



**BCTS**  
BC Timber Sales

## Commitment to Environmental Stewardship and Sustainability

**Sustainably Managed Forests  
for the Benefit of all  
British Columbians**

**APRIL 2019**



Ministry of  
Forests, Lands, Natural  
Resource Operations  
and Rural Development



“We take sustainability seriously; it is an overarching principle of everything we do.”

## BC Timber Sales’ Commitment to Environmental Stewardship and Sustainability

Welcome. At BC Timber Sales (BCTS), we take sustainability seriously; it is an overarching principle of everything we do.

Our commitment to environmental stewardship and sustainability can be seen in the successes and innovations BCTS has achieved in sustainable forest management—successes and innovations that provide social, economic and environmental benefits from British Columbia’s renewable forest resources for communities throughout the province.

Our employees take pride in the work they do and respond to ever-evolving situations by incorporating scientific advances to better meet changing public expectations and new market circumstances. BCTS’ forestry research addresses climate change impacts, species at risk considerations and other forest management issues such as cumulative effects. We apply adaptive forest management to both long-term planning and day-to-day decision-making.

Some highlights of BCTS’ successes and innovations in Forest Certification, Planning, Forest Health, Biodiversity, Harvesting, Reforestation and Climate Change/Carbon are contained within the following pages. Should you have any questions or comments, please don’t hesitate to contact any of our headquarters or business area staff through the contacts on the last page.



## Introduction

### BC Timber Sales

#### Our Vision and Mission

##### Vision:

To be an effective timber marketer generating wealth through sustainable resource management.

##### Mission:

Committed to pursuing excellence in all aspects of our business; maintaining effective relations and focusing on results, BCTS generates economic prosperity for all British Columbians through the safe, sustainable and reliable development and auction of public timber and plays a pivotal role in the Ministry's reforestation strategies.

*"We support:*

- 1 Economic benefit for all British Columbians with thriving and resilient rural communities.**
- 2 Partnerships that support reconciliation with Indigenous people.**
- 3 Sustainable natural resource management."**

**VISIT THE MINISTRY SERVICE PLAN HERE**  
[www.bcbudget.gov.bc.ca/2019/sp/pdf/ministry/flnr.pdf](http://www.bcbudget.gov.bc.ca/2019/sp/pdf/ministry/flnr.pdf)

**B** BCTS is a self-financing program within the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (the Ministry). BCTS manages the planning, harvesting and reforestation of a significant portion of the timber in British Columbia's provincial forest.

We operate in 12 business areas throughout the province and employ more than 600 staff in 33 communities. The vast majority of our activities such as development planning, road construction, seed production, tree planting and road deactivation are contracted to the private sector. Each year, we competitively award over \$140 million in contracts to forest sector companies and local contractors across British Columbia.

BCTS manages approximately 20% of the allowable annual cut for the province—the annual allowable cut is the amount of timber on public lands the provincial Chief Forester determines can be sustainably harvested. Once laid out, cutblocks are bundled to form Timber Sale Licences, which BCTS competitively auctions and awards to the BCTS registrant with the highest bid. After a Timber Sale Licence is awarded, the licensee manages the harvesting operations. Our licensees are comprised of market loggers, sawmill operators, independent timber processors and major forest tenure holders.

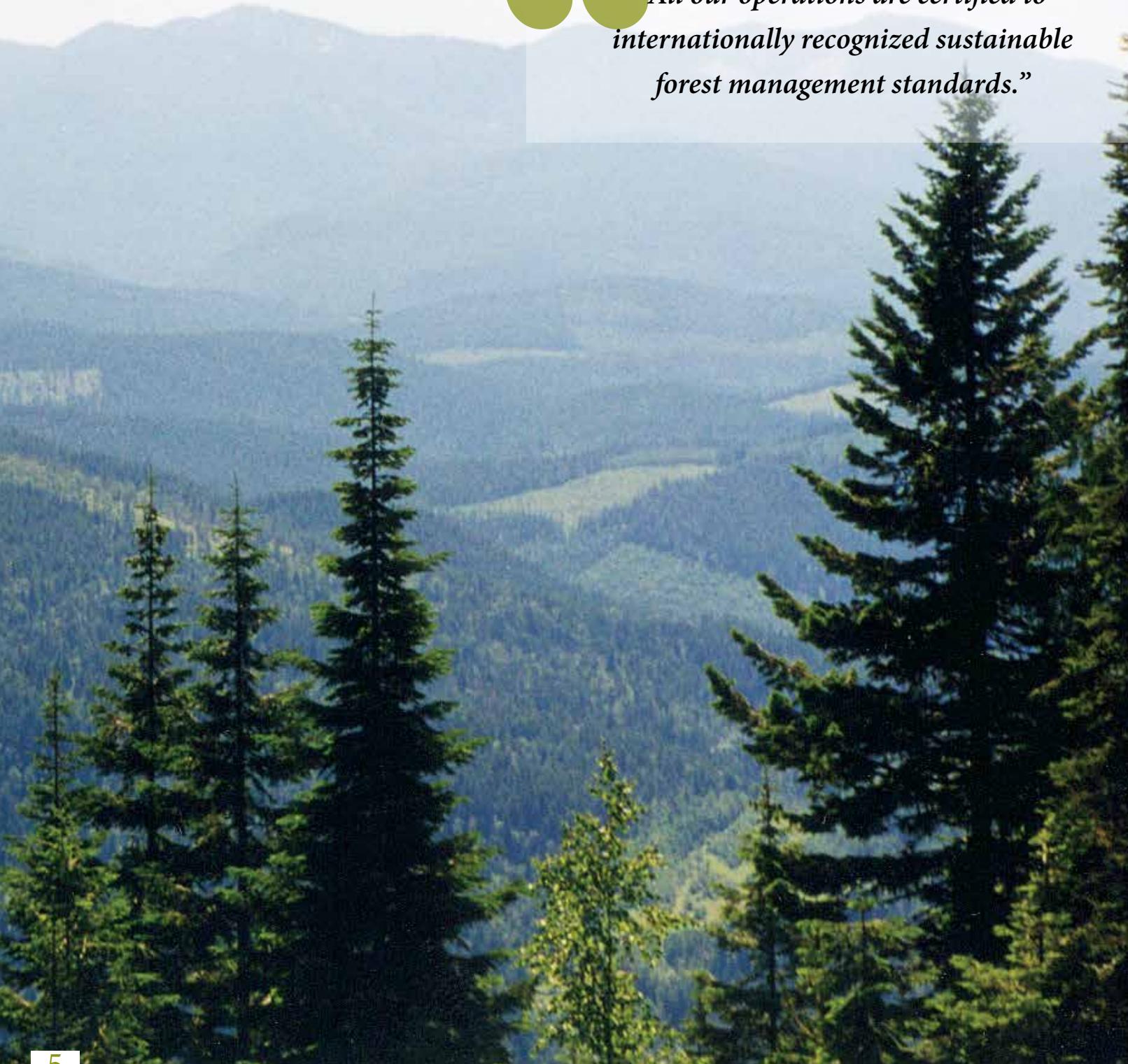
Our sustainable forest management practices are about more than simply managing timber. Sustainable forest management includes maintaining and enhancing the long-term health of forest ecosystems for the benefit of all living things, while providing environmental, economic, social and cultural opportunities for the present and future. For us, this means maintaining a balance between a healthy environment and economic sustainability. BCTS is committed to sound forest management and stewardship of the environment. Our Sustainable Forest Management (SFM) certification provides assurances to the public and to customers that our timber originates from legal and well-managed sources.



## Forest Certification

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*All our operations are certified to internationally recognized sustainable forest management standards.”*



**S**ustainable forest management is an overarching principle for BCTS and is fundamental to each and every phase of our operations. Independent third-party verification provides First Nations, the public, stakeholders, customers and our employees with the assurance that BCTS is meeting its responsibilities and expectations for sustainable forest management. BCTS has achieved sustainable forest management certification on 100% of our operations.

In addition to third-party and internal monitoring, both the Ministry's Compliance and Enforcement Branch and the independent Forest Practices Board provide additional oversight to ensure BCTS' planning and forest practices comply with the *Forest and Range Practices Act*, the *Wildfire Act* and the *Forest Act*.

The Ministry's Compliance and Enforcement Branch investigates any complaints, and BCTS takes swift and appropriate action to correct any situations that may arise.

### Successes

- ✓ BCTS maintains a continual improvement program for our environmental management and sustainable forest management standards. Each year, BCTS creates, where necessary, and implements improvements to our key provincial environmental and sustainable forest management procedures and processes.
- ✓ The BC Forest Practices Board audits at least two BCTS business areas a year. These audits routinely find BCTS' planning and practices are in compliance with the *Forest and Range Practices Act* and the *Wildfire Act*.
- ✓ BCTS harvest operations are generally well distributed across the profile of forest stands in the timber harvesting land base, relative to species, age, slope and haul distance.

### Innovations

- ✓ BCTS, in collaboration with the BC Wildfire Service, is working to develop and improve procedures for ensuring fire hazard assessments and abatements on BCTS licensee and permit areas are in place.

# Planning

The planning of harvest areas begins several years in advance of operations and is an ongoing and interactive process. British Columbia's *Forest and Range Practices Act* and other relevant legislation such as the *Wildfire Act*, the federal *Fisheries Act* and the *Species at Risk Act* are at the core of all our operating plans.

BCTS Timber Sales Managers and program staff are responsible for forest planning and management activities. A variety of inventories, surveys and assessments are also completed by our resource professionals for every BCTS proposed development area. Some examples of these are forest inventories, wildlife habitat assessments, fish stream assessments, terrain stability assessments and cultural heritage surveys. Our primary planning documents are our Forest Stewardship Plans. These plans, which are consistent with higher-level plans (e.g. the Kootenay-Boundary Higher Level Plan Order and Timber Supply Reviews), are legal documents that identify the areas of a cutblock where road building, forest harvesting and silviculture activities such as planting and brushing may occur. Forest Stewardship Plans describe how BCTS and its timber sale licensees will meet the objectives set by government for managing: soil, timber, wildlife, water, fish, biodiversity, visual quality, cultural heritage, recreation, invasive plants and natural range barriers. All our Forest Stewardship Plans are subject to consultation with First Nations and public review and comment prior to their approval.

Guided by an approved Forest Stewardship Plan, local BCTS Business Area staff identify economically viable harvesting opportunities, while maintaining ecological and environmental values. In addition, best management documents and standard operating procedures provide additional guidance to our staff and timber sale licensees on how to effectively integrate harvesting and other natural resource values.



*"BCTS consistently meets or exceeds Timber Supply Review assumptions across the range of reforestation metrics examined."*

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## Successes

- ✓ In order to reduce harvesting impacts on migratory birds in the interior of the province, BCTS worked in partnership with major licensees in the development and implementation of a migratory bird management tool to help protect populations of migratory birds. We are currently collaborating with major licensees to develop a similar tool for coastal British Columbia.
- ✓ Working with government, industry, First Nations and stakeholders, BCTS helped develop guidelines to support implementation of the Great Bear Rainforest Land Use Order with respect to Old Growth forest and red- and blue-listed plant communities.
- ✓ BCTS participates in, and is developing, several collaborative landscape planning initiatives throughout the province with both forest licence holders and First Nations. The strategies developed from these initiatives inform us on managing the full range of resource values and will complement timber supply reviews.
- ✓ BCTS is also a member of the Chief Forester's Leadership Team, a group of chief foresters currently operating on B.C.'s Crown land. The team supports working toward sustainability while balancing societal, economic, environmental and ecological considerations. Their vision is to: "Create unified leadership to help shape future forests through management rooted in science to promote healthy, ecologically diverse, resilient forests that will sustain a strong forest sector in B.C."

## Innovations

- ✓ BCTS first piloted LiDAR (Light Detection and Ranging) technology over 10 years ago and has been rapidly expanding its usage across the province. LiDAR data is collected by scanners mounted on helicopters, aircraft or drones. The cameras use laser light pulses to take multiple measurements of the tree canopy and ground beneath the canopy. The data collected is used to produce detailed three dimensional maps of individual trees and terrain maps that are accurate within centimetres. This information is invaluable for harvest planning, road planning, mapping of streams and watersheds, visual simulations and wildlife habitat assessments.
- ✓ BCTS is working in partnership with the BC Speleological Federation, Western Forest Products and TimberWest on a karst database. The database is currently available to industry forest managers and caving groups.
- Karst is a geological topography that results from rainfall or flowing water interacting with calcium-rich limestone. Karst has unique ecological significance, and it provides habitat to bats and other creatures. It also has a cultural heritage importance to First Nations and is of recreational interest to the public and cave explorers. Karst is extremely sensitive and requires special management during timber harvesting, silviculture and road-related activities. The BCTS Strait of Georgia Business Area led the development of the karst database, which stores information on karst site locations and supports the management of karst features.



By ensuring every harvested site is reforested with a range of ecologically suited species, BCTS promotes forest resiliency.

## Forest Health

For the past decade, BCTS operations in the province's interior have been significantly focused on the salvage and harvest of dead lodgepole pine stands caused by the recent mountain pine beetle epidemic. As dead stands age, their wood condition and economic viability decreases. BCTS works with the Ministry's Forests for Tomorrow program to facilitate the harvest of these stands. The salvage and harvest of the affected areas allows for prompt reforestation and accelerated regrowth.

BCTS' reforestation efforts utilize strategies that increase forest resilience in the face of changing pest and disease impacts that may arise due to a changing climate. We achieve this by ensuring all areas are reforested with a range of species ecologically suited to each site through both planting and natural regeneration.

### Successes

- ✓ BCTS has been focused on salvaging and reforesting mountain pine beetle impacted areas and is refocusing on managing new and large-scale spruce and fir bark beetle threats.
- ✓ In order to support adaptation and counteract rust infestations in lodgepole pine throughout the central Interior, BCTS reforested with a mixture of species and a higher density of seedlings.
- ✓ BCTS promotes climate change education and knowledge to our staff by assisting with the organization and delivery of climate change and seed transfer workshops. This includes identifying key climate change information relevant to our planning and operations and incorporating it into our operational guidelines.

### Innovations

- ✓ BCTS participated in the development of operational policies and practices to address forest health issues in lodgepole pine stands and are implementing these policies where ecologically appropriate. Planting lodgepole pine stands with a higher density of trees has shown to be beneficial in addressing some diseases.



## Biodiversity

BCTS is exploring non-clearcutting harvest opportunities and methods to retain trees in cutblocks and benefit habitat.

*“BCTS creates retention areas to provide habitat or refuge for a variety of species.”*

The government of British Columbia protects, conserves and manages the biodiversity of its forest ecosystems through a combination of legislation, policy, plans and programs. BCTS forest management activity works within and complements these directives. Our activities and legal requirements include:

- Planning harvest activities to protect Old Growth management areas.
- Establishing ungulate winter ranges to protect of large forage or shelter areas for deer, elk, caribou and moose.
- Maintaining fish habitat and stream water quality.
- Leaving wildlife tree retention areas in or adjacent to every cutblock to provide habitat or refuge areas for a variety of species.

### Successes

- ✓ BCTS has been an active participant in land use planning in the Great Bear Rainforest for over a decade and is a member of the Joint Solutions Project, a collaborative initiative between the forest sector and several environmental organizations. As part of this project, BCTS and its partners are actively working with the province and First Nations to balance the environmental, social and economic interests in the Great Bear Rainforest.
- ✓ Since 2010, BCTS has improved over 415 km of fish habitat by removing fish passage barriers throughout the province.

### Innovations

- ✓ BCTS implemented best management practices for Coastal Legacy Trees. Coastal Legacy Trees are spruce, western redcedar, yellow-cedar and Douglas-fir trees with diameters greater than 50% of the largest recorded trees of these species in B.C. that are retained from harvest where safe and ecologically suitable to do so. Legacy tree retention is only one aspect of Old Growth management. It works in coordination with the protection of culturally significant trees, the retention of large veteran trees in second growth stands and the establishment of wildlife habitat and riparian reserve areas.
- ✓ BCTS, in some second growth stands, retains large veteran trees during harvesting. While these trees may not meet the diameter thresholds of Coastal Legacy Trees, they do add old-growth features into third growth stands.
- ✓ Large Cultural Cedar refers to cedar required for First Nations cultural use (longhouses, canoes, totem poles). BCTS incorporates the management of Large Cultural Cedar into its Forest Stewardship Plans, and our field staff and contractors collect Large Cultural Cedar data during cutblock development.
- ✓ BCTS has restored a large number of marine sites to offset the impacts of marine log dumps. These restored sites include the establishment of eel grass and kelp beds that provide important habitat for fish. We are also examining how eel grass and kelp can assist in sequestering carbon.



BCTS' new Coastal Legacy Tree policy ensures very large trees with significant aesthetic and ecological value will be reserved from harvest.

## Harvesting

**T**imber harvesting is an essential component of BCTS' commitment to sustainability. All BCTS harvesting takes into consideration the protection of a multitude of other resource values unique to each and every site. The harvest of the stands by BCTS licence holders is monitored by BCTS staff, Ministry Compliance and Enforcement staff and the Forest Practices Board to ensure all planned protections of those resource values are achieved.

### Successes

- ✓ BCTS performs stand level field reconnaissance to confirm forest cover types and to identify features that may be of concern or require special management. On average, BCTS' harvested areas on Vancouver Island retain over 11% as Wildlife Tree Retention Areas. These areas are identified and mapped to ensure their integrity over time. Wildlife Tree Retention Areas can include special features such as culturally modified trees, animal dens and Legacy Trees.

### Innovations

- ✓ BCTS conducts annual assessments and reporting of its harvesting and reforestation activities—this is referred to as Fibre Sustainability Monitoring. This initiative allows BCTS resource managers to identify our sustainable forest management progress and potential areas for improvement.
- ✓ A Forest Professional Oversight and Certification pilot authorizes BCTS timber sales managers to require a timber sale licence holder to have a forest professional prepare and submit a certificate confirming all completed road and harvesting activities are consistent with the Forest Stewardship Plan. Forest Professional Oversight and Certification supports the sharing of accountability and achievement of stewardship commitments between BCTS, who plans the forest activities, and the timber sale licence holder, who carries out the timber harvesting activities on the ground.
- ✓ BCTS developed and implemented Coastal Legacy Tree Best Management Practices for our coastal harvest operations to retain, where possible, very large trees.
- ✓ BCTS is developing a broadleaf management strategy for our coastal operations.



# Reforestation

**B**CTS is committed to the reforestation of areas harvested under the BCTS program as soon as possible following harvest activities. This ensures the long-term health and productivity of the forest and maintains a consistent level of viable timber.

Provincial laws require every area harvested to be replanted using ecologically appropriate tree species. BCTS recognizes this responsibility is a key factor in forest sustainability. Wherever possible, BCTS uses improved seed to produce seedlings that exhibit the best growth characteristics, resistance to disease and responsiveness to a changing climate.

BCTS' Seedling Services staff manage BCTS' inventory of seed and the production, distribution and storage of seedlings for the reforestation of public lands. They also provide quality seedlings to restock forest areas lost to fire, pest damage and other natural disasters.

In addition to growing seedlings for reforestation activities, BCTS also works collaboratively with other government reforestation and restoration programs such as the Ministry's Forests for Tomorrow program, the Forest Carbon Initiative and the Forest Enhancement Society.

Each year, BCTS spends over \$40 million on silviculture activities and grows and plants more than 40 million of our own seedlings. We replant 100% of the sites we harvest in order to ensure prompt reforestation.

Reforestation doesn't end with planting. BCTS staff revisit reforested areas to ensure the trees are healthy. On many sites, brushing is required to remove shrubs and other vegetation that can compete with young trees. Our reforestation obligations end only after a stand has been surveyed by a qualified forestry professional and the trees declared healthy and free of competition from surrounding plants, shrubs or trees. This requirement ensures healthy, sustainable forests for the future.



*“BCTS Seedling Services manages the growth and delivery of more than 80 million seedlings annually for the reforestation of areas harvested under BCTS and for other government programs such as Forests for Tomorrow, the Forest Carbon Initiative and the Forest Enhancement Society.”*

## Successes

- ✓ To support ongoing reforestation efforts, BCTS purchases between 400 to 500 kg of select seed, previously known as "A" class seed, per year. Select seed can increase forest productivity, mitigate potential reductions in allowable annual cuts, and alleviate short-term timber supply shortages. BCTS continues to acquire improved orchard seed with high genetic worth to meet the Chief Forester's standards for seed use and the Forest Genetic Councils' objective of using 75% improved orchard seed by 2020.
- ✓ On average, we reforest harvested areas within 1.8 years - far sooner than the typical three and four year legal requirements.

## Innovations

- ✓ BCTS' Seedling Services staff initiated storability trials to determine if seedlings grown at nurseries can be packaged and stored earlier in the fall production cycle. The potential benefits to this are that nurseries will have a longer production window, which gives more flexibility in how much they can package and the species mix they can grow. The potential benefits are that as the fall progresses the risk of an arctic outflow increases, which can be troublesome for outdoor grown crops. Currently

nurseries lift outdoor stock directly from the field up until a point where the weather dictates the stock must either be placed directly in the ground or moved into a greenhouse for protection. If packaging of the outdoor crops begins sooner, during favourable weather conditions, the risk of cold-caused mortality is greatly reduced and the movement of seedlings from the nurseries into cold storage will be more efficient.



## Climate Change/Carbon

BCTS has been a leader in undertaking climate change strategies associated with reforestation such as increasing lodgepole pine densities at reforestation to ensure they are more resilient to a changing climate as well as utilizing climate-based movement of seedlings.

**“BCTS uses a variety of species in all its reforestation activities to encourage greater resiliency to forest health challenges and a changing climate.”**

**S**ustainable forest management includes taking action to contribute to the sustainability of the timber supply and health of forest ecosystems. We know changes in climate have an impact on our operations and the achievement of our obligations. As a forest manager for the province, we must take proactive action on climate change.

BCTS has a Climate Change Action Plan that includes actions applicable to all of our operations including road construction, maintenance and deactivation, harvesting and reforestation. In 2018, BCTS focused its climate change actions on adapting our reforestation strategies to choose species and planting densities that account for changes in temperature and precipitation levels. The potential for increased wildfire activity due to climate change has led us to improve our monitoring of fire hazard management and to conduct fuel reduction treatments around at-risk communities.

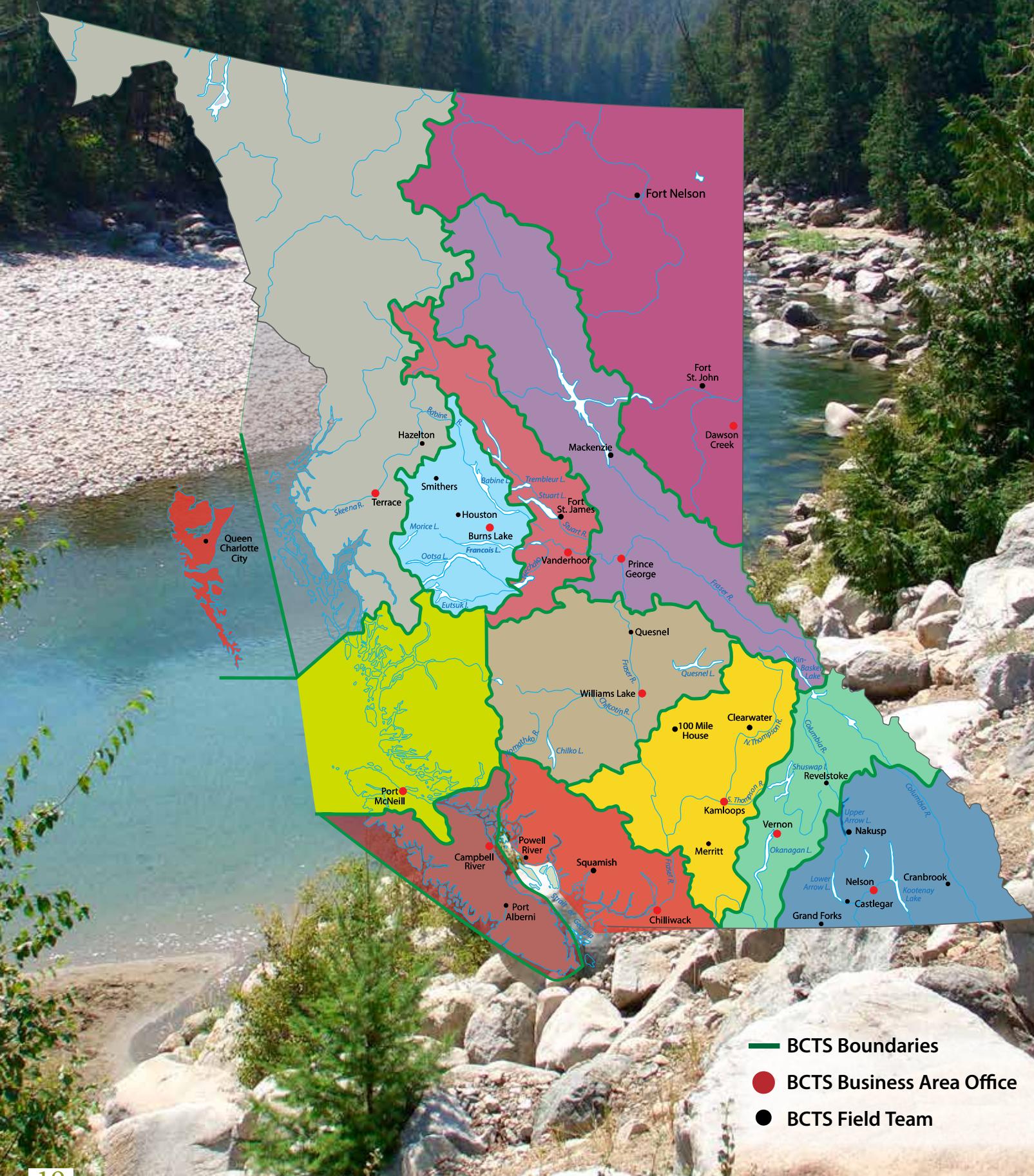
### Successes

- ✓ Our Seedling Services staff implemented a climate-based seed transfer tool that assists with selecting and planting species better adapted to climate change.
- ✓ BCTS developed and is implementing a Climate Change Action Plan in all of its Business Areas.

### Innovations

- ✓ Each year, BCTS conducts a number of projects to improve fish passage and stream ecosystem restoration to mitigate the impacts of increased stream flow due to climate change.

# BC Timber Sales' Business Areas



Contact us by email or phone at our headquarters office in Victoria or any of our 12 business area timber sales offices across the province.



## BC Timber Sales Headquarters

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<b>Babine Business Area Office</b> Box 999, 183 Highway 16 West Burns Lake, B.C. V0J 1E0 Tel: 250 692-2200 <a href="mailto:Forests.BabineTimberSalesOffice@gov.bc.ca">Forests.BabineTimberSalesOffice@gov.bc.ca</a>	<b>Kootenay Business Area Office</b> 1907 Ridgewood Road Nelson, B.C. V1L 6K1 Tel: 250 825-1100 <a href="mailto:Forests.KootenayTimberSalesOffice@gov.bc.ca">Forests.KootenayTimberSalesOffice@gov.bc.ca</a>	<b>Seaward/tlasta Business Area Office</b> Box 7000, 2217 Mine Road Port McNeill, B.C. V0N 2R0 Tel: 250 956-5000 <a href="mailto:Forests.SeawardTimberSalesOffice@gov.bc.ca">Forests.SeawardTimberSalesOffice@gov.bc.ca</a>
<b>Cariboo-Chilcotin Business Area Office</b> 200 - 640 Borland Street Williams Lake, B.C. V2G 4T1 Tel: 250 398-4345 <a href="mailto:Forests.CaribooChilcotinTimberSalesOffice@gov.bc.ca">Forests.CaribooChilcotinTimberSalesOffice@gov.bc.ca</a>	<b>Okanagan-Columbia Business Area Office</b> 2501 14th Avenue Vernon, B.C. V1T 8Z1 Tel: 250 558-1700 <a href="mailto:Forests.OkanaganColumbiaTimberSalesOffice@gov.bc.ca">Forests.OkanaganColumbiaTimberSalesOffice@gov.bc.ca</a>	<b>Skeena Business Area Office</b> Room 200, 5220 Keith Avenue Terrace, B.C. V8G 1L1 Tel: 250 638-5100 <a href="mailto:Forests.SkeenaTimberSalesOffice@gov.bc.ca">Forests.SkeenaTimberSalesOffice@gov.bc.ca</a>
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