



Pinnacle.
RENEWABLE ENERGY

WILLIAMS LAKE UPGRADE PROJECT

STAKEHOLDER INFORMATION SESSION

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Welcome

WE RECOGNIZE THAT WE ARE ON THE TRADITIONAL TERRITORY OF THE SECWÉPEMC PEOPLE AND THAT WE RELY ON RESOURCES HARVESTED FROM THE TRADITIONAL TERRITORIES OF THE SECWÉPEMC AND TSILHQOT'IN PEOPLE

The purpose of this event is to:

- Describe Pinnacle's proposed upgrade project for its Williams Lake pellet plant
- Discuss the impacts of the proposed project
- Obtain feedback from the community

We invite you to:

- Sign-in
- View the displays
- Speak with the project representatives
- Ask questions & provide comments
- Enjoy a light refreshment
- Complete an exit survey



Our Proposal

Why this Project?

Pinnacle has been a part of the Williams Lake community for 15 years. We are committed to this community and want to continue to invest in the Williams Lake economy, environmental stewardship, and global energy sustainability.

Why Now?

The BC Interior faces changes in the wood fibre supply. Pinnacle must adapt to meet these changes in order to continue to support our employees, customers and the communities in which we operate. The proposed upgrades will allow us to process wood fibre from a wider range of sources including harvesting residuals that might otherwise be burned.

Our Plan

The upgrades needed to meet the changing fibre supply will allow us to install best in class drying and air filtration technology. In addition to allowing us to operate with more flexibility, we will be safer, cleaner, and more sustainable.



Safety

Owning Safety

- The safety of our employees is our number one priority
- As of March 22, 2019, the Williams Lake plant has operated 2,984 consecutive days without a lost time accident
- Pinnacle's Operations Management team was recognized by the British Columbia Forest Safety Council as the 2016 Manufacturing Safety MVP
- Our employees and management have delivered year over year improvements in safety and operating performance that has been an example to all Pinnacle operations

Safety Upgrades

- Supplement existing equipment and incorporate new equipment with modern, safe, options that meet leading safety standards
- Comply with National Fire Protection Association standards
- Design site plan to improve access and egress for all areas of the mill
- Reduce fire risk through low temperature bed drying and the installation of additional chemical fire suppression systems



About the Project

Building Resilience

- Processing additional mill and harvest residuals will enable Pinnacle to:
 - Have the capacity to process up to 80,000 tonnes per year of wetter biomass from harvesting residuals
 - Continue to supporting local sawmills and timber harvesting operations
 - Reduce the amount of harvest residuals that would otherwise be burned in cutblocks
- Process equipment will be upgraded to:
 - Diversify the types of fibre we are able to process
 - Provide a more consistent particle size feed
 - Allow for more uniform drying
 - Prevent over-drying of smaller fibre particles and shavings that can lead to blue haze

Dryer Upgrade

- Upgrade of dryer technology to best achievable standards represents Pinnacle's commitment to environmental stewardship and implementation of best practices
- Heat required for drying fibre is generated from clean burning natural gas
- Low temperature operation ($<120^{\circ}\text{C}$) in comparison to traditional existing rotary systems ($> 500^{\circ}\text{C}$), resulting in lower emission concentrations and reduced risk of haze
- Low temperature bed drying has the lowest emission concentrations of any fibre drying technology in BC by a factor of 10x
- Low temperature bed dryers have low fire risk
- Increased air flow, attributable to bed dryers, will improve particulate dispersion

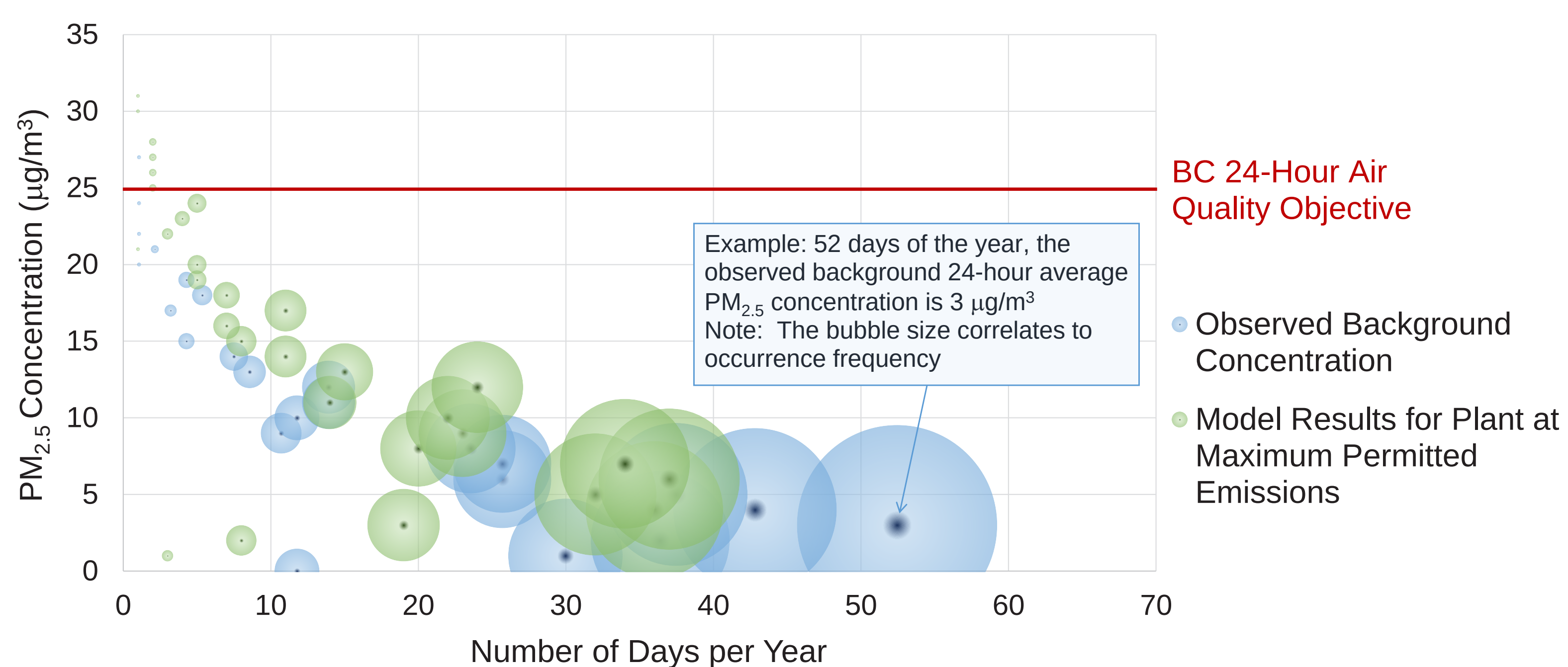
Air Emissions

Air Filtering and Fugitive Dust Upgrades

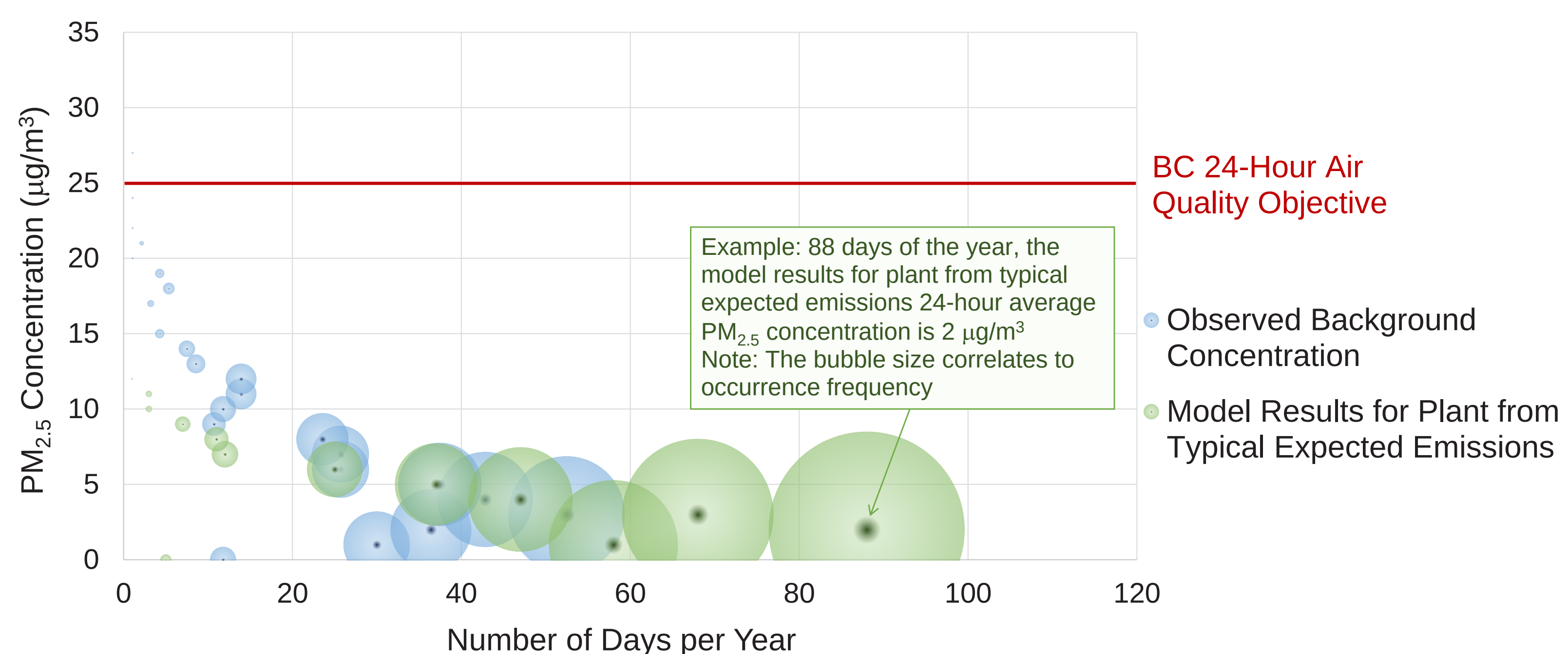
- We will improve air filtration by installing a new and efficient baghouse
- New baghouse will have modern safety features
- Reduction of fugitive wood dust will result in a cleaner work site and neighbourhood
- Paving to ensure all loader and truck traffic is on paved surfaces resulting in less dust
- Delivering a greater proportion of wet fibre will also reduce dust from dry fibre deliveries
- Proposed upgrades will complement existing layout with enclosed in conveyor, hammermills, dryer, and pelleters
- The plant will be engineered to have the best achievable dispersion and emission profile as confirmed through rigorous environmental modelling

Air Shed Modeling Results

Model Results for Plant at Maximum Permitted Emissions and Observed Background 24-Hour Average PM_{2.5} Concentrations



Model Results for Plant from Typical Expected Emissions and Observed Background 24-Hour Average PM_{2.5} Concentrations



Project Benefits

Economic Benefits

- Represents a significant investment in the region by Pinnacle and solidifies our commitment to our employees, suppliers, and the Williams Lake community
- Purchasing residual fibre from local sawmills, contractors, and remanufacturing operations improves their economics and makes them more resilient to the lumber market cycles
- Today ~\$10 million is fed back into the local economy through fibre purchasing activities
- Supports local contractors, suppliers, and other community based businesses
- The upgrade project will require an estimated 90,000 hours of labour to complete thus providing opportunities for local contractors and hospitality businesses

Social Benefits

- Pinnacle's Williams Lake operation supports and creates local jobs:
 - At the pellet plant
 - In harvesting
 - In trucking
 - In support services (locally sourced mechanical and electrical contracting services)
- We are committed to providing a safe work environment for our employees, contractors and neighbours

Environmental Benefits

- Enables the consumption of local harvest residuals that are otherwise burnt
- Create an outlet for fibre that is currently being burned in slash piles
- Supports conversion of marginal, damaged, and dead forest stands into new stands that improve carbon capture and reduce fire risk
- Implementation of best achievable drying technology with low particulate emission limits (15 mg/m³ compared to 60 mg/m³ industry standard)
- Additional paving to reduce road dust from truck deliveries and loader traffic
- Separation of sawdust and shavings into dedicated dryer systems in order to prevent over drying of material

