

Inglewood to Millmerran Engineering and Environmental Studies

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September 21, 2016

Inglewood to Millmerran

Study Corridor Options

Purpose of discussion

- ✓ To provide an update on options development
- ✓ To seek feedback on options
- ✓ To identify constraints or attractants

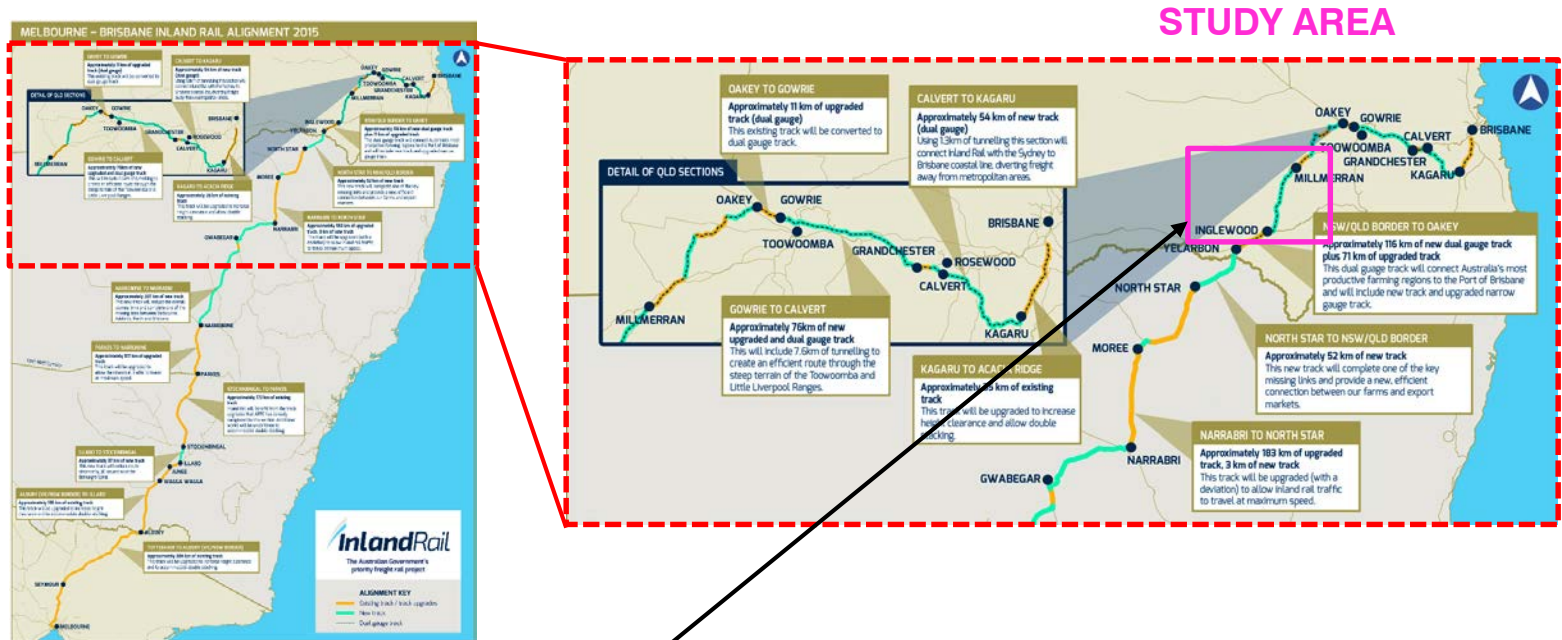
Overview of project areas

The Yelarbon to Gowrie section of the Inland Rail service offering has been broken down into sub-areas for investigation purposes.

The project is therefore a mix of “Greenfield” and “Brownfield” areas.

- “Greenfield” areas are those where there is not an existing railway corridors and the land is currently used for other non-rail purposes.
- “Brownfield” areas are where there is an existing rail corridor that is being considered for use. The track will become dual-gauge track where both narrow gauge (Queensland trains) and Standard Gauge trains can run.

Overview of the project Areas



- Greenfield sections can be seen as the light blue lines
 - Inglewood to Millmerran
 - Brookstead to Mount Tyson
 - Yargullen to Oakey

- Brownfield section can be seen as the orange lines
 - Yelarbon to Inglewood
 - Millmerran to Brookstead
 - Mt Tyson to Yargullen
 - Oakey to Gowrie

Status of Corridor Studies

Desktop studies

Initial investigation into possible routes including some assessment of impacts.

Secondary investigations into alternative study corridors.

Field work

Field visit along general route.

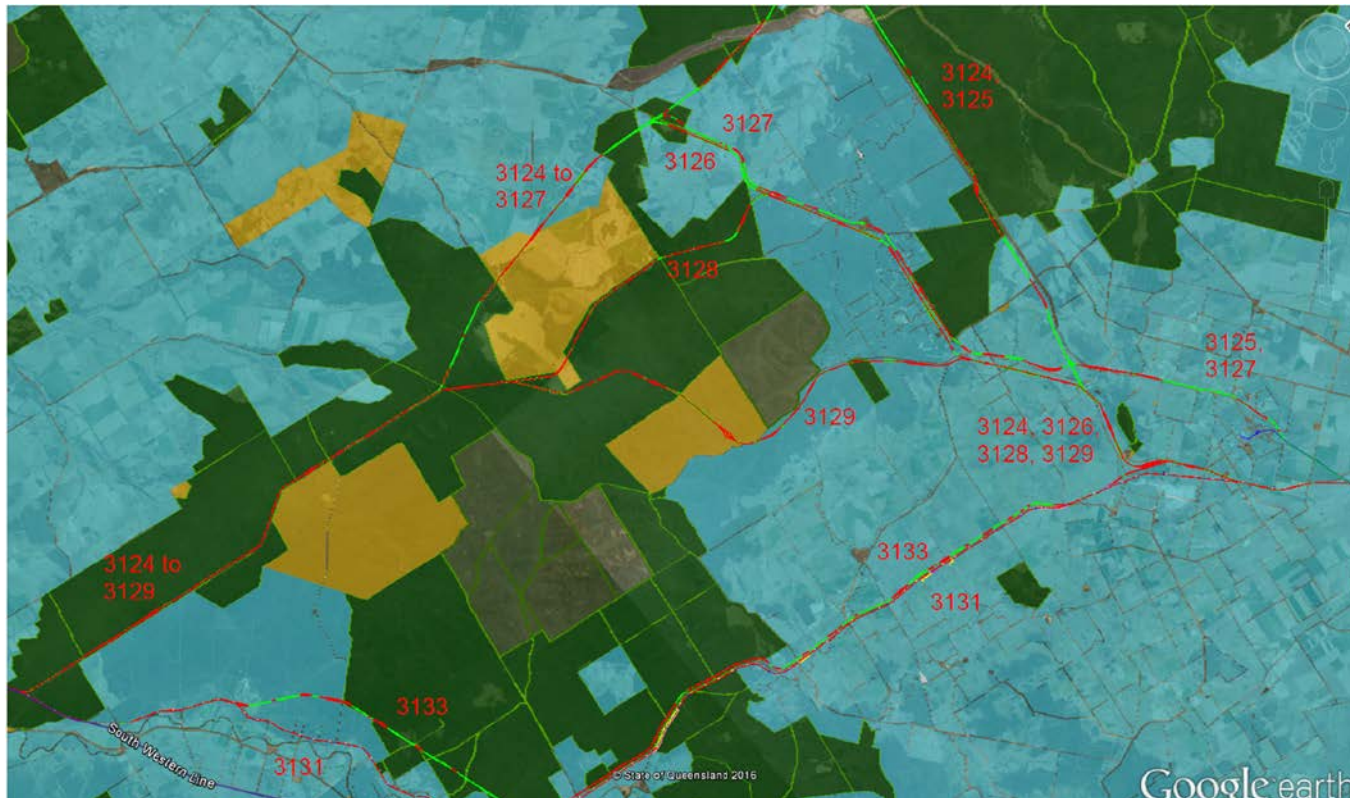
Regional stakeholder discussions.

Study Corridors Under Investigation

Inglewood to Millmerran

Corridors – General Description.

- Along Millmerran-Inglewood Rd (east or West)
- Along powerline easement/state forest to Millmerran or Commodore Mine
- Along powerline easement/state forest and Gore Hwy to Millmerran or Commodore Mine
- Along powerline easement and then north before following Gore Hwy
- Along powerline easement and then north-east before following Millmerran Woods Dr.



Corridor Features – Base Case modified (3131)

Inglewood to Millmerran



Key Features

Approximately 102.5km long.

Roughly follows Millmerran-Inglewood Road on east.

Interfaces with Commodore Mine.

Does not cross State-Forest.

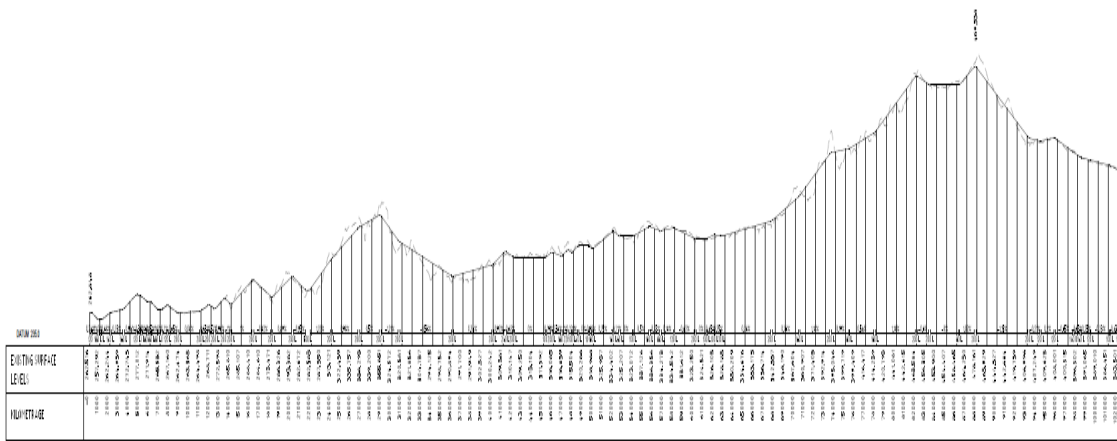
Blacksoil environment.

Two passing loops proposed within this section of track.

Lowest RL: 262m

Highest RL: 464m

Difference/Climb: 202m



CONTROL 3133 TRACK=MC01F

Corridor Features – Inglewood-Millmerran Rd West (3133)

Inglewood to Millmerran



Key Features

Approximately 102.5km long.

Roughly follows Millmerran-Inglewood Road on west.

Common to Base Case from south of Commodore Mine.

Does cross State-Forest.

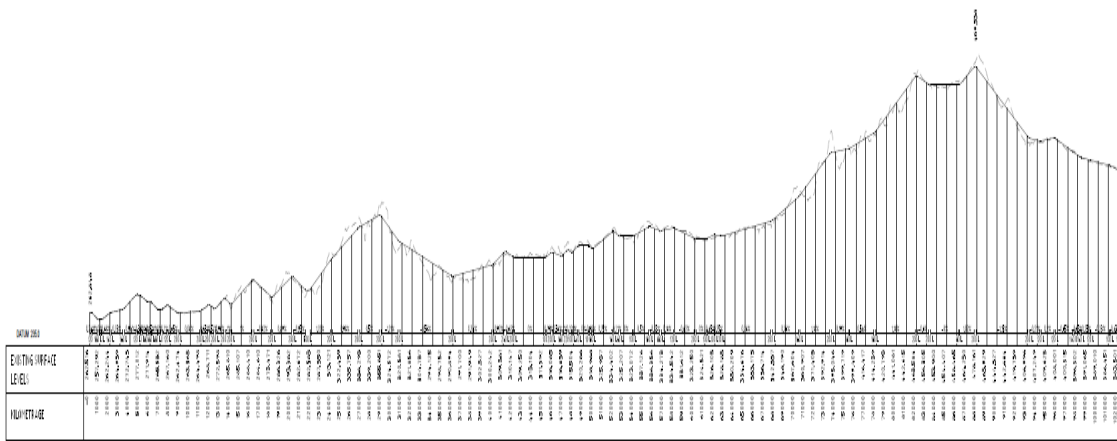
Blacksoil environment.

Two passing loops proposed within this section of track.

Lowest RL: 262m

Highest RL: 470m

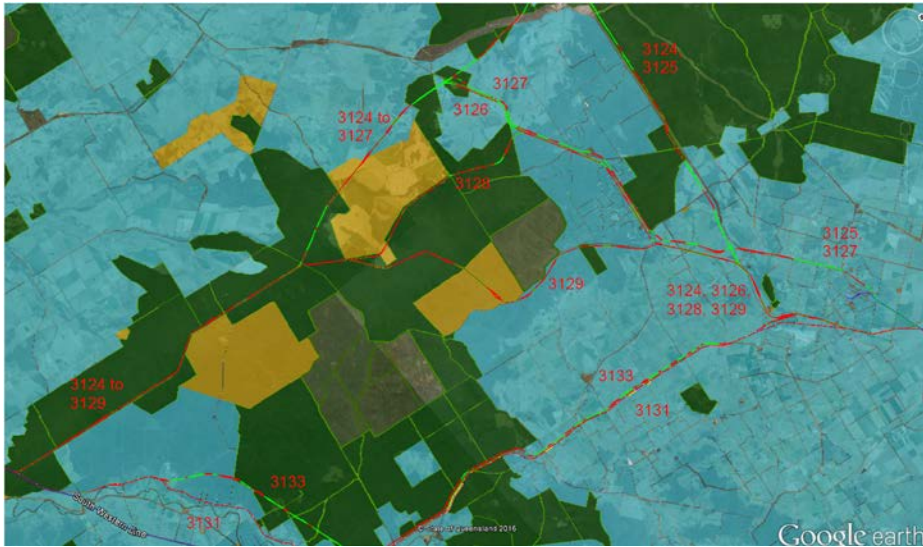
Difference/Climb: 208m



CONTROL 3133 TRACK=MCD1F

Corridor Features – Powerline via Commodore (3124)

Inglewood to Millmerran



Key Features

Approximately 130.5km long.

Follows powerline easement to north of Gore Hwy Gore Hwy.

Just north of power sub-station turns east towards Commodore Mine along powerline easement.

Joins Base Case study corridor south near Commodore Mine

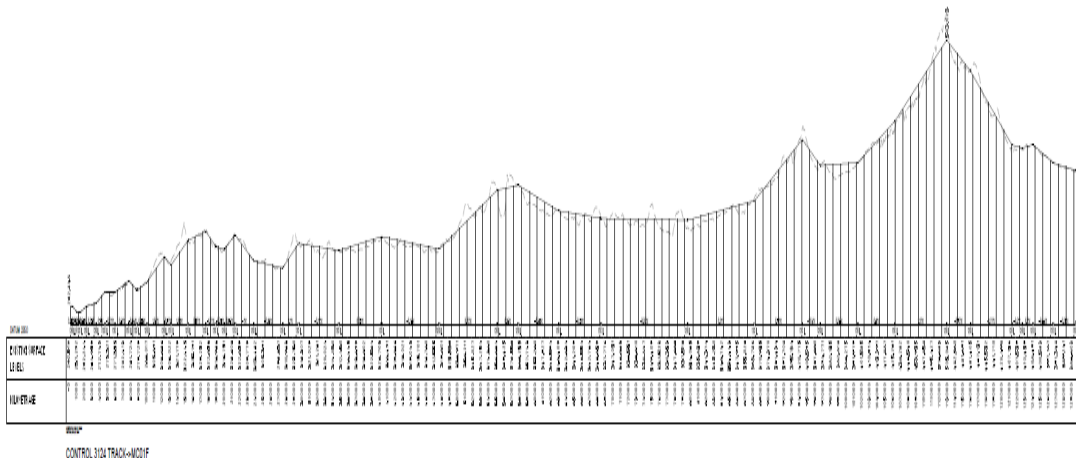
Does cross State-Forest.

Two passing loops proposed within this section of track.

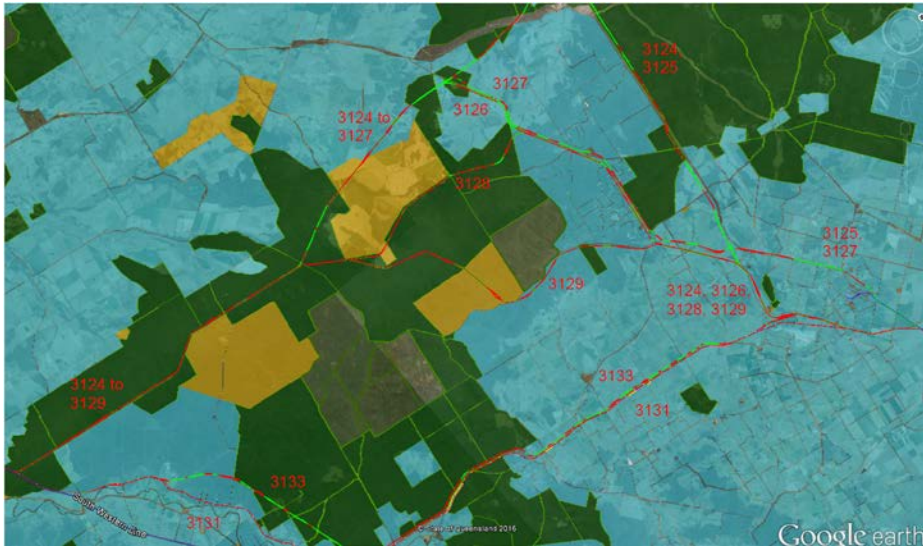
Lowest RL: 262m

Highest RL: 503m

Difference/Climb: 241m



Corridor Features – Powerline via Gore and Millmerran (3125) Inglewood to Millmerran



Key Features

Approximately 128.3km long.

Follows powerline easement to north of Gore Hwy Gore Hwy.

Just north of power sub-station turns east towards Commodore Mine along powerline easement but deviates towards Millmerran along Gore Hwy.

Travels to north of Millmerran.

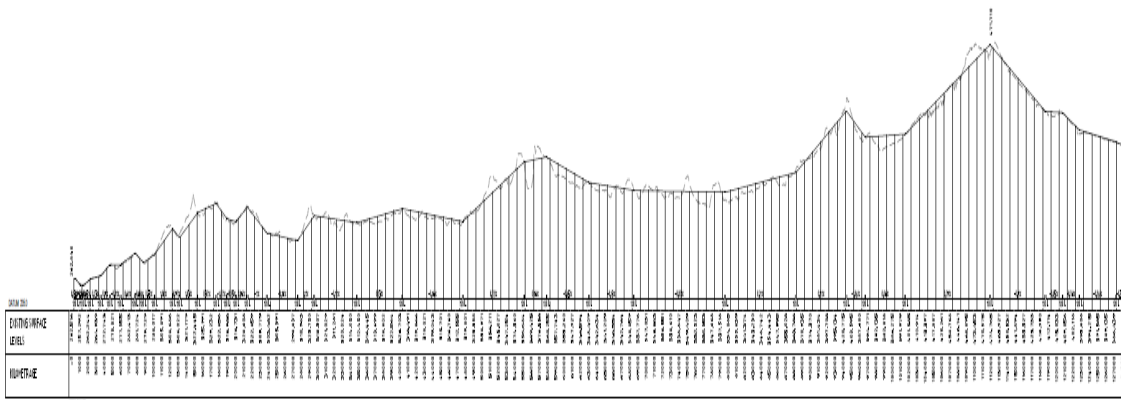
Does cross State-Forest.

Two passing loops proposed within this section of track.

Lowest RL: 262m

Highest RL: 472m

Difference/Climb: 210m



Corridor Features – Powerline via Commodore (3126)

Inglewood to Millmerran



Key Features

Approximately 118.1km long.

Follows powerline easement up to the Gore Hwy.

Follows Gore Hwy on southern side past Millmerran Downs.

Joins Base Case study corridor south near Commodore Mine

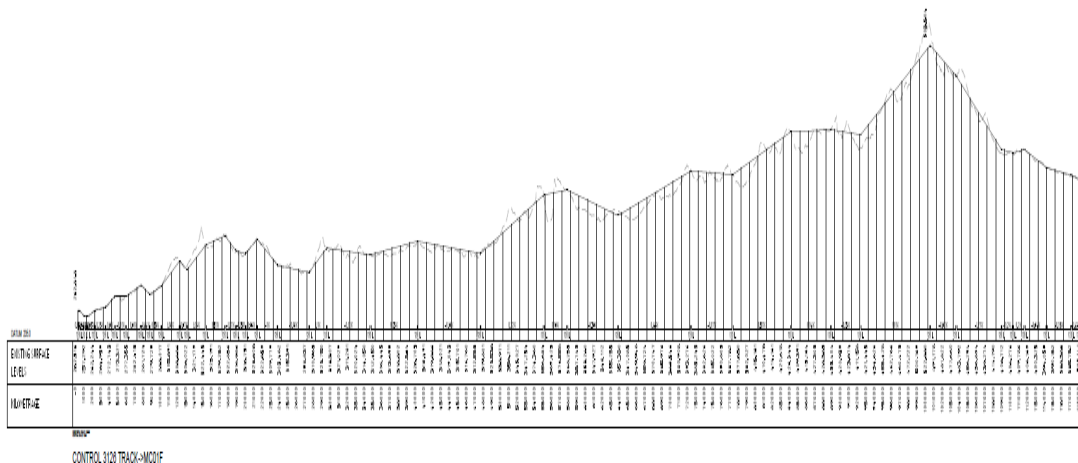
Does cross State-Forest.

Two passing loops proposed within this section of track.

Lowest RL: 262m

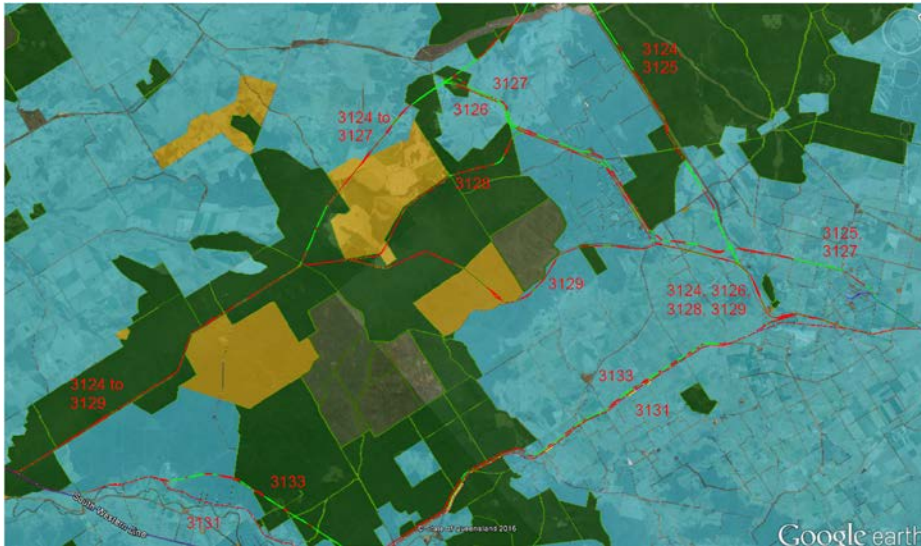
Highest RL: 503.5m

Difference/Climb: 241.5m



Corridor Features – Powerline via Gore (3127)

Inglewood to Millmerran



Key Features

Approximately 117.2km long.

Follows powerline easement up to the Gore Hwy.

Follows Gore Hwy on northern side past Millmerran Downs but deviates towards Millmerran along Gore Hwy.

Travels to north of Millmerran

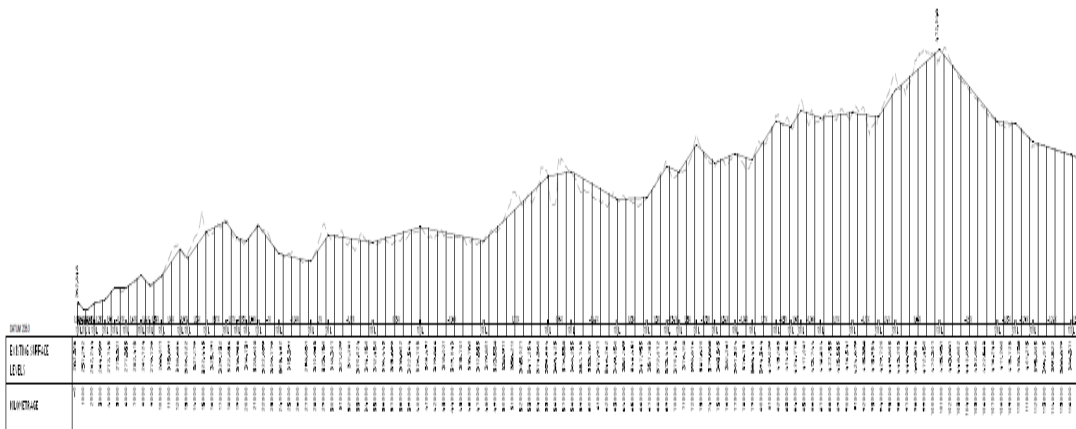
Does cross State-Forest.

Two passing loops proposed within this section of track.

Lowest RL: 262m

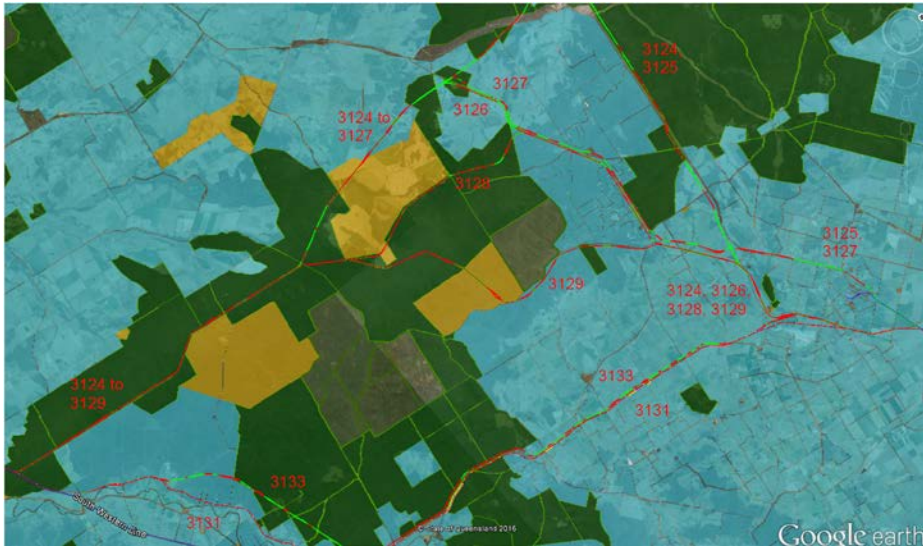
Highest RL: 472m

Difference/Climb: 210m



Corridor Features – Powerline State Forest, Gore (3128)

Inglewood to Millmerran



Key Features

Approximately 112.5km long.

Follows powerline easement but deviates more northerly through state forest up to the Gore Hwy to the west of Millmerran Downs.

Follows Gore Hwy on southern side past Millmerran Downs towards Commodore Mine.

Joins Base Case study corridor south near Commodore Mine

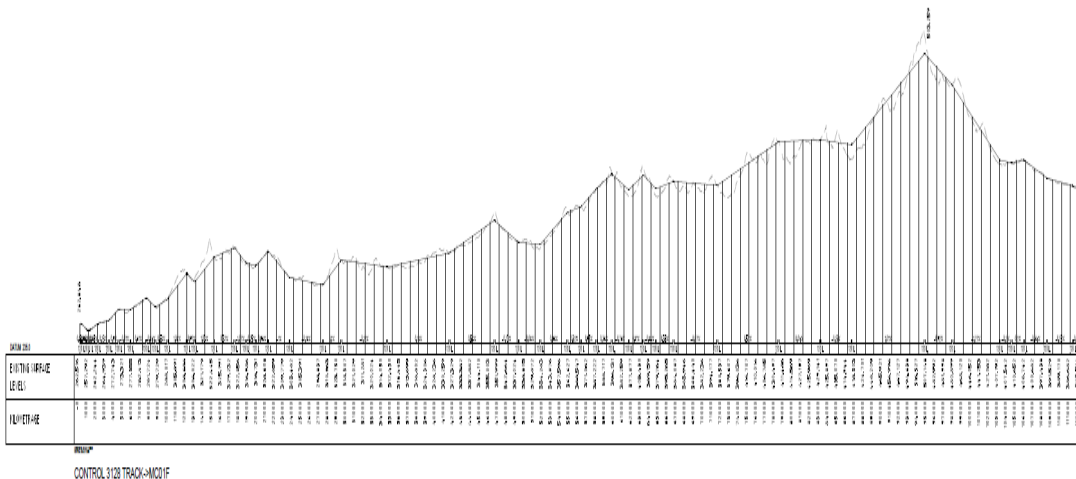
Does cross State-Forest.

Two passing loops proposed within this section of track.

Lowest RL: 262m

Highest RL: 503m

Difference/Climb: 241m

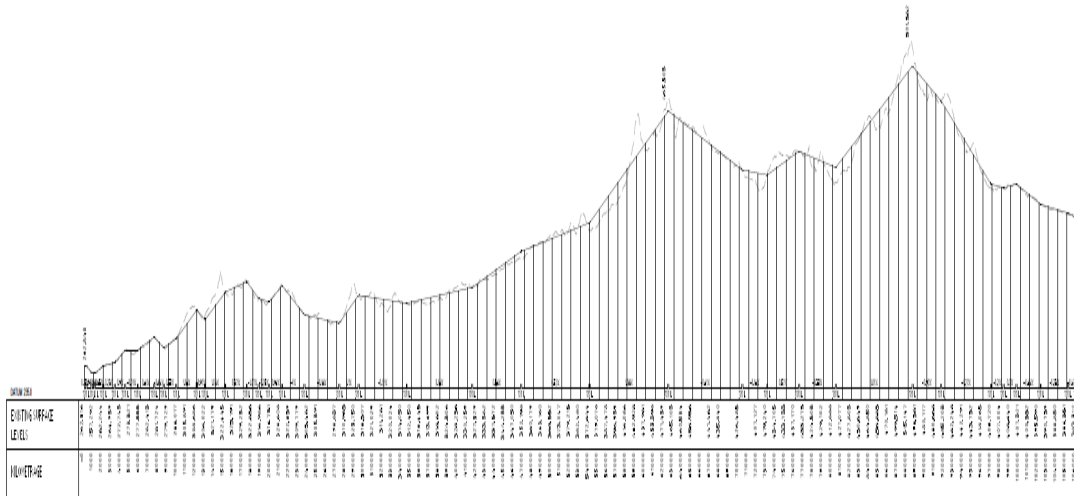


Corridor Features – Powerline State Forest, Downs (3129) Inglewood to Millmerran



Key Features

- Approximately 106.3km long.
- Follows powerline easement but deviates more north-easterly through state forest to the Millmerran Downs Rd to the south of Millmerran Downs.
- Follows Gore Hwy on southern side towards Commodore Mine.
- Joins Base Case study corridor south near Commodore Mine
- Does cross State-Forest.
- Two passing loops proposed within this section of track.
- Lowest RL: 262m
- Highest RL: 501m
- Difference/Climb: 239m



CONTROL 3129 TRACK-MODIF

Study Corridor Comparison

Inglewood to Millmerran

Sub-criteria	Comments - Option 3121 and 3130 (Base Case)	Comments - Option 3124	Comments - Option 3125	Comments - Option 3126	Comments - Option 3127	Comments - Option 3128	Comments - Option 3129	Comments - Option 3133
Alignment	102.64km	130.43km	128.28km	118.077km	117.20km	112.46km	106.28km	102.37km
Property impacts	Freehold Titles crossed - 81 State forest - 8km	Freehold Titles crossed -29 State forest - 78km	Freehold Titles crossed -34 State forest - 78km	Freehold Titles crossed -81 State forest - 48km	Freehold Titles crossed - 65 State forest - 53km	Freehold Titles crossed - 74 State forest - 41km	Freehold Titles crossed - 30 State forest - 52km	Freehold Titles crossed - 55 State forest - 31km
Impacts on existing road and rail networks	Occupational Crossing 11 Road Crossing 28 Grade Sep 0	Occupational Crossing 65 Road Crossing 15 Grade Sep 2	Occupational Crossing 65 Road Crossing 16 Grade Sep 2	Occupational Crossing 50 Road Crossing 26 Grade Sep 0	Occupational Crossing 49 Road Crossing 18 Grade Sep 2	Occupational Crossing 47 Road Crossing 25 Grade Sep 0	Occupational Crossing 47 Road Crossing 17 Grade Sep 0	Occupational Crossing 28 Road Crossing 32 Grade Sep 0
Flood immunity/hydrology Major River Crossings	0	2	2	2	2	2	1	0
Bulk Earthworks % of Base Case	100%	353%	307%	391%	252%	282%	306%	164%
Travel Time (Ave 90km/hr)	Base case	18 min longer	17 min longer	11 min longer	10 min longer	7 min longer	3 min longer	Similar
Vertical Grades	1in80	1in80	1in110	1in90	1in110	1in90	1in90	1in80

Environmental Studies

The background is a solid blue color. On the right side, there are several thin, white, intersecting lines that form a complex geometric pattern, resembling a stylized star or a series of overlapping triangles.

Surveys, monitoring and assessment

The following has been completed to inform the Inglewood to Millmerran route selection:

- Ecological ground-trothing surveys
- Baseline noise monitoring
- Baseline air quality monitoring

Conclusions used to inform the MCA process. Consideration given to the following:

- Ecological impacts
- Visual amenity impacts
- Nuisance impacts (noise and air quality)
- Hydrology and flood impacts
- Property impacts
- Indigenous cultural heritage Non-indigenous cultural heritage
- Current and future land use.

Thank You

September 21, 2016

AECOM