



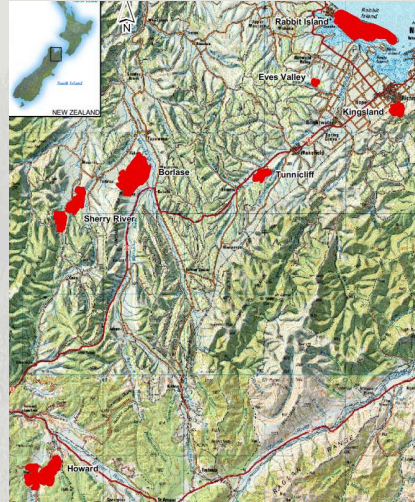
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# TDC Forest Estate

Forest	Forest Area (ha)	% of Estate by Area	IRR
Rabbit Island	1016	37%	8.1%
Tunncliffe	99	4%	7.9%
Eves Valley	13	0%	7.9%
Sherry	386	14%	6.9%
Borlase	727	26%	6.4%
Howard	478	17%	6.4%
Kingsland	62	2%	5.8%
Total	2781		7.1%



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## Management of the Estate

- PF Olsen has been managing the TDC Forest Estate since 1992
- PF Olsen manages the Estate as per the Forest Management Plan (circulated) which is produced every 5 years in consultation with the TDC.

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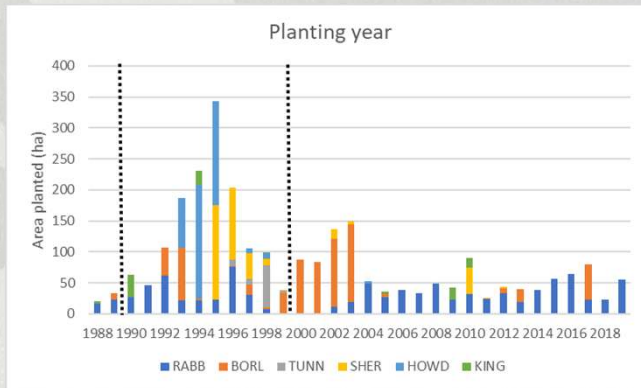


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# TDC Forest Estate

- 56% of the current estate was planted in the '90s, following the afforestation of Borlase (half), Howard and Sherry forests.



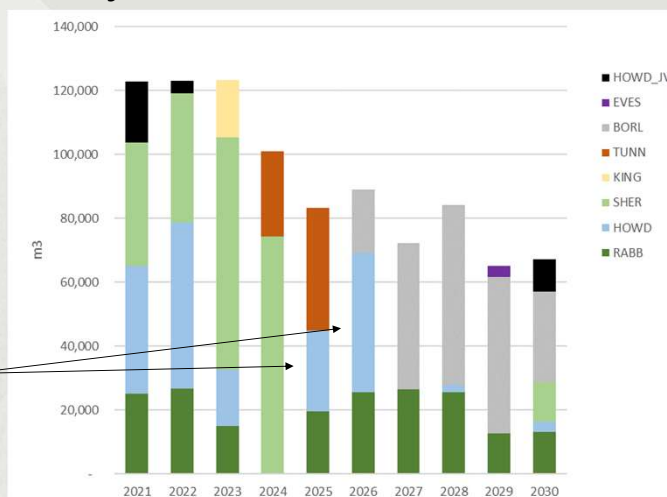
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# Harvesting 10-year schedule

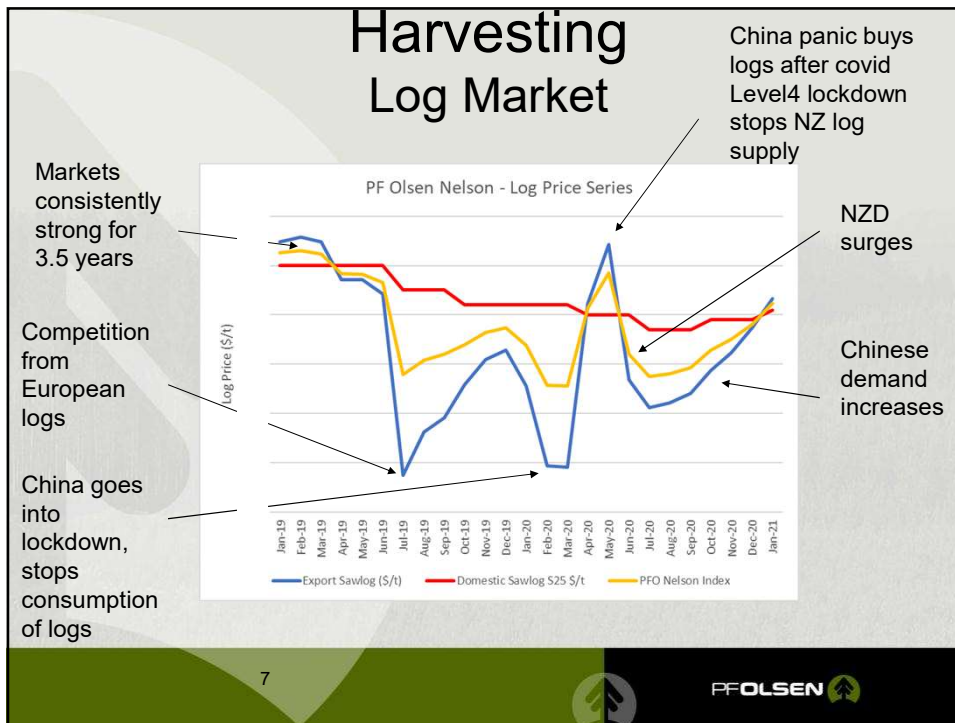
- 'Smoothed' harvest levels, targeting average age of 27 across estate
- Howard Douglas Fir harvesting in 2025/26 (age 32)



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# Harvesting Log Market

## Log market outlook

- Domestic demand is strong with buoyant NZ construction activity
- Export market outlook is positive
  - China reporting strong economic growth prospects = construction levels increasing

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## Harvesting Log Market

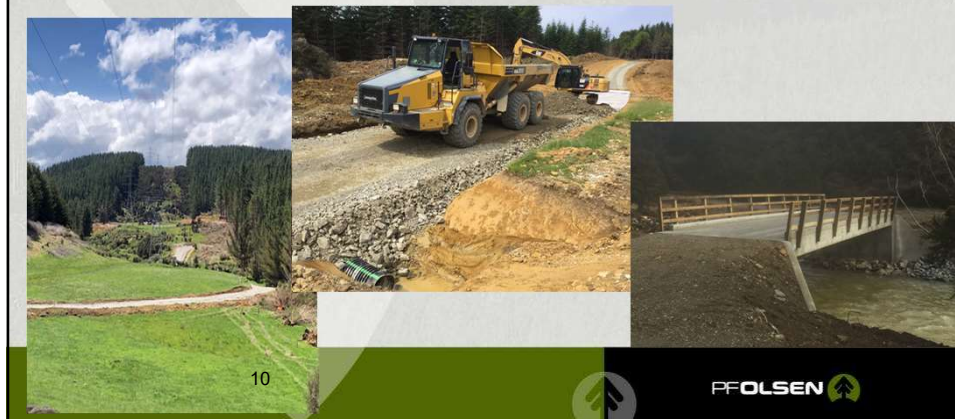
- TDC sold 45% of volume on the domestic market over the last 3 years
  - Sell higher quality logs on domestic market



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## Harvesting Operations

- 1<sup>st</sup> Rotation 'Greenfields' harvesting in Borlase, Howard and Sherry forests.
- ~400% higher engineering costs than equivalent 2<sup>nd</sup> rotation forests



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# Harvesting

## Operations

- Harvesting contractors invest roughly \$2M in equipment per crew which improves productivity and safety.
- They need certainty in work program to justify investment
- TDC Forests contribute to the work program of four harvesting crews, all with different configurations for different terrain in the Estate

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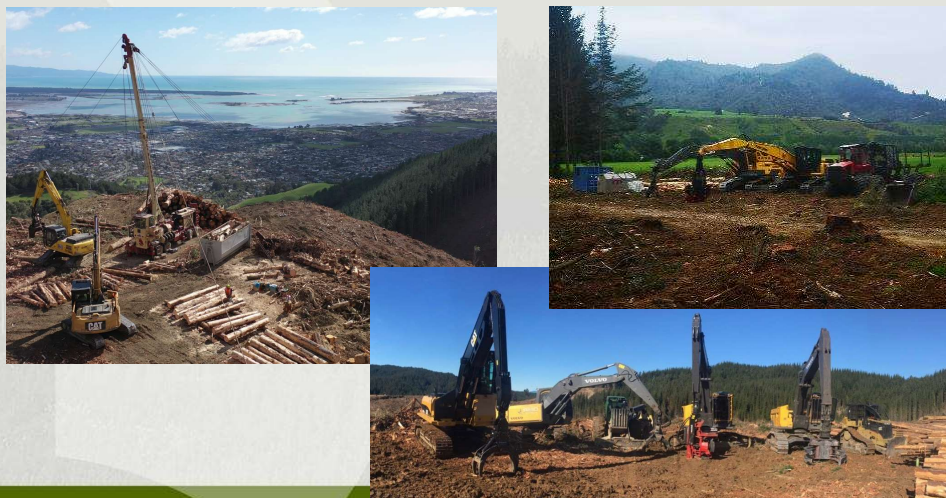


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# Harvesting

## Operations



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## Forest Management

- Use top quality genetic seed stock
- Clearwood (pruning) regime at Rabbit Island – enables biosolids application
- Framing (unpruned) regime in other forests - currently most economical regime



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## Forest Management

- Maintain roads networks to high standard
  - Recently renewed signage
  - Regular road maintenance program
- Invest money in fire preparedness
  - Water point maintenance
  - Fuel reduction – spraying/mowing



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# Forest Management

- Forest Retirement plans
  - **Kingsland forest:** Recreation values
  - **Rabbit Island** 30m marine margin: Recreation values
  - **Borlase/Sherry:** Considering some environmental/economic retirements

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# Opportunities for TDC

- Two options investigated for purchasing 50ha Dovedale site:
  - Carbon and Timber
    - Land price = \$12,000/ha (farmland)
    - IRR = 14.78%
  - Timber only
    - Land price = \$2,500/ha (forest cutover)
    - IRR = 6.83%

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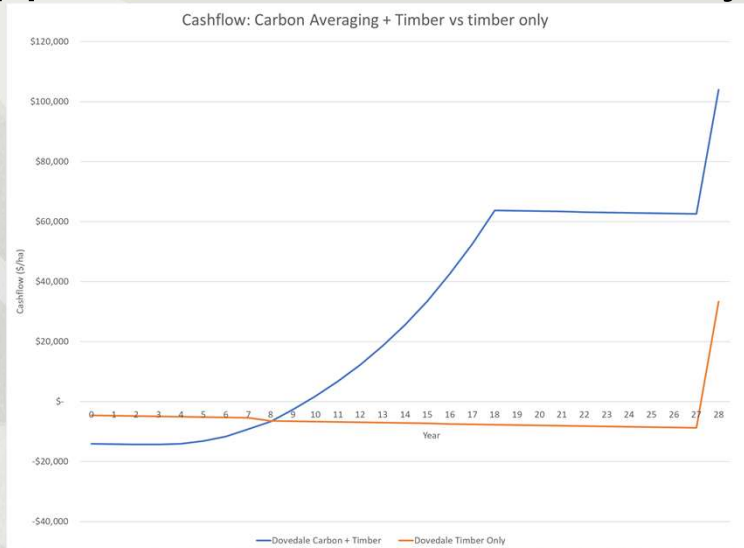


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# Opportunities for TDC Forestry



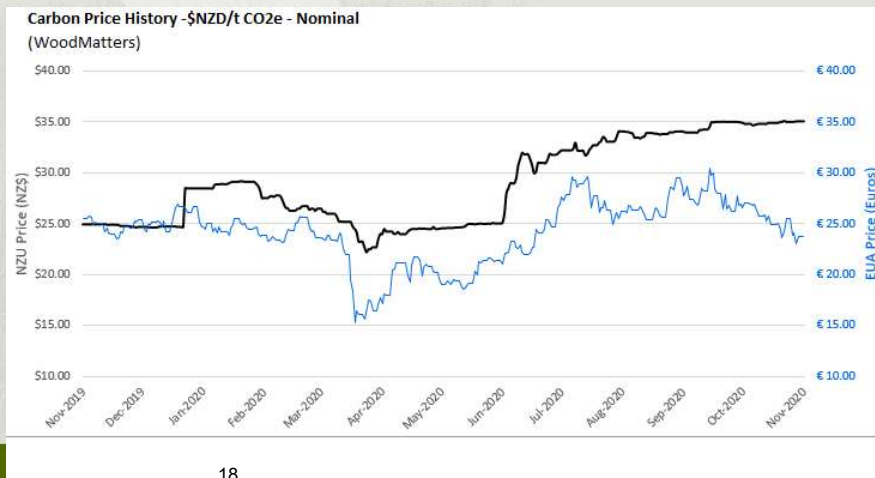
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# Opportunities for TDC Forestry

## Carbon price



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## Risks for TDC Forestry

- Climate change and Public Perception = Increasing environmental compliance costs and risk

*Tolaga Bay,  
Gisborne 2018*



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## Summary

- TDC Forestry's economies of scale
- Smoothed harvesting model
- Domestic log market strategy
- Opportunity to maintain or increase economies of scale with carbon

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