

A bird's eye view of small tenure holdings in British Columbia

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Abstract

This extension note provides a spatial description of the distribution of small, area-based tenures in the province of British Columbia. It summarizes important socio-economic and biophysical data, including the locations of small tenures. The unique management implications associated with such distribution are highlighted, such as multiple and often overlapping values, implications of mountain pine beetle infestations, climate change, forest restoration, and socio-economic constraints and opportunities.

KEYWORDS: *British Columbia, community forestry, small tenures, woodlots.*

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What Are “Small Tenures”?

Tenure is the mechanism by which the government transfers specific rights to use Crown land and resources to others. Private forest companies, communities, and individuals gain the right to harvest timber in public forests through tenure agreements with the provincial government. Several types of forest tenures to Crown forest exist in British Columbia with a wide range of rights and obligations. These include long-term, volume-based Forest Licences and area-based Tree Farm Licences, and short-term Christmas Tree Permits and Licences to Cut for salvage purposes (see B.C. Ministry of Forests and Range [2006] for more information on these tenure types).

Small Crown tenures (e.g., woodlots and community forests) are area-based forest tenures with legally binding contracts that allocate rights to use public forests over a specific period of time in exchange for meeting government objectives, such as forest management obligations and the payment of fees including stumpage (B.C. Ministry of Forests and Range 2006).

This extension note is one in a series of five that deals with different aspects of small tenures in British Columbia. This note describes the spatial distribution of small, area-based tenures in the province and the unique management implications associated with such distribution.

Community Forest Agreements

A community forest is best described as “a public forest area managed by the community as a working forest for the benefit of the community” (Teitelbaum *et al.* 2006:417). The Community Forest Agreement (CFA) program was established in 1998 by government to provide long-term opportunities for community management of Crown land.

One important characteristic of this unique tenure is the element of community control, which enables local people to identify management priorities and implement enhanced forest stewardship principles while working within the framework of government policy. Community participation in decision making centres on a broad range of values (e.g., local employment, water quality, recreational opportunities, and protection of local viewsapes) that create economic, social, and environmental benefits. Another key characteristic of community

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forests is that economic benefits derived from forest management accrue directly to the community rather than to corporate shareholders outside of the community. Through the sustainable, long-term nature of this tenure, community forests are an important component of rural economic diversification.

The provincial government set the following objectives for the Community Forest Agreement program.

- To provide long-term opportunities for achieving a range of community objectives, including employment, forest-related education and skills training, and other social, environmental, and economic benefits.
- To meet the standards set in legislation for environmental stewardship, including the management of timber, water, fisheries, wildlife, and cultural heritage resources, and in accordance with approved land use plans (Land and Resource Management Plans, Higher Level Plans, etc.).
- To diversify the use of and benefits derived from the Community Forest Agreement area.
- To encourage co-operation among stakeholders.
- To provide social and economic benefits to the province (B.C. Ministry of Forests and Range 2007a).

Applications for CFAs are evaluated on criteria that include:

- evidence of an appropriate land base;
- evidence of community support and involvement;
- a sound business plan;
- a democratic and practical administrative authority and structure; and
- stewardship and management objectives as contained in a preliminary working plan (Gunter 2004).

TABLE 1. Existing community forests (BC Community Forest Association data; updated January 30, 2007)

Community	Population	Size (ha)	Allowable Annual Cut (m ³ /year)	Timber Supply Area	Biogeoclimatic Ecosystem Classification Zone
Bamfield Huu-ay-aht	400	418	1 000	Arrowsmith	Coastal Western Hemlock
Burns Lake	2 726	42 900	62 631	Lakes	Sub-Boreal Spruce
Cheslatta First Nation	220	39 129	16 613	Lakes	Sub-Boreal Spruce
Cowichan Tribes	3 800	1 786	10 000	Arrowsmith	Coastal Western Hemlock
Esketemc First Nation	600	25 000	17 000	Williams Lake	Sub-Boreal Spruce
Fort St James, District of	5 000	3 582	8 290	Prince George	Sub-Boreal Spruce
Harrop Procter Community Forest	650	10 860	2 603	Kootenay Lake	Interior Cedar–Hemlock (ICH)
Ktunaxa Kinbasket Development Corporation	1 200	20 234	5 790	Cranbrook	Engelmann Spruce–Subalpine Pine (ESSF)
Likely Xatsu'll	311	14 000	12 231	Williams Lake	Interior Cedar–Hemlock
McBride	740	60 860	50 000	Robson Valley	ICH/ESSF
Nuxalk First Nation	1 500	4 000	20 000	Mid-Coast	Coastal Western Hemlock
Powell River	13 000	7 109	25 000	Sunshine Coast	Coastal Western Hemlock
Prince George	77 000	5 443	12 000	Prince George	Sub-Boreal Spruce
Sechelt, District of	8 570	10 790	20 000	Sunshine Coast	Coastal Western Hemlock
Wells Gray	6 000	13 154	20 000	Kamloops	Interior Cedar–Hemlock
Westbank First Nation	628	45 693	55 000	Okanagan	Interior Douglas-fir/Montane Spruce
TOTALS	122 345	304 958	338 158		

Woodlot Licence Program

Woodlot licences are area-based tenures with a 20-year term and, with some limitations, are transferable. The Woodlot Licence Program was established in 1948 to provide individuals, families, and in a few cases, societies, an opportunity to manage Crown forests. Woodlot tenures may include both Crown forest (Schedule B) and private lands (Schedule A) owned by the licensee.

The provincial government set the following objectives for the Woodlot Licence Program.

- To increase the amount of private forest land being managed on a sustained yield basis.
- To increase the productivity of small parcels of forested land.
- To increase opportunities for private citizens to participate directly in small-scale forestry management operations.
- To promote local employment opportunities.

- To promote excellence in forest management (B.C. Ministry of Forests 2002).

Applications for Woodlot Licences are competitively evaluated on criteria that include:

- the applicant's location in relation to the woodlot lands (i.e., principal residence);
- the private lands that the applicant is proposing to include in the woodlot; and
- a bonus bid payable to the government.

Small Tenures at a Glance

Community Forests

British Columbia currently has 17 licenced CFAs that range in size from 418 ha (Bamfield Huu-ay-aht) to over 60 000 ha (McBride). The allowable annual cuts (AACs)¹ range from 1000 m³ per year to over 62 000 m³ per year. The CFAs are located throughout the province and include a range of ecosystems. Table 1 lists the existing community forests and Table 2 lists the communities that

¹ Allowable Annual Cut (AAC): The allowable rate of timber harvest from a specified area of land. The Chief Forester sets AACs for Timber Supply Areas and Tree Farm Licences in accordance with Section 8 of the *Forest Act*.

TABLE 2. Community forests at the application stage (BC Community Forest Association data; updated January 30, 2007)

Community	AAC	Forest District
Bella Coola Resource Society	20 000	Mid Coast
Chetwynd	20 000	Peace
Creston	15 000	Kootenay Lake
Haida Nation	120 000	Queen Charlottes
Hope	34 000	Chilliwack
Houston	20 000	Nadina
Kaslo	25 000	Kootenay Lake
Keremeos/Similkameen	20 000	Cascades
Kimberley	20 000	Rocky Mountain
Lheidli T'henneh First Nation	20 000	Prince George
Logan Lake	20 000	Kamloops
Lower North Thompson	20 000	Kamloops
Mackenzie/Mcleod Lake First Nation	30 000	Mackenzie
Masset	25 000	Queen Charlottes
Nakusp	20 000	Arrow Boundary
Pemberton	10 000	Squamish
Port Alberni	20 000	South Island
Slocan Valley	10 000	Arrow Boundary
Sliammon First Nation	28 000	Sunshine Coast
Smithers	30 000	Skeena Stikine
Squamish	10 000	Squamish
Terrace	30 000	Kalum
Toquaht First Nation	6 600	South Island
Tumbler Ridge	20 000	Peace
Ucluelet	25 000	South Island
Valemount	40 000	Headwaters
Whistler	10 000	Squamish
100 Mile House	20 000	100 Mile House
TOTAL	688 600	

are at the application stage. The existing and proposed CFAs include an AAC of 1 026 758 m³ involving 44 communities across the province. This equates to 1.2% of the provincial AAC of 83 394 105 m³ (B.C. Ministry of Forests and Range 2007b).

Woodlots

Table 3 summarizes the distribution, AAC, and size of woodlots in British Columbia. Woodlots on the Coast are smaller than those in the Interior because coastal forests are more productive; that is, they grow more volume of timber per hectare annually. Legally, coastal licences are limited to 800 ha of Crown land and interior licences are limited to 1200 ha. The combined AAC of the province's 825 woodlots is 2 294 840 m³. This accounts for 3.5% of the provincial harvest, which is higher than the historic proportion of less than 2% due to recent mountain pine beetle-related uplifts (B. McNaughton, Federation of BC Woodlot Associations, pers. comm., 2007).

Locations of Small Tenures

Small tenures are predominantly rural entities. Woodlot and CFA allocations are generally located close to rural communities, often within local viewscapes valued for aesthetic and tourism values, watersheds, recreation areas, or grazing lands (Figure 1). They largely follow historical settlement patterns and transportation corridors.

Ideally, the land base of woodlots and CFAs consists of a suitably sized area with forest cover of a balanced age-class distribution and a productive capacity to provide a sustainable and profitable AAC for the community. Community forestry advocates assert that the preferable location for a CFA tenure is directly adjacent to the community. A historical relationship with the land fosters a "sense of connection or stewardship" (Gunter 2004:20) central to community-based forest management. Multiple, and often overlapping, values in the areas surrounding a community become both a central management challenge and opportunity.

TABLE 3. Woodlots at a glance (B.C. Ministry of Forests and Range data; updated to September 30, 2006)

Region	No. woodlots	AAC (m ³)				Area (ha)			
		Sched. A	Sched. B	Total	Average	Sched. A	Sched. B	Total	Average
Coastal	82	23 379	160 901	184 280	2 247	5 730	31 748	37 479	457
Northern Interior	334	53 067	1 339 549	1 392 618	4 170	34 099	192 698	226 797	679
Southern Interior	409	53 842	664 082	717 942	1 755	51 445	234 696	286 141	700
TOTAL	825	130 288	2 164 532	2 294 840	2 788	91 274	459 142	550 417	667

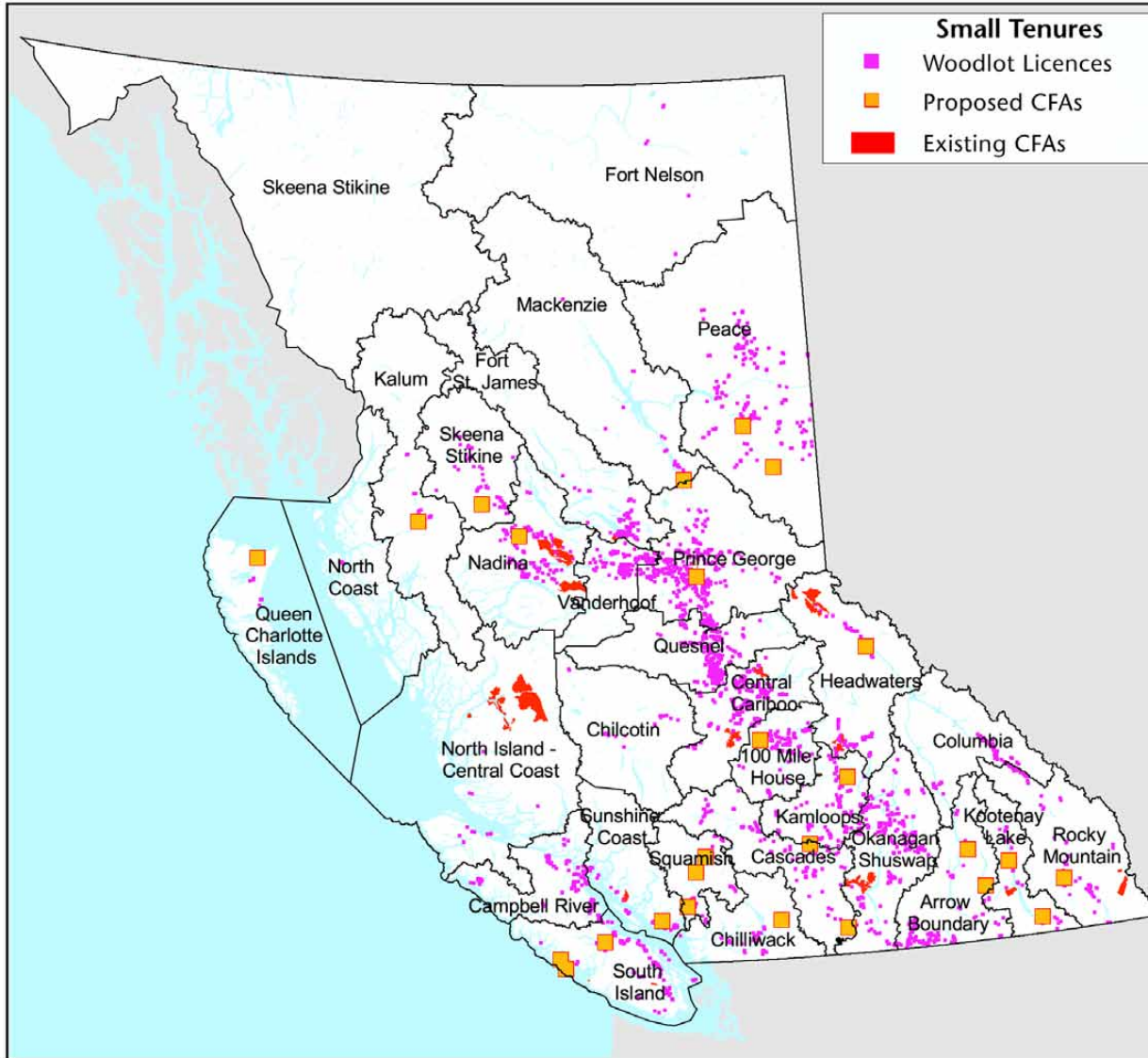


FIGURE 1. Woodlots and community forests (both awarded and in application) as well as Forest Districts and water features.

From the perspective of First Nations, all small tenures exist within traditional territories. Individual First Nations and the Crown often assert ownership to the same land base. The BC Treaty Process and the courts, among other mechanisms, are used to help resolve this ownership question.

Several First Nations communities favour the long-term, area-based nature of CFAs and woodlots as an interim measure agreement to strengthen and protect their interests on the land until those interests are resolved through completion of a formal treaty. First Nations communities are realizing a range of values

and benefits with these small tenures. In addition to economic benefits, First Nations people are building individual and community capacity through a renewed relationship with the land.

General Characteristics and Trends in Rural British Columbia

Forest-based communities in British Columbia are currently undergoing significant social, environmental, and economic changes. A number of factors is driving this transition. The rural population is aging and the

overall birth rate is declining. First Nations populations run counter to these trends; relatively speaking, the Aboriginal population has more teens and young adults than other groups. Reduced access to local health and education services are growing problems in rural British Columbia with numerous closures of schools and hospitals. Aging transportation infrastructure limits travel to population centres and restricts movement of goods and the delivery of services.

The quality of life and lower housing costs available in rural communities are a great draw for individuals and companies wanting to escape urban pressures. With broadband Internet access, people are able to stay connected with the global community; however, the digital divide or technology gap still exists for numerous rural and remote communities and they continue to lag behind without the opportunities afforded by this technology.

Relationships are changing between forest communities, the traditional local economy, and forest resources. Among other concerns, new technologies in the forest sector are reducing workforce requirements and changing traditional forestry practices; these factors, coupled with climate change, are creating an uncertain future for forest-dependent communities.

Ecological disturbances, such as the mountain pine beetle infestation and large-scale interface fires, are rapidly altering the province's landscape. Progressive ecological change will continue, shifting ecological zones and changing the attendant species distribution. This will affect AACs, economic activity, the use of water, and the quality of the environment for recreational and agricultural activities (Fraser 2006). As an example, the projected AAC reduction for three central interior Timber Supply Areas in British Columbia is summarized in Table 4. The increase in short-term timber harvests to address the mountain pine beetle outbreak will result in a significant reduction in available timber in the next 10 years.

TABLE 4. The coming falldown in allowable annual cut (AAC) by Timber Supply Area (TSA)

TSA	AAC in 2005 (million m ³)	AAC in 2015 (million m ³)	Decline (%)
Lakes	3.2	1.4	55.5
Prince George	14.8	8.2	44.5
Quesnel	6.0	2.0	66.6

Industry Consolidation and Forest Practices Legacies

Accompanying the ecological changes, natural resource-based communities in British Columbia are also facing changes created by the global economy. Increasingly, the forest industry is competing with fibre and pulp products in Russia, South America, and China, which are produced with cheaper labour, faster growing rates, and reduced environmental controls. In response, industry is moving to larger economies of scale, greater consolidation, and increased automation. In their quest for efficiency, and supported by government policy, companies are closing smaller or less efficient milling facilities in areas where the timber is harvested and opening larger “super mills” in more central locations. This trend creates a net outflow of local economic wealth, decreasing the direct economic tie between rural communities and their surrounding forest resource base.

In coastal forests, the legacy of harvesting high-value species in easily accessible areas (“highgrading”) is resulting in sharp declines in AAC projections. The low marketability of remaining stands, together with the downsizing of the coastal pulp industry, creates further pressure on the traditional rural economies. In the Interior, the pulp industry is relying on the oversupply of low-cost, beetle-killed wood. The unavoidably changing nature of the timber resources, coupled with fluctuating market conditions and market access through trade agreements, often causes a boom–bust cycle for rural communities.

At the heart of rural communities, however, is a storehouse of social capital—determined, resilient, and resourceful people. Social networks, strengthened over years, even generations, are strong. Community spirit and civic engagement demonstrated through volunteerism are evident in the efforts required to establish community forests and manage community forests and woodlots. For example, Richard Stedman, in his research on the relevance of sense of place, raised the question: “Even when all economic indicators might be telling people to move away from a community, why do they stay?” (Morford and Kahlke 2004:iv). The forces of culture, geography, tradition, and community run deep for rural people and connect them to place.

Resource-based communities are challenged to diversify their economic base without undermining their quality of life and compromising the environment in which they live. Small tenures build on and stimulate the human and natural assets present within rural communities and are a valuable mechanism for renewal.

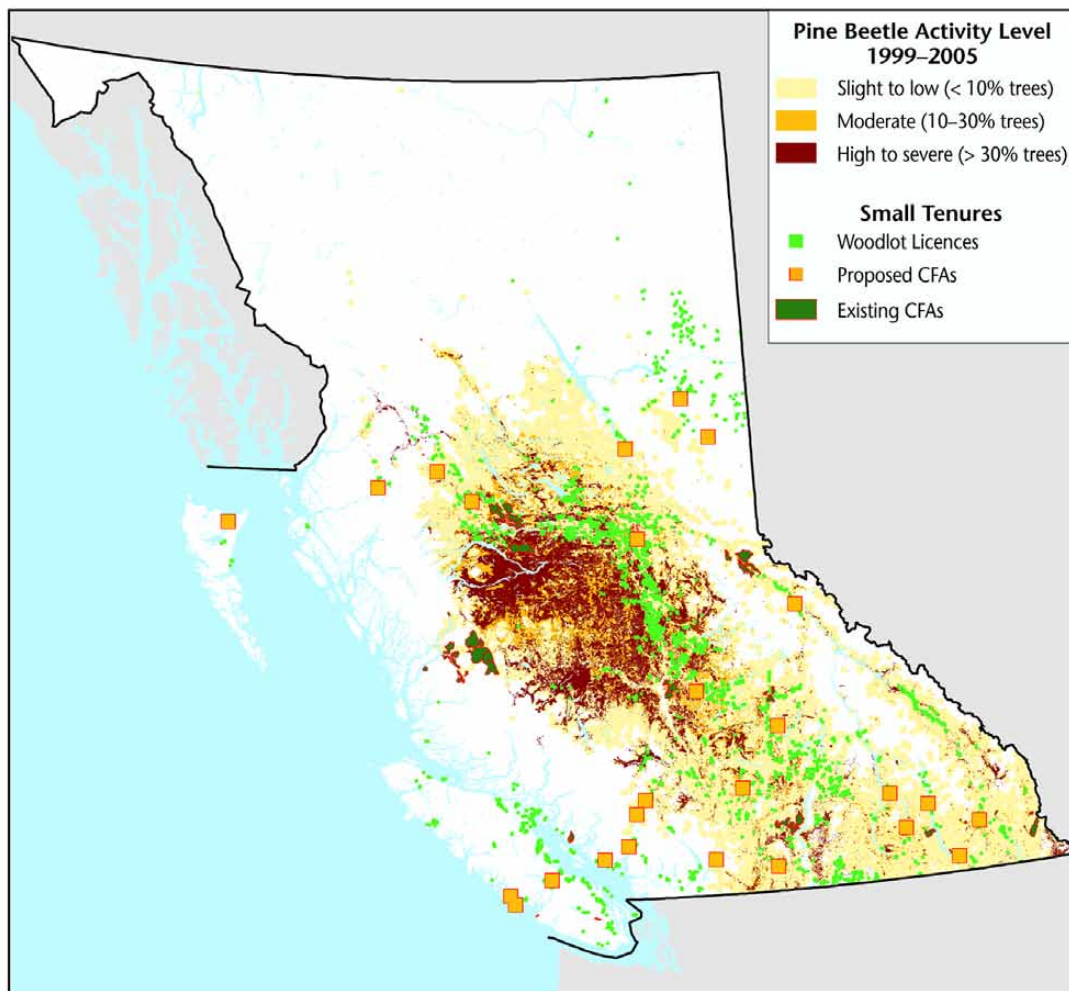


FIGURE 2. Woodlots and community forests (both awarded and in application) as well as mountain pine beetle-infested areas.

Biophysical Characteristics

Little knowledge exists about how our forests will respond over time to events such as the mountain pine beetle infestation and climate change. With a likely shift in the province’s biogeoclimatic zones² as a result of climate change, it is critical to explore new reforestation strategies. The area-based nature of small tenures is well suited for a broad range of research and scientific trials to meet the challenges of ecological change. What is often possible and feasible for a small operator is not so for a larger operator.

Management Implications for Small Tenures

Small Tenures and the Mountain Pine Beetle

Woodlots and CFAs have the potential to be models of forest stewardship and sustainable community economic development. For long-term success, these tenures must develop the capacity to foster innovation and diversification. The mountain pine beetle infestation has placed many CFAs and woodlots face-to-face with this challenge (Figure 2).

² Biogeoclimatic Ecosystem Classification (BEC) System: A hierarchical classification system of ecosystems that integrates regional, local, and chronological factors and combines climatic, vegetation, and site factors. Fourteen distinct BEC zones occur in the province, each of which is further classified into subzones and variants. For a map of zones in British Columbia, see: http://www.for.gov.bc.ca/hre/becweb/resources/maps/map_download.html

Forest Restoration

The forest ecosystems and landscapes affected by the mountain pine beetle are the lifeline for many First Nations, communities, and industries in the Interior of British Columbia. They represent a substantial provincial resource, as well as a significant source of provincial revenue. Restoring and, indeed, maintaining this lifeline for the future must be considered one of the province's highest resource-management priorities for the next several decades (Lousier 2006).

Multiple, Often Overlapping Values

Woodlots and CFAs are often located near or adjacent to communities where significant, often overlapping, values exist. Examples include community watersheds, viewscales, wildlife habitat, and recreation areas. This “front country” location adds complexity to the planning and management of small tenures.

Economic Constraints and Opportunities

The simple economics of scale dictate that fixed operating costs for forest management will be higher for small tenures. Although this constrains profitability, it can also foster innovation. In addition, because the timber from small tenures is not necessarily associated with one particular manufacturing facility, the potential exists to contribute to local value-added manufacturing opportunities.

Volunteers and Non-professionals

Many non-professionals operate woodlots and CFAs. Although the *Foresters Act* ensures that Registered Professional Foresters conduct, oversee, and (or) sign-off on the many operational aspects of forest management, much additional work is performed by community volunteers, family members, friends, and associates. This is a great learning opportunity for all involved and also brings new ideas to the planning and management of small tenures.

Community Forests and Non-Timber Forest Products

The CFA is the only forest tenure in British Columbia that confers management rights for non-timber forest products (NTFPs). These products include mushrooms, berries, medicinal plants, and floral greenery. The development of NTFPs holds great potential for diversification of community forest enterprises.

By their nature, small tenures are adjacent to rural communities and increasingly play an important role in the diversification of local economies and the viability of small towns.

Summary

Currently, 850 community forests and woodlots are managed by families and communities in British Columbia. These small tenures are located in a variety of BEC zones across the province. Combined, these small tenures account for an annual cut of 3.3 million m³, or less than 5% of the provincial cut. By their nature, small tenures are adjacent to rural communities and increasingly play an important role in the diversification of local economies and the viability of small towns. To better understand their potential for rural communities and for the province, more research is required into small tenures, including:

- using them as pilot areas and operational trials to better understand emerging issues, such as the effects of climate change and the development of non-timber forest products;
- generating Crown revenues from stumpage most efficiently while providing for locally based economic viability;
- exploring, in partnership with local governments, the role for small tenures in interface fire management; and
- assessing the true impact of small tenures on rural economic development.

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References

- B.C. Ministry of Forests. 2002. Annual Report on Woodlot Licence Program, 2001–2002. Victoria, B.C.
- B.C. Ministry of Forests and Range. 2006. Timber tenures in British Columbia: Managing public forests in the public interest. Resource Tenures and Engineering Branch, Victoria, B.C. URL: <http://www.for.gov.bc.ca/hth/timten/documents/timber-tenures-2006.pdf>
- _____. 2007a. Small Tenure Program Web site. Resource Tenures and Engineering Branch, Victoria, B.C. URL: <http://www.for.gov.bc.ca/hth/community/objectives.htm> Accessed January 30, 2007.
- _____. 2007b. Forest Analysis and Inventory Branch Web site. URL: <http://www.for.gov.bc.ca/hts/aac.htm> Accessed January 30, 2007.
- Fraser, B. 2006. Experiments in the face of change. Address to the BC Community Forest Association 3rd Annual Conference, June 1–3, 2006. URL: <http://www.bccfa.ca/pages/files/file-448dc92d17339-Bruce%20Fraser%20Presentation.pdf>
- Gunter, J. (editor). 2004. The community forestry guidebook: Tools and techniques for communities in British Columbia. FORREX–Forest Research Extension Partnership and British Columbia Community Forest Association, Kamloops and Kaslo, B.C. FORREX Series Report No. 15. URL: <http://www.forrex.org/publications/forrexseries/fs15.pdf>
- Lousier, J.D. (compiler) 2006. BC's mountain pine beetle epidemic: The future of communities and ecosystems. UBC/UNBC research synthesis and strategy forum: Summary report. FORREX–Forest Research Extension Partnership, Kamloops, B.C. FORREX File Report No. 06-01. URL: <http://www.forrex.org/publications/other/filereports/fr06-01.pdf>
- Morford, S. and R. Kahlke (editors). 2004. Communities and natural resources in transition: Linking social science, decision makers, and practitioners for a sustainable future. Forum summaries and abstracts. FORREX–Forest Research Extension Partnership, Kamloops, B.C. FORREX File Report No. 04-04. URL: <http://www.forrex.org/publications/other/FileReports/fr04-04.pdf>
- Parfitt, B. 2006. Ensuring life after beetle. Presentation to BC Community Forest Association Conference, June 2, 2006. URL: <http://www.bccfa.ca/pages/files/file-448dd6ef34889-Ben%20Parfitt%20presentation%201.pdf>
- Teitelbaum, S., T. Beckley, and S. Nadeau. 2006. A national portrait of community forestry on public land in Canada. *The Forestry Chronicle* 28:416–428.

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Test Your Knowledge . . .

A Bird's Eye View of Small Tenure Holdings in British Columbia

How well can you recall some of the main messages in the preceding Extension Note? Test your knowledge by answering the following questions. Answers are at the bottom of the page.

1. Small tenures (woodlots and community forests combined) account for approximately what percentage of the provincial Allowable Annual Cut?
 - A) 1%
 - B) 5%
 - C) 10%

2. What is a key characteristic of a community forest?
 - A) Element of community control
 - B) Short-term licence
 - C) Economic benefits accrue to Victoria

3. Which of the following is *not* a criterion for evaluating applications for woodlots?
 - A) A bonus bid payable to the government
 - B) The private lands that the applicant is proposing to include in the woodlot
 - C) The proposed management plan

ANSWERS

1. B 2. A 3. C