs a brand and more effective marketing. Promotion and marketing play a vital role in enabling greater visitation, enjoyment and responsible use of our parks and trails. Promotions and marketing are also essential to educating underserved populations about the leisure opportunities available to them through the parks and trails system.

Actions:

1. Work with partners such as Tourism Vancouver Island, Destination BC, the tourism industry and others to develop a unique brand for our parks and trails, and to promote visitor experience itineraries based on the parks and trails.
ST
2. Work with partners such as the school district, local health authorities, and other Cowichan Valley local government parks and recreation departments to develop and implement a community based social marketing strategy to encourage residents to increase their physical activity and connection with nature by visiting parks and trails more often.
MT
3. Work with partners to develop an interactive web or App based visitor experience planning tool that allows residents and visitors to identify parks and trails opportunities based on preferred activities, difficulty levels, distance and other criteria via their smart phones. This online tool should serve as a single source of information about visitor experiences, facilities, amenities, events and programs in our parks. The tool should also provide visitors with real-time interpretation and story-telling as well as location services to help them navigate our parks and trails.
ST
4. Work with partners to develop and implement a leisure education program that aims to get marginalized populations more active more often in the Municipality's parks and trails program. The program should work to address known conditions that are creating barriers to participation for these populations.
MT

Principles for maximizing volunteer support:

- Make it easy
- Make it fun
- Provide training and skills development
- Centralize volunteer opportunities on a single web page
- Promote volunteer opportunities
- Provide a diversity of options to volunteer
- Offer recognition, incentives and rewards for volunteering

Collaborate

Municipal parks and trails are part of a larger network including Provincial and Regional Parks, Schools, private lands, and the Municipal Forest Reserve. (Figure 45). Achieving our future vision cannot be the sole responsibility of the Municipality or staff. We will require support and help from many – residents, stakeholders and other government departments. It will take a team effort.

Growing collaboration between Municipal departments and strengthening existing and, in some cases, developing new partnerships will be critical to our success. Going forward, we will enable, encourage and support our friends and partners who are interested in taking an active role in becoming stewards of our parks and trails, offering new amenities and/or programs or helping us manage and maintain our network.

Actions:

1. Create and implement an interdepartmental “parks and trails leadership committee” of senior staff to discuss and resolve major issues.
MT
2. Continue to support and formalize stewardship agreements with the Cowichan Valley Trail Stewardship Society, Cowichan Land Trust, Residents Associations, Naturalists and other organizations who are committed to implementation of this plan.
LT
3. Encourage the development of “Friends Of” groups who can become active stewards of community and neighbourhood parks and trails.
MT
4. Organize and deliver regular Park and Trail stewardship meetings that bring together all parks and trails stewardship groups in the community.
ST
5. Explore partnership opportunities with local businesses, the tourism industry and other organizations to become active stewards of our parks and trails through an Adopt-A-Park and Adopt-A-Trail program.
MT
6. As necessary, utilize Public Volunteer Park and Trail Events to bring together resources (i.e. staff/contractor expertise, equipment, large group of volunteers, etc.) over a short period of time (i.e. half a day, a weekend) in order to complete a more complicated project such as a trail build.
ST
7. Develop and promote a centralized web page/calendar where individuals and organizations can learn about and sign up for volunteer opportunities.
ST

Priority Areas for Partnerships:

- Continue to pursue and formalize trail planning, development and management agreements with trail stewards in the Municipal Forest Reserve.
- Work with First Nations on Chemainus River enhancements
- Work with Environmental Stewardship groups to enhance and restore ecological systems in Natural Area parks
- Pursue corporate partners and individual stewards to Adopt a Trail or playground

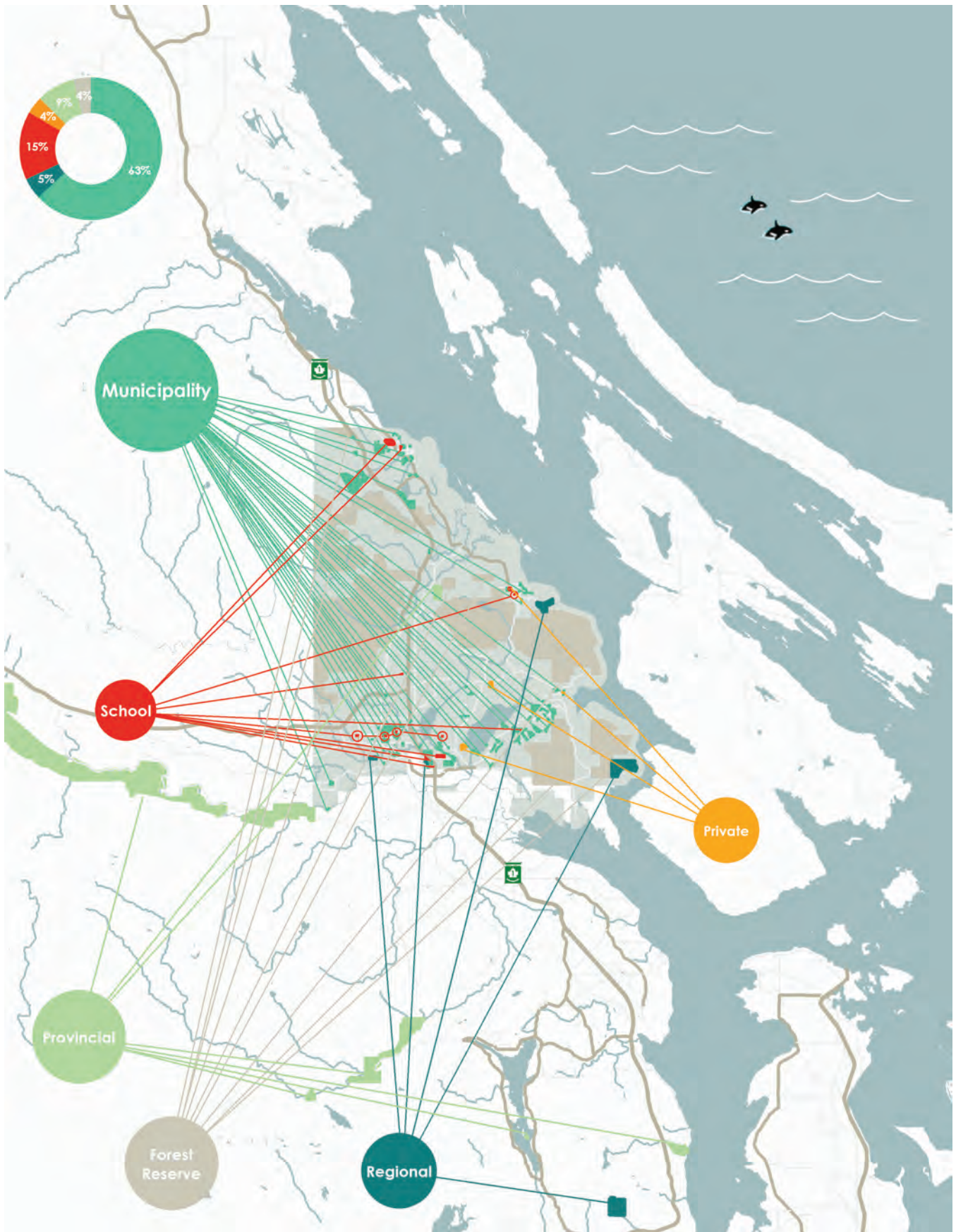


Figure 45 Network of Parks & Trails Partners

Sustain our Capacity

To achieve our vision, our parks and trails system needs to have the appropriate financial and staff resources and our staff need to be well trained and equipped to implement their work as efficiently and effectively as possible. As Municipal budgets continue to tighten, it is essential that we find ways to generate new revenues while ensuring we are optimizing our existing budgets.

Actions:

1. Consider hiring a minimum of one additional parks and trails planner FTE to support advancement of this plan and increased focus on development and management of outdoor recreational use and stewardship partnership in the MFR.
ST
2. Establish more revenue generating projects within Destination and Community Parks that can help support the operational costs of those parks and others within the network.
MT
3. Where appropriate, explore co-locating third party vendor operations within parks where these operations will return a reasonable percentage of revenues generated.
MT
4. As our parks and trails are a public benefit, the Municipality will work to formalize leases, including the collection of fair lease fees, with any groups or private enterprises that use parks and trails for profit (e.g., private enterprise fitness classes that charge participants and occur in a park).
MT
5. The Municipality will create a policy for mobile food and beverage vending in appropriate parks. The policy will incorporate the BC Guidelines for Healthy Food and Beverage Sales.
ST
6. Explore and pursue alternative funding sources such as private sector, developer, government and association/team sponsorship, naming rights, donations and contributions to support future outdoor recreation amenity development, upgrades and maintenance.
MT
7. Undertake initiatives to educate residents, users and organizations about the operational and capital costs for maintaining the outdoor sports facility supply.
MT

Adopt a Park – Adopt a Trail Program

These partnerships can occur through a formal agreement between the Municipality and organization with an interest in our parks and trails or giving back to the local community. A park and/or trail, or sections of them, could be “adopted” by an organization that act as a local steward. Activities could include:

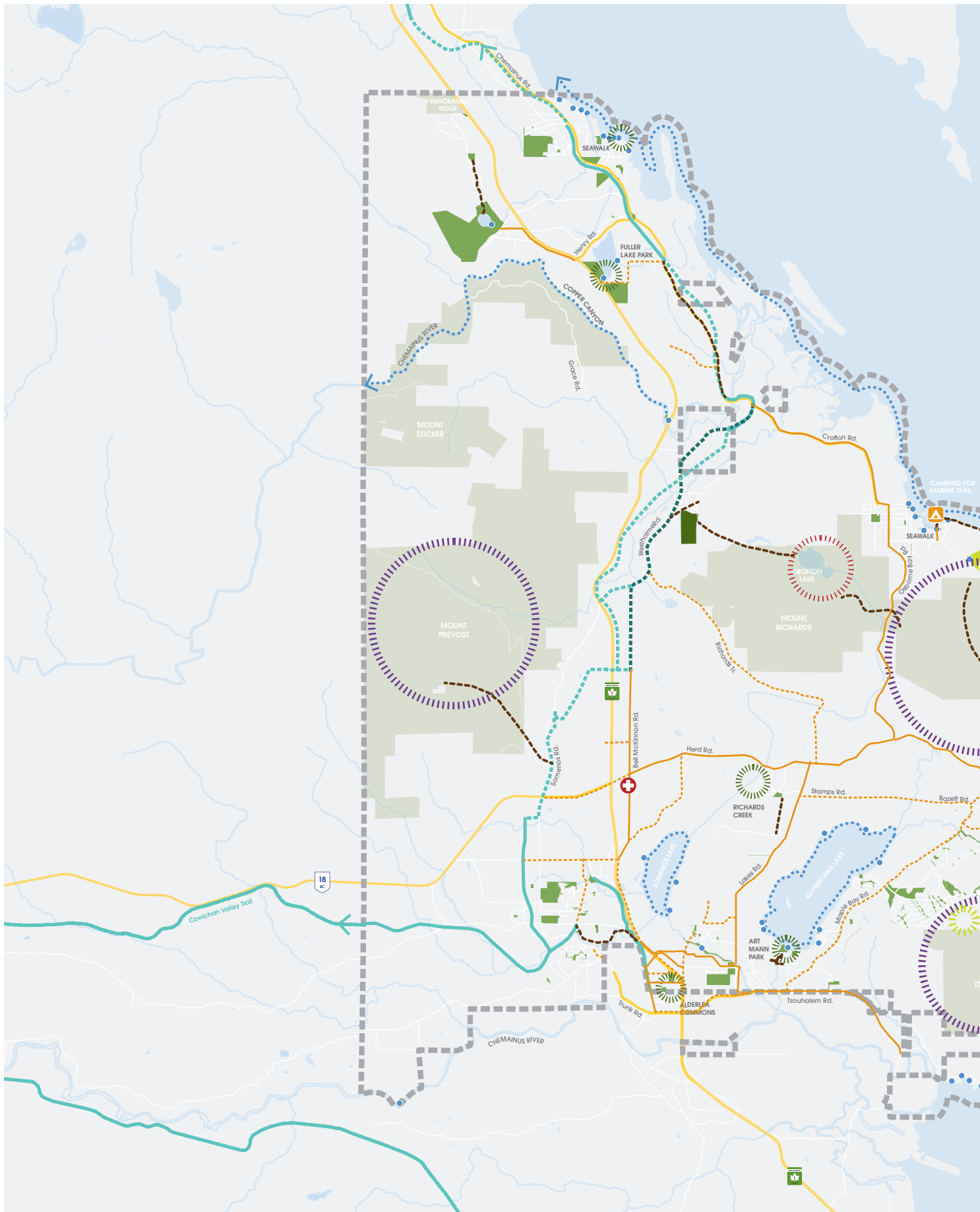
- Public education park and trail ambassadors,
- Monitoring
- Minor maintenance & clean up days (i.e. clearing garbage, ensuring signs are visible)
- Minor capital upgrades

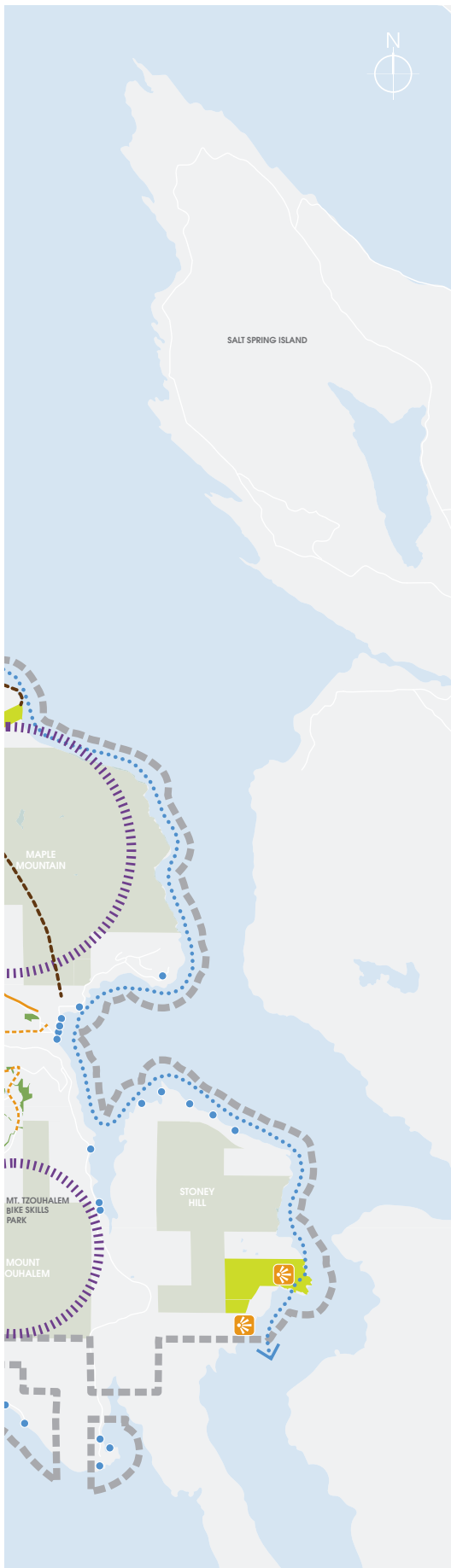
The Municipality benefits from the volunteer labour and the organization benefits from the community profile they receive, as well as the opportunity to care for a local park or trail that they use.





FUTURE PARKS & TRAIL SYSTEM MAP





LEGEND

- Municipal Forest Reserve
- Municipal Park
- MNC Lease Park
- Provincial Park
- CVRD Park
- Water Access
- Water Routes
- TCT/CVT Operational Trail
- TCT/CVT Proposed Trail
- Interim TCT On-Street Route
- Enhancements to Multi-Modal Routes
- Proposed Multi-Modal Routes
- Proposed Trail Corridor
- Camping
- Viewpoint
- Proposed Hospital Location
- Destination Park
- Other Area of Interest
- Skills Park
- Mountain Bike & Nature-Based Tourism Destination
- North Cowichan Municipal Boundary

Future Concept

North Cowichan Parks & Trails Master Plan







CAPITAL PRIORITIES

The following categories of parks and trails capital projects will be prioritized for funding support through Development Cost Charges (DCC) and/or Community Amenity Contributions (CAC).

Priority Park Projects for DCC & CAC Consideration

Land acquisition to address gaps in park supply in:

- Chemainus River estuary
- Richards Creek/Somenos Lake area
- Bing's Creek corridor
- Gibbins Road area

Water Access facilities:

- Chemainus seawalk
- Fuller Lake substantive upgrades
- Art Mann Park upgrades
- Coastal campgrounds around Maple Bay, Crofton
- Chemainus River—lower takeout at TCH
- Quamichan and Somenos Lakes
- Marked coastal access

Playgrounds

- The Properties development
- Nature-based playground pilot project
- Equipment replacement based on condition assessment
- Neighbourhood park revitalization program

Dog Off Leash Parks:

- New parks in Municipality's south end
- Facility enhancement in all off-leash parks

Municipal Forest Reserve – Recreation Management Plan implementation

- Amenities
- Access
- Wayfinding Signage
- Trail decommissioning

Destination Parks

- Mount Tzouhalem Bike Skills Park and Disc Golf Course
- Alderlea Commons
- Fuller Lake

Cultural/Event Spaces

- Amphitheatre/event space for Crofton
- First Nations Tourism sites

Natural Areas

- Crofton Lake
- Somenos Marsh
- Green network protection
- Invasive Species management

Comfort & Convenience Amenity Enhancements

- Copper Canyon washrooms/change facilities
- Kiosks at major trailheads
- Site furnishings
- Waste management facilities

Priority Trail Projects for DCC & CAC Consideration

New Off-Road trails at:

- Maple Mountain multi-use trail (Maple Bay to Crofton connector)
- Stamps-Bazett connector
- Eves Provincial Park to Crofton Lake
- Mount Tzouhalem to Stoney Hill linkage
- Mount Prevost—"Grind" trail and Downhill Mountain Bike run

New On-Road routes at:

- Municipality's south end
- Maple Bay to Mount Tzouhalem
- Crofton to Chemainus
- Connection points to Cowichan Valley Trail

Enhance Existing On-Road Routes

- Lakes Road
- Herd Rd
- Tzouhalem Rd
- Maple Bay Rd
- Bell-McKinnon Rd

Enhance Existing Off-Road Routes

- Friendship Trail – Phillips St. to Sherman Rd
- Dike Trail – surfacing, accessibility improvement
- Municipal Forest Reserve – trail drainage and maintenance upgrades

Cyclist Supporting Infrastructure

- Bike maintenance stations at staging areas
- Bike racks at staging areas
- Bike lane separation as per classification

Staging Areas

- Municipal Forest Reserve
- Copper Canyon

Neighbourhood connections

- Schools and recreation facilities
- Neighbourhood parks to trails
- Bing's Creek Nature Trail





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APPENDIX A PHASE ONE ENGAGEMENT SUMMARY

APPENDIX B PHASE TWO ENGAGEMENT SUMMARY

APPENDIX C PHASE THREE
ENGAGEMENT
SUMMARY

APPENDIX D POLICY CONTEXT SUMMARY

D.1 National & Provincial policy

D.1.1 PATHWAYS TO WELLBEING

North Cowichan's existing and future parks and trails have the potential to contribute to meeting the National Framework for Recreation's 'Renewed Vision' for Canada, whose vision is a Canada where everyone is engaged in meaningful, accessible recreation experiences that foster wellbeing at the individual, community and environmental levels.¹⁷ Each level is summarized below:

- **Individual wellbeing:** Individuals have high mental and physical wellbeing, are engaged and contributing members of their families and communities;
- **Community wellbeing:** Communities are healthy, inclusive, welcoming, resilient and sustainable;
- The wellbeing of **places and spaces:** natural and built environments are appreciated, nurtured and sustained.

The framework describes five goals and corresponding priorities for action. Each goal relates to North Cowichan's parks and trails, both planned and existing. The goals are:

1. Foster active living through physical recreation.
2. Increase inclusion and access to recreation for populations that face constraints to participation.
3. Help people connect to nature through recreation.
4. Ensure the provision of supportive physical and social environments that encourage participation in recreation and build strong, caring communities.
5. Ensure the continued growth and sustainability of the recreation field.

The National Framework for Recreation in Canada provides important direction to the planning and design of North Cowichan's parks and trails. The framework was closely considered in the design of the Master Plan's priorities and recommendations. BC Provincial Trails Strategy

Trails planning through North Cowichan must consider the strategic direction provided at the provincial level. The 2012 BC Provincial Trail Strategy provides the framework, principles, and guidance necessary to develop a world class trails systems for BC.¹⁸ It recognizes that trails are an integral to the landscape and enable meaningful connections between people and nature. The vision of the strategy is: "a world-renowned, sustainable network of trails, with opportunities for all, which provide benefits for trails users, communities, and the province" (p.5).¹⁸

The strategy is based on six key components ranging from environmental stewardship, collaborative planning, good governance and effective management. The strategy contains 22 actions across a number of categories including environmental stewardship, collaborative planning, effective

Implementation of the strategies in the North Cowichan Parks and Trails Master Plan will bring the Municipality into alignment with the Pathways to Wellbeing goals.

management etc. The following actions were considered in the preparation of this Master Plan:

- Integrate trail planning with the transportation network system;
- Work collaboratively with community groups at all orders and levels of government (local, regional, provincial, federal, and with Aboriginal governing bodies) in park and trail planning;
- Develop and maintain an inventory of trails;
- Undertake a comprehensive survey of trail users; and
- Integrate consideration of recreation trail use into resource road decisions.

The BC Trails Strategy's vision is a BC that offers a world-renowned trail network that is sustainable and provides opportunities for all. It contains a number of guiding principles to realize this vision, listed below:

- Sound Environmental Stewardship and Management
- Respect and Recognition for First Nations' Interests
- Mutual Respect amongst Trail interests, other resources users and existing tenure holders
- Respect and understanding among diverse trail interests
- Partnerships and collaboration
- Secure recreation opportunities for all trail users
- Benefits for individuals, communities and the province

D.2 Local context

D.2.1 MUNICIPALITY OF NORTH COWICHAN OFFICIAL COMMUNITY PLAN

The Official Community Plan (OCP) was adopted in 2011 and serves three main purposes:

1) Set the community vision and values that will guide decision-making about our future direction.

2) Clarify for residents, businesses and institutions the primary goals and objectives, with the support policies that help the Municipality to meet its goals.

3) Inform neighbouring jurisdictions for our planned direction and identify the areas where mutual cooperation is necessary to help us meet certain goals.¹⁹ The OCP contains specific policy direction under parks and recreation. It recognizes that parks and recreational facilities are essential features of a healthy community, and that trails help connect the community and provide recreational opportunities as well. The specific objective outlined in the OCP is to “ensure the community is well serviced with recreation facilities, including a system of parks, trails and open space” (p. 90). The two relevant policies are as follows:

- Provide diverse and barrier free recreational opportunities for all ages
- Integrate parkland acquisition, natural areas protection, and trail development plans

The OCP’s policies pertaining to parks and trails are not limited to parks and recreation. Other parts of the by-law that relate to parks and trails include Forestry and Transportation. Under Forestry, the OCP provides policy direction around sustainably managing North Cowichan Municipal Forest Reserve, and supporting responsible recreational uses of municipal forest lands. Under Transportation, the OCP provides direction for how the Municipality will achieve a complete pedestrian and cyclist transportation grid that, among other objectives, connect two existing routes and/or fill in missing sections of trails and improve access to recreational trails.

While the OCP does not provide detailed information about the design, location, and provision of parks and trails in North Cowichan, it does serve as an important contextual document to this Parks and Trails Master Plan.

The North Cowichan OCP contains specific policy direction under parks and recreation. It recognizes that parks and recreational facilities, along with access to natural areas, are essential features of a healthy community, and that trails help connect the community and provide recreational opportunities as well.

D.2.2 1997 PARKS AND OPEN SPACE STRATEGY FOR THE DISTRICT OF NORTH COWICHAN

In February of 1997, the Parks and Open Space Strategy was released to direct the Municipality in acquiring parkland in strategic locations and to support the recreational needs of the community through a range of actions.²⁰ Ultimately, its purpose was to provide a framework for protecting open spaces and acquiring land to create a park and open space system. The strategy included an assessment of existing parks and open spaces, which were classified as follows: play lots, neighbourhood parks, community parks, and publicly accessible nature areas. Each park type was evaluated to determine the existing supply, and the future supply to meet the needs of the population. The analysis found that the District was well served with recreational opportunities but would need additional acquisitions as the population grew.

The strategy has been the most comprehensive document to date for evaluating the parks, open spaces, and trail connections within North Cowichan. Importantly, it has set the park types and standards that are currently used by North Cowichan and has influenced the policy direction for parks and recreation within the OCP. As written on page 91 of the OCP, “the municipality’s park standards and types are based on the report *Parks and Open Space Strategy for the District of North Cowichan*.” (p. 91).²¹ In addition, another one of the OCP policies, “integrate parkland acquisition, natural areas protection, and trail development plans”, clearly states the following: “the Municipality will partner, when possible, with federal and provincial environmental agencies and other groups to acquire park land that can be jointly managed for its recreational and environmental benefits” (p.92).²¹

In preparing the Parks and Trails Master Plan, special consideration was given to the actions outlined in the Parks and Open Space strategy.

D.2.3 TRAIL NETWORK AND CYCLING PLAN

A few years following the adoption of the 1997 Parks and Open Space Plan, the Trail Network and Cycling Plan was implemented.²² Funded by then Ministry of Community Development, Cooperatives and Volunteers, the plan had four broad objectives, listed as follows:

- To review the proposed Trans-Canada Trail Network in consultation with Cowichan Valley communities
- To provide Cowichan Valley communities with strategies to connect to the Trans Canada Trail, physically and economically
- To develop a network of neighbourhood trails that can tie into the Trans Canada Trail
- To develop a cycling commuter network around North Cowichan and into Duncan

The Trail Network and Cycling Plan was the first document to create different trail types in North Cowichan. The trail types ranged from the Trans Canada Trail to multi-use trails, undesignated and designated hiking and walking trails, equestrian trails, mountain bike trails, and forest roads. While there are several trail types, each can be summarized into one of the following categories:

1. Major trails that connect one part of the community with another;
2. Multi-use trails that serve various user groups within a community;
3. Neighbourhood links that connect residents to local destinations (e.g., school, store, park, waterfronts)

A summary of recommendations was prepared that described the trail upgrades and implementation actions needed to accommodate recreation uses. In preparing the Parks and Trails Master Plan, special consideration was given to the recommendations outlined in the Trail Network and Cycling Plan.

The Municipal Forest Reserve is an important asset in North Cowichan that has significant influence on the character of the jurisdiction. "The Municipality manages its forest reserve as a multiple, sustainable use resource. The forests are used for a range of purposes, including timber harvesting, recreation, education, protection of water supplies, local economic development, and conservation of the natural landscape (Municipality of North Cowichan, 2011).

D.2.4 MUNICIPALITY OF NORTH COWICHAN FOREST RESERVE FOREST DEVELOPMENT PLAN: 1997 TO 2003

Our community is unique in that we are one of the few communities in North America that has privately owned forest lands managed for our residents.²³ Our Forest Reserve was created in 1946 by the Corporation of the District of North Cowichan and spans over 5,300 hectares which comprises 25% of the total land area of North Cowichan. The reserve consists of six major land holdings, listed as follows: Mount Prevost, Mount Sicker, Mount Tzouhalem, Stony Hill, Mount Richards, and Maple Mountain. Importantly, the forest reserve is managed for multiple use including harvesting of forest crops, recreational uses, forest education, domestic water supplies, visual landscape, economic development and as a revenue source.²³

The Forest Reserve Forest Development Plan, adopted in 1997, was created to provide staff of the Municipality with information on the "location and scheduling of the proposed roads and cutblocks for harvesting timber in a manner which demonstrates management of all forest resources."²⁴ (p.1). As a large working forest, there are also opportunities for forest recreation. A number of non-destructive recreation opportunities are stated within the plan including the following: hiking, mountain biking, 4x4s on designated roads, nature watching, hunting etc.²⁴ There are a number of key recreation features in the Reserve including the *Preservation Zone* on Maple Mountain for recreation use only; hiking trails on Maple Mountain; and the future expansion of the Trans Canada Trail through portions of the Forest Reserve which have yet to be determined. Our Municipal Forest Reserve contains a number of official and unofficial trails; approximately 38 km of Municipally recognized trails currently exist in the Municipal Forest Reserve, with an additional 71 km proposed.²⁵

APPENDIX E PARK QUALITY AND CONDITION ASSESSMENT

APPENDIX F TRAIL QUALITY AND CONDITION ASSESSMENT METHODOLOGY

The trail quality and condition assessment was completed to evaluate the trail quality and condition of select trails in Municipality of North Cowichan. During the field assessment, 29 trails were visited and assigned a score (from 0-3) that best represented the condition of the trail based on its classification. The scores corresponded to the following:

- 0 = the particular component does not exist;
- 1 = the component is below expectations;
- 2 = the component meets expectations;
- 3 = the component exceeds expectations.

Each score was based on a series of criteria, presented in Table F-1 Trail Quality + Condition Criteria below.

Table F-1 Trail Quality + Condition Criteria		
Criteria Theme	Criteria	Definition
Trail Intended Purpose	Intended Purpose	An overall assessment and quantification of how well the trail is able to achieve its management intent as defined by the trail class is able to deliver its intended function.
Trail Condition	Condition	The extent to which the trail requires maintenance and upgrades to satisfy public expectations.
	Location & Access	The extent that the trail is used based on its location. Trails that are in higher density residential and commercial areas with good connectivity and access to transportation might yield higher use, for example.
	Naturalness & Low Impact Design	The extent to which ecological and low impact designs have been incorporated into the construction and operations of the trail (e.g., irrigation).
	Accessibility/Inclusivity	The extent to which the trail serves persons with mobility or physical constraints. For instance, is the trail accessible to persons on wheelchairs, senior populations, or persons with other physical limitations?
Visitor Experience	Comfort	The extent to which comfort amenities exist to support and enhance the trail users while visiting (e.g., washrooms, benches, picnic areas).
	Convenience	The extent to which amenities exist that enhance the trail users' experience by offering convenience for the user (e.g., BBQ grills, bike racks, parking).
	Design/Ambiance	The quality of design of the trail and the nature of the setting in which the park is situated including its sense of safety.
Attraction Capability	Community Significance	From the perspective of a community resident, this criterion measures the extent to which the trail has unique features (e.g., community wide events) that attract visitors from throughout the community.
	Neighbourhood Significance	From the perspective of a neighbourhood resident, this criterion measures how well the trail facilitates short and frequent visits and the trail's overall degree of obtrusion to the neighbourhood (e.g., noise, light).
	Regional Significance	From the perspective of a resident living outside of the Municipality, this criterion measures the extent to which the trail has unique features (e.g., facilities for community wide events such as bike races or running events) that attract visitors from outside of the community.
Capacity	Capacity	The ability of the trail to accommodate a range of visitation intensities while serving its intended function and avoiding overcrowding.
Ownership	Ownership	The trail is owned by the local government and the public has the control to access the trail without permission, but in accordance with local bylaws.

The intended purpose of the trail influences expectations of the services or the quality available at the trail. Therefore, it was important that the calculations reflected the management intent of the trail. To do so, a minimum threshold score was developed to reflect the importance of each criterion to the respective trail purpose. For example, a single track mountain bike focused trail is not, and should not, be expected to provide the same level of comfort and convenience amenities as a Greenway/Urban Trail. In order to determine if a trail

was below, meeting, or exceeding expectations, a minimum threshold score was developed to reflect the importance of each criterion to the respective trail classification. This was determined by using the following three trail classification we developed for Municipality of North Cowichan trails: Class 1 – Greenway/Urban Trail, Class 2 – Double Track, Class 2 & 3 Single Track Natural Surface and Mountain Bike Trails as shown in Table F-2 Trail Intent/Criteria Matrix below.

Table F-2 Trail Intent/Criteria Matrix				
		Trail Classification		
Criteria Theme	Criteria	Class 1 – Greenway/Urban Trail	Class 2 – Double Track	Class 3 & 4 – Single Track Natural Surface & Mtn. Bike Trails
Trail Intended Purpose	Intended Purpose	2	2	2
Trail Condition	Condition	2	2	1
	Location & Access	2	2	2
	Naturalness & Low Impact Design	2	1	2
	Accessibility /Inclusivity	2	2	1
Visitor Experience	Comfort	2	1	1
	Convenience	2	1	1
	Elements to Extend Use	2	1	1
	Design/Ambiance	2	1	1
Attraction Capability	Neighbourhood Significance	1	2	1
	Community Significance	2	1	2
	Regional Significance	1	1	1
Capacity	Capacity	2	1	1
Ownership	Ownership	2	2	2
	Minimum Threshold Score*	26	20	19

Note: the scores in the table correspond to the following:

- 3 – This criterion defines this type of trail, and/or is critical to how this type functions
- 2 – This criteria exists in this type of trail, but is not a defining characteristic
- 1 – This criterion is not important in defining this type of trail

*The minimum threshold score is the minimum score that the trail needs to achieve to “meet expectations”. As shown in Table F-2 Trail Intent/Criteria Matrix above, a trail that is classified as “Greenway/Urban Trail” has a higher minimum threshold score because these trails are expected to perform higher on the criteria due to their purpose. To calculate minimum threshold score, the score values were inputted into the trail quality and condition equation. These minimum threshold final scores were used to create the class breaks for each trail purpose presented on the following page.

Total Score

To determine whether a trail was **below** expectations, **meeting** expectations, or **exceeding** expectations, the scores were compared with the minimum threshold scores presented in Table F-2 Trail Intent/Criteria Matrix. The minimum threshold scores were used to construct the standard for "meets expectations". Once this standard was created for each trail purpose, professional judgment was used to create the standards for "below" and "meets" expectations. These standards (class breaks) are presented in Table F-2 Trail Intent/Criteria Matrix below.

Table F-3 Score Classes by Trail Classification

Standard	Trail Classification		
	Class 1 - Greenway/Urban Trail	Class 2 - Double Track	Class 3 & 4 - Single Track Natural Surface and Mountain Bike Trails
Exceeds	31 >	28 >	27 >
Meets	26-31	20-28	19-27
Below	< 26	< 20	< 19

APPENDIX G DETAILED PARK CLASS DESCRIPTIONS

Class 1: Natural Areas	
Purpose	To conserve provincially, regionally and/or locally significant native habitats, protect species at risk and maintain ecosystem processes. Enhance and/or continue the supply of ecosystem services to the community.
Size	Any. Dependent on environmental values and purpose of the site.
Intended Attraction	Regional, Municipal wide, tourists
Built Environment	
Percent Developed	Limited to the minimum necessary to facilitate and manage visitor use.
Amenities (desired)	<ul style="list-style-type: none"> • Benches • Picnic Tables • Trails • Interpretive signage • Wayfinding • Basic washrooms • Trash cans
Amenities (optional)	<ul style="list-style-type: none"> • Interpretive center • Boat launch (non-motorized) • Swimming (natural) • Off-leash area • Action sport facilities • Public art • Outdoor classroom • Shade structures
Parking	On-street or on-site for parks that attract higher visitation.
Environmental Values	
Natural Area	Yes
Ecosystem Services	Wildlife habitat, habitat connectivity, carbon sequestration, native plants, flood protection, erosion control, water filtration, green stormwater infrastructure
Revenue Generation	Limited to none

Class 2: Community Parks

Purpose	To provide for the spontaneous and, to a lesser extent, programmed recreational needs of multiple neighbourhoods. May also conserve locally important habitats and provide for functioning ecosystem processes.		
Size	Typically 2 hectares or larger		
Intended Attraction	Multiple adjacent neighbourhood residents		
Built Environment			
Percent Developed	25 – 100%		
Amenities (desired)	<ul style="list-style-type: none"> • Benches • Picnic tables • Washrooms • Active recreation amenities 	<ul style="list-style-type: none"> • Passive play area • Designed landscape • Improved paths • Pathways for play 	<ul style="list-style-type: none"> • Play area (natural playground/pre-fabricated equipment) • Wayfinding signage • Trash cans
Amenities (optional)	<ul style="list-style-type: none"> • Water access • Swimming (pool or natural) • Outdoor sport fields/courts • Outdoor performance space • Concessions • Food trucks & vendors • Outdoor BBQ area/fire pits 	<ul style="list-style-type: none"> • Community garden • Natural area • Outdoor fitness • Off-leash area • Community centre • Outdoor classroom • Action sport facilities 	<ul style="list-style-type: none"> • Spray park • Outdoor shower • Public art • Street performers • Interpretive signage • Shade structures • Lighting
Parking	On-site or on-street		
Environmental Values			
Natural Areas	May, but is unlikely, to contain undeveloped natural areas, habitats for species at risk, lake shore, wetlands and other sensitive environments		
Ecosystem Services	Wildlife habitat, carbon sequestration, native plants, flood protection, erosion control, water filtration, green stormwater infrastructure		
Revenue Generation	Limited. May cover partial operational costs via rental fees.		

Class 3: Neighbourhood Parks

Purpose	To provide for the spontaneous recreational needs of the surrounding neighbourhood.	
Size	Typically 0.5 – 2 ha	
Intended Attraction	Neighbourhood	
Built Environment		
Percent Developed	30 – 100%	
Amenities (desired)	<ul style="list-style-type: none"> • Benches • Picnic tables • Passive play area • Designed landscape • Improved paths 	<ul style="list-style-type: none"> • Pathways for play • Play area (natural playground/pre-fabricated playground) • Wayfinding signage • Trash cans
Amenities (optional)	<ul style="list-style-type: none"> • Water access • Swimming (natural) • Outdoor sport fields/courts • Community garden • Natural area 	<ul style="list-style-type: none"> • Interpretive signage • Outdoor fitness • Off-leash area • Shade structures • Washrooms
Parking	On-street	
Environmental Values		
Natural Area	Unlikely	
Ecosystem Services	Few to none	
Revenue Generation	Limited to none	

Class 4: Pocket Parks/Public Plazas

Purpose	To provide residents and visitors respite from busier urban environments, places to rest and space for performers and vendors to enhance visitor experiences.	
Size	Typically between 0.1 – 1 ha	
Intended Attraction	Neighbourhood, Municipal wide, Regional, tourists	
Built Environment		
Percent Developed	100%	
Amenities (desired)	<ul style="list-style-type: none"> • Benches • Designed Landscape • Improved paths 	<ul style="list-style-type: none"> • Plaza space • Lighting
Amenities (optional)	<ul style="list-style-type: none"> • Picnic tables • Outdoor performance space • Concessions • Food trucks & vendors • Fire pits 	<ul style="list-style-type: none"> • Public art • Street performers • Interpretive signage • Shade structures • Playgrounds
Parking	Off-site	
Environmental Values		
Natural Area	Limited to none	
Ecosystem Services	May include green stormwater infrastructure, native plantings	
Revenue Generation	Limited. May cover partial operational costs via rental fees.	

Class 5: Water Access Parks

Purpose	Providing public access to ocean, river or lake frontage. Secondary uses include natural area protection and viewing opportunities		
Size	Typically between 0.1 – 1 ha		
Intended Attraction	Regional, Municipality, tourists		
Built Environment			
Percent Developed	50 – 100%		
Amenities (desired)	<ul style="list-style-type: none"> • Water access • Stair access • Benches 	<ul style="list-style-type: none"> • Improved paths • Trash cans 	<ul style="list-style-type: none"> • Wayfinding signage
Amenities (optional)	<ul style="list-style-type: none"> • Washrooms • Picnic tables • Active recreation amenities 	<ul style="list-style-type: none"> • Natural area • Interpretive signage • Dock 	<ul style="list-style-type: none"> • Off-leash area • Lighting • Boat Launch • Designed landscape
Parking	On-street and/or On-site		
Environmental Values			
Natural Area	May contain undeveloped natural areas, habitats for species at risk, lake shore, wetlands and other sensitive environments		
Ecosystem Services	Wildlife habitat, carbon sequestration, native plants, flood protection, erosion control, water filtration, green stormwater infrastructure		
Revenue Generation	Limited to none		

Class 6: Special Purpose Parks

Purpose	Stand-alone parks that are designed for a particular use such as BMX parks, mountain bike skills parks, skate parks, dog off-leash park, or specialty gardens. Industry best practices should be used to guide the design parameters.		
Size	Necessary to meet the intended use.		
Built Environment			
Percent Developed	70 – 100%		
Amenities (desired)	Dependent on intended purpose		
Amenities (optional)	Dependent on intended purpose		
Parking	Dependent on intended purpose		
Environmental Values			
Percent Natural	Limited to none		
Ecosystem Services	May include wildlife habitat, carbon sequestration, native plants, flood protection, erosion control, water filtration, green stormwater infrastructure		
Revenue Generation	Dependent on intended purpose.		

***This classification system was adapted from the Seattle Parks Classification Policy Special Purpose Park–Chemainus Skatepark**

Class 7: Sportsfield/Athletic Parks

Purpose	The primary focus of athletic/sportsfield parks is to provide outdoor sports facilities that serve the community's needs for active recreation and organized outdoor sport. These parks have a strong sports focus, but they often include walking trails and children's playgrounds. Subsequently, these parks also serve the local neighbourhood and provide families the opportunity for active play while siblings and friends are engaged in sporting activities.
Size	Necessary to meet the intended use.
Built Environment	
Percent Developed	75-100%
Amenities (desired)	<ul style="list-style-type: none"> • Play area • Trash cans • Bleachers <ul style="list-style-type: none"> • Washrooms • Parking
Amenities (optional)	<ul style="list-style-type: none"> • Benches • Interpretive signage • Dock • Natural area <ul style="list-style-type: none"> • Designed landscape • Improved paths • Lighting
Parking	On-site
Environmental Values	
Percent Natural	Limited to none
Ecosystem Services	Limited to none
Revenue Generation	Dependent on intended purpose.

Class 8: Destination Parks

Purpose	Major parks that offer unique features and recreational opportunities as well as numerous amenities. These significant parks may be designed for single or multiple use and are travel motivators of the calibre to attract people from both within the Municipality and abroad.
Size	Variable
Built Environment	
Percent Developed	Varies
Amenities (desired)	<ul style="list-style-type: none"> • Parking • Trails • Wayfinding • Washrooms <ul style="list-style-type: none"> • Trash cans • Picnic tables • Benches
Amenities (optional)	<ul style="list-style-type: none"> • Swimming (natural) • Lighting <ul style="list-style-type: none"> • Designed landscape
Parking	On-site
Environmental Values	
Percent Natural	Varies
Ecosystem Services	May include wildlife habitat, carbon sequestration, native plants, flood protection, erosion control, water filtration, green stormwater infrastructure
Revenue Generation	Dependent on intended purpose.

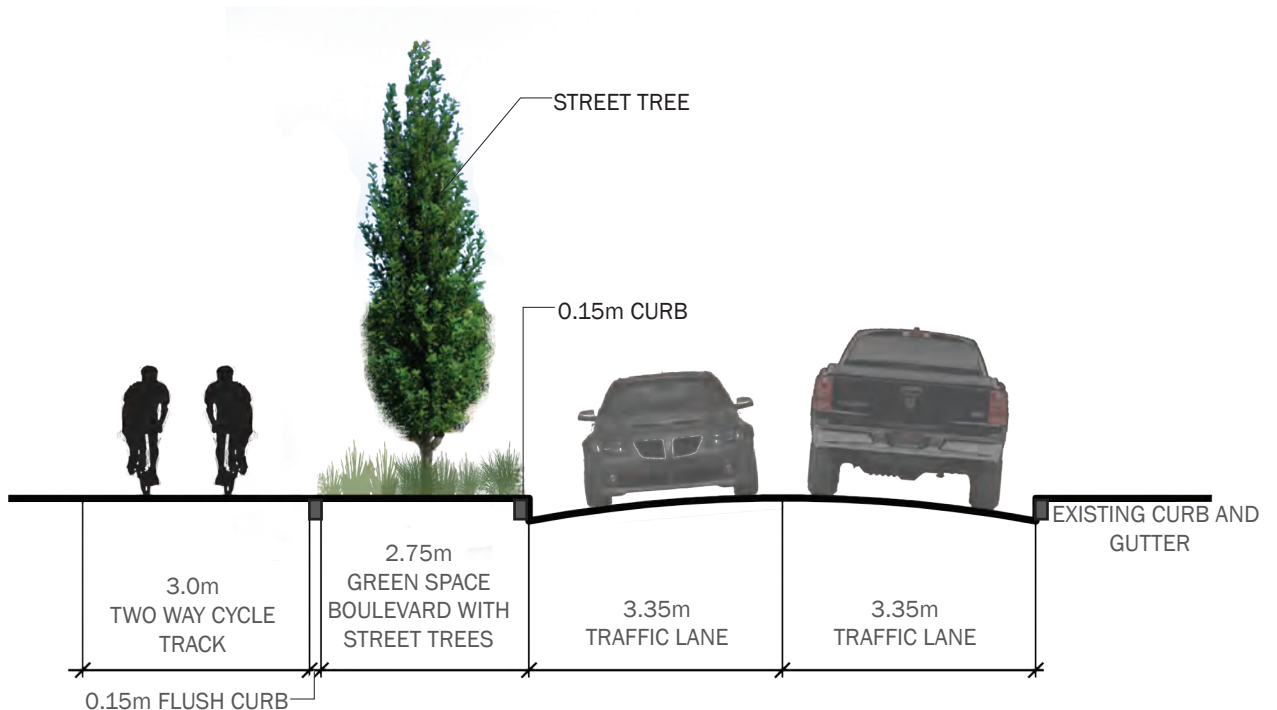
APPENDIX H TRAIL CLASSIFICATION DESIGN GUIDANCE

Table 1 CLASS 1 MATRIX





CLASS 1: ON-STREET MULTI-MODAL CORRIDOR		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
This 2-way on-street multi-modal corridor separates cyclists from vehicle traffic with a vegetated green boulevard. If located properly, cycling lanes can make active transportation more desirable for day-to-day activities by connecting various community amenities. Some of the connected amenities may include; parks, community facilities (e.g. the seniors centre, the recreation complex), offices, and shops within residential areas. Trail examples: Cottonwood Road Bike Lane	High	High

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Paved	Gentle (0-5%) Max. 10%	3.0m MAX	1	3	2%	10-20

TYPICAL USERS*						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						



TYPICALLY PROVIDED



OCCASIONALLY PROVIDED

AMENITIES							
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING	LIGHTING
							

*OTHER USERS COULD INCLUDE: eBikes, eScooters, skateboards

Concept Detail

Scale: 1:50

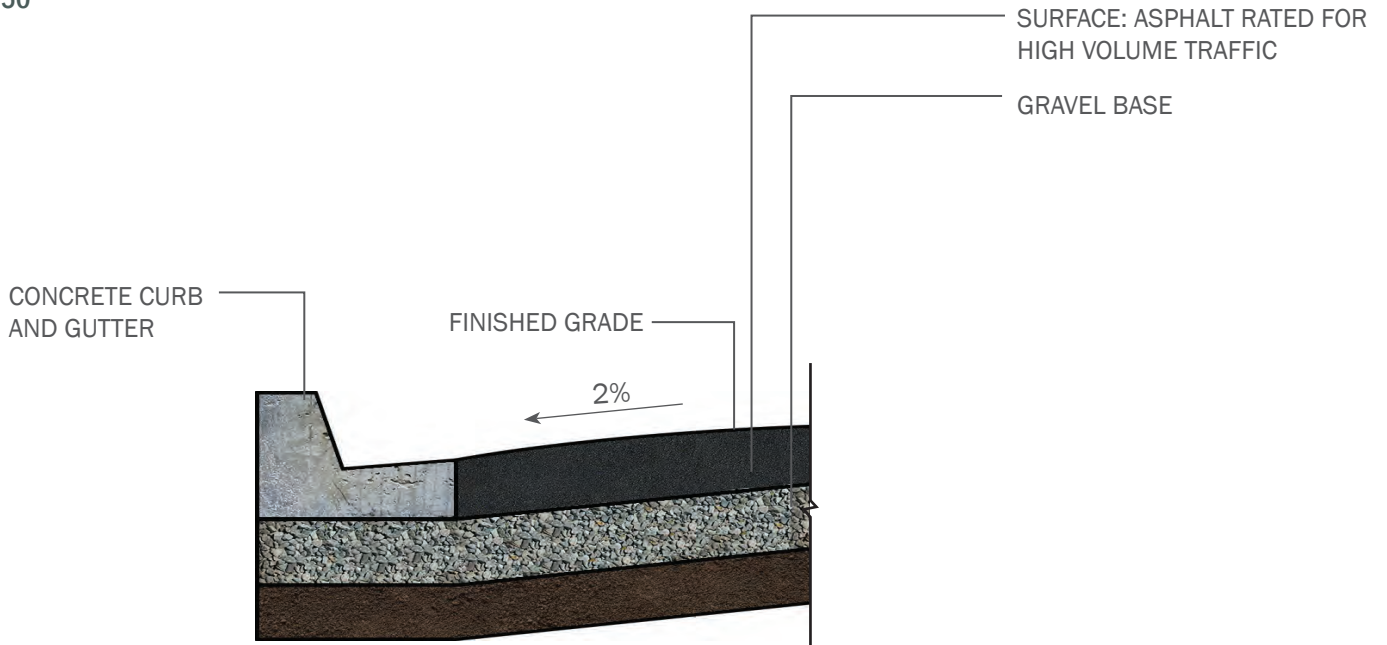
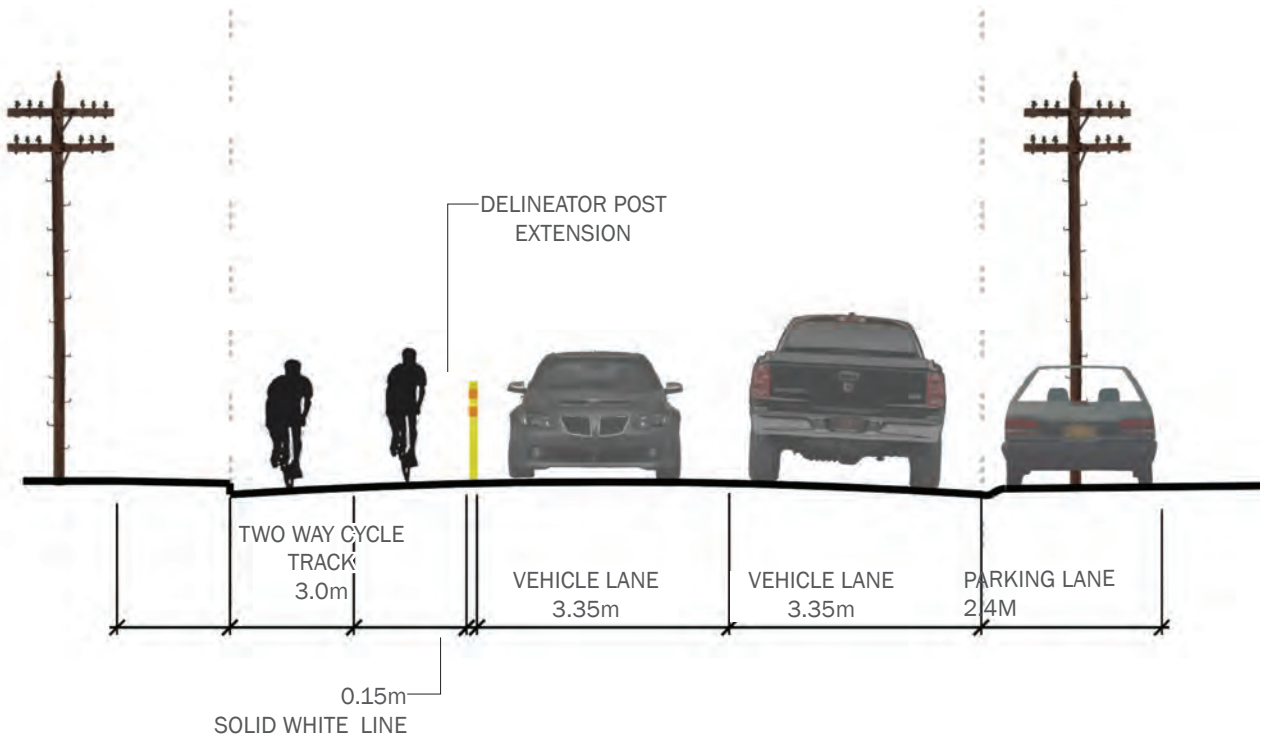


Table 2 CLASS 2 MATRIX





CLASS 2: ON-STREET MULTI-MODAL CORRIDOR		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
This 2-way on-street multi-modal corridor separates cyclists from vehicle traffic with a delineator post. This class is not ideal for all situations but where right of way widths are constrained and class 1 is not feasible this class is recommended. If located properly, cycling lanes can make active transportation more desirable for day-to-day activities by connecting various community amenities. Some of the connected amenities may include; parks, community facilities (e.g. the seniors centre, the recreation complex), offices, and shops within residential areas.	High	High

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Paved	Gentle (0-5%) Max. 10%	3.0m MAX	1	3	2%	10-20

TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						

 TYPICALLY PROVIDED

 OCCASIONALLY PROVIDED

AMENITIES							
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING	LIGHTING
							

*OTHER USERS COULD INCLUDE:
eBikes, eScooters, skateboards

Concept Detail

Scale: 1:50

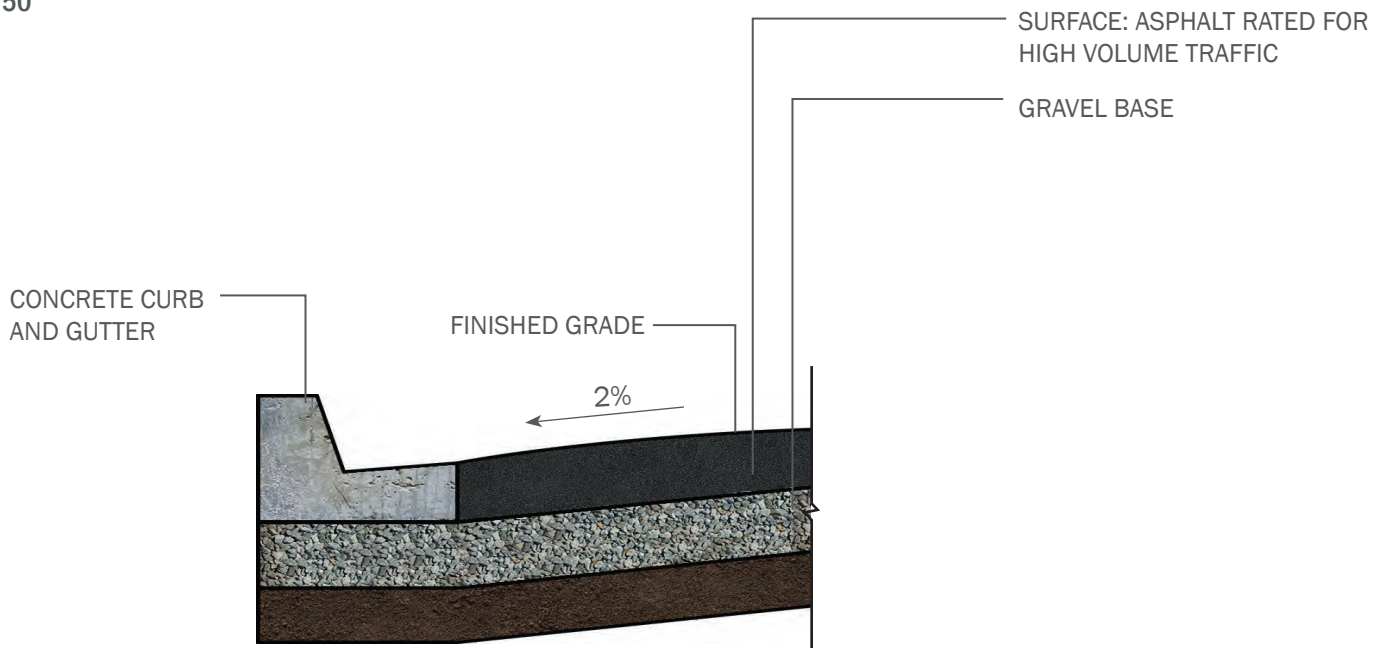
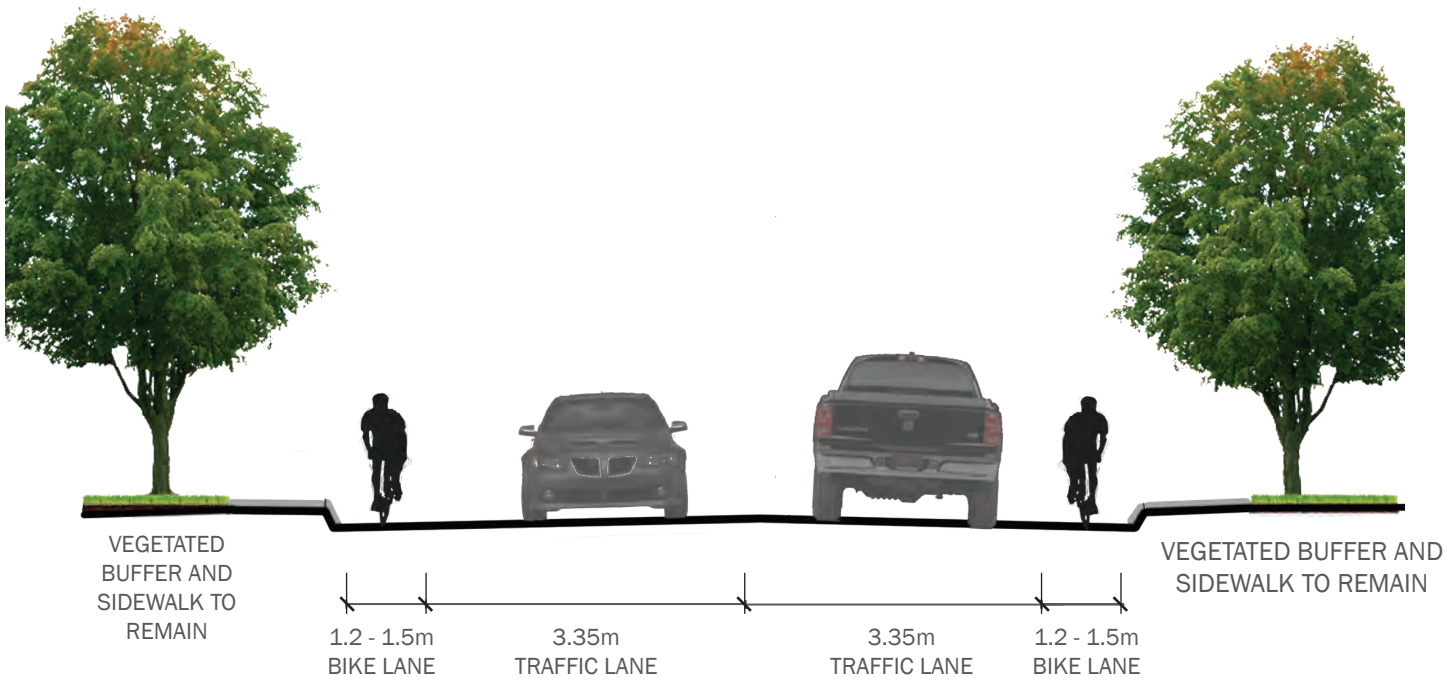


Table 3 CLASS 3 ,MATRIX




CLASS 3: ON-STREET MULTI-MODAL CORRIDOR		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
The on-road bike lane is an extension of the road shoulder and does not have a physical barrier between vehicle traffic and bicycles. Line painting and bike lane symbols will be utilized, along with approved signage to identify this bike lane. Bicycles will be required to travel one-way with the direction of vehicle traffic. This style of bike lane is considered the least desirable to cyclists and should be developed only when conditions are unsuitable for class 1 and 2.	High	High

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Paved	Gentle (0-5%) Max. 10%	1.5m MAX	1	3	2%	10-20





TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						



TYPICALLY PROVIDED



OCCASIONALLY PROVIDED

AMENITIES							
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING	LIGHTING
							

*OTHER USERS COULD INCLUDE: eBikes, eScooters, skateboards

Concept Detail

Scale: 1:50

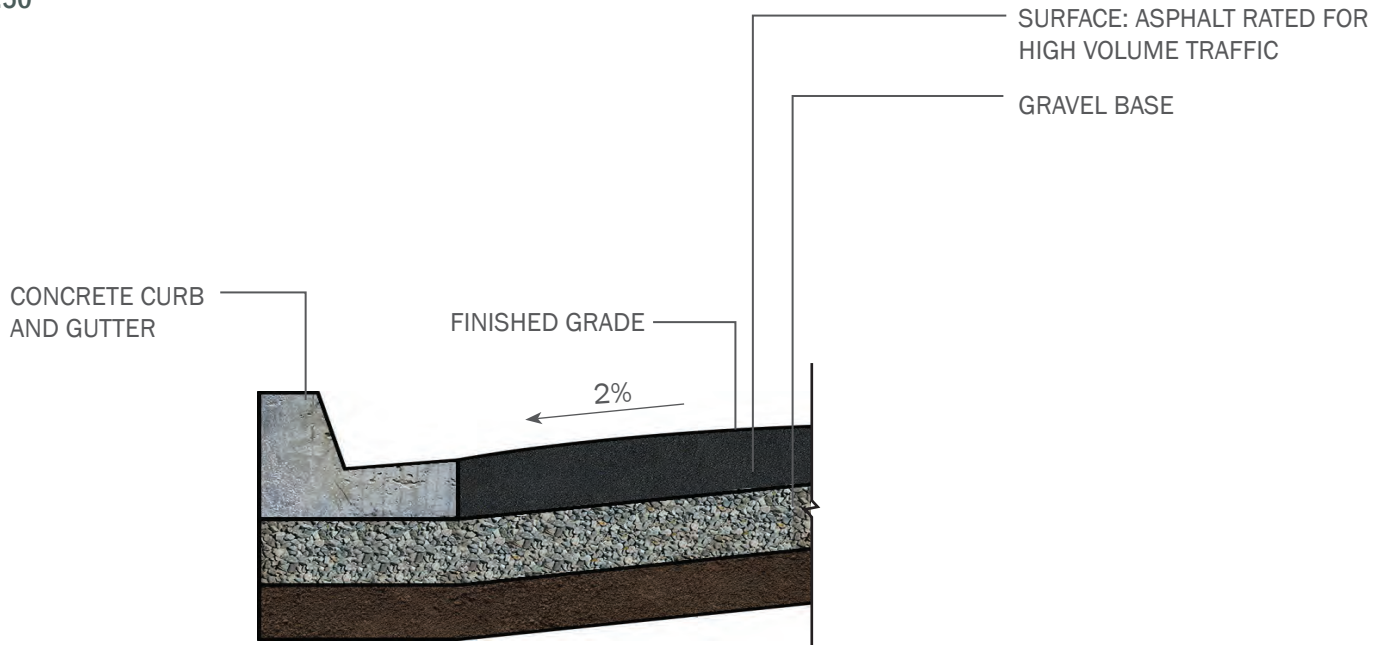


Table 4 Trail Class 1 Matrix

TRAIL CLASS 1 - GREENWAY / URBAN TRAIL		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
<p>These trails are completely separated from vehicular traffic and support high volumes of users. Paving options include asphalt, unit pavers, concrete or compacted gravel. Class 1 trails will typically provide universal access to a variety of community amenities and are intended to function as an active transportation route for residents and tourists alike.</p> <p>Trail examples: Friendship Trail, Dyke Trail, Cowichan Valley Trail .</p>	High	High

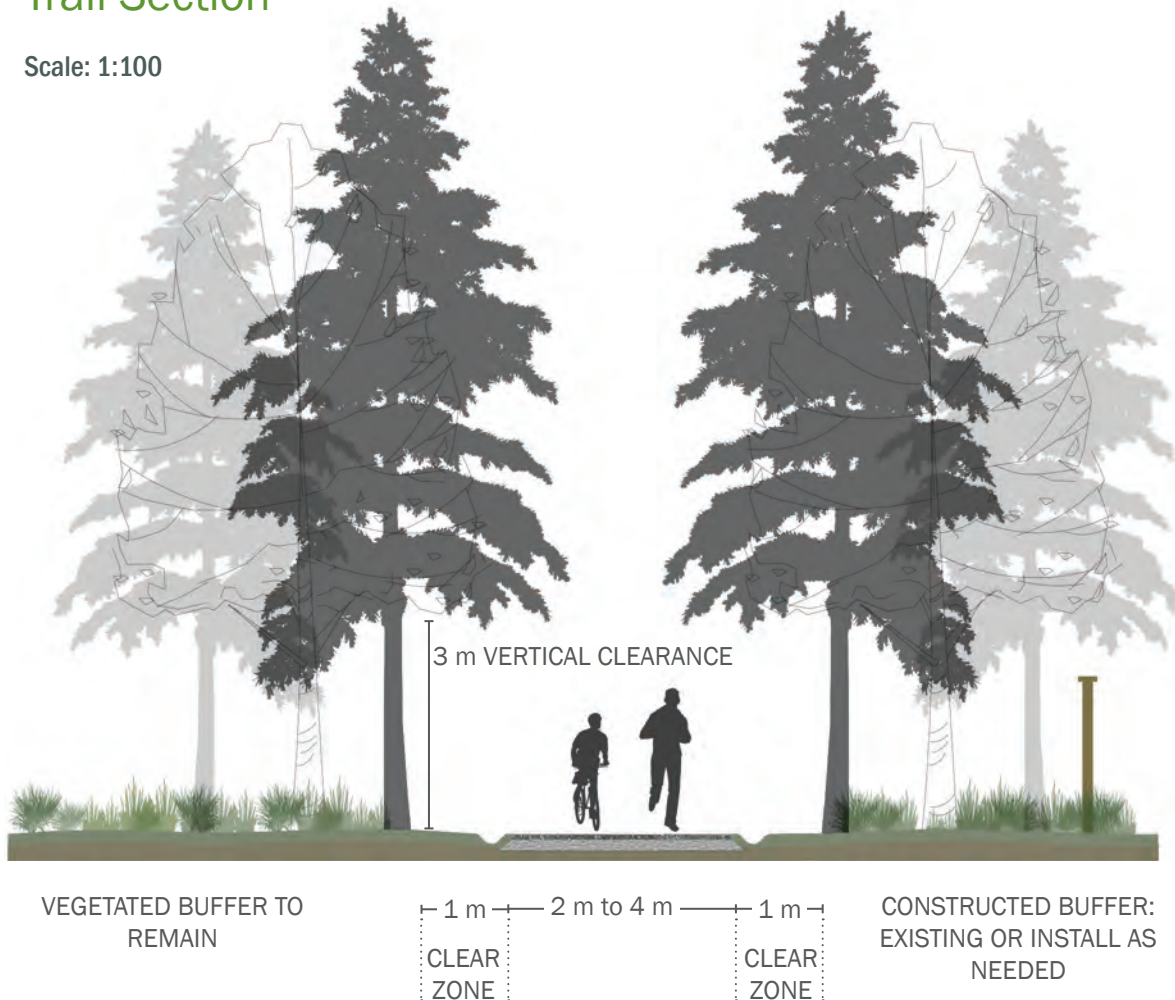
Sample Image








Friendship Trail








Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Paved/ Compacted Gravel	Gentle (0-5%) Max. 10%	2-4	1	3	1-2%	10-20

TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						

AMENITIES						
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING
						

 TYPICALLY PROVIDED

 OCCASIONALLY PROVIDED

Concept Detail

Scale: 1:50

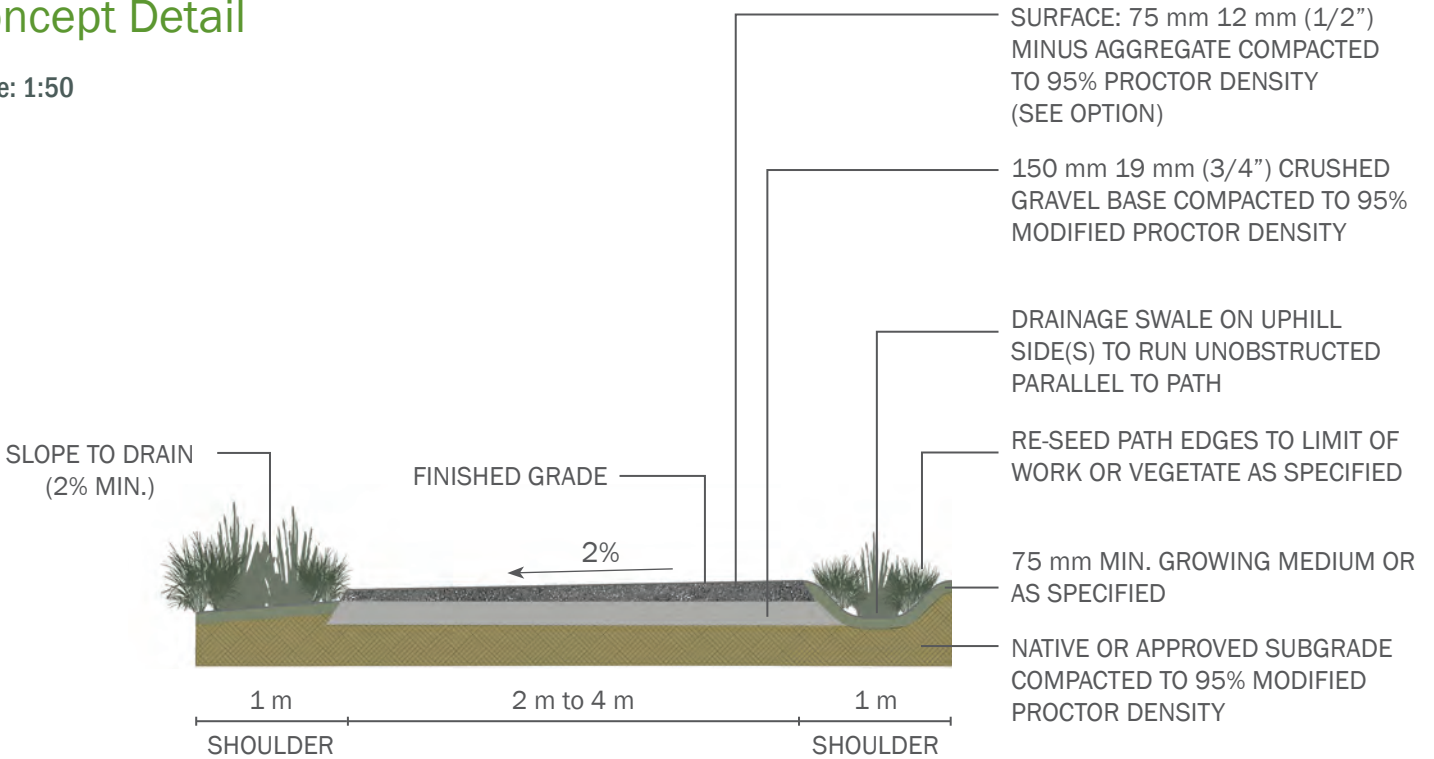


Table 5 Trail Class 2 Matrix

TRAIL CLASS 2 - DOUBLE TRACK		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
<p>Class 2 Trails typically provide a mid-country and neighbourhood level recreational experience. They are typically more challenging than Class 1 trails as they are constructed of softer surface materials (gravel, sand, etc.) and cover a more varied terrain.</p> <p>Trail examples: Herons Wood Park, Wul'aam (Echo heights) Park</p>	Moderate	Medium

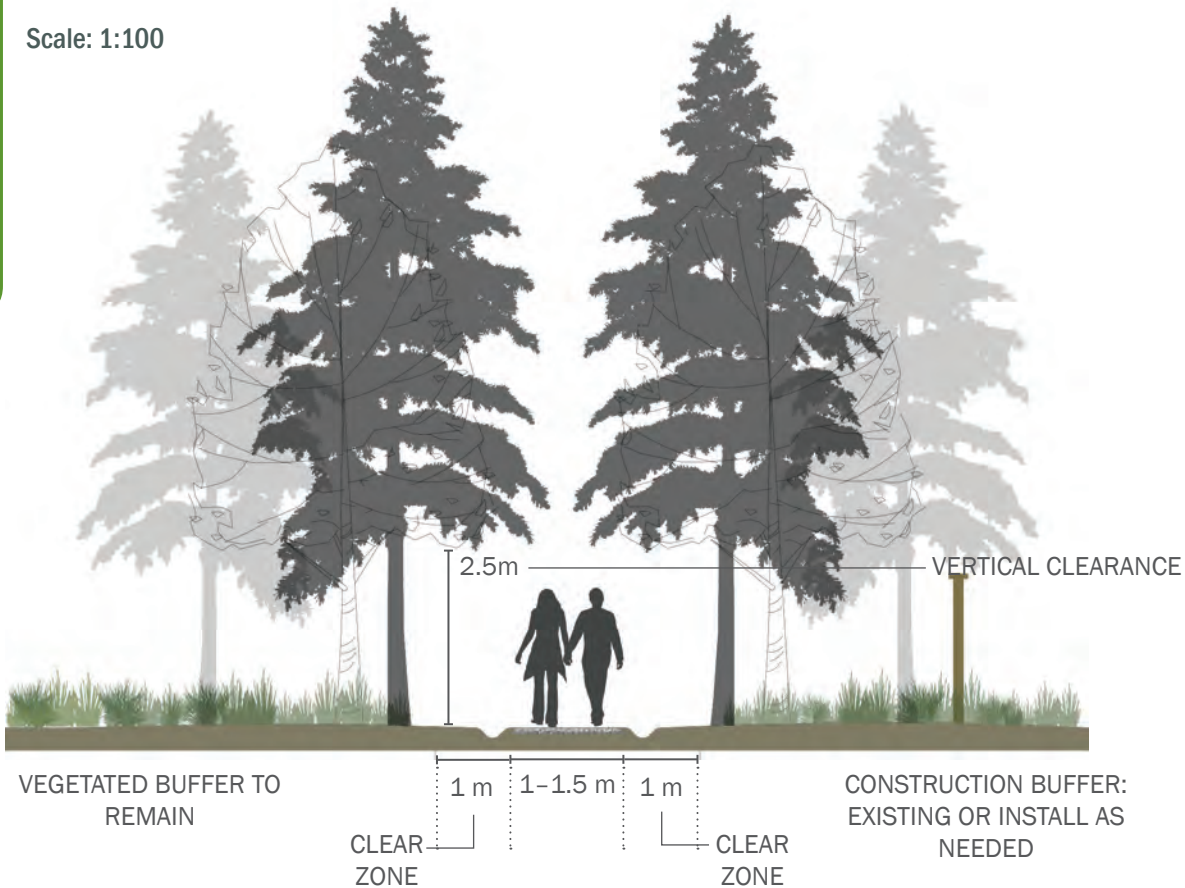
Sample Image








Herons Wood Park

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Crushed Gravel or Natural Surface	Up to 30%	1-1.5	1	3	1-2%	Provide safe sight lines

TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						

AMENITIES						
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING
						

TYPICALLY PROVIDED

OCCASIONALLY PROVIDED

Concept Detail

Scale: 1:50

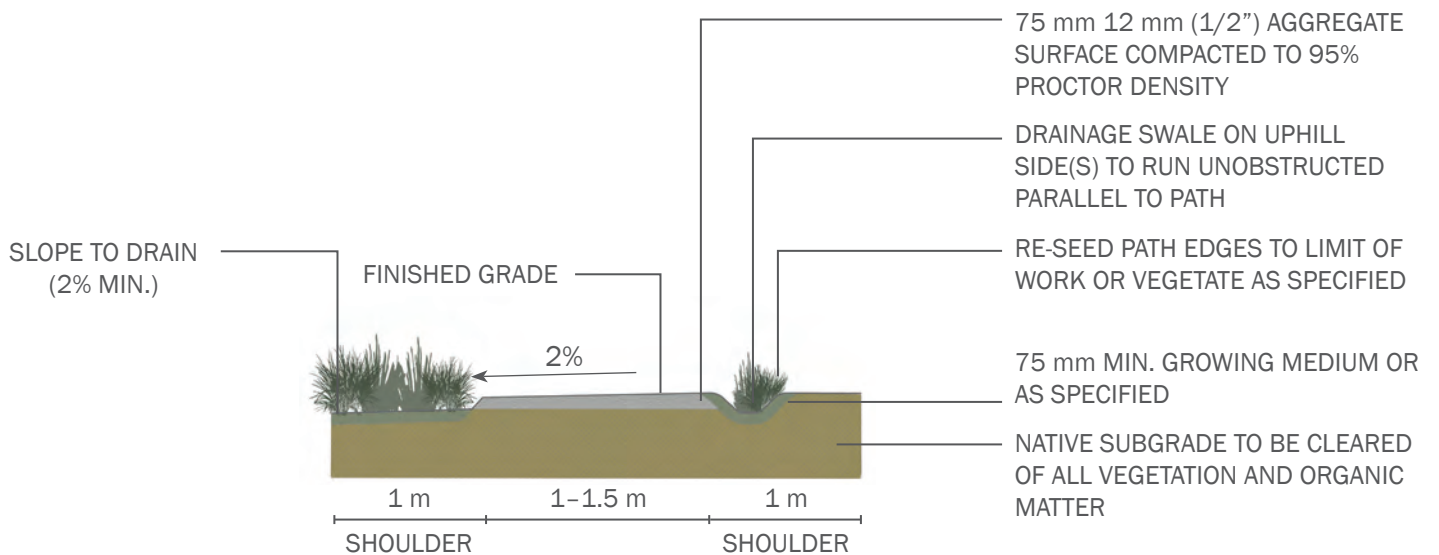


Table 6 Trail Class 3 Matrix

TRAIL CLASS 3 - SINGLE TRACK NATURAL SURFACE		
DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
<p>Single-track trail, typically not universally accessible due to surfacing and terrain. Provides a mid-country to more back-country experience with very few amenities. The narrow natural surface trail has fewer environmental impacts, protects sensitive ecosystems, and enhances user experience.</p> <p>Trail Examples: Askew Creek Trails</p>	Low	Low

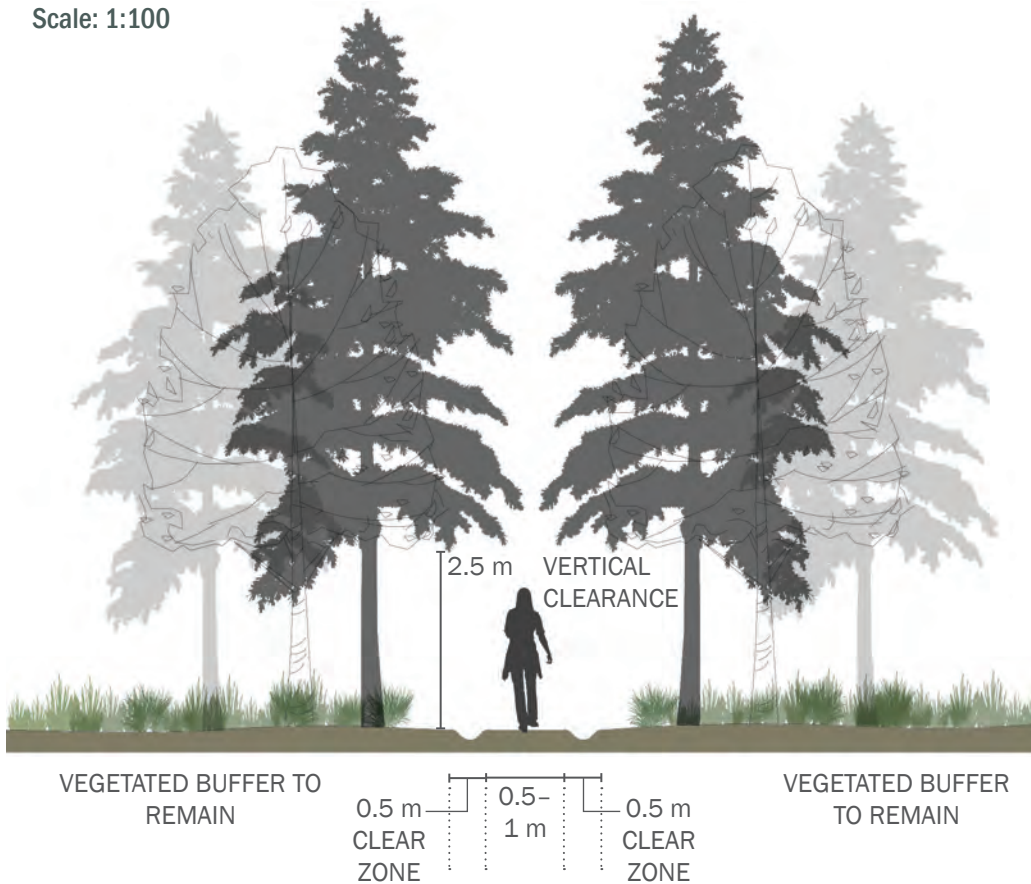
Sample Image



Askew Creek Park

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Natural Surface/ gravel added where needed	Up to 30%	0.5-1	0.5	2.5	2-4%	Provide safe sight lines

TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS

AMENITIES						
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING



TYPICALLY PROVIDED



OCCASIONALLY PROVIDED

Concept Detail

Scale: 1:50

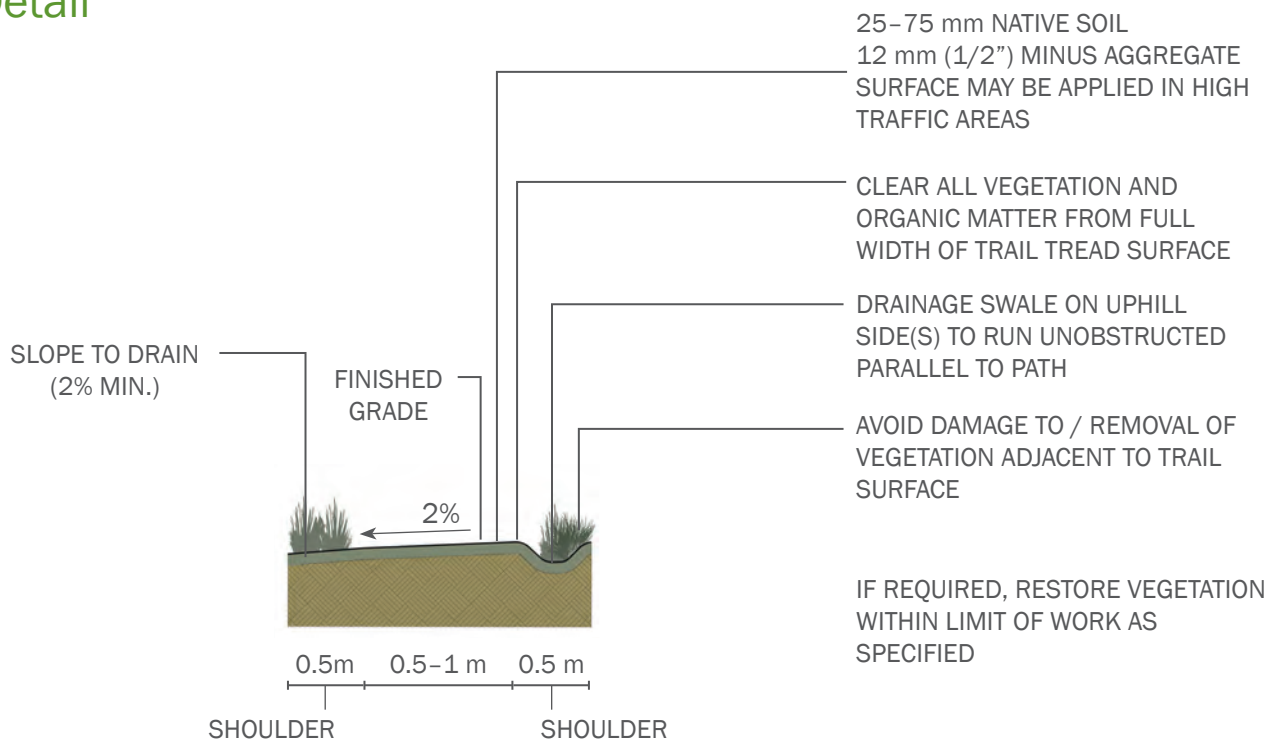


Table 7 Trail Class 4 Matrix

TRAIL CLASS 4: SINGLE TRACK MOUNTAIN BIKE TRAIL

DESCRIPTION	RELATIVE LEVEL OF USE	MAINTENANCE
<p>Single-track trail that may include sections of very rough terrain. Boardwalks may be used to traverse sensitive areas. Tread width 30–50 cm maximum; no tread grubbing.</p> <p>Trail examples: Trails in Forest Reserves</p>	Low	Low

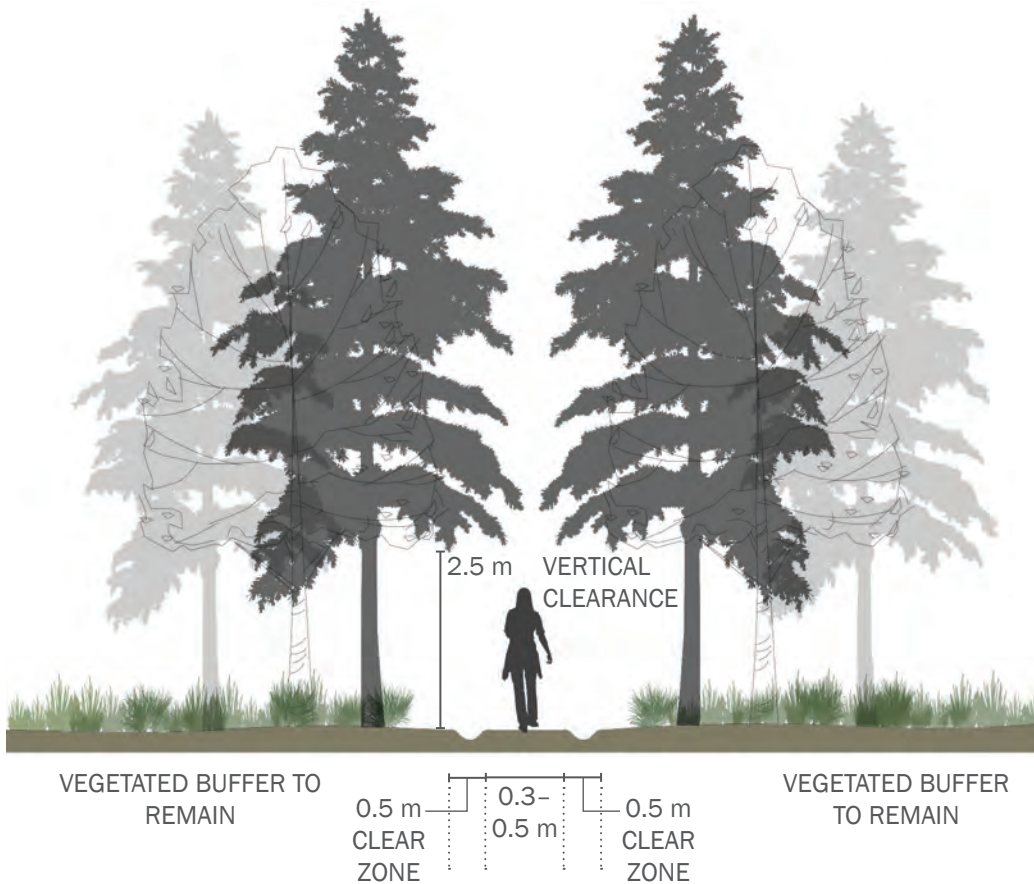
Sample Image





Maple Mountain Forest Reserve Trails

Trail Section

Scale: 1:100



DESIGN ELEMENTS						
SURFACING	SLOPE	TRAIL WIDTH (M)	CLEARING WIDTH ON EACH SIDE OF TRAIL (M)	CLEARING HEIGHT (M)	CROSS SLOPE	SIGHT LINES (M)
Natural Surface/ gravel added where needed	Up to 30%	0.3-0.5	0.5	2.5	2-4%	Provide safe sight lines







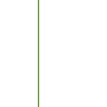
TYPICAL USERS						
HIKING	WALKING	EQUESTRIAN	MOUNTAIN BIKING	CYCLING	ROLLER BLADES	UNIVERSAL ACCESS
						



TYPICALLY PROVIDED

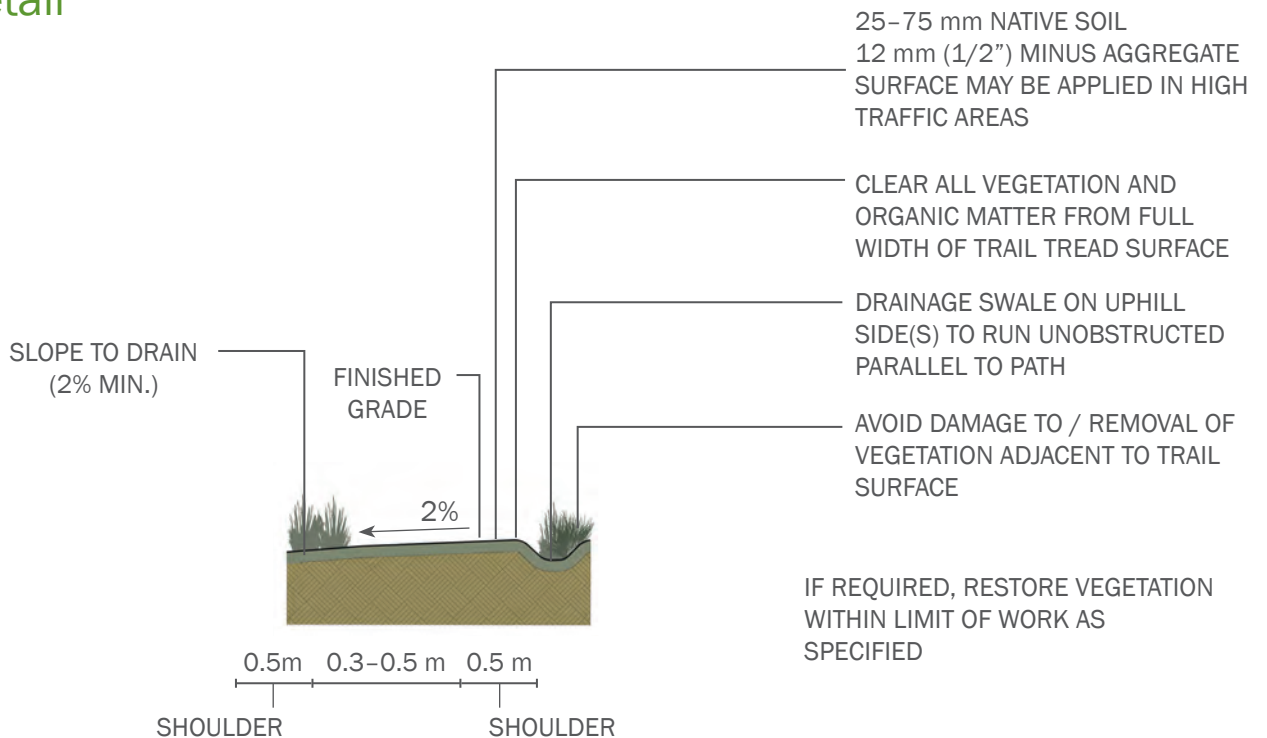


OCCASIONALLY PROVIDED

AMENITIES						
FURNISHINGS	GARBAGE RECEPTACLES	KIOSK	REST AREAS	TOILETS	BICYCLE PARKING	VEHICLE PARKING
						

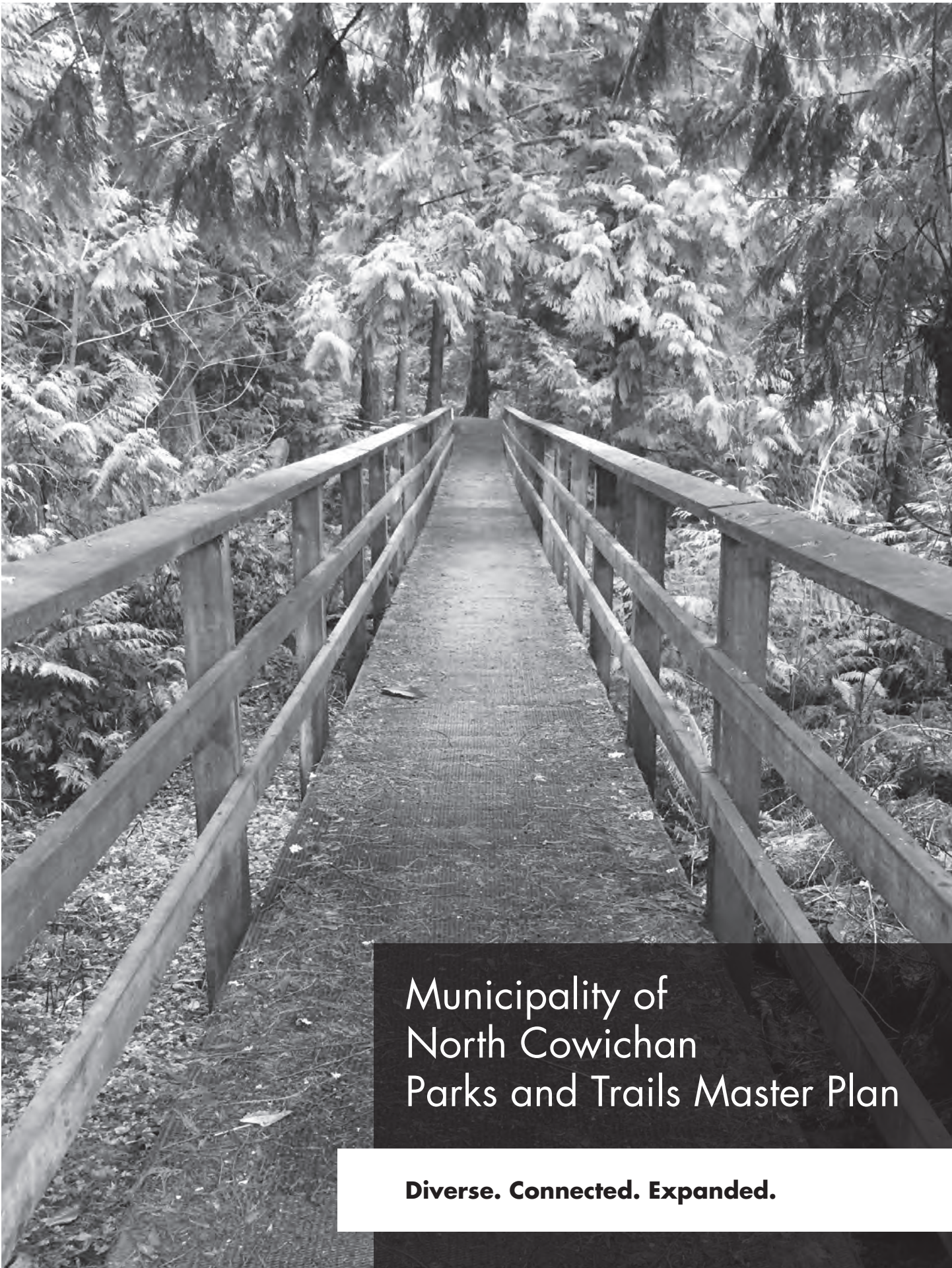
Concept Detail

Scale: 1:50









Municipality of
North Cowichan
Parks and Trails Master Plan

Diverse. Connected. Expanded.