

# JOB ROLE STATEMENT

## OPERATIONAL MODELLING AND VISUALISATION MANAGER LEVEL 7

DIRECTORATE NETWORK OPERATIONS  
BRANCH NETWORK PERFORMANCE

POSITION NO P0062855

### KEY RESPONSIBILITIES

Manage the operational modelling 'Centre of Expertise' within Main Roads.

Manage the operational 'modelling' and 'visualisation' activities including traffic model development, analysis and reporting of traffic impacts to support the optimisation and decision-making processes in order to improve road network performance.

### KEY DELIVERIES

#### Traffic Modelling

- Manage the development of operational traffic models for a variety of purposes to assess traffic impacts on the road network.
- Manage the delivery of appropriate models to enable traffic analysis for intersections, routes, corridors and areas through use of intersection, microscopic and mesoscopic models and to support the decision making process.
- Manage the development of models that validate against real-life traffic conditions for testing 'scenarios' in order to determine impacts of proposals for base and future years, and carry out modelling analysis to predict the impact of various small and large changes across the road network.
- Manage the reconciliation between demand/strategic models held outside the Network Operations (NO) Directorate, and operational models managed by the Directorate.
- Responsible for a library of up-to-date and consistent base models for intersections/corridors/areas of the network.
- Manage the availability of systems and personnel to provide expert capabilities in use of 'modelling' and 'visualisation' tools.
- Manage the maintenance and enhancement of current traffic models.
- Deliver the outcome of modelling exercises using a variety of tools and methods such as 'visualisation' and detailed presentations, enabling simple and concise communication of results to multiple stakeholder groups.
- Manage modelling guidelines, best practices, and business processes to streamline and improve accuracy of operational modelling being carried out (and delivered to) Network Operations Directorate.

#### Leadership and Management

- Lead the Operational Modelling and Visualisation team and providing the appropriate training to staff to build and enhance the Section capability in delivering operational modelling into the future.
- Lead Main Roads' participation on modelling and analysis forums and working parties.
- Review and recommend budget requirements for traffic modelling projects.
- Manage financial, technological, physical and other resources within agreed allocations to meet agreed outcomes.
- Manage employee behaviour, performance and development.

#### Stakeholder Relationships

- Collaborate with other operational branches to gain extensive understanding of factors affecting traffic performance.
- Provide expert technical direction and advice on traffic modelling and improve accessibility to traffic modelling results.
- Manage consultancy contracts in transport/traffic modelling.
- Represent Main Roads on external committees and working parties and at public forums.

### SAFETY, HEALTH AND WELLBEING (SHW)

Responsible for active participation and performance to SHW standards as detailed by the Main Roads' Safety, Health and Wellbeing (SHW) Management System - refer to "SHW Roles and Responsibilities Procedure" on 'iRoads' intranet.

### LOCATION

Main Roads is a regionalised organisation with key delivery centres operating from the Kimberley to the Great Southern regions, including the metropolitan area. The incumbent of this position may be required to undertake a role in a region for a period of time.

### DYNAMIC RESOURCING

The incumbent of the position may be required to perform any other role within the incumbent's level of skill, competence and responsibility as directed by the Managing Director of Main Roads to meet the organisation's objectives and the incumbent's development.

### REPORTING RELATIONSHIPS

*This position reports to:*

(A) TITLE AND LEVEL  
MANAGER TRAFFIC AND ROAD NETWORK PERFORMANCE

LEVEL 8

POSITION NO  
P0062847

# OPERATIONAL MODELLING AND VISUALISATION MANAGER LEVEL 7

**POSITIONS UNDER DIRECT SUPERVISION**

List the position numbers, titles and levels of positions directly supervised

TITLE and LEVEL	POSITION No	CATEGORY	NUMBER
Operational Modelling and Visualisation – Senior Modeller	LEVEL 6	Salaried	2
Operational Modelling and Visualisation – Modeller	LEVEL 5	Salaried	2
TOTAL			4

**ALL POSITIONS UNDER CONTROL**

State number of positions only

**SELECTION CRITERIA – SHOULD BE ADDRESSED IN THE CONTEXT OF THE ROLE****ESSENTIAL:**

- Comprehensive skill, knowledge and experience in:
  - traffic engineering including traffic/transport modelling and monitoring
  - operational traffic/transport analysis including monitoring, modelling, visualisation and/or operational research
  - operational modelling for network optimisation, particularly in the areas of traffic signal control, priority junctions and roundabout design
  - delivering technical presentations and information to groups and individuals
  - building and enhancing stakeholder relationships
  - managing financial, technological, physical and other resources within agreed allocations to meet agreed outcomes
  - managing employee behaviour, performance and development
- Knowledge and understanding of:
  - standard traffic/transport modelling and visualisation tools such as: LINSIG, TRANSYT, SIDRA, AIMSUN, VISSIM, VISUM and similar
  - traffic signal optimisation principles
  - policies and practices on Occupational Safety and Health, and on EEO, diversity and equity
- Possession of a current Western Australian 'C' Class (car) motor vehicle drivers licence or an approved equivalent.

**DESIRABLE:**

- A Degree in Engineering or Transport Planning.

**CERTIFICATION**

1. The details contained in this Job Role Statement have been reviewed and conform to Main Roads guidelines.

SIGNATURE

  
 BRANCH/SECTION HEAD

DATE

3 May 2021

2. The details contained in this document are an accurate statement of the duties, responsibilities and other requirements of the position.

SIGNATURE

  
 EXECUTIVE DIRECTOR

DATE

3/4/2021

3. The details contained in this document have been reviewed and conform to Main Roads guidelines.

SIGNATURE

  
 MANAGER HR BUSINESS

DATE

4/5/21