

Old Growth, Parks and Wilderness 90's, Falldown Effect, and the Total Collapse of B.C. Forestry

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The letters "Chief Forester Doesn't Reflect Views of British Columbians in his Decisions," and the diametrically opposite Ministry of Forests response "We are Judged by our Actions," show the dichotomy between a citizen with scientific facts and the Ministry of Forests (*FPC* 8:(4):3, 24). More scientific facts below indicate the governments of B.C. have "presided over... some of the worst forestry practiced anywhere," and this is not changing. The old growth is almost gone and plantations will fail to replace it.

The Ministry of Forests stated that "you would find that citizens who have participated in Parks and Wilderness for the 90's (PW 90's)... and the Old-Growth Strategy (OGS).. would not agree that the public process has been ... conflict producing," is absolutely false in my experience and that of the environmental community (Gook 1991a, b; Cooperman 1992; Searle 1991). The report, "The Threats to Wilderness in B.C. And the Opportunities which are being Lost," documents at least 78 areas submitted by the public that were ignored by PW 90's (Sherrod 1992). I am personally aware of at least two other proposals, with detailed maps and criteria for preservation, there were never even listed in the PW90's "Summary of Public Comments."

Diametrically opposite to the Ministry of Forests letter to *FPC* from Ray Addison (Acting Director, Integrated Resources Branch), the Old-Growth Strategy in the Robson Valley Timber Supply Area produced only conflict (Gook 1991a, b; Cooperman 1992; Searle 1991):

- A 200,000 hectare area applied for to Old Growth Strategy in the Robson Valley Timber Supply Area (July 1990);

- A 50,000 hectare area recommended for two-year logging deferral by Inter-ministry Committee of Old-Growth Strategy (November 1990);

- Exaggerated economic loss of 400 jobs and \$58 million, for OGS deferral of only 40,000 cubic metres, is apparently believed by Cabinet, so Morkill, Hellroaring, Forget-Me-Not clearcuts continued instead of deferral;

- New forest license to log Morkill faster announced days before provincial election (Fall 1991) to obtain Sacred votes. Sacred still loses election but the new license to increase the Annual Allowable Cut (AAC) is allowed by the new government—the New Democratic Party—even though the license increased the AAC which was "frozen" by the Ministry of Forests in June of 1991 (Forest Minister Richmond, 1991);

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- The West Twin OGS "deferral of 29,000 hectares was announced in January 1990, but in reality clearcut logging continued until the Spring of 1992—and now the once-deferred old growth is planned for clearcutting in the Fall of 1992;

- There was a Ministry of Forests promise of expansion of Parks and Wilderness 90's boundary and inclusion of the Valhalla Wilderness Society proposal on the Upper Morkill, but this never happened;

- Ombudsman concludes a 1.5 year related investigation (1990-92).

- A new two-year Old-Growth Strategy deferral recommendation to Cabinet in

Fall of 1992 protects less than 2000 hectares (mostly alpine) of the original 200,000 hectares applied for to the Old-Growth Strategy in the Robson Valley timber supply area.

I use the above action, and others not presented here, to judge the "intent of government," and adamantly resent the Ministry of Forests claiming that the OGS/PW90's problems listed above display progress and non-conflict.

Let us look at the "falldown effect" the above letters talk about in more detail. This can be defined as a measure of the loss in AAC, due to plantation AACs not yet being harvestable at high volumes, after the liquidation of old growth. The Ministry of Forests usually places this loss in annual allowable act (AAC) at 10-20 per cent of Long Run Sustained Yield (LRSY) depending on location. Smith (1988) documents opposing scientific facts.

Smith's report documents the expected volumes harvestable from clearings which have restocked themselves by natural regeneration. The intent is to show how Nature's plantation will compare with Forest Resource Development Agreement (FRDA/MOF) plantations when both are logged in the future. Consequently, the expected future volumes of naturally regenerated clearings would be exactly equal to the future volumes that FRDA/MOF plantations would produce, if FRDA/MOF plantations are as good as Nature at producing harvestable forests. Moreover, FRDA/MOF must be better than Nature at producing harvestable forests or the actual harvestable volumes of plantations will be lower than the expected volumes in Smith (1988).

The most complete growth and yield function (EK-Payendeh) data for B.C. were calculated for 130 interior and 90 coastal

sites, estimating net merchantable volume for flat, north, south, west, and east facing slope aspects at good and medium stem densities, for 14 different forest types (i.e., Cedar-Spruce, Spruce-Hemlock, Spruce-Fir-Balsam, Spruce, etc.).

Table 1 depicts the estimated net harvestable volumes from a high density, good, spruce site on flat ground in the Interior. These data indicate that only 67.9 cubic metres per hectare will be harvestable on an 80-year rotation, if FRDA/MOF plantation regeneration is as good as natural regeneration. Currently, a hectare of old growth in the Morkill averages 300 cubic metres of net volume. Thus falldown here will be 77 per cent, i.e. (1 minus 67.9/300) of present volumes per hectare of land with the currently planned 80-year rotation for Interior Spruce plantations. Increasing the rotation age beyond 130 years (1-266.3/300) still leads to a falldown of 11 per cent per hectare.

These data indicate that if we cut all the old growth at the present rate, and then wait 80 years to harvest the second growth annual cut, it will yield only 23 per cent of that harvest per hectare of land today. And then, only if FRDA/MOF plantations really are as good as nature at producing forests on the best spruce sites.

Spruce-Balsam sites are just as dismal (Table 2). Only 54.6 cubic metres per hectare will be harvestable with a falldown in AAC of 82 per cent on each hectare. Coastal sites are proportionally just as dismal, but here much more total volume is unavailable because percentages only reveal part of the facts. The coastal sites usually contain at least three times the volume per hectare of Interior sites for the same species.

The elimination of a natural site's average regeneration delay of 32 years is the maximum improvement FRDA/MOF can hope to make over naturally regenerated forests. This requires immediate planting after clearing, no loss of productive forest land (actual loss is over 20 per cent, Utzig and Walmsley 1988; Cuthbert 1991) and that still produces an average falldown of 37 per cent from Long Run Sustained Yield (1-189.3/300; read line at 110 years Table 1) if plantations are to be harvested at 80-years-old.

Plantations at higher elevations will grow even slower than sites described above and will thus need even longer times to provide the above harvestable volumes. The Ministry of Forests is making the problem worse by over-harvesting on average 30 per cent above sustained yield (Travers 1990; Vance 1990: 103).

Clearly forest policy in B.C. is in deep denial of scientific facts of ecology. Simple biomass figures are equal to future harvestable volumes. The Ministry of Forests claim of a better economy from untested plantations is the imagination of managing for that same biomass.

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Liquidation of old growth, ecological and aesthetic destruction, economic loss by the tourism and fishing industries, and the collapse of the forest industry is imminent, despite the Old Growth Strategy, Parks and Wilderness 90's, the B.C. Round Table, the Commission on Resources and Environment (CORE), and last but not least, the Forest Resources Commission (FRC) — whose Chairman's recognition of the eventual need to reduce the provincial annual cut (based on the status quo, i.e., without any old-growth preservation) by as much as 50 per cent. Peel's remarks were denigrated by the Ministry of Forests in 1992 (see FPC 8(4):3).

British Columbia is still a relatively ecologically-intact province which desperately needs to be governed by ecological science, not just in forestry, but in economics and politics, or it will continue to waste resources needed for future survival.

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Table 1. Estimated net harvestable volumes from a high density (good) spruce site on flat ground in Interior B.C. at various ages after clearing (Smith 1988)

Clearing Age (year) EK-Payandeh	Estimated Volume (cubic metres per hectare)
60	19.9
70	33.3
80	67.9
90	107.0
100	148.2
110	189.3
120	229.0
130	266.3

Table 2 Estimated net harvestable volumes from a high density (good) spruce-balsam or spruce-fir site on flat ground in Interior B.C. at various ages after clearing (Smith 1988)

Clearing Age (year) EK-Payandeh	Estimated Volume (cubic metres per hectare)
60	11.7
70	29.3
80	54.6
90	88.2
100	128.2
110	170.8
120	212.3
130	250.5

Table 3. Estimated net harvestable volumes from a high density (good) spruce site, on flat ground, on the coast of B.C., at various ages after clearing (Smith 1988).

Years	Volume (cubic metres)
60	63.3
70	159
80	285.2
90	421.9
100	553.2
110	670.1
120	769.1
130	850.2

About the author: Rick Zammuto is a retired university scientist and instructor of interdisciplinary ecology, Registered and/or Certified as a professional ecologist, Wildlife Biologist, Forester, and General Biologist, Rick views forests as complex interacting ecosystems with hundreds of (Ministry of Forests ignored) values. Rick is active in the Old Growth Strategy, Forest Resources Commission, Parks and Wilderness 90's, CORE, Fraser Basin Green Plan, B.C. Round Table, Community Forest Boards and Steering Committees, Local Resource Use Planning, Native Land Claims, B.C. Park Plans, and sits on the steering committee of the Forestry Caucus and B.C. Environmental Network for Save-the-Cedar League. Rick heads Sustainable Ecology and Evolution of Montane Ecosystems Consultations, and lives in the old-growth wilderness near Crescent Spur, B.C.

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