Further comments on the 707CP draft plan—dated August 5, 2010

Letter:

> I wonder how many Gabriolans realize that with the adoption of the 707 Park plan (August 5), hiking in the park will now be forbidden unless it is along RDN approved trails or in other RDN defined areas. Para. 6.2.1 lists "authorized uses", and it includes hiking. Para. 6.3.1 says, "all authorized recreational activities for the 707CP are restricted to trails, meadow clearings, and other designated areas" without defining where these are. Can I now expect to be arrested by a Park Warden, Para. 6.4.2, for trespassing while out there exploring?

The section on geology and soil is not well written and contains factual errors. I would propose replacing it with the following:

3.5.1 Geology

The bedrock of Gabriola Island is made up of the four uppermost formations of the late-Cretaceous Nanaimo Group. These are from youngest to oldest, the Gabriola Formation (primarily sandstone), Spray Formation (primarily mudrock generally referred to as shale), Geoffrey Formation primarily gritty sandstone with locally abundant conglomerate), and Northumberland Formation (primarily shale). The formations range in age from about 65 to 75 million years.

Only outcrops of the uppermost Gabriola Formation are present in the park and comprise thick-bedded coarse to medium sandstone. This sandstone consists of sand originally laid down at the estuary of a large river and subsequently cemented with clay, fine fragments, and various minerals. For long periods, tectonic uplift and lower sea levels left dry most of what is now the Salish Sea. The present form of the Georgia Basin is the result of scouring of the sedimentary rock by glaciers in the last two million years.

Unweathered sandstone is blue-grey, but is seen in the park with a light-sandy coloured crust, which breaks off from the parent rock in the form of platelets. This crust has been formed by oxidation of iron-bearing minerals—hence, its often “rusty” appearance.

3.5.2 Soil

The soil in the park is shallow and lacking structure. It has developed since the end of the last ice age about twelve thousand years ago. Its parent material is either glacial till or sandstone. The gravel left by glaciers is easily recognized by being mostly igneous rock—either fine-grained volcanic rock or “salt-and-pepper” plutonic rock. Notable in the park are scattered erratic boulders. These large boulders of granodiorite and quartz diorite (granite but without pink-coloured feldspars) were brought by ice from the Coast Mountains.

Although occurring only in patches, an important soil class in the park contains a high proportion of silt and clay. These fine sediments are the result of post-ice age weathering of the sandstone and of weathering of pockets of glacial flour left by melt water, and have gathered in depressions and drainage ways. These soils are impermeable and so support wetlands and “perched” aquifers in an otherwise dry landscape.

The soil types in the park recognized by pedologists are very-gravelly Saturna soil (widespread, well-drained); Trincomali soil (similar to Saturna but with a layer of basal till above bedrock,

well-drained but less so than Saturna soil); and small areas of minor poorly-drained soils containing silt and clay, often with gleysol (Parksville-Tolmie, Brigantine, Cowichan, etc.).

3.5.3 Hydrology

The sandstone of the Gabriola Formation is not very permeable; however, the rock was extensively folded and fractured during geological events about 42 million years ago. These fractures make good conduits and storage voids for water with the result that the rock very quickly drains and dries out in summer. This water subsequently recharges Gabriola's groundwater aquifers, and some re-appears as springs at lower elevations on the island. Most of the water in the wetlands retained by silty-clay is lost to evaporation and transpiration by plants during the summer.

Further comments on the 707CP draft plan—dated July 26, 2010

p.32. "...the services of a professional forester should be employed to assess park conditions and to guide park planning and maintenance practices in order to ensure a healthy forest ecosystem".

Letter:

During the POSAC July 26 meeting on the topic of the 707 Park plan, RDN Director Gisele Rudischer is reported (Shingle 38/31 p.1) to have said that "a forester would only be interested in logging" and that advice should be sought from a "forest ecosystem manager". As an advocate of the idea that a forester be involved in 707 management, I should like to comment to the effect that the idea that foresters are only interested in logging is out of date. I speak as one involved emotionally and financially, if not physically, in the "War in the Woods" in the summer of 1993—and as one who continues to be a card-carrying tree-hugger.

The extent to which the post-Clayoquot generation of foresters has changed was brought home to me when I attended the North American Forest Ecology Workshop (NAFEW) in 2007. This annual workshop is supported by governments and their agencies, academia, and major forestry companies.

The program for the four-day event involved 34 sessions and 164 presentations. To give you an idea of the range of topics covered, I've split them into six topics, as follows. The percentages are the percentage of the 164 papers presented.

1. Silviculture (logging if you will, including sustainable logging) 29%
2. Natural disturbance (fire, insects, alien species) 27%
3. Forestry science (ecology, biology, geology, hydrology, biodiversity) 20%
4. Carbon sequestering and climate change 12%
5. Pine-beetle issues (dead wood management) 6%
6. Data and information systems 6%.

Of these, only papers in Items 1 (29%) and 5 (6%) would be of little interest to the managers of a non-commercial forest. This leaves 65% that would be.

In the closing discussion, there was agreement that many changes in forestry had taken place, and environmentalists got praise for being part of this, even from industry representatives. University forestry facilities nevertheless have difficulty enrolling students because the bad image of forestry persists. I felt quite sorry for them.

In conclusion, I would submit that if you want advice on how to build a fox-proof hen house, the best person to ask is a fox. It may be true that the attitudes of shareholders of giant forestry companies haven't changed much, but the new generation of professional foresters deserve respect for their science-based knowledge of how to manage forests for whatever purpose.

Comments on the 707CP draft plan—dated June 18, 2010

p.1. "From 1887–1953 the area was the site of coal mining operations".

This statement is surely false. There never has been any coal mining on Gabriola for the simple reason there is no coal here. Even if there were, drilling down through hundreds of feet of sandstone, known even back in the 1880s to be devoid of coal, rather than starting near the shoreline would make no sense.

p.14. "It is likely that this trail was originally built and constructed by Snuneymuxw...".

I wonder what the evidence for this is? It is a completely new idea to me. My reading of the anthropological records is that the Snuneymuxw travelled mostly by canoe.

p.14. My guess is that the New Vancouver Coal Mining & Land Co. ownership was purely speculative and no coal prospecting ever took place. The company invested in a deep exploratory shaft at Brickyard Beach, well outside the park boundary. No coal was found, and the shaft later became a source of water for the brickyard.

p.14. While fully understanding the need for the services of a professional archaeologist despite the unlikelihood that anything will be found, I wonder why the services of a professional forester are not contemplated.

p.16. A "rock structure"? It's actually a granodiorite boulder, an erratic, almost certainly from the Coast Mountains. There are several others scattered throughout the park and neighbouring properties, some weighing more than 100 tonnes.

p.20 & p.34. How can one do astronomy when, according to signage, the park is closed at night?

p.22. There are, in my view, many technical errors in the "Soil Composition" section. This should be revised. There can't be any marine deposits (Brigantine? and Parksville-Tolmie?) because, so far as I know but without detailed investigation of every corner, the park was never below sea level, even in the late Pleistocene.

Nearly all of the soil in the park is actually a very gravelly Saturna soil (a Brunisol), the gravel being a mix of weathered sandstone fragments and lag gravel of glacial origin (gravel left behind after finer material has been washed out). Brunisols lack the well-developed horizons of other soils and are commonly formed in forests. These soils are well drained and droughty in summer.

Some of the Brunisol soil is classified as Mexicana or Trincomali soil. These are similar to Saturna soil and differ principally in that the glacial drift in the form of lodgment (basal) till above the sandstone bedrock has not been so completely eroded. This compact till is relatively impermeable compared to fractured bedrock, so drainage is not as good as for the Saturna soil and the soils may, in winter, support rivulets and puddling.

Although very small in area—often not showing up in maps—is a soil type that would probably be classified locally as Cowichan; it is in any case a Gleysol. It is very poorly drained with a horizon about a metre or so thick of silty strongly mottled clay. It is this soil that supports the wetlands and seasonal ponds in landscape depressions in the park.

p.23. In hydrology, "..released (how?) and shed downhill.." suggests that only surface water is useful. This is wrong. The park does support aquifers, but almost entirely by replenishing the

island's groundwater. Surface run off is low because the sandstone bedrock, on account of its fractures, has a high hydraulic conductivity. Adding to the underground storage helps maintain the flow from springs and keeps saltwater at bay. Some of the ideas members of the Community have about water storage in the 707 are flawed. The following is s slightly edited version of a submission I made earlier in the planning process:

WATER

Having worked in various research labs for most of my professional life, I am very much aware that saying "that won't work" is a strict no-no when it comes to thinking creatively; however, I can't resist sometimes pointing out that there are "difficulties" with some ideas. Specifically, when it comes to water retention, one has to be aware that a major component of water "loss" on the Gulf Islands is evaporation, or "evapotranspiration" as it is called by hydrologists to include evaporation from the leaves of plants and trees.

A few years ago, I drew up a budget for the hydrological cycle on Gabriola. This was based on numerous measurements I made myself, previous studies, and consultation with researchers at UBC. The conclusion was that of the 900 mm of rain that falls on Gabriola each year:

399 mm was "lost" to evapotranspiration
225 mm soaked into the ground but re-emerged as springs that ran off into the sea
168 mm became groundwater that eventually returned to the sea beneath the island
108 mm ran off into the sea over the surface
900 mm

Included in this study were estimates of the evapotranspiration from different surfaces. These were:

441 mm from forested uplands
360 mm from lowlands (farm and developed)
297 mm from clear-cut uplands

The relatively low figure for clear-cuts is because we have vey little soil to retain moisture in the summer, and once the surface dries out in the uplands, there is little moisture to evaporate in summer even though it is hot. What was not included in the study was evaporation from lakes and other exposed water surface. This was because on an island-wide basis, these surfaces are small. Had they been included however, the figure that would have been used, based on the above-mentioned research would have been 730 mm. This loss is dependent on temperature, but even more on air movement. It doesn't take much to wind to significantly increase evaporation.

The bottom lines? Storing water with a surface exposed to the atmosphere is not effective. Losses due to evaporation are very high—around 80%. You are better off in theory letting the water soak into the ground, tho' to be realistic, you can't expect one or two ponds to make any significant difference to the amount of water in Gabriola's aquifers. If you are hoping to retain water in a period of drought, expect large losses and drying out. Depending on such a source for use in fighting fires is not wise.

Another related issue is that weathered glacial sandstone debris on the surface of Gabriola's uplands is rich in manganese, and this can be a problem in aquifers fed by water that has been stored for some time on the surface. This effect has been observed on the Gulf Islands.

p.23. Plant communities. Fungi (especially mushrooms) always receive short shrift in these inventories—even the Elder Cedar Nature Reserve management plan makes no mention of them. I know the reason for this is that they are impossible to audit out of season, but this at least could be acknowledged.

p.25. A glaring omission from the exotic invasive plants list is oxeye daisies (*Leucanthemum vulgare*). These are everywhere in the 707 along the trails and in the meadows. They are listed by the Invasive Plant Council of BC as an out-of-control perennial, considered regionally noxious under the BC *Weed Control Act*. They are also the second greatest threat to biodiversity after habitat loss, according to the International Union for Conservation of Nature (IUCN).

p.25. While removal of Douglas-fir (and presumably Hemlock) seedlings may mimic some of the results of fire, I would be surprised if it did all or even most of them. Fire was probably used by the Native people to maintain glades in the forest in addition to those that form where there is no soil.

p.27 The list of issues under tourism mentions "...without active promotion of tourist-based activities in the park". This appears to be in conflict with Section 6.2.5, p.38, where it says, "the 707CP trail maps...will also be .... distributed at ferry terminals, information centres, local businesses and various visitor accommodations". That sounds like promotion to me.

p.31. I find alarming the map annotation suggesting the installation of a culvert. This could profoundly affect the wetland there and its suitability as a duck nesting area, and merits serious discussion before being implemented. The trail there is flooded in winter, but this is nothing that wearing waterproof boots while hiking won't fix.

p.33. Viewpoints and Arbutus Grove. Preservation, while not depreciated, doesn't exactly fit the "allowing the natural process of ecological succession to continue with minimal intervention" on p.28.

p.34. "All authorized recreational activities are to be limited to designated trails..." I don't understand what this means. Is off-trail hiking, berry picking, ecological research, mushrooming, etc. to be banned? I sincerely hope not. I most certainly didn't vote for a park or wish to pay for a park I'm not allowed to go in. How do you plan to catch and stop people who just want to escape the world for a while and follow the deer trails, as I often do?

p.44 A serious omission in the bibliography is not to have included a reference to the work of J.P. Kimmins, Emeritus Professor in the Department of Forest Sciences at UBC. He lives on Denman Island and his paper, "Ecological theatre on Gabriola—managing the forests", *SHALE* 16, pp.3–21, July 2007 is essential reading for anyone interested in forest management on Gabriola. It is directly relevant to 707 management.

p.33. Arbutus Grove. While not objecting in principle to the artificial maintenance of a particular seral stage of the forest, I wonder why it is proposed to take this particular exception to a general park rule that it should be "left alone". There might be a case, for example, for allowing the *removal* of arbutus and alder in specific areas in order to hasten the development of old-growth characteristics. The impression left by this "arbitrary" item is that the planning team has not talked to a professional forester about the wider possibilities of forest management for particular aesthetic values. The following is s slightly edited version of a submission I made earlier in the planning process:

FOREST MANAGEMENT

The topic of discussion was "Do the Minimum / Let the park heal". This note argues the case that "the minimum" might not preclude doing something to "help the park heal".

Most people are familiar with the concept of the recovery of a forest after a severe disturbance in a series of what are called seral stages. The severe disturbance we think of most often is clear-cutting,

but there are others. For example, disturbance caused by severe weather, insects, disease, the introduction of new species, and the extirpation of others. A seral stage is a temporary stage in the recovery of an ecosystem that is characterized by a particular biotic community. Following the most severe disturbance, which includes disturbance to the soil, the usual starting seral stage is dominated by herbs and shrubs. Foresters identify as many as six of these stages—herbs & shrubs; pioneer hardwood; early conifer; mid conifer; late conifer; and climax shrub/byrophyte woodland. Each of these stages has its attractions and each offers in varying degrees opportunities for harvesting non-wood forest products such as berries, plants, game, and mushrooms, and each has its own kind of biotic community.

Left to itself, a severely disturbed forest will go through a number of seral stages before reaching its climax phase, but this is often a slow process. What modern forestry and the new post-Clayoquot generation of foresters has learnt is how to accelerate or slow down the natural succession, how to prolong a chosen stage, how to revert to an earlier stage, how to skip a stage, and so on. The tools used to accomplish this include thinning, selective tree removal, planting or facilitating natural re-stocking, manipulation of species composition, mulching, and control of fires, animals, drainage, and soil conditions.

All of these techniques are labour intensive, expensive, and very likely not affordable except on a small scale with a plentiful supply of volunteer labour. However, this is not such a drawback as the purpose of such management techniques applied to 707 would be to diversify the forest, not to make it all the same. The "park" is a "forest" and I think we should at least see what foresters have to offer in the way of planning, even if there is ultimately no will, or no resources, to implement their suggestions.

p.33. Horseback riding. My experience, as a hiker, with horseback riding in the Campbell Valley Park in Langley was that sharing works but only if the horse traffic remains low. In Langley, it became so high that separate trails were needed. For a hiker, these separate trails were extremely unpleasant, being, during the winter, an inescapable mix of thoroughly churned up ankle-deep mud and manure. The 707 managers perhaps need to give themselves the power to close selected trails to horseback riding should this become a problem. At the moment, this is far from being necessary.

p.34 I would add to the list of educational activities "geological research"—but maybe I'm the only one that would.

p.37. I abhor the idea that some "side trails" will be closed because they are "confusing". They are NOT confusing to everyone, and opportunities for exploring and discovery are a vital part of what the 707 has to offer, particularly to young people. I think this proposal, if I have understood it correctly, is patronizing and an attempt to inflict values on me that I don't share.

p.40. Fire Hazard Reduction. This section, which appears to advocate a policy of "wildfires—there won't be any" is quite unrealistic and is very disappointing in that it does not face up to the challenge. The following is s slightly edited version of a submission I made earlier in the planning process:

FIRE CONTROL

While "leaving it alone" is, in my opinion, an admirable strategy, there are some management areas where this is not possible, and others where it might not be the most desirable option. This note deals with the first of these.

The forests of Gabriola belong to the Coastal Douglas-fir zone, and historically in this zone, fire has been a major part of the ecology. Its virtual elimination in past decades has, and will, result in major

shifts in the ecology of the forests. One readily-observable sign of this shift is the presence of many mature specimens of grand fir (*Abies grandis*) in the Douglas-fir forest of Drumbeg Park. Unlike the thick-barked Douglas fir, the grand fir has a thin, resin-blistered bark that makes it very susceptible to damage by fire.

In fire-adapted forests, fuel accumulation is prevented, so surface fires tend to be of low intensity, the damage is often relatively short-lived, and the net effect on the ecology is benign or beneficial. The Snunéymux^{w} almost certainly deliberately set fire to the forest to create openings in which deer, berries, and other food resources could flourish.

When fire is excluded from our type of forest, surface fuels accumulate and fire-vulnerable species proliferate. Eventually, this will result in an intense ground fire that will rapidly spread via fire ladders, such as the grand firs, to the canopy. The destructiveness of such a fire will be far greater than the "natural" low intensity fires of years gone by.

The traditional practice of considering wildfire to be excluded at all costs may be, in the end, damaging to the forest ecosystem and will likely increase the threat to human safety, habitation, and property. Each fire successfully suppressed will simply ensure that the next fire will be bigger. Eventually, the fire control methods will fail. An important part of managing the forest will therefore be development of a fire management plan that is closely integrated with the fire management plan of the community as a whole.

In my opinion, setting policies for dealing with fire must involve discussions with the Ministry of Forests and Range, which I understand in any event, would be responsible for a fire in the 707 given that, although we call it a park, is a forest.

p.40. Emergency access. This section appears not to have been subjected to the usual requirements of risk management analysis. Identifying a hazard is not in itself a sufficient trigger for a remedy. If we did that, we'd have helicopter pads and access roads all over everywhere in BC. Shouldn't it be a requirement that we all move to Alberta given that we are all living in an area that will, with certainty, experience a major earthquake in which many people will die?

I use the Fisher Road entrance to the park quite a bit, and the charm of this entrance is that within a minute of leaving the road one can be in a tranquil leafy walkway. The thought that this may be butchered in the name of public safety, meaning that it might be needed once in twenty years, I find appalling. What happened to personal responsibility? I would be very happy to sign a waiver for whoever wanted one to the effect that I agree to use the park entirely at my own risk and do not request that I be made safe. Please be a bit more professional about this and give us a risk management appraisal.

General comments—the park name

I am not very happy about the choice of name for the park. I wholeheartedly agree with the "seven-o-seven" bit, but the "community park" raises for me the following concerns explained in the following e-mail exchange.

To Lesya Fesiak

The proposed name for the 707 on Gabriola, "The 707 Community Park" is very wrong I think. Calling a forest or wilderness area a "park" is misleading and, in my view, close to being downright dangerous. To suggest, as the proposed name does, that you can just wander into the 707 in the same way you can into Drumbeg or Sandwell is misleading. For the 707 you need to take back-country

> precautions: compass; flashlight, especially in the afternoon in the fall; whistle; rain gear; and above all, your attention to where you are going. You don't stroll in the 707, you hike.
>
> With regard to trail markers, they have a place no doubt but they can be dangerous also. When people follow trails blindly, relying entirely on markers, if a marker goes missing, or the lighting gets bad, they're out there without a clue as to where they are. If at the outset they know they are going to have to work it out for themselves with map, compass, GPS (if you like those things), and paying attention, they're much more likely to be able to find their way home.
>
> From Lesya Fesiak
>
> I understand that the 707 is not a "park" in the typical sense, but it is indeed an RDN Community Park. All RDN community parks must have "community park" in their name. Slowly, the park will become more accessible for the larger community of Gabriola, with entrance signs, maps, named trails, and possibly benches and parking areas. So "community park" will be a little more befitting.

The process seems therefore to be: (1) recognize that it is not a typical community park, (2) call it that nevertheless, and (3) make changes so that it becomes just like all the other community parks. My preference would have been: (1) recognize that it is not a typical community park, it is a forest (2) consequently, call it something more befitting like “forest”, and (3) make changes that celebrate its differences as implied by its different name.

“Entrance signs, maps, named trails, and possibly benches and parking areas” are all things the old Kensington Lands do very well without.

General comments—youth

I would have liked to have seen more explicit recognition of the preferences of young people. It is difficult for them to get involved, and sometimes what they would like doesn’t fit with what adults prefer. “Young people” activities—riding horses, bikes, and so on should be acknowledged as what young people people like to do and will within reason be allowed.

General comments—overall

Overall, given the range of opinions, the draft plan is not a bad effort deserving perhaps a B or B+. The parts I find most alarming are the intrusion of roads into the park for “public safety” without clearly established need, and the suggestion that access to the park off-trails will be limited by what a planning committee feels is appropriate. This is not how I have enjoyed the park over the years. When building a swimming pool, of course you need a shallow end and a deep end. The report in places seems to be aiming at making it all shallow because it accords with the values of planners, not of those who actually use the park.

Sincerely, and with thanks for all the work.

Nick Doe: 247-7858; nickdoe@island.net