

Qualitative Climate Scenario Analysis Risk Summary Tables

SCENARIO: 3-5°C INCREASE		
MODEL USED: AR5 – RCP8.5		
FOCUS: PHYSICAL RISKS		
PHYSICAL RISK	DESCRIPTION AND POTENTIAL IMPACTS	RESILIENCE STRATEGIES AND ACTIONS
Wildfire	<p>Increased wildfires are expected to be driven by hotter, drier weather in forested areas, impacting Interfor operations and supply. (Days >25°C and consecutive dry days, normalized by historical fire weather index.)</p> <p>Potential impacts: Reductions to fiber supply and quality, shutdowns (supply chain and operations), liability. All regions.</p>	<ul style="list-style-type: none">• Strong wildfire preparedness, prevention and response programs;• Annual fire plans;• Shutdown procedures and restrictions beyond legal requirements;• Daily and continuous weather monitoring protocols;• Fire preparedness inspections;• Fire-watch and fire hazard assessment procedures; and• Forest thinning and fuel reduction projects in wildfire risk areas and around sites.
Extreme high temperatures	<p>Climate change is expected to increase the average temperature, and the number of days of extreme heat and the number of heat waves. (Days >35°C)</p> <p>Potential impacts: Shutdowns (operations and supply chain), heat-related illness and injury. All regions, highest potential impact in US South.</p>	<ul style="list-style-type: none">• Heat plans that provide guidance on ensuring health and well-being of employees during high heat indices; and• Use of air conditioning units within facilities.
Extreme precipitation	<p>The number of days with high precipitation is expected to increase. (Days per year with 20mm or more precipitation.)</p> <p>Potential impacts: Operational disruptions and impacts to log supply, transportation and logistics, increased erosion, and landslide risk in forest operations. All regions, highest potential impact in BC and US Northwest.</p>	<ul style="list-style-type: none">• Rainfall shutdown procedures in woodlands operations;• Log supply and inventory flow plans account for seasonal shutdowns;• Culverts and crossings more resilient to debris flows/floods on our forest roads;• Enhanced sediment control measures on erosion-prone sites; and• Watershed Risk Management Framework.
Coastal and river flooding	<p>Increased extreme precipitation will lead to more river floods. Climate change is expected to lead to melting of glaciers and polar ice caps leading to rising seas. (Inundation depth of 100-year flood events and locations projected to be impacted by sea level rise.)</p> <p>Potential impacts: Flooding at mill sites adjacent to rivers, flooding of mill sites and woodlands facilities (log dumps and logging camps) at sea level. All regions, more exposure in BC, US Northwest, Eastern Canada and Atlantic Canada.</p>	<ul style="list-style-type: none">• Comprehensive flood plans for our at-risk sites;• Snowpack and water level tracking as an advanced indicator of flood potential;• Preventative building and site improvements where water damage has occurred in the past; and• Watershed Risk Management Framework.

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Water stress	<p>Increased droughts and water stress are expected in certain regions. (Increased water stress index.)</p> <p>Potential impacts: Gradual, limited, long-term fiber supply impacts across all regions, with greater potential in the US South region.</p>	<ul style="list-style-type: none">• Installation of water meters at all sites to track withdrawal;• Goal to establish a water reduction target;• Watershed Risk Management Framework;• Mixed species planting prioritized for new forests to improve resilience, and maintain or enhance ecological diversity;• Selecting seedlings with consideration to their adaptability to future climate changes in the areas where they will be planted; and• Participating in BC’s Climate-Based Seed Transfer working group to develop policy and tools that will help guide professionals in climate change forest management decisions.
Hurricanes	<p>Increased incidence of high-category hurricanes and precipitation from hurricanes.</p> <p>Potential impacts: Damage to Interfor facilities, production disruptions from damage in surrounding regions (infrastructure, supply chain), and forest destruction (impacts to log supply) in US South and Atlantic Canada regions.</p>	<p>Procedures for severe weather:</p> <ul style="list-style-type: none">• Severe weather alarms;• Notification systems for closure of operations due to weather; and• Designated meeting points.
Pests	<p>Increased incidence and severity of pest outbreaks for pest populations controlled by freezing temperatures (number of frost-free days).</p> <p>Potential impacts: Timber supply impacts. All regions, greater potential in BC, US Northwest, and Eastern Canada.</p>	<ul style="list-style-type: none">• Mixed species planting prioritized for new forests to improve resilience, and maintain or enhance ecological diversity;• Forest health management techniques, such as insect trap trees and root disease control;• Supporting silviculture research in Ontario to assess performance of different seed lots and practices to enhance forest health;• Participating in a five-year, Canada-wide research study “DIVERSE Project: Assessment of a Functional Complex Network Approach to Forest Management”;• Participating in BC’s Climate-Based Seed Transfer working group to develop policy and tools that will help guide professionals in climate change forest management decisions; and• Participating in a program led by the Québec government to protect stands impacted by the spruce budworm using BTK, a natural insecticide.

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TRANSITION RISK	DESCRIPTION AND POTENTIAL IMPACTS	RESILIENCE STRATEGIES AND ACTIONS
Shifting land use	<p>While the use of wood products can displace higher-carbon energy and building materials, preserving forests for land use goals may impact our log supply. Positions and/or protocols that favor forest preservation for carbon mitigation may impact the available fiber supply.</p> <p>Potential impacts: Impacts to fiber supply and quality.</p>	<ul style="list-style-type: none">• Continue practicing sustainable forest management and contributing to land use planning discussions; and• Engage with governments on forest carbon and land use protocols to ensure accurate analysis of forest carbon flows.
Reputational risks	<p>Increasing interest from investors and stakeholders regarding biodiversity along with the perception of forestry impacts to biodiversity may be compounded by biodiversity losses due to climate change, resulting in backlash against forest harvesting.</p> <p>Potential impacts: Impacts to fiber supply and quality.</p>	<ul style="list-style-type: none">• Continue practicing sustainable forest management and providing disclosure on biodiversity programs;• Develop and implement Biodiversity Interface Management Plans;• Contribute to land use planning discussions;• Implement agreements with Indigenous communities that include traditional stewardship approaches; and• Conduct stakeholder engagement and address misinformation regarding harvesting practices.
Carbon pricing to operations	<p>In most models of the low-carbon transition, significant carbon pricing is required to incentivize industries and societies to remove carbon from processes through either reductions in consumption or technological innovation. In these models, carbon prices exceed \$250USD/tCO2e by 2030, and become significantly higher in some regions, exceeding \$1,000USD/tCO2e (in 2020 currency). Canada currently plans to reach \$170CAD/tCO2e by 2030.</p> <p>Potential impacts: Increased operating costs.</p>	<ul style="list-style-type: none">• Use biomass fuel as a source of energy;• Reduce Scope 1 and 2 GHG emissions by 40% by 2030; and• Increase rail use for medium- and long-haul lumber shipments in the US South.