

# Wood Biomass in Saskatchewan

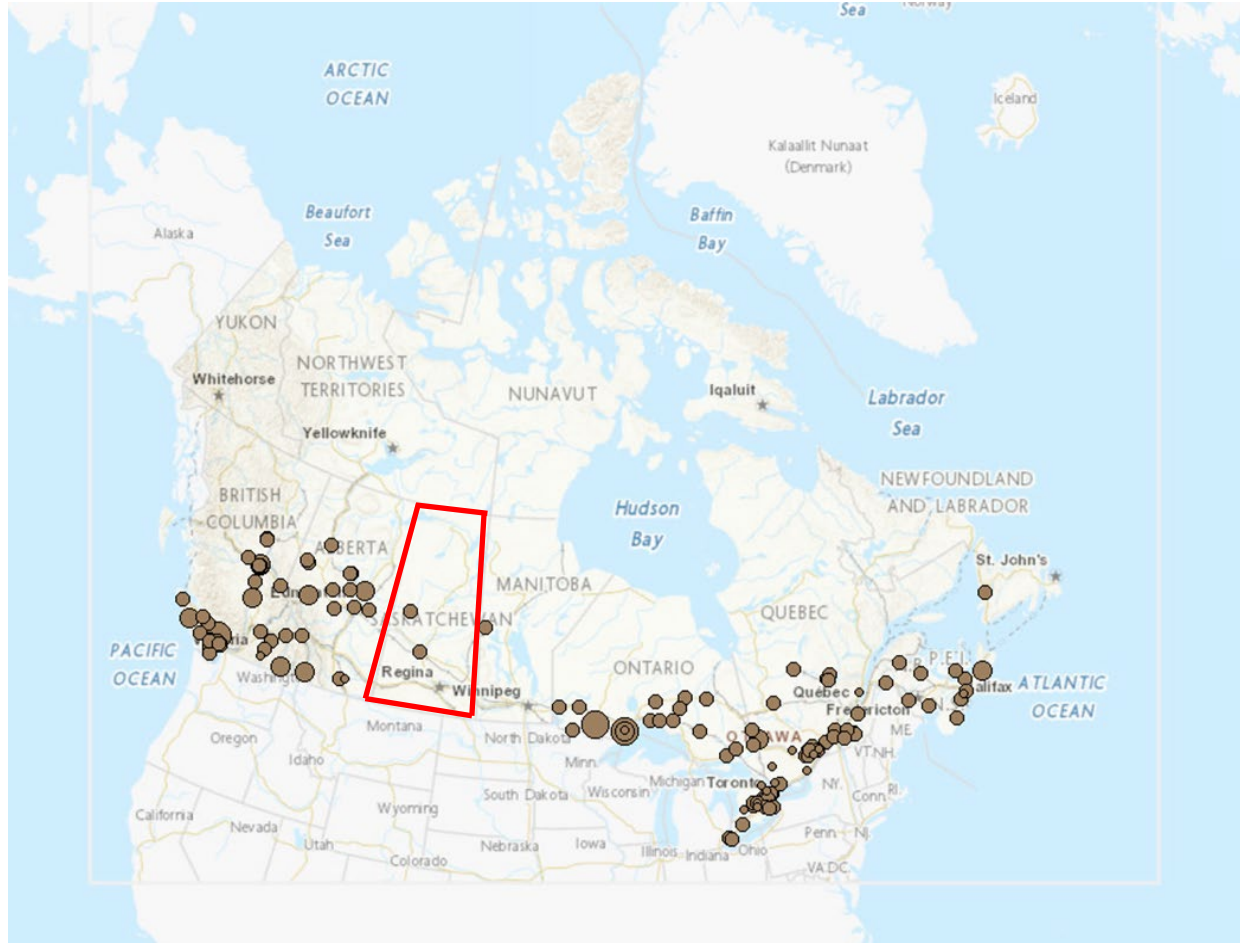
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Ministry of Energy and Resources

*saskatchewan.ca*

*Saskatchewan* 

# Biomass Power Plants in Canada

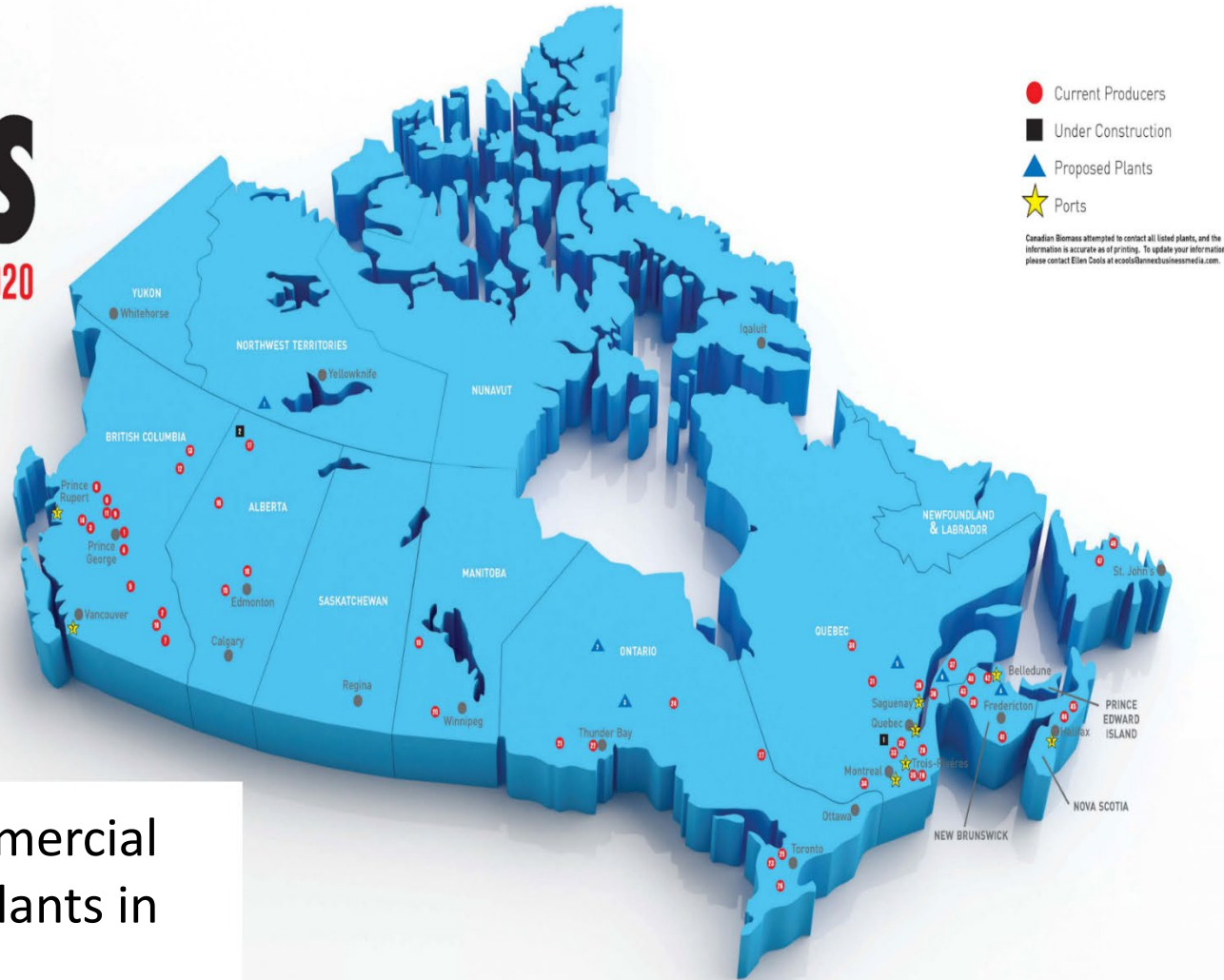


Source: Natural Resources Canada

- Currently 2 biomass power plants in Saskatchewan producing total of 10 MW
  - Meadow Lake Tribal Council Power Plant (located at NorSask saw mill in Meadow Lake) – 8 MW
  - Municipal waste power plant (Saskatoon) – 1.5 MW

# Biomass Pellet Plants in Canada

## CANADIAN BIOMASS PELLET MAP 2020



- Currently no commercial scale wood pellet plants in Saskatchewan

[saskatchewan.ca](http://saskatchewan.ca)

# SK Surplus Wood Biomass Available for New Projects

## 590,000 Oven Dry Tonnes Annually

- **Forest Products Mill Wood Waste Biomass**

- Components of logs entering forest products mills not manufactured into finished product <sup>1</sup>
- Approximately 250,000 ODT available for new project investments
- Forestry companies own all mill wood waste produced from their facilities

- **Forest Biomass**

- Roadside waste left behind after timber harvesting activities (also known as slash)
- Includes tops of trees stems <8 cm (3 in) diameter, branches & foliage
- Approximately 340,000 ODT economically available for new project investments
- Forestry companies (under their timber harvesting licences) have the rights to the entire tree (including the biomass)

<sup>1</sup> Excludes wood chips from saw mills which are typically sold to pulp mills.



# Mill Wood Waste Biomass



- Wood waste comprises 12% to 24% of every log entering a mill, depending on the type of finished product (e.g. pulp vs OSB vs lumber)
- Major waste components include sawdust & planer shavings from saw mills, & bark



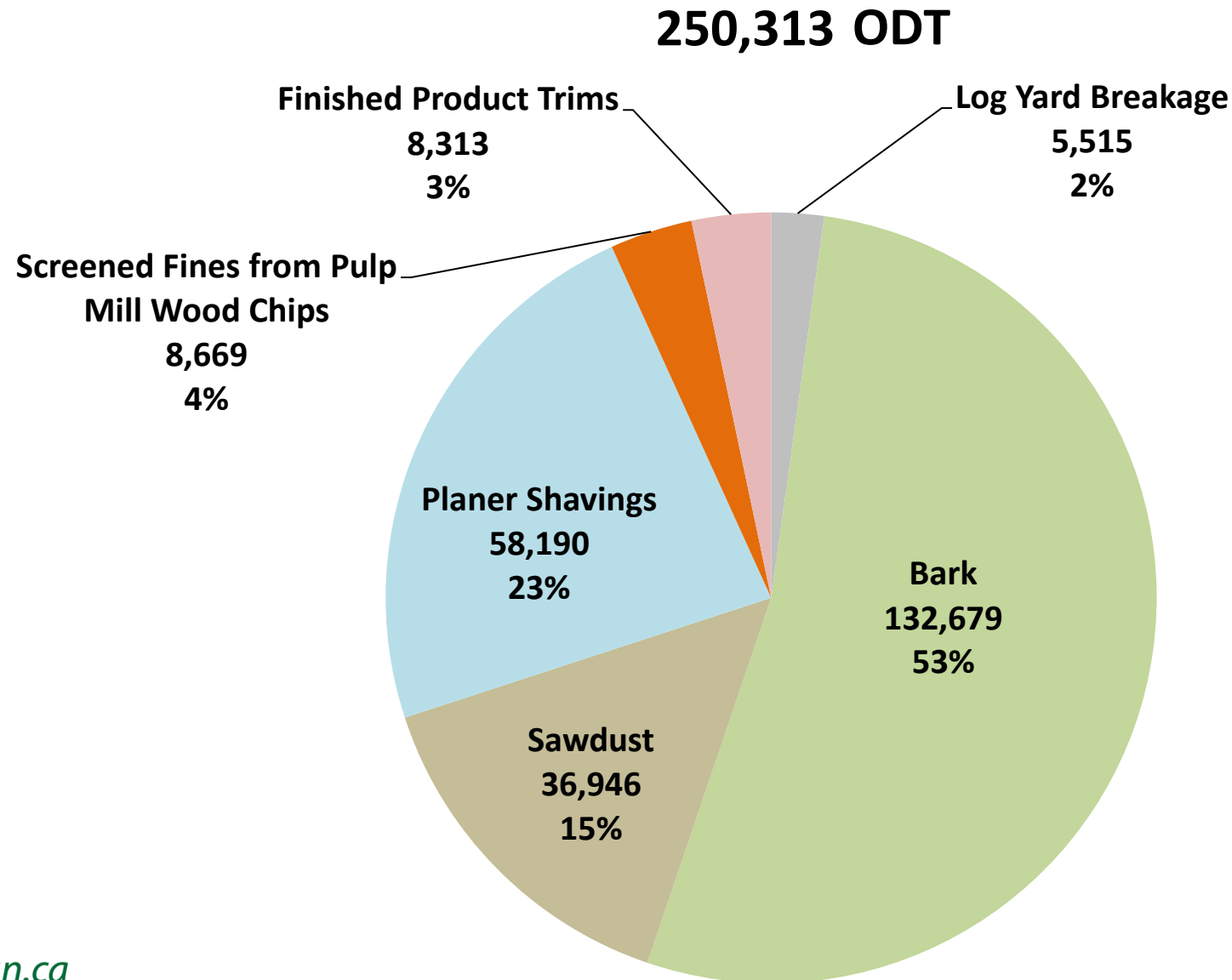
# SK Mill Wood Waste Biomass

- Currently over 50% of mill wood waste still burned in traditional incinerators



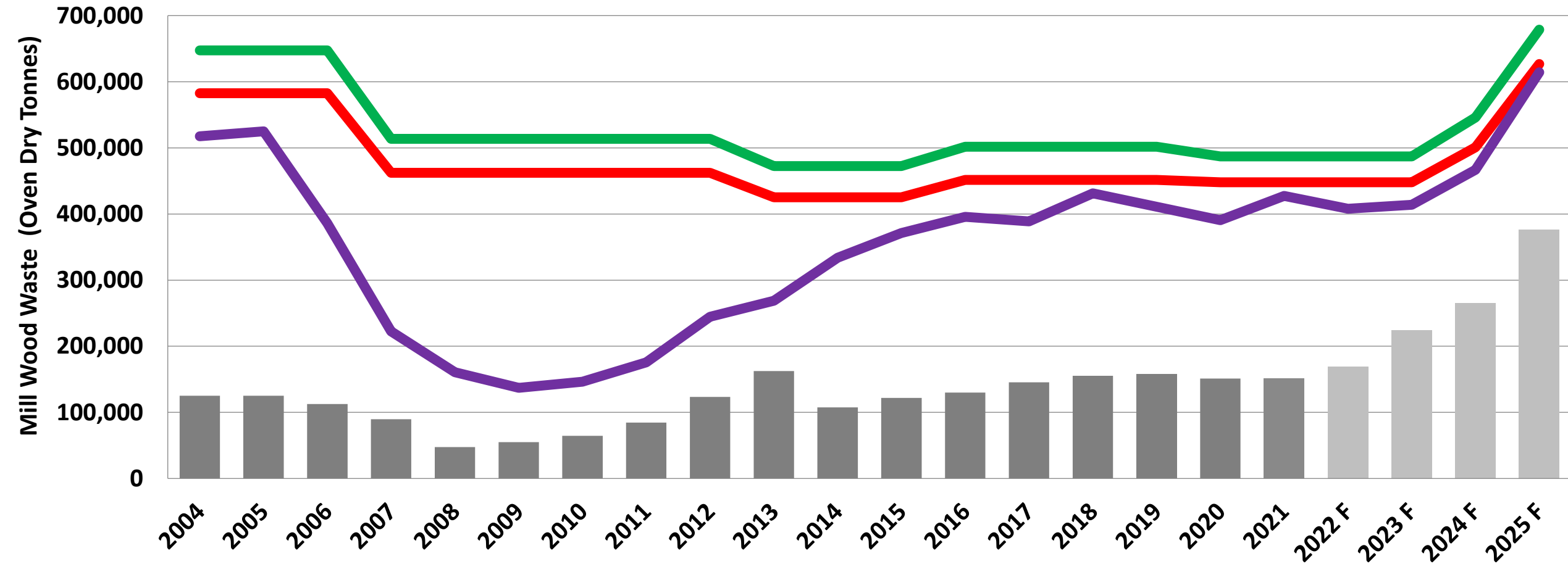
- Negative environmental implications (e.g. poor air quality)
- Cost to industry vs. a potential revenue stream from biomass projects

# SK Surplus Mill Wood Waste Biomass Available for New Projects



# SK Forest Products Mills – Wood Waste Biomass

- Mill Wood Waste Utilized
- Mill Wood Waste all Operating Mills @ Capacity
- Estimated Mill Wood Waste Available Long-Term
- Mill Wood Waste Generated



Source: Ministry of Energy & Resources

Wood waste does not include wood chips from saw mills.



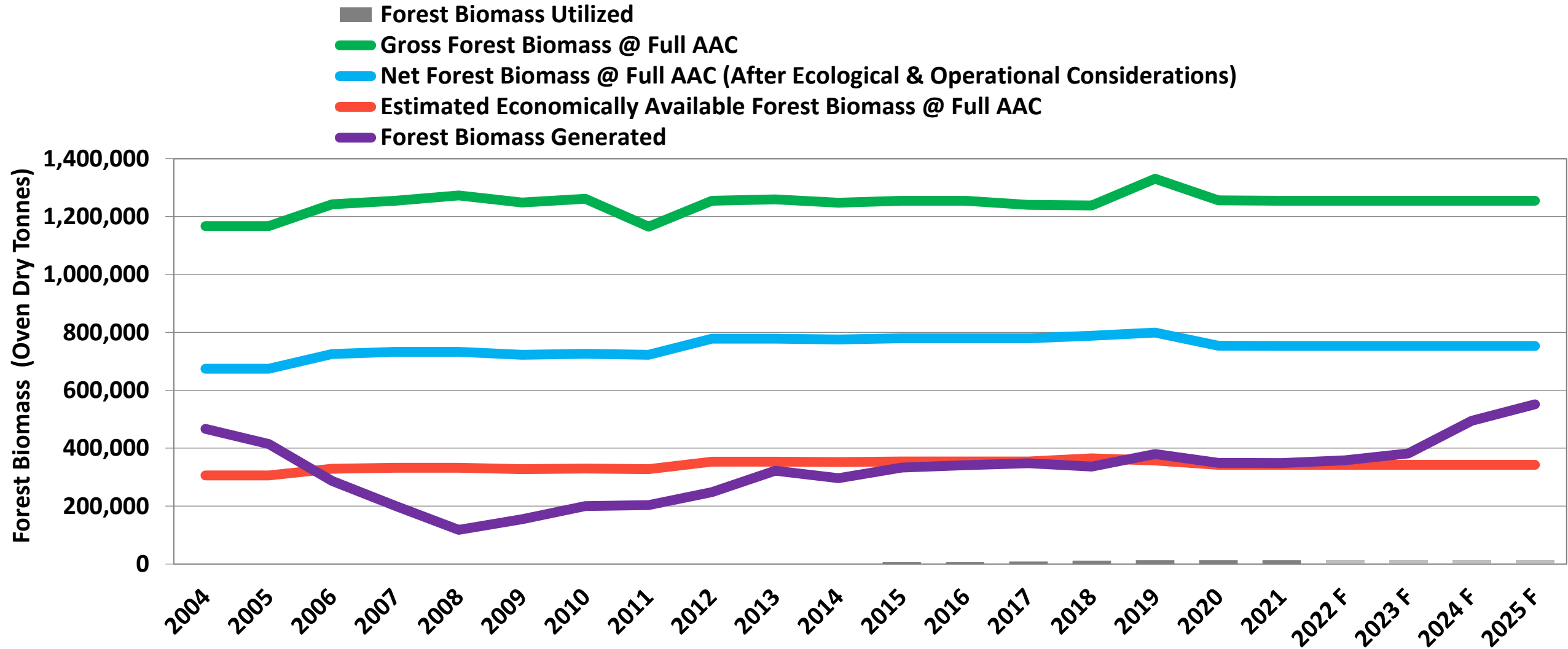
# SK Forest Biomass from Timber Harvesting

Forest Biomass includes tops of trees stems <8 cm (3 in) diameter, branches & foliage



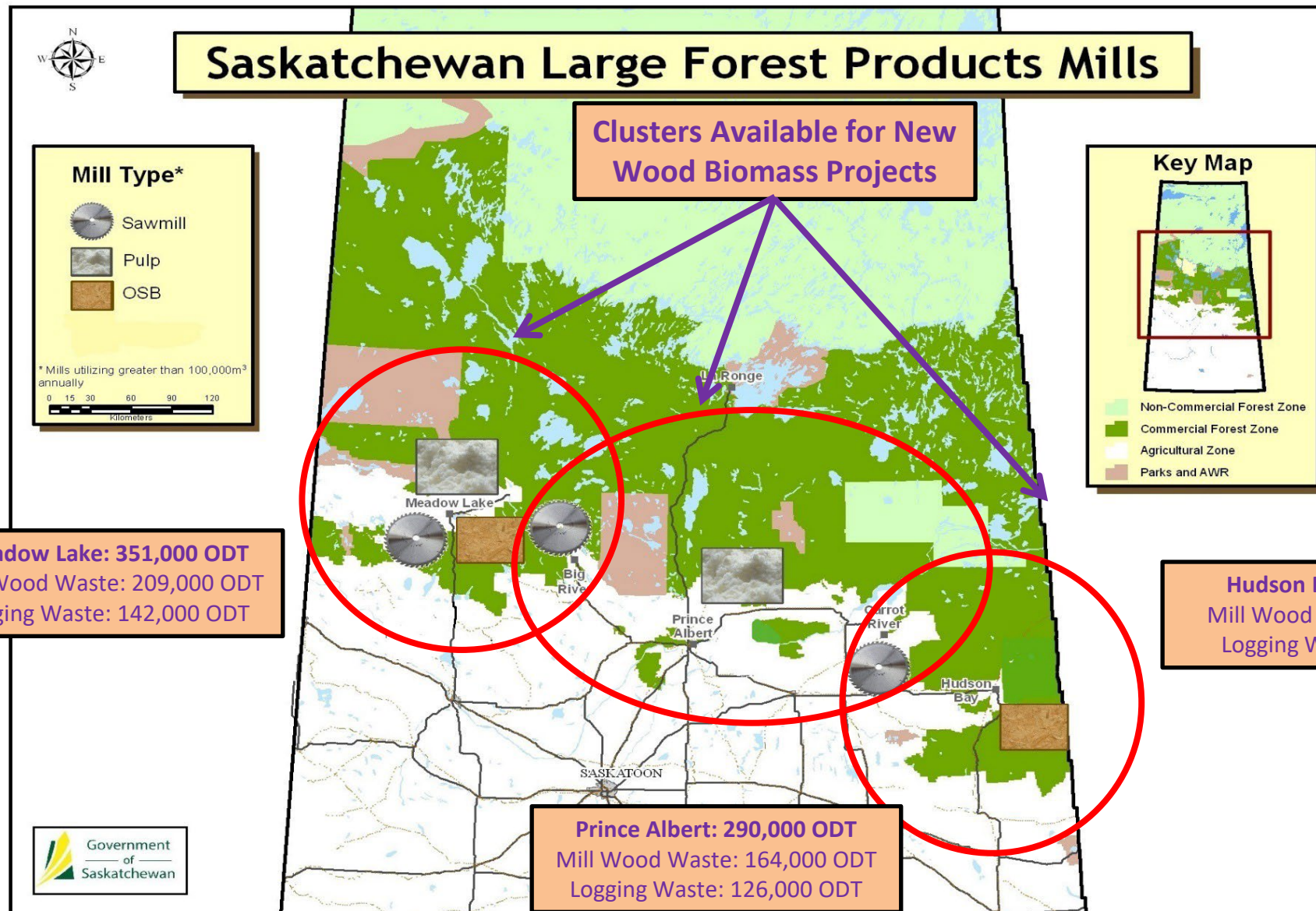
- Currently no market for forest biomass exists in SK, which is piled & burnt at roadside &/or spread back into cut blocks after harvest

# SK Forest Biomass from Timber Harvesting



Source: Ministry of Energy & Resources

Forest biomass includes debris generated from logging (tree tops <8cm diameter, branches and foliage).



# Benefits of Wood Biomass Utilization

- Contributes towards the attainment of provincial and federal renewable energy generation targets
  - Including SaskPower's target of 50% renewable energy generation by 2030
  - Biomass is a base load source of energy, while wind and solar are only intermittent sources of energy
- Significantly reduces greenhouse gas emissions
- Improves air quality
- Facilitates fuller utilization of the timber resource and the associated socio-economic benefits
- Enhances overall competitiveness of the forestry sector

# For More Information Contact:

**Forestry Development Branch**

Saskatchewan Ministry of Energy and Resources

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or visit

<https://thinksask.ca/invest/forestry>