

- 5,000 hectares or 25% of MNC's total land area.
- Municipally-owned fee-simple land.
- Managed by Forestry Department.
- Harvested ~30% (1523ha) since 1987 and all areas have been restocked with planted trees.



## North Cowichan's Municipal Forest Reserve

- Land acquired from non-payment of taxes in the 1930's/40's.
- The MFR was established by Council in 1946.
  - Land use designated for forest management (i.e. no development)
- Forest lands un-managed until the 1960s when a consulting forester was hired to review MFR lands and create a Forest Management Plan.
- Harvested by local operators by diameter limit cutting.
- Concerns about management practices in 1981 led Council to create the Forest Advisory Committee to help oversee and advise the Forestry Department.

## North Cowichan's Municipal Forest Reserve

- FAC formulated a new management strategy that replaced diameter cutting methods with practices that are still used today.
- Mission:
  - "To maintain and enhance North Cowichan's valuable municipal forest resources for all users through sustainable forestry, ecological stewardship, & sound fiscal management."
- Forestry Department established under the following policy:
  - "Forest management expenditures and operations costs will be financed entirely through the cumulative revenues generated by sales of forest resources."

## North Cowichan's Forestry Advisory Committee

- Currently the FAC is made up of 4 volunteer forestry professionals:
  - Eric Jeklin Since 2004 (Silviculture/Fire Protection)
  - Mark Carter Since 2006 (Harvesting/Engineering)
  - Al Chatterton Since 2014 (Terrain/Geoscience)
  - David Lindsay since 2017 (Biologist)
- 1 Council member (chair Councillor Rob Douglas)
- 2-4 Staff

\*\*\*Council is considering expansion of FAC membership later today



## Forest Reserve Fund

- To account for variability and follow the council mandate of being self-supporting, a Forest Reserve Fund (FRF) was established to support Forestry Operations when markets were poor.
- The FRF is also used to expand the MFR, cover fire fighting costs, replace equipment, and provide community support in a variety of ways.



## Forestry Profit Disbursements

- Set by Council's "Allocation of Profits" Policy
- 50% to Forest Reserve target \$2,100,000
- 20% to Forest Legacy Fund target \$250,000
- 30% to General Revenues



## **Community Support**

- Annual high school bursaries (2) and scholarship (1) = \$2,400
- Annual donation of three truckloads of firewood to youth orientated organizations =  $\sim$ \$3,000
- Annual high school woodworking contest = \$950 in prizes
- Forest Legacy Fund contributions to various community projects







# Policy Framework

- **2011 Official Community Plan**, Section 2.1.2 (pp. 19-22): Forestry policies related to MFR:
  - 2.1.2.1 The Municipality will protect forest lands from development or uses that erode traditional forestry activities.
  - 2.1.2.3 The Municipality will protect North Cowichan's visual appeal by undertaking integrated forest management planning...
  - 2.1.2.4 The Municipality will manage North Cowichan's municipal forests for multiple uses on a long-term sustainable basis.
  - 2.1.2.5 The Municipality will use its Visual Landscape Inventory (2001) to assess forest harvesting plans, paying particular attention to areas visible from highways, scenic roads, residential areas, and travel corridors on water.
  - 2.1.2.6 The Municipality will work to maintain biodiversity at current levels or enhance it where possible on municipal forest lands.
  - 2.1.2.7 The Municipality will encourage responsible recreational uses of municipal forest lands.
- Review and refresh of policies needed as part of OCP update.
- https://www.northcowichan.ca/assets/Municipal~Hall/Bylaws/Official Community
   y Plan Bylaw.pdf

# Policy Framework

- 2013 Climate Action and Energy Plan, Recommendation #8 (pp. 115-116): Increase North Cowichan's Forest Area.
- Key concepts:
  - "North Cowichan's municipally-owned community forest is an unusual asset and provides a range of benefits including revenue, employment, recreation and potentially carbon offsets."
  - Includes four strategies: rural afforestation, urban forest strategy, increase the area of municipal forest, and investigate forest carbon offsets.
- Should be integrated into management planning moving forward.
- <a href="https://www.northcowichan.ca/assets/Departments/Engineering/PDFs/NC%20CAEP%20final%20report%20v5">https://www.northcowichan.ca/assets/Departments/Engineering/PDFs/NC%20CAEP%20final%20report%20v5</a> reduced.pdf



# Policy Framework

#### 2017 Parks and Trails Master Plan

- Affirms that MFR will continue to be a working forest, using sustainable forest management practices.
- Supports integrated Resource Management, e.g. managed for multiple uses, including hiking, mountain biking, horseback riding, conservation, etc.
- Supports enhanced recreational opportunities.



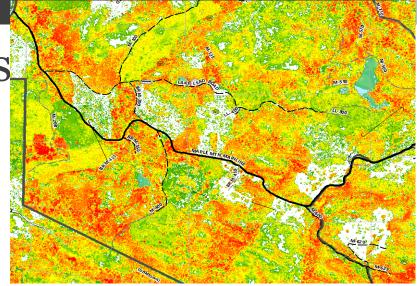


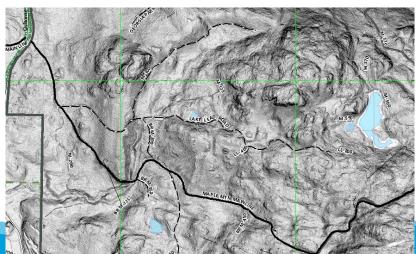




### Harvest Selection Process

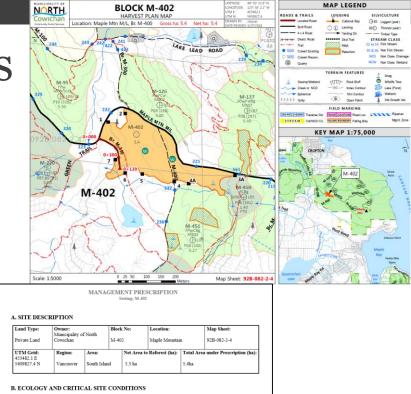
- LiDAR Identify AOI based on tree height information
- Pre-assessment Professional Forest Engineers review information (access, road location, terrain, hydrological, fish, sensitive ecosystems)
- Field review confirm pre-assessment, determine access, harvesting method(s), digitally outline proposed harvest area, determine if further assessments are required.





### **Harvest Selection Process**

- Mapping Draft Harvest Plan maps are produced for review.
- Management Prescription Report that documents the review process of the various aspects of the proposed harvesting area, including: ecology, site conditions, silvicultural systems, soils, visuals, recreation, terrain, and forest health considerations.



ECOLOGY AND RESOURCE INFORMATION					
SU	Area (ha)	BGC unit	Site Series (SS)	SU AREA DESCRIPTION	
A	5.3	CWHxm	01 95% 05 5%	The SU is comprised of gentle slopes with scattered pockets of 05. The site series in the field tend to be mosaics and the percentages here are based on ocular estimates. There are some wetter receiving sites within block boundaries.	
NAR	5.3	Net Area to be Reforested.			
NP	-	Non Productive Areas: Includes Rock , Swamp, Water , Other			
R&L	0.1	Permanent Access Structures: Includes Roads , Landings , Quarries			
Total	5.4	Total Area Under Prescription.			

Critical Site Conditions that affect Timing of Operations and the manner in which they affect them:

The soin in this block are predominantly sily loan in texture with a corner fragment content estimated at 20-35%. There are minimal areas with exposed bedock but such areas save are associated with shallow soils. Such areas will be particularly sensitive to soil displacement and erosion from ground based activities. Machine traffic on larger sections of exposed bedocks with this soils should be minimized and care taken to sovid unnecessary training. Machine traffic should also be displacement and the sould be soil to the origination of the soil and the soil and

managed to avoid sensitive wet areas and unnecessary turning

As a best management practice, harvest activities are to be carried out with regard to avoiding unnecessary disturbance of th forest floor. Exposed soils are more succeptible to displacement, compaction and erosion as well as providing a seed bed for opportunistic species such as Red Alder, Scotch Broom and other crop tree competiors.



# Operations

- Annual Allowable Cut = 20,000m³/yr
- When market conditions are favorable, objective is to harvest the full AAC
- Harvest ~50ha a year = 1% of MFR
- Ground-based harvesting systems with tree retention
- 10+trees retained per ha
  - Non-merch, old growth or older 2<sup>nd</sup> growth with OG characteristics, forked tops/wildlife potential
- Average volume/ha = ~400m³
- Average cutblock size under 10ha





# Operations

- Harvesting and road building projects are put out in packages and posted on public forums (BC Bid, MNC website).
- Tenders awarded per the MNC procurement policy.







# Operations

- Fire wood brought to road side
- High utilization standards (minimal waste)
- Continual road maintenance
- Culvert monitoring/inspections
- Road/trail rehabilitation





## Timber Sales

- Sold to various mills/companies depending on the grade of log.
- Timber is sold to Jemico Enterprises Ltd (Chemainus), Harmac (Crofton), Otter Point Timber (Ladysmith) and TimberWest (Crofton).
- Timber is sold to small local mills at market prices when requested and the grade of timber is available.





## Silviculture

- Plant 100% of all harvested areas at the earliest possible time
  - Target 1100SPH stocking
  - Trees sourced from Island Tree Nurseries
  - Ecological suitable species planted
    - · Species include Fdc, Cw, Pw and Bg
- Over 2.1 million trees planted since 1987







## Silviculture

- Continually monitor/survey until trees "Free to Grow" (~10-15 years).
- Protect trees from ungulate browse by installing synocast cones.
- Prune Pw to mitigate risk of Blister Rust.
- Brushing conducted as needed to protect crop trees from competing vegetation.
- Invasive species control.
- Hazard Abatement.



### **Minor Forest Products**

- Firewood
  - Permits available to MNC residents
  - Agreement with SD79
- Salal/Boughs
  - Permits available to the public



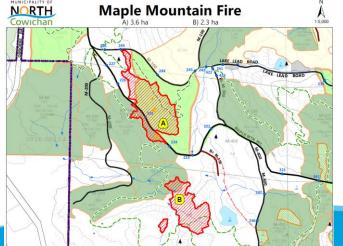






### 2018 Fire Season

- Maple Mountain 5.9ha
- Several neighboring fire departments provided resources
- Overwhelming community support
- Cost: ~\$330,000
  - MNC = ~\$120,00
  - BCWS = ~\$210,000









## 2019 Blow Down

- Safety and fire risk
- Assessments underway by Professional Forest Engineers throughout the MFR.
- Preliminary estimate is ~8,000m<sup>3</sup>
- Harvest proposals will be presented to Council





# 2019 Projects Currently Underway

### Strategy For Managing Species At Risk

- Purpose: To have a current guidance document for managing species at risk within the MFR.
- Final draft is completed and ready for FAC review.

#### Visual Landscape Inventory Update

Purpose: To provide an update and identify visually sensitive areas within the MFR that can be used for future visual management decisions.

#### Sensitive Ecosystem Assessments

- Purpose: To update the ecologically sensitive ecosystems data that is being used when considering harvesting and recreational opportunities.
- Currently working on Mount Prevost and Stoney Hill. Maple Mountain and Mount Tzouhalem were completed in 2018.

# 2019 Projects Currently Underway

- <u>Timber Supply Analysis</u>
  - Purpose: To update forest inventory within the MFR and reassess the annual allowable cut.
  - Initial stages estimated completion Dec 31, 2019
- <u>Fire Resiliency</u> Application made to UBCM for grant to update the current Community Wildfire Protection Plan.
  - Purpose: To update the current Community Wildfire Protection Plan
  - Assuming grant funding, estimated completion Dec 31, 2019.



### More Information

#### Website:

https://www.northcowichan.ca/EN/main/d epartments/parks-recreation/forestry.html

#### Forestry Reports:

https://www.northcowichan.ca/EN/main/d epartments/parksrecreation/forestry/forestry-reports.html

#### Forestry Fact Sheet:

https://www.northcowichan.ca/assets/Dep artments/Forestry/docs/MFRFactSheet-Nov282018.pdf

Legislative Services

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Cemeteries Contacts

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Public Transit

Registration, Schedules, & Programs

Two Tier Payment

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Forestry

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Online Registration

Our Events Calendar

Mountain & Trail Access

February Programs

Spring 2019 Learn to

Swim/Skate

Winter Facility Schedules

Private Swim Lessons Request

Low Income Access Program (LAP) Application



#### Municipal Forestry Program

This Fact Sheet [PDF - 128 KB] provides a summary about management and benefits of North Cowichan's Municipal Forest Reserve.

#### Mission Statement

"To maintain and enhance North Cowichan's valuable municipal forest resources for all users through sustainable forestry, ecological stewardship, & sound fiscal management

The Municipality of North Cowichan is one of the few communities in North America that has privately owned forest lands that are managed for the benefit of residents. This is called the Municipal Forest Reserve, and through it, North Cowichan owns 5,000 ha of lands, which make up 25% of the total land area of North Cowichan, Another 25% of the Municipality falls within the Agriculture Land Reserve, making half of our community unavailable for development. This combination of forestry and agricultural lands gives North Cowichan a sizeable amount of green space and adds to our quality of life.



#### Spotlight







