

# **Municipality of North Cowichan Committee of the Whole MINUTES**

Tuesday, July 30, 2019, 10:30 a.m.  
Municipal Hall – Maple Bay Meeting Room

- Members Present      Councillor Kate Marsh (Acting Mayor)  
                                 Councillor Christopher Justice  
                                 Councillor Tek Manhas  
                                 Councillor Rosalie Sawrie
- Members Absent      Mayor Al Siebring  
                                 Councillor Rob Douglas  
                                 Councillor Debra Toporowski
- Staff Present          Ted Swabey, Chief Administrative Officer (CAO)  
                                 Mark Frame, General Manager, Financial and Protective Services  
                                 Ernie Mansueti, General Manager, Community Services  
                                 Shaun Mason, Municipal Forester  
                                 Natasha Horsman, Manager of Communications and Public Engagement  
                                 Alyssa Meiner, Information Management Officer  
                                 Nelda Richardson, Manager, Business Services
- Others Present        Dr. Peter Arcese,  
                                 Dr. Brad Seely,  
                                 Dr. Verena Griess,  
                                 Dr. Clive Welham, and  
                                 Dr. Stephen Sheppard (collectively, UBC Professors)

## **1. CALL TO ORDER**

There being a quorum present, Acting Mayor Marsh called the meeting to order at 10:30 a.m.

## **2. APPROVAL OF AGENDA**

It was moved and seconded:

**That the Committee approve the July 30, 2019 Committee of the Whole agenda, as circulated.**

**CARRIED**

### 3. BUSINESS

The CAO welcomed the UBC Professors and highlighted this meeting is an opportunity for members of Council and the UBC Professors to dialogue directly in order to refine areas for collaboration on a forest management plan, and help shape a formal agreement to delineate the UBC Professors' role in this process.

The Committee heard that a proposal from the UBC Professors setting out deliverables, rates, schedules and responsibilities is expected to be presented to Council at a future meeting where the public can provide input.

Following introductions, Acting Mayor Marsh acknowledged the meeting is taking place on the traditional territory of the Coast Salish Peoples.

#### 3.1 Workshop with UBC Professors regarding expectations for UBC Professors' participation in the Forestry Operational Review

The Committee received a PowerPoint presentation from the UBC Professors. Dr. Arcese clarified that while they all work at UBC they are not necessarily representing the interests of the University.

Dr. Arcese highlighted

- the Coastal Douglas Fir Conservation Partnership and biologists' interest in the region and conservation in the Georgia Basin;
- standing carbon and value for carbon (the potential impact of harvesting on carbon sequestration goals);
- Algonquin Forest Authority as an example of sustainable forest management with continued forestry in the park.

The Committee heard from Dr. Arcese that over-arching goals include:

- learning about North Cowichan's goals for the future management of the Municipal Forests;
- offering assistance in developing management plans most likely to maximize the value of forests to the community;
- exploring scenarios to meet the overarching goals (such as maintaining aesthetic, amenity, and biodiversity values of North Cowichan Forests while generating annual revenue for the community).

The Committee asked about the importance of Cowichan forests to the Coastal Douglas Fir (CDF) ecosystem and heard these are extremely important, but should think about the whole area to maintain fish and animal habitat, and almost all areas in the region are of interest in conservation. Dr. Arcese expressed that an ideal goal would be to secure approximately 30% of CDF ecosystem areas for modest or strict conservation, which would permit various other types of uses and approaches to forest management/harvesting, depending on the scale of conservation.

**Importance of Spatial Data**

The Committee heard from Dr. Seely that good spatial data is critical for testing and analysis to support development of a forest management plan.

This includes “net down data”, which is typically used to determine which areas are likely to be excluded from harvesting based on ownership boundaries, setbacks from streams and water bodies, visually sensitive areas (recreation, sensitive hill slopes), access (existing road networks for harvesting and trails), and sensitive ecosystems (where, existing status). “Operable land base data” is also needed to show the areas accessible for harvesting from an operational perspective. For example, areas with very steep slopes or other factors limiting accessibility are often considered inoperable and would not be harvested.

“Forest cover data” is very important and the existing VRI data from the Province may need to be updated and improved. LiDAR (canopy height and digital elevation models), ortho imagery, and cutblock/silviculture layers also inform forest cover data.

Conservation areas, habitat attributes, seral stages and water catchment areas were discussed. The Committee heard that some sensitive ecosystems may require fire or careful light touch logging in order to keep the areas open or enhance their long term natural value. This is consistent with historical land management techniques and shared goals with First Nations.

The Committee heard that sensitive ecosystems are defined in Provincial law and identified/mapped by the Conservation Data Centre, but this mapping may be out of date. For example, in Stoney Hill there are lots of red-listed species not in mapping because of aerial mapping previously done. The UBC Professors anticipate engagement activities associated with sensitive ecosystem mapping.

The Committee asked about climate change and heard the models would require much greater levels of details to run climate change scenarios. The UBC Professors pointed out that we are moving to a climate more like the ancient climate in this region where drought-adaptive species, such as camus, are favoured. It was also noted that stewarding and fire regimes were used in past to manage forests.

The UBC Professors encouraged the Committee to stay focused on the big picture that will create a diverse and resilient ecosystem that can handle changes over time.

**Multi-objective scenario analysis**

Dr. Seely discussed a multi-objective scenario analysis which involves using forest-level and stand-level models to run forest management scenarios to generate output maps, graphs and tables.

The Committee heard it is important to limit the number of scenarios that are developed to a reasonable number of options to avoid confusion. It was suggested that at a minimum these scenarios should include:

1. business as usual;
2. reduced harvesting (e.g. carbon-project), and
3. no harvesting.

A few additional scenarios could be added based upon feedback from the public engagement process. After the scenarios are established, evaluation criteria and other indicators (i.e. economic, conservation, recreation, visual) can then be applied.

Dr. Welham explained the importance of focusing on the process of engagement and technical expertise rather than outcome. Adaptive management enters the equation when unforeseen circumstances enter in and climate is uncertain and not well understood. The aim is to develop a process that Council is comfortable with that helps achieve objectives for the Municipal forests in the relatively short term and try not to venture too far into the future because of the unknown events such as climate change, fire, wind events, etc. Dr. Welham also pointed out that with adaptive management, the goals and objectives should be reviewed and modified as required over time.

### **Developing a Carbon Project in the Municipal Forest**

The Committee heard from Dr. Seely that a pilot study for developing a carbon-project includes:

- reviewing spatial inventory data;
- evaluating key components (i.e. "additionality" needed for auditing purposes to proceed; "leakage" from shift harvesting to another area with no net benefit for climate, and plot networks maintained over time);
- estimating costs and revenues, fleshing out project timelines, exploring option for funding sources and identify potential buyers (genuine business enterprise); and
- preparing the report.

Dr. Seely explained that a carbon project is a way to monetize and generate value through the protection of non-timber ecosystem services. This will need to go through a rigorous audit and is not like a Provincial project where carbon credits are used internally. Anticipate attracting businesses interested in benefiting the community. For example, encourage conservation societies to be carbon neutral by investing in this project. Larger organizations like Shell and Coca-Cola are also involved in corporate mitigation strategies.

The Committee heard from Dr. Seely that a forest carbon project is the deliberate management of a forest land base to enhance and protect carbon stocks. This may include harvesting, usually requires a minimum 30-year commitment, offsets determined by comparing project to baseline, and must be carefully quantified and verified. A realistic baseline scenario is required to present to the auditor. The carbon project would

encompass the whole landbase but activities may vary in different parts of the Municipal Forests.

The development of a full carbon project would include a fixed start-up cost estimated to be in the range of \$65,000. Other costs include annual maintenance and verification costs of around \$12,500. The example of potential net revenue provided in the presentation ranged from \$191,000 to \$357,626 compared to baseline harvesting estimate of \$200,000.

### **Sustainable Forest Management**

The Committee heard from Dr. Griess that community-based forestry includes three elements: ecology, social, and economic.

The Social component includes where we are and where we want to be. North Cowichan is currently in transition and wanting to understand synergies. An example is synergies with Firesmart. Managing vegetation can help reduce the risk of wildfire. This can be accomplished by thinning and pruning, partial cutting, removing volatile trees such as spruce and planting fire-resistant species, and the construction of fuel breaks.

Alternative harvest patterns such as thinning and selection harvesting, patchwork harvesting, and shelterwood harvesting as opposed to clear cutting, were discussed. Examples of thinning and partial cutting were provided showing these are economically viable to meet fibre shortage demand, and still retain forest cover following the operation. There is a need for appropriate design and pattern suitable for the terrain. High value stands could be addressed by helicopter rather than roads. This is preferable from a restoration ecology perspective.

The Committee recessed for lunch at 12:00 p.m. and resumed the meeting at 12:33 p.m.

Following the lunch break, Dr. Arcese identified the goal of sufficiently defining scenarios in order to determine reasonable deliverables and proposed costs. The Committee heard there is also interest in leveraging North Cowichan's FireSmart initiatives, and leveraging external expertise and partners. For example, Environment and Climate Change Canada funds the Coastal Douglas Fir Conservation Partnership in order to further climate conservation goals in the area. This may be leveraged as well to supplement the project.

The Committee heard from the CAO that if parts of the studies need to be enhanced, this needs to be communicated to Council so a decision can be made to allocate additional funds or extend the process. At this point North Cowichan is mindful that community engagement on scenarios proceed.

## **Community Engagement**

The Committee heard from the Manager of Communications and Engagement and Dr. Sheppard that engagement will be done in tandem with the operational review. Council direction is to issue an RFP to secure an engagement consultant to lead the process. Dr. Sheppard's proposed role is as advisor to staff through the RFP process, strategic liaison between future engagement consultant and UBC team through operational review, and he is currently working with staff to help develop engagement RFP deliverables. The Committee heard there will be a more detailed report on the engagement RFP presented to Council at the August 21<sup>st</sup> Council meeting.

When asked if the engagement would involve a statistically significant survey, Dr. Sheppard advised that it is best to allow for the contracted party to suggest options. This might include a survey, and would expect this to meet basic standards of representation, with all interested parties at the table providing their input.

When asked about determining highest and best use of forests, including factors such as clean water downstream, the Committee heard modelling can provide information on various scenarios and anticipated outcomes. Listening to what people say are the values, local and botanical knowledge, are included in weighing and arriving at a social decision of best fit.

The Committee heard next steps involve the UBC Professors developing and submitting a proposal outlining deliverables and clarifying expectations. While the data requirements are similar for projects of these types, additional work and data may be required if expectations are different.

It is clear that a base case scenario of forestry operations (i.e. status quo/business as usual) is needed. The UBC Professors acknowledged that for some people this might engender worry, but it is a simulation. Even if the decision is to go to a 100% carbon project, the base case is critically important to demonstrate additionality.

When asked if North Cowichan can take a total pause in logging in the interim, or whether we need to continue logging, the UBC Professors advised that there is enough evidence of ongoing logging activity to pause without jeopardizing the viability of a carbon project, if North Cowichan begins work immediately on the base case. The UBC Professors recognized that firesmartering is still warranted and there is a desire to potentially leverage FireSmart funding grants to help achieve Council's desired outcome.

The Committee advised there is interest in exploring a carbon project as an approach to the forest landscape and heard the UBC Professors can integrate this within a variety of scenarios and bring these scenarios to the community.

Use of Climate Action and Energy Plan (CAEP) funding, leveraging planning documents, consultation based on results of the scenarios were discussed. The Committee heard from Dr. Sheppard that there are many ways to structure scenarios, and it is important to carefully structure scenarios to get blend of what the public is concerned about and the actual possibilities geographically and biophysically.

There was interest from some members in having a carbon project integrated into some or all of the scenarios, increased ecological diversity for habitat, small patch cuts to increase diversity for biological protection, ecological services provided (water purification). When asked whether it is possible to develop scenarios to address ecological end-state, as opposed to what North Cowichan is getting out of forestry, the Committee heard this is possible, but the economic pillar is of primary interest (or fiber use before and after for a carbon project). It is possible but as a spin off project or perhaps in certain areas (e.g. by doing firesmarting close to residential areas).

The UBC Professors asked the Committee to provide input on goals, such as expansive old forests for walking and biking, protecting community from fire, overall emphasis to protect carbon and biodiversity and viewsapes, with selective high value logging. This is needed to develop principles and overall landscape of the project in order to develop the proposal. Then can gather data, think about scenarios, present to the community through an engagement process involving test patches. Can do simulations now with feedback from Council.

The Committee heard that scenarios can be complex. There is a need to review the data to come up with a range of scenarios to present. Then create a structured space for feedback as part of the process, with a final plan re-interpreting the scenarios. Now need reasonable number of scenarios, and certain range of things to be included.

Committee members identified scenarios as business as usual, reduce harvesting with a carbon project, and no harvesting. Economics, opportunities for a carbon project, impact for jobs in the community were also identified.

The Committee heard the goal is to maximize synergies and it is not possible to optimize everything given there are competing needs and values. The process is started with general direction from Council, then the question is whether we have the right values that people care about.

The Committee was generally interested in the scenarios and information as presented at the meeting, and incorporating a firesmarting program. The Municipal Forester explained that \$34,000 for firesmarting has been received from the Province to update the community wildfire protection plan in order to develop a baseline and identify potential areas recommended for treatment. The final draft is expected end of 2019.

When asked about a model with longer rotations and connecting local crafts people to the forests, the Committee heard that thinning extends rotation but does not increase overall volume. Thinning is labour intensive so there is a synergy with local employment. Dr. Griess identified a wide range of successful examples in indigenous communities that

involved job creation and reduced diesel through change to biofuel. There are also synergies from a FireSmart program, which would involve removal of biomass and if displacing natural gas with renewable energies or “district energy” there may be a connection with the CAEP.

Councillor Justice identified an interest in biodiversity, carbon sequestration, fire and wind resistance, resistance to things that come with climate change, forest pests, supplying ecological services, aesthetic impacts for residents, forests management for old growth and strategic planting.

UBC Professors highlighted that even a savannah landscape as Councillor Justice identified needs some fire clearing. There are also areas that may be naturally less heterogeneous. Dr. Seely explained that forests are always changing, and it is misleading to try to get to an end-state and stay there. It is important to recognize management can guide the change but not stop it. Ground fires are now prevented, but the result is an underlayer of trees that would not otherwise be there and pioneer species may not regenerate without sufficient light.

Councillor Justice asked what could be expected if the forest was managed for biodiversity. Dr. Griess explained this requires specific knowledge of the forest to move from one stage to another and for each stand type would need to establish characteristics in line with biodiversity goals. Dr. Welham explained this is so complex that one can have the same stand types across landscapes, but connectivity is another important layer and difficult to manage. The UBC Professors emphasized this should be a process (a set of plans in place to guide decisions) rather than getting to a specific end-state.

The idea of a demonstration forest with testing of different harvest methods in different parts of the forests was briefly discussed. Also, the importance of connectivity between the forests was raised and the Committee heard mapping can predict connectivity issues and after this project the datasets can be used for different analyses for climate change and connectivity.

### **How best to deal with blowdown in the future**

Acting Mayor Marsh asked how best to deal with blowdown in the future and heard from the UBC Professors that this is very tricky as each blowdown is different. The Committee heard that generally the idea of going in with smaller equipment is good, but challenge is danger trees. High chance of worker injury or death (need protection in form of machinery). Machinery with rubber tires to better spread weight of machinery but the machines are very expensive and difficult to get. The other end of spectrum is to leave as is and not touch it (beneficial to biodiversity), but recreational use danger and downed trees a fire hazard as these are large enough to spread fire. Trees left on the ground are great habitat for certain species, however, this can include undesired species such as bark beetle and lead to infestation. An example of no action to remove trees dying from subsequent infestation is the National Park Bavarian Forest.



The Committee heard that in cases of blowdown, it is worth educating the public about what is being done and why it is being done. It is possible to increase understanding by properly explaining the blowdown is being addressed in an ecologically acceptable manner. There is a need to include an educational piece and help people understand by seeing the sites. Take the public to the site and explain what is occurring. Also recommend having in place a protocol for communication of what is happening before it is carried out and a short term strategy for dealing with blowdown or disturbances that sets out how communication will occur.

**Next Steps**

Next steps include the UBC Professors working with North Cowichan Forestry to identify what data there is and what data is needed. The aim is to have a proposal for the August 21<sup>st</sup> meeting that includes an interim period and next phase. Inventory data and FireSmart data is still needed.

Dr. Arcese explained that North Cowichan is moving into a new phase. The idea is that the public needs to see and engage on site with scenario models in the Municipal Forests. This will provide on the ground examples for better understanding and create a learning opportunity by demonstrating what the options really are to the public. This part of engagement is expected to move the whole process forward. Key pieces of the RFP will allow the public to learn (hear, see, then give feedback) through a good engagement process.

The Committee thanked the UBC Professors for the conversation and interest in North Cowichan's Municipal Forest Reserve.

**4. ADJOURNMENT**

**The meeting was adjourned at 2:15 p.m.**

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Certified by Corporate Officer

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Signed by Mayor