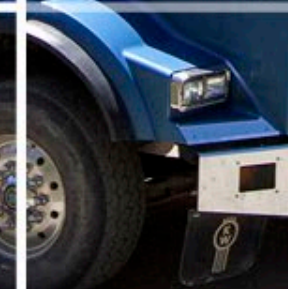
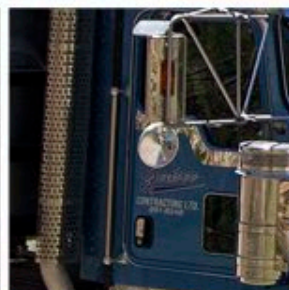
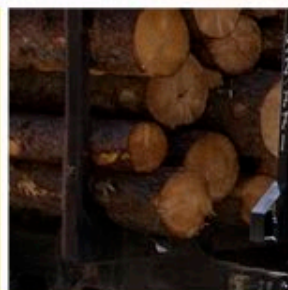




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Summer Planting in British Columbia

Inland Empire Reforestation Council
March 7, 2023



Introduction



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- BC Timber Sales Program Overview
- Summer Hot Lift
 - Review of summer plant volumes
 - Geography of summer planting
 - Summer Program Successes, Considerations
 - Challenges and Future Outlook

BCTS Program Overview



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- Established in 2003
- Created in response to ongoing softwood lumber dispute between Canada and the US
- Manages 20% of the province's annual allowable cut
- Operates in 12 Business Areas across the Province
- Provide credible representative price and cost benchmark data for the Market Pricing System
- Responsible for development and silviculture costs

BCTS Seedling Services



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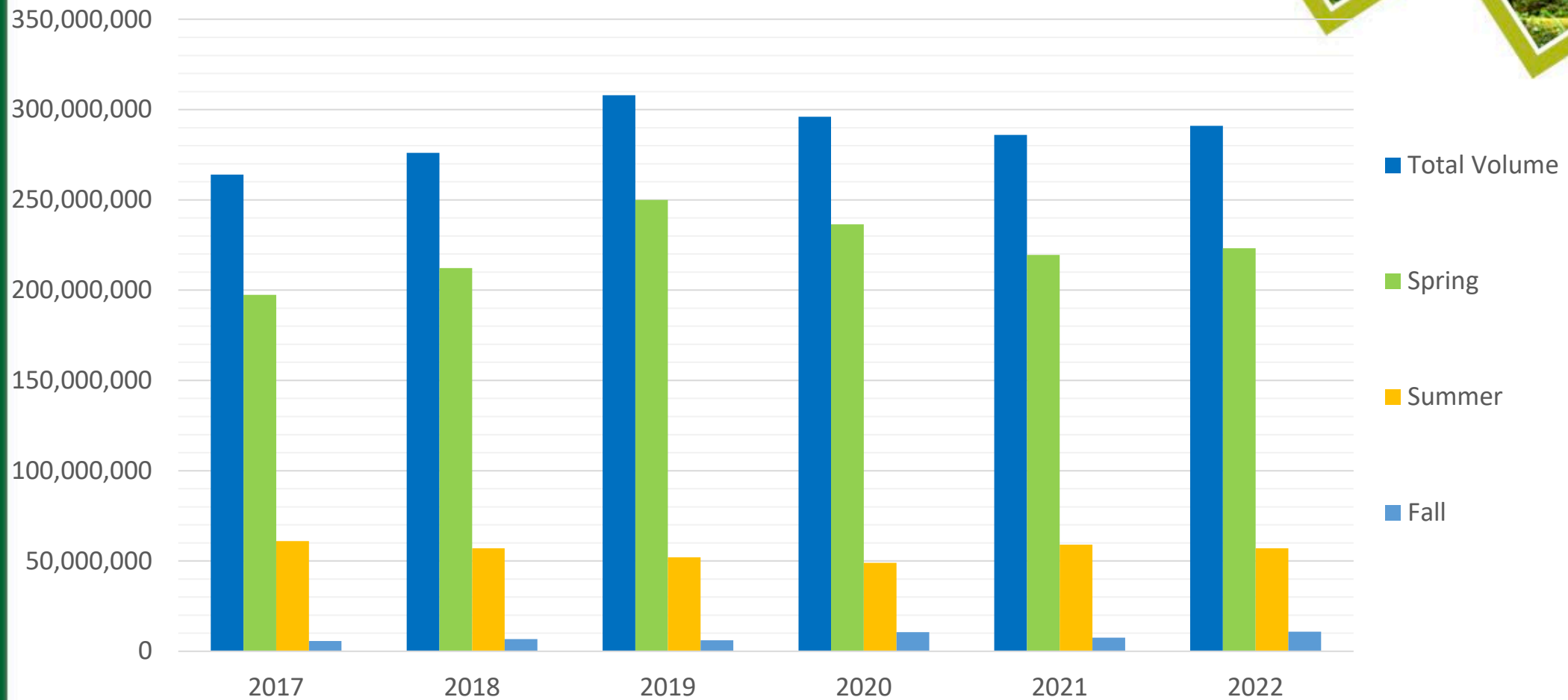
- Branch within BCTS Provincial Operations
- Manage all aspects of seedling procurement and delivery
 - Responsible for delivering 90 million seedlings annually
- Seed planning and procurement

BC Sowing Volumes



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Sowing Requests by Season

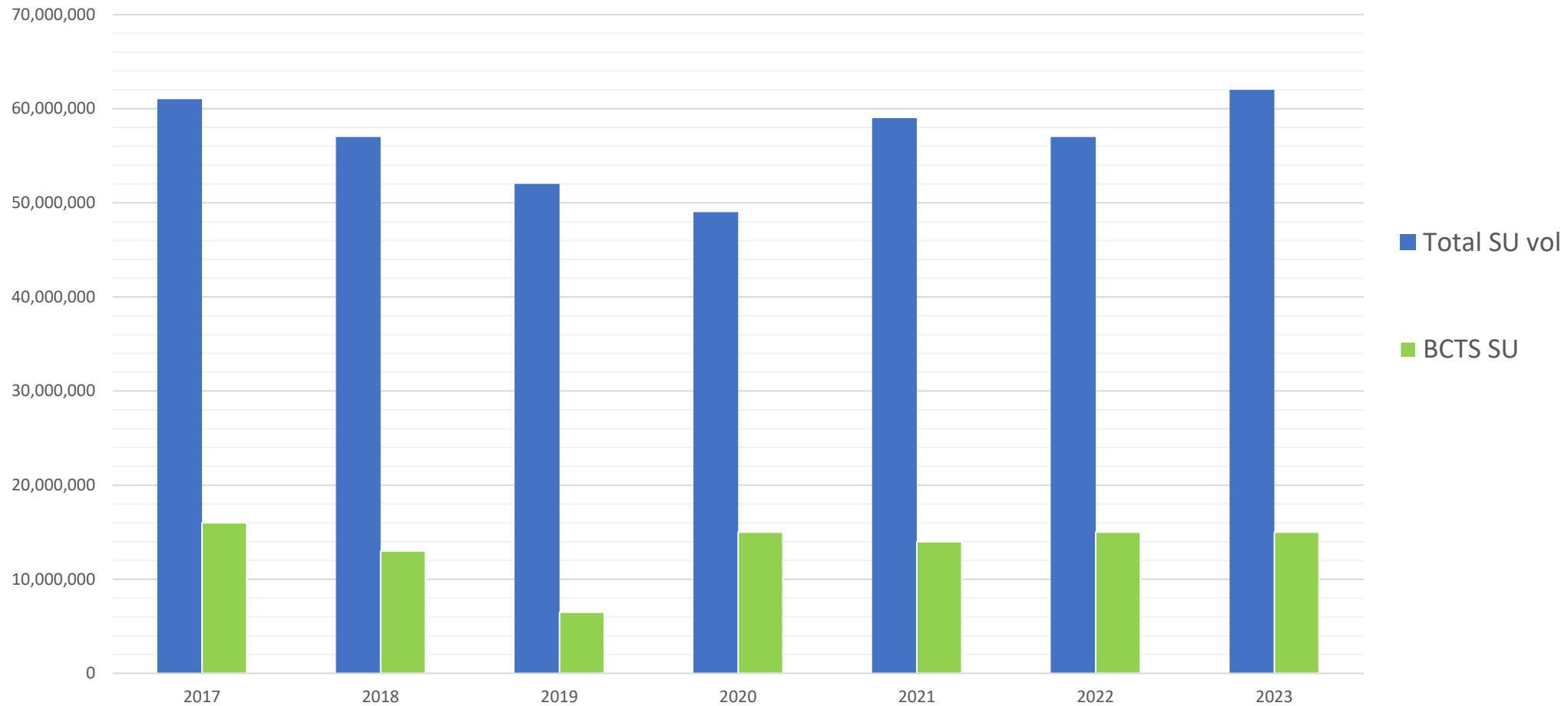


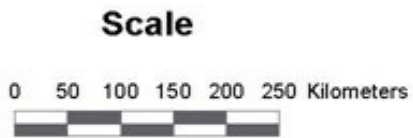
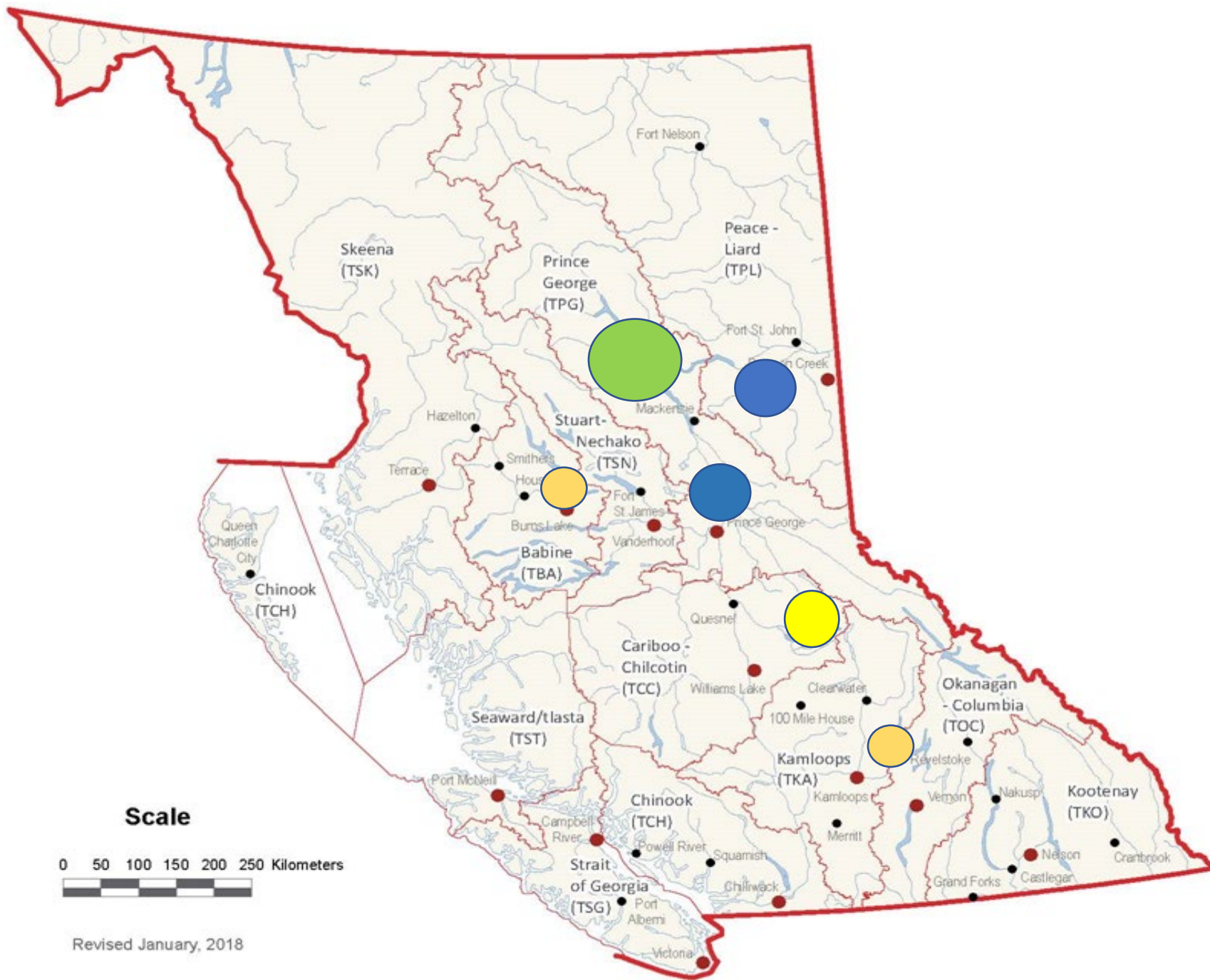
BC Summer Sowing Volumes



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BC Summer Volumes



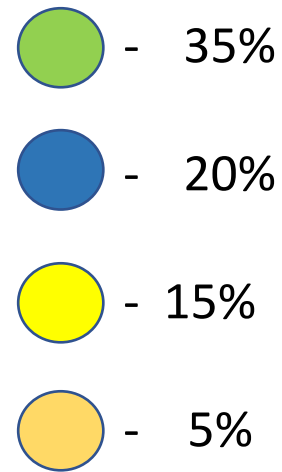


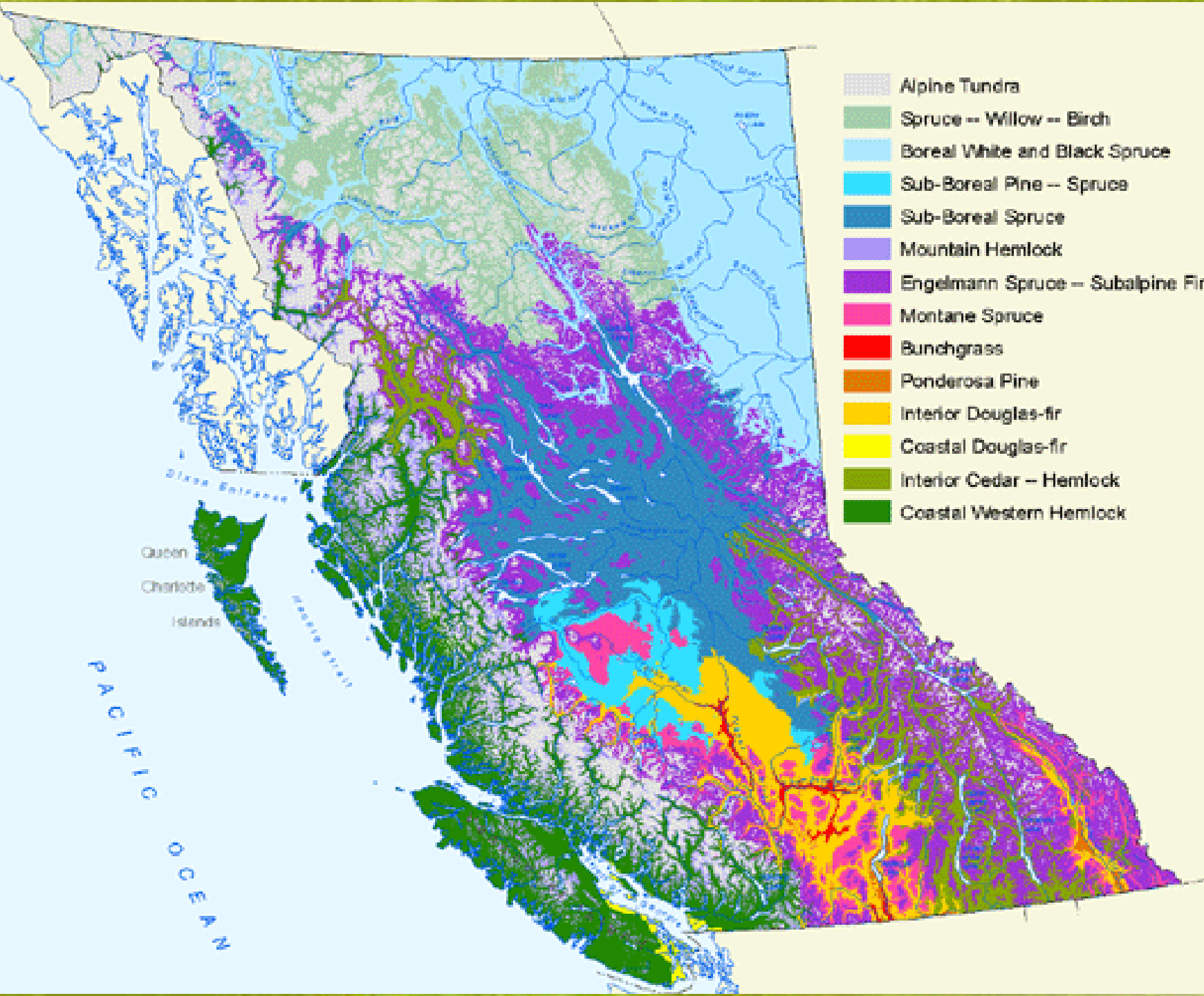
Revised January, 2018



Summer Planting

62,000,000 Total





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Summer Planting by Biogeoclimatic Zones

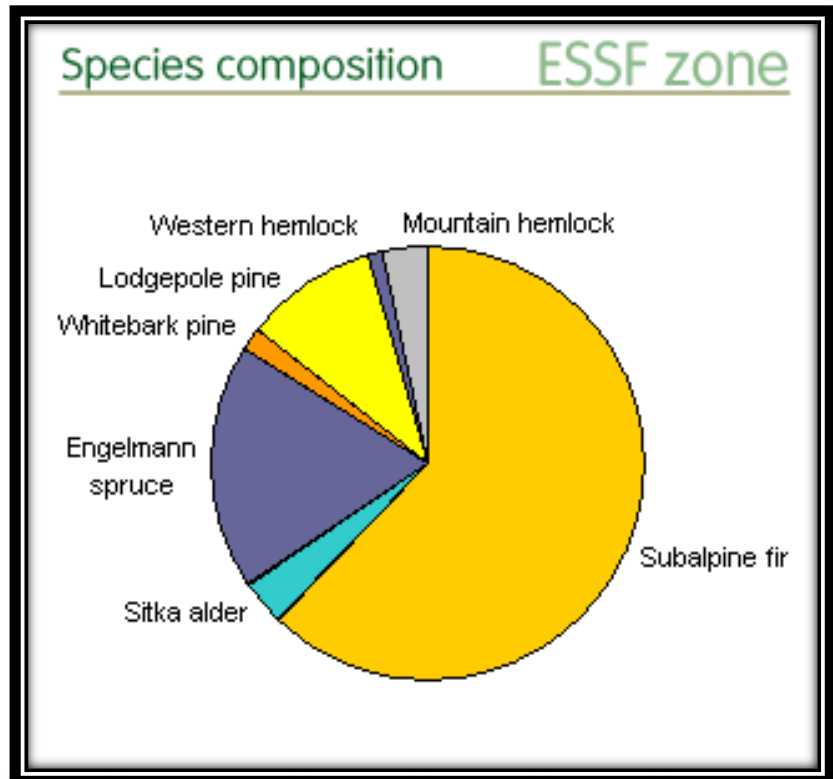
	ESSF	50%
	SBS	35%
	BWBS	15%

Englemann Spruce-Subalpine Fir



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- Sub boreal climate occurs at high elevations on all major mountains surrounding the interior plateau.
- Winters are long and cold, summers cool and short (>10C (50F) for 0-2mo)
- Snowpack 1 - >3m
- Spruce, Sub-alpine Fir, Lodgepole Pine

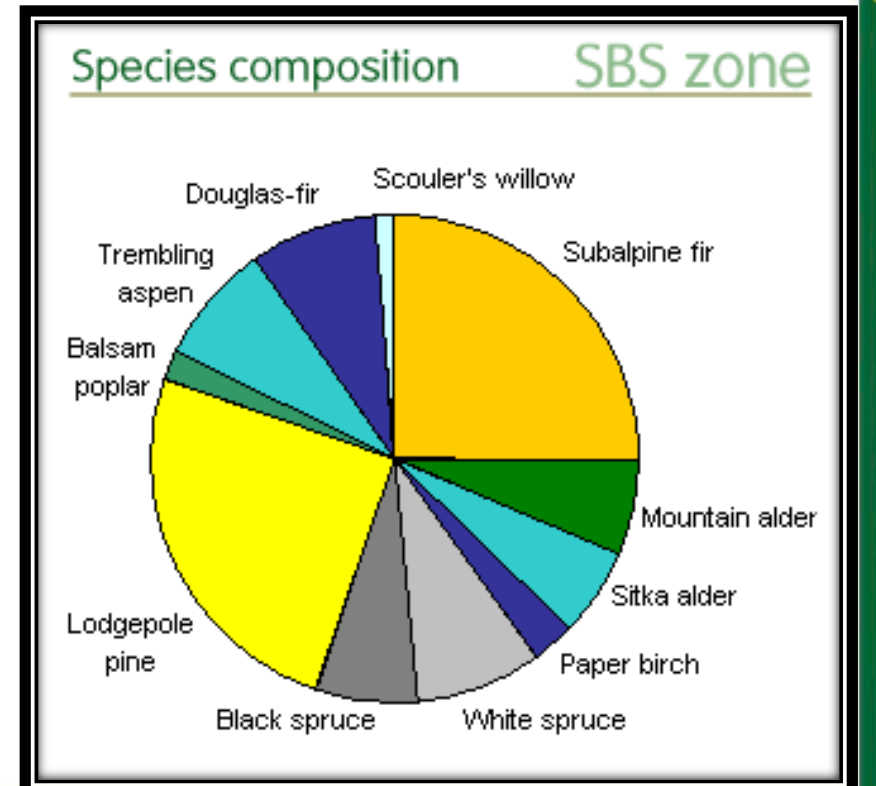


Sub Boreal Spruce



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- Found on the rolling landscape in the central interior of BC.
- Climate is mild continental and less extreme than adjoining ESSF/BWBS
- Winters are slightly warmer, and cooler in summer
 - Growing Season of 2-5 months
- Dominant Species
 - Lodgepole Pine, Sub-alpine Fir, Spruce



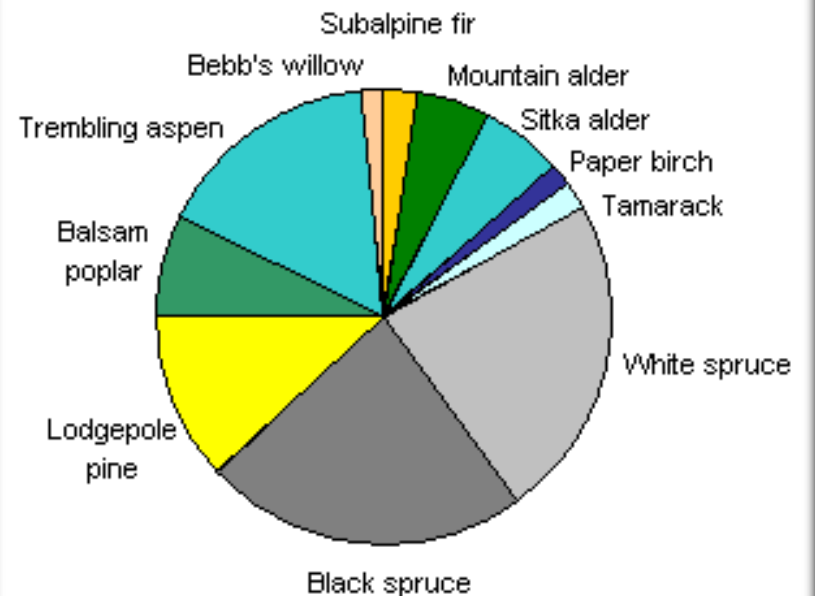
Boreal White and Black Spruce

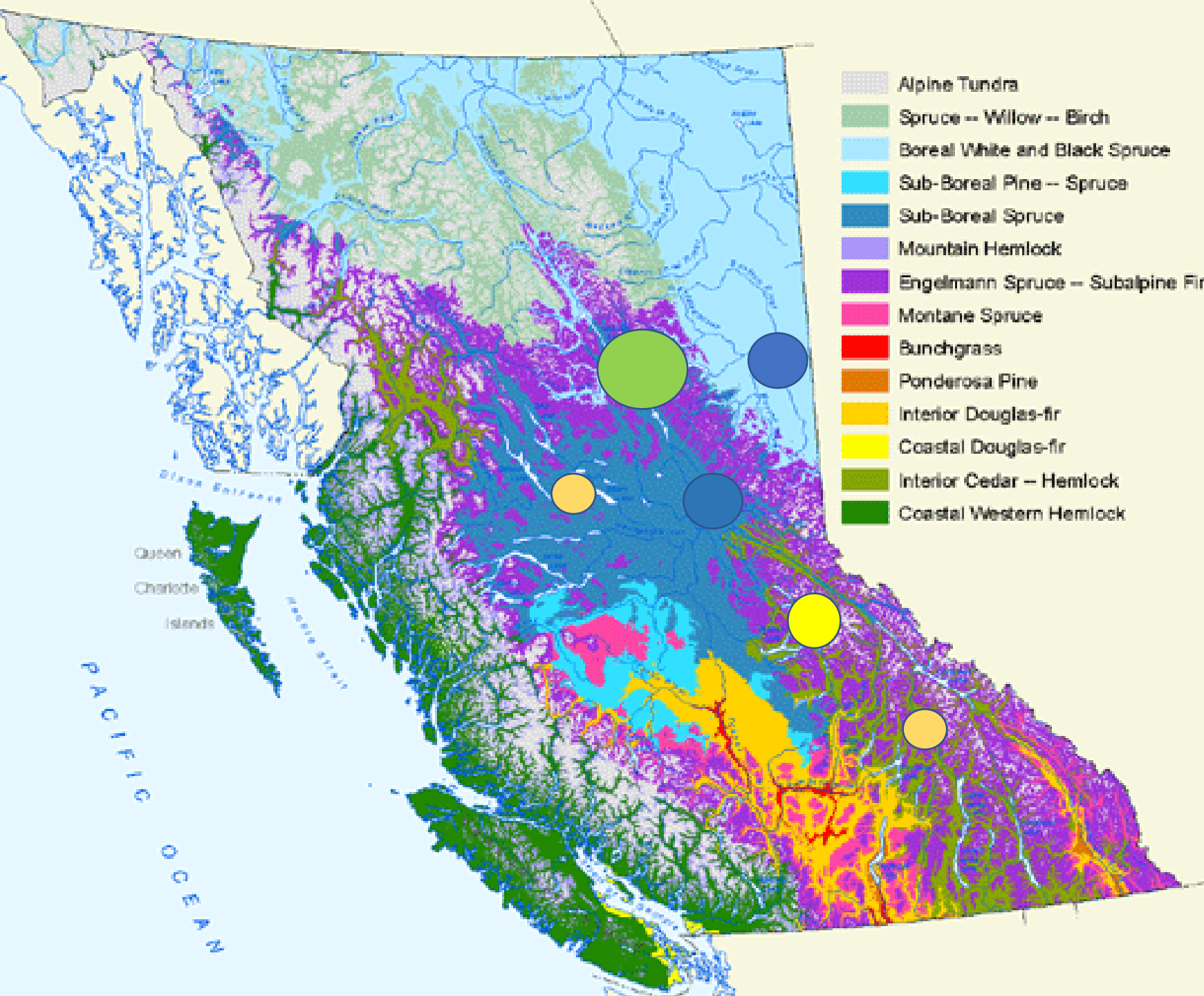


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- Occurs in northeastern BC
- Climate is cold continental
- At high elevations merges with the ESSF, and at lower elevations with the SBS
- Winters are long and very cold (MAT 0.5C)
 - Summers are short (3 month growing season) with frequent high mid-summer temps
- Dominant Species
 - White Spruce, Black Spruce, Lodgepole Pine

Species composition BWBS zone








- Alpine Tundra
- Spruce -- Willow -- Birch
- Boreal White and Black Spruce
- Sub-Boreal Pine -- Spruce
- Sub-Boreal Spruce
- Mountain Hemlock
- Engelmann Spruce -- Subalpine Fir
- Montane Spruce
- Bunchgrass
- Ponderosa Pine
- Interior Douglas-fir
- Coastal Douglas-fir
- Interior Cedar -- Hemlock
- Coastal Western Hemlock



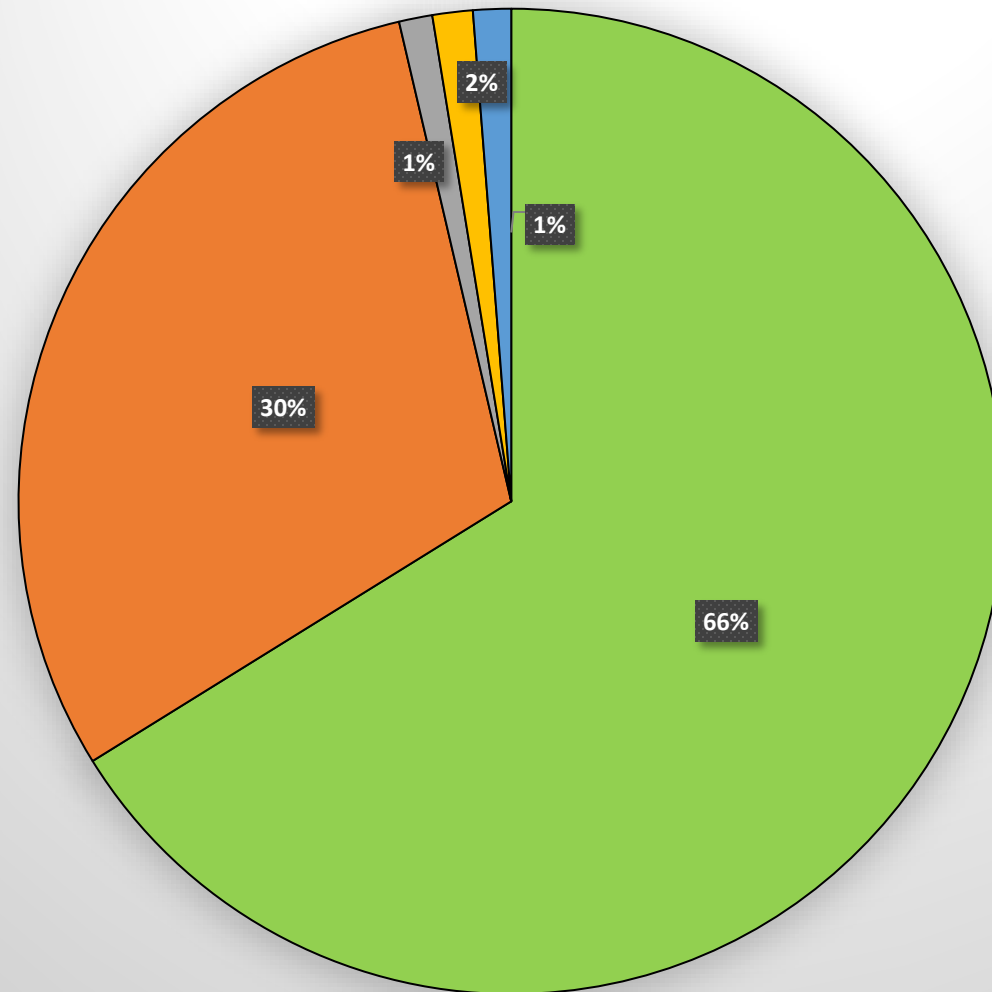
Biogeoclimatic Zones

	ESSF	50%
	SBS	35%
	BWBS	15%

Species Composition – Summer



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- Spruce
- Lodgepole Pine
- Douglas Fir
- Subalpine Fir
- Other

Why Summer Plant?



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- Location
 - High elevation, persistent snowpack
 - Access limited by snow in traditional planting window
 - Moisture retention
 - Soil temperatures
- Extending the Planting Season
 - Majority of planting occurs April – June 21
 - Summer planting to extend planting season can be risky
- Other considerations
 - Limited entry due to other constraints

Elements of a successful summer plant



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- Geography
 - Know your sites
- Coordination and timing
 - Summer hot lift has lots of moving parts
 - Good communication between nurseries and planting contractors
 - Nurseries are limited by daily production
- Stock Condition
 - Seedling hardened off, good roots
 - Stock handling
- Distance from nursery
 - Seedlings Need to be kept cool
 - Can't always have seedlings at a nursery close to planting site
 - On-site refer storage
 - Seedlings should be planted within 5 days of lift
- Flexibility
 - Have a plan B, C, and D



Additional Considerations – Nursery



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- Seedling Specifications
 - Cool wet springs not helpful for summer delivery
 - Hot dry summers create survival risk
- Meeting demands of the client
 - Communication, coordination and timing
- Workforce
 - Shortage of People
- Desire to Grow Summer Hotlift
 - Lift for spring seedlings ends Dec 31. Sowing for SU occurs in early January

The Future of Summer Planting



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- Extending the planting season
 - 80 % of planting occurs mid April – late June
 - Potentially more seedlings in the system with Federal and Provincial initiatives
 - Can hotlift planting extend the planting window to alleviate workforce issues
- Appropriate sites
 - Salvage
 - Competing Interests
 - Old Growth Deferrals, Mule Deer Winter Range, Cariboo Management...
- Climate Change and Weather Events
 - Wildfires, Heat Domes
- Supply and Demand
 - High Demand-competition for nursery space
 - Competition from outside jurisdictions



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Thank You!

