

BACKGROUND INFORMATION

for

Thompson-Okanagan Region

***Strategies for Cooperative Extension and Research
in the Southern Interior***

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Kamloops*

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Regional History

Representative Ecosystems

The Kamloops Forest Region is an area with a highly contrasting climate, geography and vegetation, ranging from high mountain glaciers to desert conditions. It is one of the most ecologically diverse regions of the province, with arid grassland dominated landscapes in the Thompson and Okanagan basins, to glaciers and 2-3 meter diameter Old Growth Cedar forests with understories of ferns in the Upper Adams and Seymour river drainages. Coastal and interior climatic conditions merge at many points on the leeward slopes of the Coast Range resulting in a large number of transitional ecosystems which tend to be very high in species diversity. Thirty-one percent of the provinces' rare and endangered species occur in the hot, dry areas in the South Okanagan Valley.

Moving from west to the east you see:

- The Cascade Mountains in the southwest are a transition from the mild maritime climate of the Pacific coast to the continental climate of the interior. This results in a number of transitional ecosystems that tend to be very high in species diversity.
- The dry southern Interior Plateau that comprises most of the region, lies in the rain shadow of the Coast and Cascade Mountains. An area of rolling upland and valley basins, split by the Okanagan Trench, the conditions found here include:
 1. Desert conditions near Osoyoos, complete with prickly pear cactus, scorpions, chshort-horned lizards and rattlesnakes;
 2. Interior grassland valleys cut into the plateau by the Fraser, Thompson and Okanagan drainages, that merge into open Ponderosa Pine and Douglas Fir forests. These are the ecosystems that contain many (31%) of the province's rare and endangered species;
 3. Cooler and wetter conditions at higher elevations allow Douglas Fir, lodgepole pine and spruce forests. Plateaus are a prominent feature of the landscape;
 4. Highest elevations have spruce and subalpine fir forests.

Fire played an important role in the ecology, maintaining or renewing forest and grasslands in this area.

- The Columbia Mountains in the east and north, home to mountain caribou, grizzly bear, includes the Interior Wet Belt, with 2 to 3 meter diameter old growth cedar forests giving way to moist spruce and subalpine fir at higher elevations, and alpine tundra even higher up.

Demographics

The same ecological and topographical diversity found in the Region provides opportunities of recreation and tourism

The Thompson-Okanagan region extends from Clearwater to the north, west to Lillooet, east to Salmon Arm and south through the Okanagan Valley to the United States border. The main population centres of Kamloops, Vernon, Kelowna and Penticton are supplemented with numerous small towns and villages and a rural population. The estimated population of the

Thompson-Okanagan, based on 1996 census figures, is 440,170 with 178,028 households. Population statistics for regional districts within the Thompson/Okanagan development region with approximate modifications to match the Thompson-Okanagan region boundaries are (BC Stats, 1998a):

Regional District	Population (1996 census)	1991-1996 Growth (%)
Central Okanagan	136,541	22.1
Columbia-Shuswap (excluding Golden and Revelstoke)	app. 36,101	15.5
North Okanagan	71,607	16.0
Okanagan-Similkameen	75,933	13.8
Thompson-Nicola (excluding Clinton)	app. 118,000	13.8
Lillooet	1988	11.6
Total	app. 440,170	

The population growth rate in the Thompson-Okanagan between 1991 and 1996 of 15-20% reflected a high net migration (including a significant component of retirees) and exceeds the provincial rate of 13.5%. A drop in short-term future growth is expected during the current slowdown in forestry and mining due to a corresponding drop in regional migration. However, when baby boomers look to choose retirement locations early in the next millennium, the Thompson-Okanagan region is expected to see the return of higher population growth rates (Vancouver Sun, 1998). By the year 2026, the Thompson/Okanagan development region's population is anticipated to approach half a million (BC Stats, 1998a).

The Region is home to approximately 400,000 people, including 39 native bands associated with 4 First Nations Tribal Councils (Nicola, Shuswap, Lillooet and Okanagan).

Economy

The main economic drivers of the Thompson-Okanagan region are forestry and agriculture (BC Stats, 1998b). Despite its current slump, forestry remains the region's dominant industry. Provincially, the forest industry produces 55% of provincial exports and directly and indirectly employs 17% of the provincial workforce (Price Waterhouse, 1998).

Income dependencies on forestry in the Thompson-Okanagan region include some of the highest for the province, but the public sector provides a more consistent dependency throughout the region, and in the larger centres, basic industries, including manufacturing, transportation and construction, are even more important to local economies (Horne and Powell, 1995). Overall, the regional economy shows a relatively high level of diversity (Min. of Govt. Services, 1995). The unemployment rate for the Thompson-Okanagan region of Human Resources Development Canada is currently 7.3% (HRDC, 1998), less than the provincial average of 9.4% in July 1998.

Cattle ranching and livestock and forage production contribute significantly to the regional economy. Cattle, horses, sheep, dairy cows, hogs, fallow deer, bison and poultry are produced and ginseng is a prominent growth industry.

Mining is an important industry in the Thompson-Okanagan with the Highland Valley mine near Kamloops the biggest in the province. Impending mine shutdowns are expected to create high local impacts, however.

Economic and Social Trends

Current economic and social trends affecting the present and future for the Thompson-Okanagan region include:

Changing Economy

The region's economic foundation has been built on forestry and agriculture, with approximately 15% dependency on the forest sector (Horne and Powell, 1995). Currently, the poor economic health of the provincial forest industry is due to various sources of uncertainty from aboriginal land claims, the Canada-U.S. softwood lumber agreement and European boycotts of old growth lumber added to long-term increased costs of stumpage and regulation. In 1997, timber harvesting in the BC Interior decreased 12% from the previous year with a 1.9% decrease (provincially) in employment (Price Waterhouse, 1998). Some analysts consider a major structural change in the forest industry necessary to adapt to changing market and regulatory conditions while others feel that this current trend is only part of the ongoing cyclical change in the industry.

While resource sectors are in a current downturn, service-based industries are growing. As well, many workers are seeking alternatives to private sector employment which incorporate the land-based culture of the Thompson-Okanagan and which capitalize on future opportunities. Many of these enterprises are home-based or small businesses.

Sustainability of Natural Resources

Increased environmental consciousness among the public in the last decade or two has led to recent provincial initiatives in sustainability, protected areas and improved resource management practices. The reliance of over 40% of areas in British Columbia on the forest industry (The Chancellor Partners, 1997) has created a heightened concern over the long-term viability of those resources to maintain local economies. One current example is the reduction of the annual allowable cut in many areas of the province in response to decreased long-term wood supply. Technical groups are examining means of maintaining the long-term wood supply through enhanced silviculture treatment scenarios and other methods that will produce the most cost-effective results. Community concerns over the long-term viability of their resource-based economy are growing and many opinions exist.

On a provincial scale, the sustainability of salmon stocks is an important issue. Habitat loss, high water temperatures, management practices in riparian zones and over-fishing, along with the broader issues of weather systems and climate change, will influence the long-term health of

salmon stocks. The region's contribution to salmon habitat will likely remain a significant provincial issue.

Employment

The global corporate trend in the last decade has created reduced numbers of employees to regain corporate economic competitiveness and fiscal control. Downsizing has descended on government and the private sector at all levels. Governments concerned with annual deficits and increasing debt are reducing programs through lower staff and operating budgets. Industries with reduced revenues similarly require lower output costs to address the imbalance. This scenario creates a level of concern for most workers at all levels over the nature and security of their employment. In reaction to downsizing, the number of self-employed individuals and small businesses has increased.

Value Added

Over time, the increased mechanization of forestry operations has reduced the number of jobs created per cubic metre of wood processed. In 1997, 4.3 direct and indirect jobs were dependent on every 1,000 cubic metres of wood harvested in BC (Price Waterhouse, 1998). Value Added is the maintenance and enhancement of economic benefits to obtain more value from each cubic metre of wood harvested. It is considered a prime means of increasing regional employment through the increased local processing of natural resources, particularly of wood, and commonly involves small businesses. Examples of value added include log home construction, pre-fabricated housing units, various specialty wood products, wood pellet fuel, musical instruments, wood crafts and showcase furniture.

Community Role in Resource Management

Stemming from the recommendations of the Pearse Report of 1976 and Forest Resources Commission reports in 1991 and 1992, British Columbians have sought more public participation and community-based control over the management and processing of their resources. Control by multi-national companies has centred many corporate decisions outside British Columbia or even Canada, often with the potential or realization for negative results to the economic stability of small, resource-based communities. Communities want more input in how they are affected by resource management policies, planning and management.

Land use planning in the Thompson-Okanagan has seen ?????? As well, community forest agreements are now enabled through new legislation to initiate pilot projects that will allow communities to plan for allocating and maximizing a wider range of local forest resource values beyond the traditional timber emphasis.

First Nations

Aboriginal peoples have been increasingly concerned with, and involved in, management of, and access to, the province's natural resources. In the Thompson-Okanagan, First Nations have entered into joint ventures with industry to generate employment for them and increase their economic opportunities while promoting their culture and supporting a livelihood. With the inclusion of aboriginal knowledge in post-secondary resource management education, programs such as the University of British Columbia First Nations House of Learning and alternative post-

secondary learning institutions such as the En'owkin Centre, Secwepemc Cultural Education Society and the Nicola Valley Institute of Technology and requirements for traditional use studies in Forest Practices Code planning requirements, resource planners and managers are considering aboriginal values and knowledge in management practices.

Since the Delgamuukw decision of late 1997 and other court decisions, resource management regionally and provincially has been infused with a high level of uncertainty over aboriginal rights to resources, treaty costs and the time to resolve all remaining land claims in BC. The recent signing of the Nisga'a treaty and the remaining uncertainty over the numerous other land claims in British Columbia indicate that resource management and economic stability could remain unstable for some time longer.

Ranching

Trends for the ranching industry include the current uncertainty of grazing and hay tenures on Crown range in relation to land claims and treaties, increased regulation in range management through tighter environmental standards and Forest Practices Code requirements, and the marginal economics of the cattle industry. Ranching has a long history in the Thompson-Okanagan region but currently there is low stability of the industry's attractiveness from increasing legal requirements without a corresponding increase in revenue to offset input costs.

Retirement Population

The aging Canadian population has affected the Thompson-Okanagan region due to the Okanagan's pleasant climate. This has led to the growing establishment of numerous retirement communities with expanding local dependencies on investment and pension income. While migration to the region has recently declined, the growth rate is still above the provincial average and is anticipated to increase further in the next millennium when growing numbers of retiring baby boomers choose to retire in the Thompson-Okanagan region.

Community Watersheds

The arid climate of the most populated areas of the Thompson-Okanagan region attracts residents, fruit and produce growers, vintners and others. With the ensuing demand on the water supply growing, resource management practices are more limited in designated community watersheds. Meeting water quality and quantity requirements for a variety of domestic and commercial uses is crucial to the regional economy and lifestyle.

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Kamloops Region Research

Research Group	Project Title	Organization	Investigators/ Contacts	Project Number	Biogeoclimatic Zone	Status	Products	Location
Biodiversity	Pine Mushrooms Estimates in the Nahatlatch River Watershed	Nlaka'pamux Nation Tribal Council	R. Pasco	HQ96174-RE (FRBC)				
Biodiversity	Opax Mountain Silvicultural Systems Project: Insectivores-Habitat And Landscape Relationships, And The Effects Of Silvicultural Systems	BCMOF	D. Huggard	TO96065-RE	IDF		Extension Note	Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Sciurids-Habitat and Landscape Relationships, and the Effects of Silvicultural Systems	BCMOF	W. Klenner	TO96066-RE	IDF			Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Mice and Voles - Effects of Silviculture Systems and Habitat and Landscape Relationship.	BCMOF	W. Klenner	TO96067-RE	IDF			Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Cavity-Nesters-Habitat and Landscape Relationships, and the Effects of Silvicultural Systems	BCMOF	W. Klenner	TO96068-RE	IDF			Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Ground-dwelling Arthropods-Habitat and Landscape Relationships, and the Effects of Silvicultural Systems.	BCMOF	W. Klenner	TO96069-RE	IDF	Active		Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Small Carnivores and Ungulates In Winter-Habitat and Landscape Relationships, and the Effects of Silvicultural Systems.	BCMOF	D. Huggard	TO96071-RE	IDF			Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: The Effects of Alternative Silvicultural Systems on the Habitat Requirements of Amphibians in IDF Forests	BCMOF	W. Klenner	TO96072-RE	IDF	Active		Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: Relationships between Small Mammals and Downed Wood.	BCMOF	W. Klenner	TO96073-RE	IDF			Opax Mountain
Biodiversity	Opax Mountain Silvicultural Systems Project: The Long-term Effect off Small Cut-block on Ectomycorrhizal Density at Opax Mountain	OUC	D. Durrall	TO96074-RE	IDF	Active		Opax Mountain
Biodiversity	Pattern of Bryophyte and Lichen Diversity in Interior and Coastal Cedar-Hemlock Forests of British Columbia.	BCMOF	A. Arsenault	TO96048-RE	ICH	Active		
Biodiversity	Sicamous Creek Silvicultural Systems Project: Effects of Alternative Silvicultural Practices on Songbird Communities in Engelmann Spruce-Subalpine Fir (ESSF) Forests	UCC	T. Dickinson	TO96082-RE	ESSF	Active		Sicamous Creek

Biodiversity	Sicamous Creek Silvicultural Systems Project: Mice and Voles - Effects of Silvicultural Systems, and Habitat and Landscape Relationships	BCMOF	W. Klenner	TO96087-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Small Carnivores in Winter - Habitat and Landscape Relationships, and the Effects of Silvicultural Systems	BCMOF	D. Huggard	TO96084-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Cavity-Nesting Birds - Habitat and Landscape Relationships, and the Effects of Silviculture Systems	BCMOF	W. Klenner	TO96085-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Ground-Dwelling Arthropods - Habitat and Landscape Relationships, and the Effects of Silvicultural Systems	BCMOF	W. Klenner	TO96083-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Spruce Grouse - Habitat and Landscape Relationships, and the Effects of Silvicultural Systems	BCMOF	W. Klenner	TO96086-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Insectivores - Habitat and Landscape Relationships, and the Effects of Silviculture Systems	BCMOF	D. Huggard	TO96089-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: The Effect of Cutblock Size on Fungal Diversity at Sicamous Creek	OUC	D. Durall	TO96094-RE	ESSF	Active		Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Relationships Between Small Mammals and Downed Wood	BCMOF	W. Klenner	TO96090-RE	ESSF			Sicamous Creek
Biodiversity	Sicamous Creek Silvicultural Systems Project: Effects of Timber Harvesting and Road Construction on Stream Invertebrates in the Sicamous Creek Watershed	UCC	B. Heise	TO96105-RE	ESSF	Active		Sicamous Creek
Biodiversity	Variations of Carabid Community Structure Associated with Forest Successional Stages at East Barriere Lake	UBC	G. Scudder	HQ96280-RE		Active		Barriere Lake
Biodiversity	Effects of Forest Fragmentation on Nesting Success of Riparian and Upland Forest-Breeding Birds	UBC	J. Smith	HQ96274-RE				
Biodiversity	Effects of Tree Species Composition on Ectomycorrhizal Sporocarp Diversity in Late Seral ICH Forests: Paper Birch, Douglas-Fir, and Admixtures	BCMOF	S. Simard	HQ96376-RE	ICH	Active		
Ecosystems	Long Term Natural Disturbance Regimes of the ESSF	U of Vic	R. Hedba	HQ96037-RE	ESSF	Active		
	Streamflow Response to Clear-Cut Logging and Road Construction in the Kamloops Forest							Kamloops District

Ecosystems	District	UBC	O. Slaymaker	HQ96080-RE				
Ecosystems	Comparison of the Patterns of Natural Disturbances and Harvesting and Their Impact on Stand Structure and Dynamics in Coastal and Interior Cedar-Hemlock Forests	BCMOF	A. Arsenault	TO96033-RE	ICH			
Ecosystems	Snow Monitoring in Selection Harvest	Weyerhaeuser Canada Ltd.	K. Bonnett	KA-31-96-002		Active		
Ecosystems	Disturbance Impacts on Key Processes in High Elevation Forests: A Multiscale Approach	UBC	G. Bradfield	TO96045-RE		Active		
Ecosystems	The Effects of Spatial and Temporal Variation in Forest Structure on Snow Accumulation and Melt	BCMOF	R. Winkler	TO96053-RE		Active		
Ecosystems	Influences of Timber Harvesting and Road Construction on the Sediment Budget in Upper Penticton Creek Watershed	BCMOF	T. Giles	TO96054-RE		Active		Penticton Creek
Ecosystems	Effects of Road Construction and Timber Harvesting on Stream Invertebrate Communities Collected from Logged and Unlogged Streams, using Artificial Substrate Sampling	UCC	B. Heise	TO96055-RE		Active		
Ecosystems	The Effects of Forest Harvesting on Water Quantity and Quality in Small Interior Watersheds	BCMOF	R. Winkler	TO96052-RE		Active		
Ecosystems	Opax Mountain Silvicultural Systems Project: The Effects of Silvicultural Systems on Soil Productivity in the IDF Zone - Impacts on Soil Organic Matter and Soil Nitrogen	BCMOF	G. Hope	TO96075-RE	IDF	Active		Opax Mountain
Ecosystems	Opax Mountain Silvicultural Systems Project: Spatial and Temporal Response of Vegetation to Silvicultural Practices in the IDF	BCMOF	D. Lloyd	TO96076-RE	IDF	Active		Opax Mountain
Ecosystems	Sicamous Creek Silvicultural Systems Project: Effects of Silvicultural Systems on Soil Productivity	BCMOF	G. Hope	TO96092-RE	ESSF	Active		Sicamous Creek
Ecosystems	Sicamous Creek Silvicultural Systems Project: The Response of Engelmann Spruce Subalpine Fir Forest Ecosystems to Logging- Effects of Harvesting on Nutrient Budgets	UBC	M. Feller	TO96095-RE	ESSF	Active		Sicamous Creek
Ecosystems	Sicamous Creek Silvicultural Systems Project: Effects of Silvicultural Systems on Fine Root Biomass	UCC	G. Hunt	TO96096-RE	ESSF	Active		Sicamous Creek
Ecosystems	Sicamous Creek Silvicultural Systems Project: Effects of Clearcut Size on Microclimate	BCMOF	R. Adams	TO96097-RE	ESSF	Active		Sicamous Creek
Ecosystems	Sicamous Creek Silvicultural Systems Project: Spatial and Temporal Response of Vegetation to Silvicultural Practices in the ESSF	BCMOF	D. Lloyd	TO96101-RE	ESSF	Active		Sicamous Creek
	Sicamous Creek Silvicultural Systems Project: Coarse Woody Debris Dynamics in Wet and				ESSF	Active		Sicamous Creek

Ecosystems	Dry ESSF Forests	UBC	C. Prescott	TO96103-RE				
	Sicamous Creek Silvicultural Systems Project: Effects of Silvicultural Treatments on Soil Food web and Nitrogen Dynamics in ESSF Study Sites				ESSF	Active		Sicamous Creek
Ecosystems		BCMOF	G. Hope	TO96106-RE				
Ecosystems	Propagation Techniques for Native Plant Species from Seed	Kalamalka	M. Carlson	HQ96363-RE		Active		
Ecosystems	The Role of Hardwoods in Sustaining Site Productivity in Interior Cedar Hemlock Stands	BCMOF	G. Hope	HQ96368-RE	ICH	Active		
Ecosystems	The Effects of Cattle Trampling on Soil Compaction in Forest Plantations	BCMOF	R. Newman	HQ96372-RE		Active		
Ecosystems	Effects of Artificial and Natural Nitrogen and Phosphorus Sources on Sustaining Growth of Paper Birch and Black Cottonwood on Forest, Riparian, and Agricultural Lands in the ICH Zone of BC	BCMOF	S. Simard	HQ96377-RE	ICH	Active		
Ecosystems	Effects of Forest Canopies on Energy Available for Snow Melt and Summer Evapotranspiration	BCMOF	D. Spittlehouse	HQ96379-RE		Active		
Ecosystems	Inventory and Geotechnical Engineering Assessment of Bridge River Ash in the Lillooet and Squamish Forest District	BCMOF	K. Turner	TO97179-7RE		Active		Lillooet Forest District
Ecosystems	The Effect of Air-Vent Blocks and Microbial Inoculants on Conifer Root System Before and After Outplanting	OUC	M. Jones	TO97216-4RE		Active		
Ecosystems	A Mixed-Species Study of the Transfer of Carbon Between <i>Betula Papyrifera</i> and <i>Pseudotsuga Menziesii</i> Seedlings Linked by Ectomycorrhizal Hyphae	OUC	D. Durall	TO97232-4RE		Active		
Ecosystems	Variability of Natural Disturbances in Interior Douglas-fir Zone Landscapes: The Role of Forest Structure Topography	SFU	K. Lertzman	TO97245-2RE	IDF	Active		
Ecosystems	Predicting Long-Term Landscape Changes Associated with Forest Management in the Interior Wet Belt of British Columbia	Independent	D. Sachs	HQ96020-RE		Active		
Forest Management	Projecting and Evaluating the Impacts of Landscape Unit Planning Scenarios On Timber Supply and Compliance with the FPC Biodiversity Guidelines	BCMOF	W. Klenner	TO96035-RE		Active		
Forest Operations	Commercial Thinning in Douglas-Fir Near Quesnel , Williams Lake and Adams Lake Using Ground-Based Systems	FERIC	J. Mitchell	CC96030-RE		Active		Opax Mountain
Forest Operations	Opax Mountain Silvicultural Systems Project: This proposal provides an overview of the project and describes project coordination and support research and facilities in more detail.	BCMOF	A. Vyse	TO96080-RE	IDF	Active		Sicamous Creek
Forest	Sicamous Creek and Opax Mountain Silvicultural Systems Projects: Advance				IDF	Active		Opax Mountain

Operations	Regeneration in ESSF and IDF	BCMOF	P. Puttonen	TO96078-RE				
Forest Operations	Partial Cutting with Timberjack/FMG Harvesters and Forwarders in the Okanagan	FERIC	E. Phillips	TO96050-RE		Active		Okanagan
Forest Operations	Sicamous Creek Silvicultural Systems Project: Project Coordination, Facilities, Support Research and Overall Extension	BCMOF	A. Vyse	TO96109-RE	ESSF	Active		Sicamous Creek
Forest Operations	Sicamous Creek Silvicultural Systems Project: Persistence Rates of Snags - Implications for Worker Safety and Habitat Supply	BCMOF	D. Huggard	TO96091-RE	ESSF			Sicamous Creek
Forest Operations	Sicamous Creek Silvicultural Systems Project: Ecological Niche for Seedling Establishment in High Elevation Forests in Wet Subzones of the ESSF	UBC	G. Weetman	TO96107-RE	ESSF	Active		Sicamous Creek
Forest Operations	Sicamous Creek Silvicultural Systems Project: Structure and Condition of High Elevation ESSF Forests After 40 Years Since Harvesting, Using Advanced Regeneration	BCMOF	P. Puttonen	TO96108-RE	ESSF	Active		Sicamous Creek
Forest Operations	Paper Birch Stand Management Studies in the ICH Zone in the Southern Interior of British Columbia: Thinning Trials	BCMOF	S. Simard	HQ96416-RE	ICH	Active		
Forest Operations	Regeneration of Paper Birch/Conifer Mixtures in the ICH Zone of the Southern Interior of British Columbia	BCMOF	S. Simard	HQ96417-RE	ICH	Active		Southern Interior
Forest Operations	Comparison of Site Preparation Treatments on a Steep, Dry, Grassy Site in the IDF Zone in the Lillooet Forest District	BCMOF	S. Simard	HQ96418-RE	IDF	Active		Lillooet Forest District
Forest Operations	Development of Guidelines for Managing Density, Proximity and Species Composition in Birch/Conifer Mixtures in the Southern Interior: A Retrospective Approach	BCMOF	S. Simard	HQ96419-RE		Active		Southern Interior
Forest Operations	Douglas-Fir Response to Brushing at Various Radii in the Mixed Broadleaved Shrub Complex	BCMOF	S. Simard	HQ96425-RE		Active		
Growth & Yield	Growth and Yield Studies of Partially-Cut Interior Douglas-Fir	Weyerhaeuser Canada Ltd.	L. Henry	TO96037-RE				
Growth & Yield	Commercial Thinning in Young Lodgepole Pine	Weyerhaeuser Canada Ltd.	L. Henry	TO96038-RE				
Growth & Yield	Sampling Methodology to Estimate Operational Adjustment Factors	Weyerhaeuser Canada Ltd.	D. Brimacombe N. Kleyn	TO96042-RE		Active		
Growth & Yield	Interior Forest Nutrition Growth and Yield Experiments	Kalamalka	R. Brockley	HQ96157-RE		Active		Interior
Growth & Yield	Development and Yield of Complex, Mixed-Species Stands	BCMOF	I. Cameron	HQ96158-RE		Active		
Growth & Yield	Interior Stand Management Growth and Yield Experiments	Kalamalka	W. Johnstone	HQ96428-RE		Active		Interior
Forest Health	Biology, Damage Assessment and Integrated Pest Management of Wood Borers in the Interior of BC	Phero Tech. Inc.	J. Carlson	HQ96094-RE				Interior

Forest Health	Influence of Silvicultural Systems and Diversionary Foods on Vole Populations and Damage to Forest Plantations	Applied Mammal Research Institute	T. Sullivan	TO96031-RE		Active		
Forest Health	Development of an Ecologically Based, Integrated Management Regime for Pests of Immature Lodgepole Pine, with Emphasis on the Lodgepole Terminal Weevil, <i>Pissodes Terminalis</i>	BCMOF	L. Maclauchlan	TO96057-RE		Active		
Forest Health	Opax Mountain Silvicultural Systems Project: Effect of Insects on Health of Trees and Stands	BCMOF	L. Maclauchlan	TO96079-RE	ICH	Active		Opax Mountain
Forest Health	Sicamous Creek Silvicultural Systems Project: Spatial and Temporal Analysis of Attack and Impact of <i>Dryocoetes Confusus</i> (Swaine) in Natural and Managed Subalpine Fir Forests	BCMOF	L. Maclauchlan	TO96102-RE	ESSF	Active		Sicamous Creek
Forest Health	Sicamous Creek Silvicultural Systems Project: Pathology of Conifer Seed on Natural and Disturbed Seed Beds	UBC	B. van der Kamp	TO96104-RE	ESSF	Active		Sicamous Creek
Forest Health	Improved Pheromone Tree Bait for the Western Balsam Bark Beetle	Phero Tech Inc.	J. Carlson	TO97266-0RE		Active		
Forest Health	Biology of the Spruce Weevil <i>Pissodes strobi</i> Peck. In a Reciprocal Cross Plantation at the Kalamalka Forest Station	UBC	J. McLean	HQ96121-RE				Kalamalka Forestry Centre
Genetics	Enhancement of Seed Orchard Crops in Interior Orchards: Develop and Evaluate Pollen Viability Testing for Western Larch	Kalamalka	M. Albricht/ C. Hewson	HQ96570-RE		Active		Kalamalka Seed Orchard
Genetics	Enhancement of Seed Orchard Crops in Interior Orchards: Seed Development in Lodgepole Pine	Kalamalka	M. Albricht/ C. Hewson	HQ96571-RE		Active		Interior
Value Added	Solid Wood Products Opportunities from Short Rotation Hybrid Poplar Trees	Kalamalka	M. Carlson	TO97203-4RE		Active		
Extension	Wetland Vegetation Field Manual for British Columbia	Ducks Unlimited	B. Delesalle	TO97210-2RE		Active		
Extension	Meeting the Challenges of Forestry in the 21 st Century - An analysis of Employment Opportunities	North Okanagan Skills Unlimited Training	J. Lister	TO97220-4RE		Active		
Sensitive Species	Relationship of Wildlife Habitat at the Seed - Tree Silvicultural System	Applied Mammal Research Institute	T. Sullivan	TO97227-5RE		Active		
Sensitive Species	Changes in the Carabid Beetle Guild Associated with Harvesting and Silvicultural Practices in the ESSF at Sicamous Creek and IDF at Opax Mountain	UBC	G. Scudder	TO97300-3RE	IDF, ESSF	Active		Opax Mountain Sicamous Creek
Workforce	Work Skills Required for Partial Harvest Operations	UBC	J. McNeel	TO97270-2RE		Active		
Workforce	Estimating Contract Logging Employment in BC	Resource Systems Management	M. Chisholm-Glover	TO97278-0RE		Active		

Silvicultural Practices*	Incremental Silviculture of Lodgepole Pine: Integration of Stand Productivity and Non-Timber Values	BCMOF	R. Winter	TO97242-5RE		Active		
Silvicultural Systems*	Silvicultural systems for high elevation forests	BCMOF	A. Vyse	SS004	ESSF			
Silvicultural Systems*	Acceptability of western redcedar regeneration	BCMOF	H. Merler	SS043	ICH			
Silvicultural Systems*	Partial cutting to meet visual quality objectives	BCMOF	P. Rennie	xSS078				
Silvicultural Systems*	Alternative silviculture systems for dry-belt Fir	BCMOF	A. Vyse	SS088	IDF			
*incomplete list								
Forest Productivity	See Forest Productivity Council list							