

Strategic Freight Model 2022 (SFM22) Summary Factsheet

This factsheet provides a high-level overview of the key features of the SFM22 forecasts. This including inputs, assumptions, methods, drivers and outputs.

What is Strategic Freight Model 2022 (SFM22)?

The Strategic Freight Model 2022 (SFM22) contains base year estimate and forecast data of road and rail freight origin-destination movement tonnages for 20 commodity groups transported within and through NSW. At a high level, the data covers four dimensions:

- **Base year:** 2018
- **Forecast year period:** 5 yearly time periods from 2021 to 2061
- **Geography:** 92 Statistical Area Level 3 (ASGS 2021 SA3s) geography across NSW
- **Freight Commodities:** 30 commodity groups covering coal, construction materials, household, fuel, export/import containers, manufactures and agricultural commodities

SFM22 provides a high-level view of forecast growth in the size and composition of the NSW freight volume task. This is based on a broad range of economic, industry, policy and land use factors and assumptions. SFM22 relies on NSW Government Common Planning Assumptions for population, employment and dwelling projections, Travel Zone Projections 2022 (TZP22).

Caution is recommended as they are forward-looking forecasts only and not meant to be absolute forecasts of NSW freight volumes movements.

Why does TfNSW prepare freight forecasts?

The forecasts are developed to underpin TfNSW freight project assessments such as cost benefit analysis and business cases, freight network planning at a broader strategic level, as well as broad range of freight data requests and associated economic analysis (i.e., quantifying the value of freight sector activity to the NSW economy).

What are the key inputs?

The base year estimate of freight volume movements is based on data and information inputs from:

- Government agencies (i.e., Australian Bureau of Statistics, Australian Bureau of Agricultural and Resource Economics and Sciences, Forestry NSW);
- Industry associations and publicly available company-specific sources (i.e. annual reports, site tour reports); and
- Subscription services (i.e., MariTrade).

The forecast year freight volume movements are based on data and information inputs from:

- Economic, industry and company-specific literature review, research and analysis on commodity demand, production, spatial distributions and supply chains;
- NSW macroeconomic forecasts (NSW 2021 Intergenerational Report), NSW population, housing and employment forecasts (Travel Zone Projections 2022);
- Structural policy assumptions/aspirations and market changes (i.e. rising electric vehicle sales will lower the fuel freight task, move to renewable energy sources will lower coal freight task);
- Industry competitiveness assumptions and judgements (used to forecast container imports and local production of manufactures);
- Departmental forecast assumptions (i.e., future infrastructure construction project list);
- Large project Environmental Impact Studies (i.e., Western Sydney airport EIS); and
- Departmental freight documents (i.e., 2018-23 Freight and Ports Plan regarding container spillover assumptions from Port Botany)

How much freight growth is forecast for NSW?

SFM22 shows the total NSW freight volume task is forecast to grow an annual average rate of 0.8% over the period 2021 to 2061. This covers the freight task in the Sydney Greater Metropolitan Area (GMA) and Regional NSW.

The freight volume task in Sydney Greater Metropolitan Area (GMA) is forecast to grow by an annual average rate of 1.7%. This contrasts with Regional NSW, which is forecast to record an annual average fall of 0.4% over the 40-year forecast period.

Table 1: Sydney GMA, regional NSW and NSW freight volume forecasts, 2021-2061

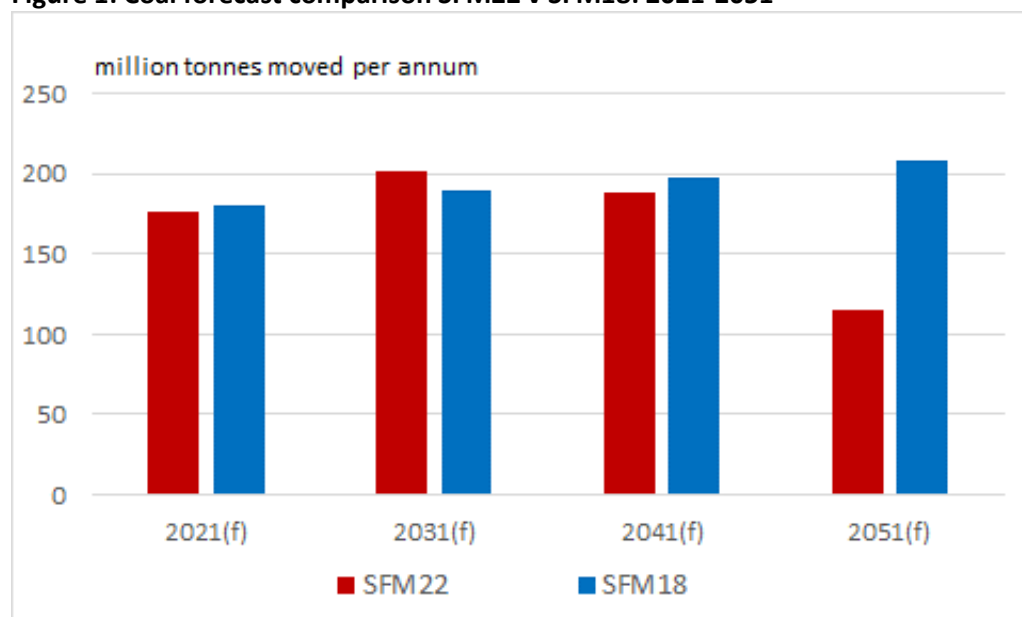
Item	2021(f)	2031(f)	2041(f)	2051(f)	2061(f)	2021(f)-2061(f)	2021(f)-2061(f)
	Million tonnes moved per annum					Total % change	Annual growth rate
Sydney GMA	220.9	260.2	315.1	371.0	430.4	94.8%	1.7%
Regional NSW	243.5	274.9	272.9	209.4	204.3	-16.1%	-0.4%
Total NSW	464.4	535.1	588.0	580.4	634.7	36.7%	0.8%

How are the SFM22 forecasts different to the previous forecasts?

The main difference between the SFM22 and the previous SFM18 forecasts is the regional NSW forecasts. The forecast for regional NSW is substantially lower in SFM22 compared to SFM18. This is due to coal, which accounts for a high share of the regional NSW freight task, being forecast to experience a very large fall over the forecast period. This is quite different to SFM18, where coal was to increase modestly over the forecast period. See Figure 1 below.

The rationale for the marked downgrade to the coal forecast in SFM22 (compared to SFM18) is an assumed strengthening in the move away from fossil fuels to renewable sources of electricity generation domestically and internationally. This translates into a large decline in NSW exports of coal to Asia (China, South Korea and Japan) over the forecast period.

Figure 1: Coal forecast comparison SFM22 v SFM18: 2021-2051

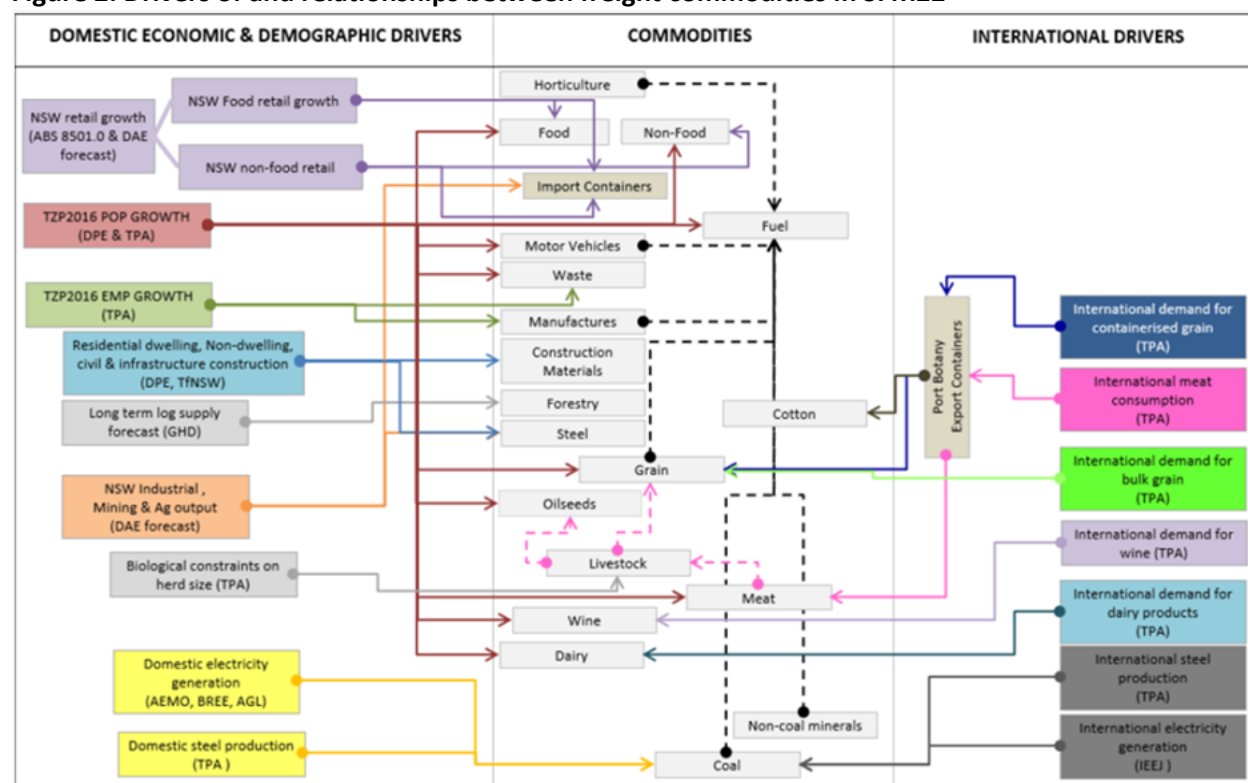


SFM22 Methodology - overview

A technical summary report titled 'NSW Freight Commodity Demand Forecasts 2021-2061' will be available on the Open Data Hub Portal in July 2025. This report will provide an overview of the key aspects of the forecast methodology and drivers used to generate the freight movement forecasts.

The following commodity structure diagram highlights the drivers of and relationships between the freight commodity forecasts.

Figure 2: Drivers of and relationships between freight commodities in SFM22



For more information about SFM22 please refer to the 'NSW Freight Commodity Demand Forecast Report 2021-2061 Summary' report (to be released on TfNSW Open Data Hub in July 2025) or contact the Transport Modelling team at transportmodelling@transport.nsw.gov.au

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