

TMA PBS Level 1–4 Vehicle Monitoring Schemes



Schemes using the Telematics Monitoring Application (TMA) for Transport for NSW

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Transport Certification Australia (TCA) is a national organisation that provides assurance services relating to transport technologies and data to enable improved public purpose outcomes from road transport.

Priority outcome areas enabled by TCA services include improved road safety, transport efficiency, freight productivity, asset management and sustainability.

Key aspects of TCA include:

- An independent not-for-profit entity, with government oversight
- Administration of the National Telematics Framework, including its rules, specifications, agreements, digital infrastructure and other supporting services
- Assurance services that support but are appropriately separated from regulators, policy makers and enforcement activities, and underpin telematics applications and associated information and data services
- Advice that is based on evidence and a deep subject matter knowledge
- Trusted partner to both government and industry stakeholders, enabling a nationally consistent open market, with services covering all road vehicle types and associated digital infrastructure.

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1 Introduction

1.1 Purpose

This document describes the following Performance-Based Standards (PBS) Level 1–4 schemes associated with the Telematics Monitoring Application (TMA):

- TMA PBS Level 1 Vehicle Monitoring Scheme
- TMA PBS Level 2A Vehicle Monitoring Scheme
- TMA PBS Level 2B \leq 30m Vehicle Monitoring Scheme
- TMA PBS Level 2B $>$ 30m Vehicle Monitoring Scheme
- TMA PBS Level 3A Vehicle Monitoring Scheme
- TMA PBS Level 3B Vehicle Monitoring Scheme
- TMA PBS Level 4A Vehicle Monitoring Scheme
- TMA PBS Level 4B Vehicle Monitoring Scheme
- TMA PBS Vehicle Mass Monitoring Scheme (NSW).

TMA PBS Level 1–4 Vehicle Monitoring schemes are administered by Transport for NSW (TfNSW) to monitor road utilisation of eligible PBS Level 1–4 vehicles on approved routes on the NSW road network.

Note: PBS Level 1–4 vehicles may also be enrolled in other schemes of telematics applications. Enrolment in a TMA PBS Level 1–4 Vehicle Monitoring scheme does not supersede enrolment in other schemes involving PBS vehicles.

1.2 Scope

This document describes the TMA PBS Level 1–4 Vehicle Monitoring schemes and how they will be used with the TMA application.

The following information is included:

- parameters of TMA PBS Level 1–4 Vehicle Monitoring schemes
- key scheme processes of TMA PBS Level 1–4 Vehicle Monitoring schemes
- roles and responsibilities of TMA PBS Level 1–4 Vehicle Monitoring scheme participants
- scheme descriptions in appendices.

1.3 Background

PBS road network access in NSW is based on four PBS performance levels (1–4) and access classes 'A' and 'B' as stated in the *PBS Network Classification Guidelines* and as shown in Table 1.

Table 1: PBS Networks Applicable to PBS Level 1–4 Schemes

PBS Performance Level	Access Class ‘A’	Access Class ‘B’
1	≤ 20 metres in length	≤ 20 metres in length
2	≤ 26 metres in length	≤ 30 metres in length*
3	≤ 36.5 meters in length	≤ 42 meters in length
4	≤ 53.5 meters in length	≤ 60 meters in length

* PBS Level 2B vehicles may also be greater than 30 meters in length as allowed under an NHVR-issued permit.

PBS vehicles may operate on approved network routes shown on the TfNSW PBS map and as described in Table 2 if they comply with entry rules on the TfNSW website and PBS road network access conditions.

Table 2: Instruments of Access Approval

PBS Performance Level	Will mass and vehicle configuration be monitored?	<i>National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice</i>	NHVR permit
1 ¹ , 2A, 2B ≤ 30m ¹ , 3A and 4A	No	✓	N/A
	Yes	✓	✓ ²
2B > 30m, 3B and 4B	No	N/A	✓
	Yes	N/A	✓ ³

1. Eligible PBS Level 1 Quad-Axle Semi-Trailers operating at Tier 3 masses and PBS Level 2B ≤ 30m A-Doubles operating at Tier 3 masses must also comply with *National Class 2 Performance Based Standards Vehicle (High Productivity) Authorisation Notice*.
2. Permit includes any additional requirements related to travel on roads that require monitoring of mass and vehicle configuration.
3. Permit will include PBS road network access conditions and any additional requirements related to travel on roads that require monitoring of mass and vehicle configuration.

An eligible vehicle must be fitted with a TCA-approved telematics device to participate in PBS Level 1–4 Vehicle Monitoring scheme.

If an eligible vehicle will monitor mass and vehicle configuration, it must also be fitted with a TCA-approved on-board mass (OBM) system Category B or C (‘Smart OBM system’).

Note: Approval may be in the form of type-approval or an equivalent approval mechanism acceptable to TCA. The Application Service Providers (ASPs) must meet applicable requirements in the functional and technical specification, irrespective of the approval mechanism.

To participate in a TMA PBS Level 1–4 Vehicle Monitoring scheme, an Operator (e.g. a transport operator) must conform with the requirements specified within the applicable Notice and/or permit issued by the NHVR, as shown in Table 2.

Enrolment in the TMA application, which is administered by TCA as part of the National Telematics Framework (NTF), is one of the requirements that must be met by the Operator. Enrolment in the TMA application is performed by the ASP selected by the Operator.

The ASP is responsible for the installation of a TCA-approved telematics device in the vehicle being utilised in accordance with the instrument of access approval.

If an eligible vehicle will monitor mass and vehicle configuration, the OBM system supplier (or Operator-nominated personnel that the supplier authorises as suitably trained) is responsible for the installation of a TCA-approved OBM system Category B or C in the vehicle being utilised in accordance with the instrument of access approval.

Note: TCA approval of a telematics device or OBM system may be in the form of type-approval or an equivalent approval mechanism acceptable to TCA. The ASP must meet applicable requirements in the functional and technical specification, irrespective of the approval mechanism.

The ASP is responsible for the collection of data from vehicles enrolled in accordance with the requirements of the TMA application for the scheme.

Note: The Operator may be eligible to perform the role of ASP in full or part, subject to the approval of TCA.

ASPs provide data records to TCA. TCA analyses the data and makes reporting available to the TfNSW and participating local governments via the Telematics Analytics Platform (TAP).

The TMA application is offered at Level 2 Assurance appropriate to these vehicles (see Appendix A for a definition of Level 2 Assurance).

The use of the TMA application for a TMA PBS Level 1–4 Vehicle Monitoring scheme:

- Provides identifiable vehicle data of enrolled vehicles on the Authority's road network; and
- Allows an ASP to offer any scheme associated with the TMA application that the ASP is certified to provide services for.

Note: The TMA application can be used for a variety of purposes. In this document, TMA is described in the context of the schemes.

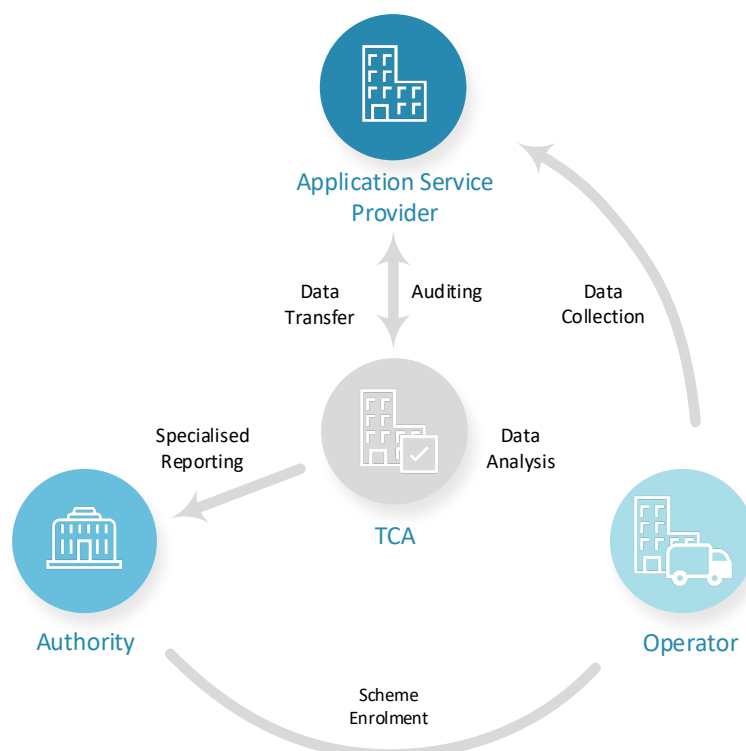
2 TMA PBS Level 1–4 Vehicle Monitoring Schemes

2.1 Participants

Figure 1 outlines the key interactions between participants for the use of the TMA application for a TMA PBS Level 1–4 Vehicle Monitoring scheme:

- TfNSW, as the Authority of the scheme, requires the monitoring, with reporting, of the Operator's vehicle(s) as a condition of the Authority allowing the Operator and its vehicle(s) to participate in the scheme. The Authority may conduct compliance activities as necessary.
- Operators are vehicle operators that agree to enrol vehicles into the scheme, and consent to their data collected through the TMA application to be used for the intended purpose (as defined by the Authority and agreed to by the Operator in the ASP–Operator Agreement).
- ASPs, certified by TCA, offer telematics services (hardware, software and associated processes) to enable enrolment of eligible vehicles in the TMA application (as well as other applications available within the NTF), collection of data from installed telematics devices and reporting of data to TCA.
- TCA administers the TMA application and its schemes within the NTF, ensuring that data security and privacy concerns are managed. TCA receives vehicle enrolment details from Operators via ASPs, and makes ASP–Operator Agreements available to participants. TCA also receives telematics data from ASPs, performs data analysis, and makes standard and specialised reporting available to the Authority (and other bodies authorised by the Authority) via TAP as agreed between the Authority and TCA, and in accordance with the intended purpose as agreed by the Operator in the ASP–Operator Agreement.

Figure 1: Scheme Participants and Key Interactions



Note: Interactions between scheme participants are consistent with interactions between TMA application participants and are not specific to the scheme.

2.2 Common Scheme Features

This section describes the common features of a TMA PBS Level 1–4 Vehicle Monitoring scheme. For information on features that are specific to a TMA PBS Level 1–4 Vehicle Monitoring scheme, refer to scheme descriptions in the appendices of this document.

a. ASP Certification

TCA will certify ASPs to provide services for the TMA application.

b. Enrolment

ASPs will enrol vehicles in the TMA application and a TMA PBS Level 1–4 Vehicle Monitoring scheme at the request of the Operator.

The ASP will manage key steps of enrolment including approval, and as necessary, cancellation and replacement.

Note: Operators are expected to be more inclined to have their vehicles monitored through the TMA application based on the Authority transparently communicating the intended use of the TMA application, and obtaining assurance and safeguards from TCA that data collected through the TMA application will not be used for other, undisclosed purposes (such as compliance and enforcement).

Figure 2 shows the pre-enrolment steps for a TMA PBS Level 1–4 Vehicle Monitoring scheme.

Figure 3 shows the reporting processes for a TMA PBS Level 1–4 Vehicle Monitoring scheme.

Figure 4 shows the enrolment cancellation and reporting processes for a TMA PBS Level 1–4 Vehicle Monitoring scheme.

c. Devices and Data Collection

The device used in the TMA application is a telematics device, approved by TCA for use at Level 2 Assurance or higher.

The telematics device will collect:

- Position data at 30-second intervals (or as approved by TCA)
- Date and time data.

The following applies **only** if required by a scheme:

- If mass and vehicle configuration data is required, the data will be collected from vehicles with TCA-approved Category B or C OBM systems ('Smart OBM systems') installed. The Smart OBM system shall collect the data at 5-minute intervals.

Note: OBM systems are unable to provide reliable axle mass readings when a vehicle is in motion. The collection of mass records every 5 minutes is specifically for data analysis and the identification of possible changes to the load of a vehicle category.

Note: Refer to the scheme descriptions in the appendices of this document to determine whether the scheme requires this optional feature.

d. Data Reporting

The ASP shall transfer data records collected through the TMA application to TCA no less frequently than each calendar month, and as described in *Telematics Monitoring Application Functional and Technical Specification*.

e. Data Analysis and Reporting

TCA will make data analysis and reporting available to the Authority and participating local governments through TAP.

Through TAP, the Authority and participating local governments will have access to:

- interactive maps, which represent data using data elements collected as part of the scheme; and
- specific reporting required for scheme management.

Note:

- The type, number, frequency and graphical output of specific reporting will be subject to agreed terms reached between TCA and the Authority.*
- The TMA application relies on changes in vehicle position records over a 30-second period to derive vehicle speed. Average and maximum vehicle speed results are estimates only, and may be influenced by factors such as road geometry and GNSS quality. Authorities should exercise caution when interpreting vehicle speed derived from the TMA application.*

The use of TMA for a TMA PBS Level 1–4 Vehicle Monitoring scheme is intended to provide a basic representation of individual and identifiable vehicle movements based on the data collected and the use of data for the intended purpose of the scheme (as agreed by the Operator in the ASP–Operator Agreement).

The Authority and participating local governments will manually review the operation of vehicles (through TAP) against the approved road network. TCA does not offer automated exception reporting to assess whether a vehicle has not met access conditions granted by the Authority.

A Scheme Participation Report will be made available to the Authority on a monthly basis via TAP. This report may include the following standard measures and dimensions as shown in Table 3.

Table 3: Scheme Participation Report

Report Content	Examples
Aggregated measures	<ul style="list-style-type: none">• Count of all vehicles enrolled in the scheme• Count of vehicles enrolled in the scheme that TCA received data from• Vehicles enrolled in the scheme that TCA did not receive data from for at least 30 consecutive days <p><i>Note: Reporting of this measure will include vehicle identities. A participating vehicle will only be included in this measure if, without a satisfactory explanation, it has not provided data for at least 30 consecutive days.</i></p> <ul style="list-style-type: none">• Count of Operators with enrolled in the scheme• Count of ASPs reporting data for vehicles enrolled in the scheme
Dimensions	<ul style="list-style-type: none">• Operator• ASP

2.3 Key Scheme Processes

Figure 2 outlines the key actions taken by each participant during the pre-enrolment stage of the operation of a TMA PBS Level 1–4 Vehicle Monitoring scheme.

Note: This process assumes that TCA has already certified the ASP to provide TMA application services.

Figure 2: Pre-Enrolment Process

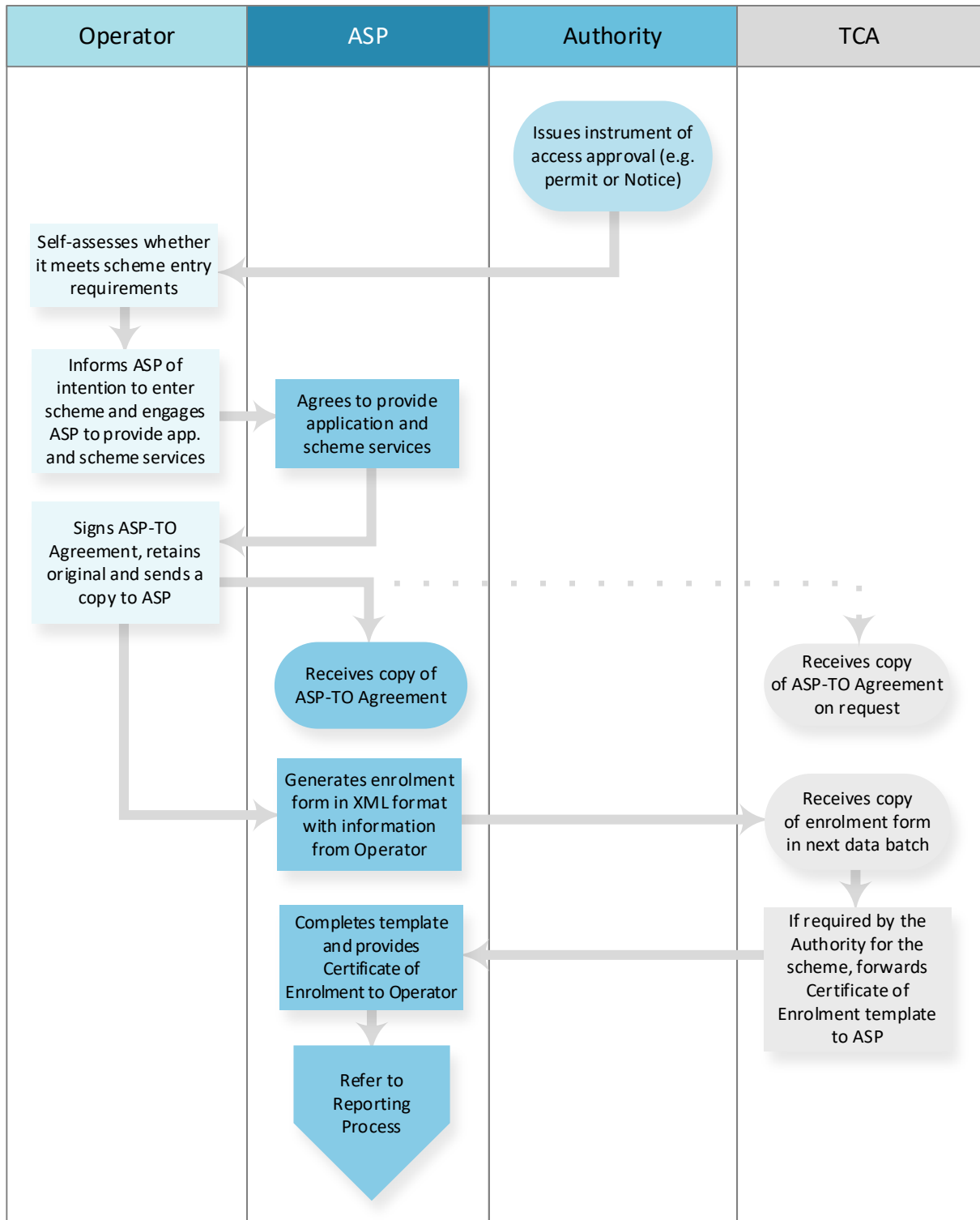
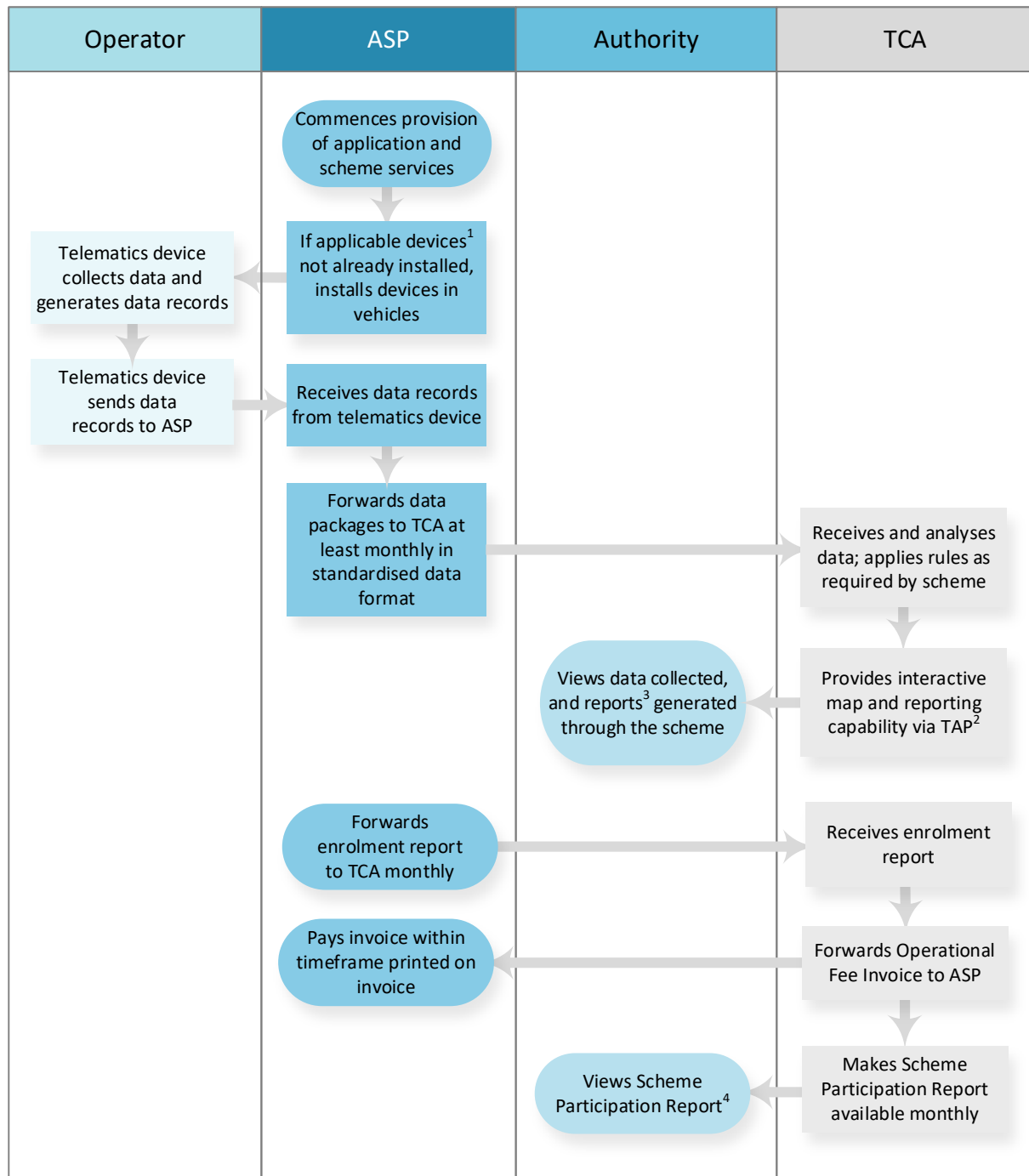


Figure 3 outlines the key actions related to data collection, record generation and reporting.

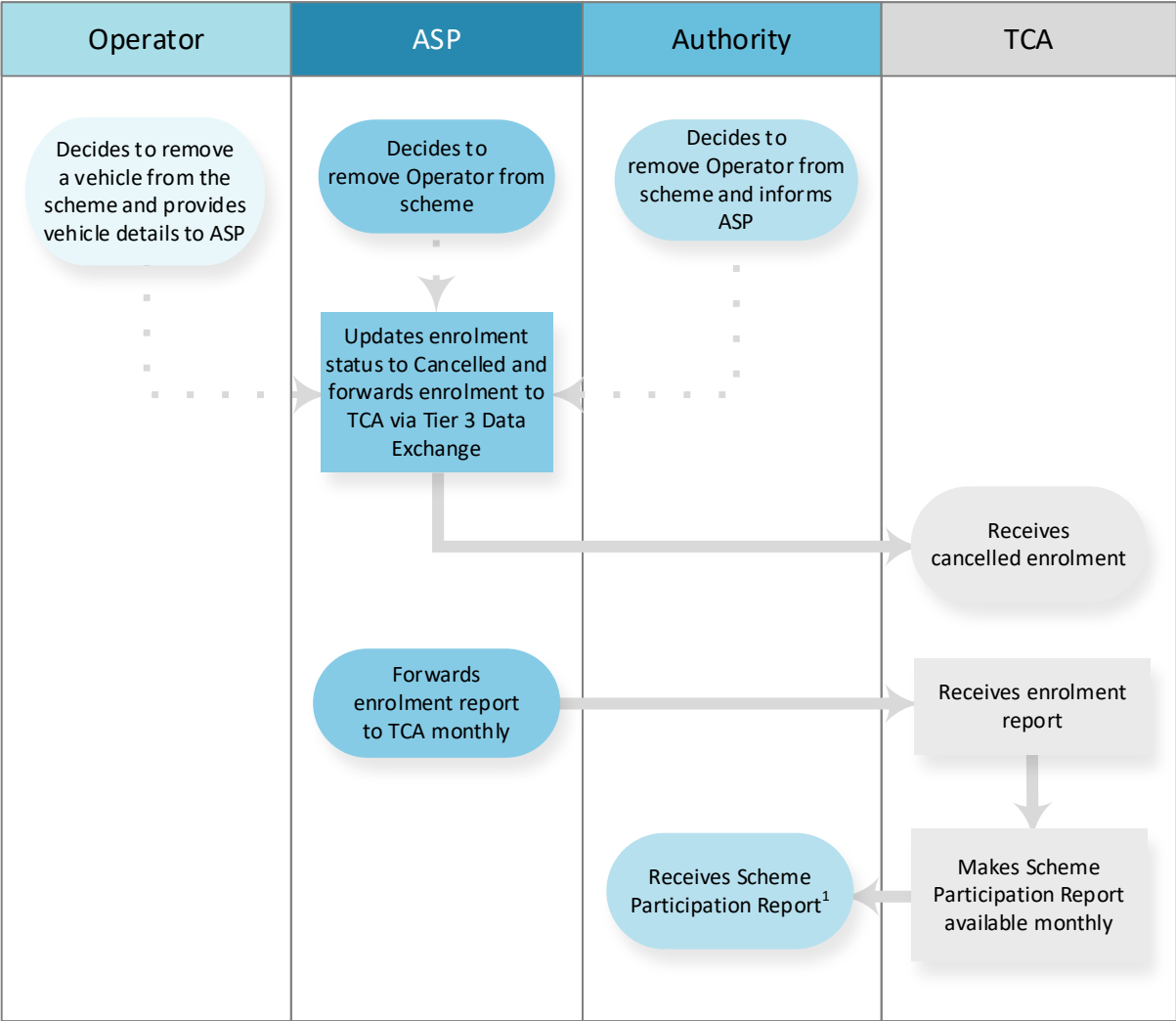
Figure 3: Reporting Processes



- Applicable devices include a TCA-approved telematics device, and:
 - If mass and vehicle configuration will be collected, a TCA-approved OBM system at Category B or C; and/or
 - If comments are self-declared, a user interface connected to the TCA-approved telematics device.
- Data will be updated at least monthly.
- The Authority will nominate the locations that will be subject to location-based reports (subject to agreed terms).
- Local governments in NSW may also view this information.

Cancellation of enrolment may be initiated by the Operator, the Authority or the ASP.
Figure 4 outlines the key actions to discontinue enrolment of a vehicle.

Figure 4: Enrolment Cancellation and Reporting Processes



1. Local governments in NSW may also view this information.

2.4 Roles and Responsibilities

In delivering the objectives of a TMA PBS Level 1–4 Vehicle Monitoring scheme, **TCA** will:

- Provide a document (this document) describing the use of the scheme as part of the TMA application
- Produce or maintain collateral, as necessary, to support the scheme. Examples include the provision of current versions of:
 - *Telematics Monitoring Application Functional and Technical Specification*
 - *Telematics Business-to-Business Data Exchange Functional and Technical Specification*
 - *Telematics Device Functional and Technical Specification*
 - (as applicable) *On-Board Mass System Functional and Technical Specification*
 - (as applicable) *Interconnectivity of Telematics Device with Other Systems Functional and Technical Specification*
- Support the reporting of data records via Tier 3 Data Exchange using a RESTful API, with these records formatted using JSON
- Support the reporting of enrolment forms and enrolment reports using a RESTful API, with these documents formatted using XML
- Inform ASPs of scheme details and entry conditions
- Produce an ASP–Operator Agreement for use with the scheme and make it available from the TCA website
- Ensure that TAP is set up to enable the Authority and participating local governments to access reporting generated by the scheme (in accordance with the intended purpose as agreed by the Operator in the ASP–Operator Agreement), and any malfunctions associated with vehicles enrolled in the scheme
- Maintain the cloud environment and databases, etc. for receipt of data records from the TMA application
- Produce and execute an ASP–TCA Certification Agreement, which formalises the relationship between TCA and the ASP with regard to ASP certification, or update the current Agreement
- Assess and certify whether an ASP meets requirements to provide TMA services
- Approve devices used in the scheme
- Ensure the intellectual property rights of ASPs are protected when assessing whether an ASP can meet operational requirements of the scheme
- If required by the Authority, provide certified ASPs with the Certificate of Enrolment template
- At the end of each month, forward Operational Fee Invoices to ASPs upon receipt of enrolment reports
- With the ASP, monitor via TAP whether a device malfunction has been resolved within agreed timeframes
- Notify the ASP when data from an enrolled vehicle has not been received for one month, followed by the Authority if unresolved
- Provide the Authority with reporting outlined in 2.2e via TAP
- Ensure the confidentiality of ASP data is maintained
- Unless directed by the Authority and consented to by the Operator, de-identify the TMA telematics data it has received relating to the Operator’s nominated vehicle(s) 12 months from its receipt of the data.

The Authority will:

- Maintain documentation required by the Authority for the scheme
- Undertake program coordination activities related to the scheme with TCA
- Monitor whether device malfunctions have been resolved within agreed timeframes
Note: TCA will notify the ASP when data has not been received for one month, followed by the Authority if unresolved.
- Access reporting outlined in 2.2e via TAP, and review data trends and numbers of enrolled vehicles
- Ensure that compliance activities are conducted as necessary
- In conjunction with TCA, communicate scheme-related policy changes to industry and stakeholders.

ASPs will:

- Interact with TCA to establish the delivery mechanism for provision of data packages to TCA (noting that a data package includes data records, enrolment forms and enrolment reports)
- Receive notification from Operators regarding the enrolment status of vehicles, and forward this information to TCA using an agreed mechanism on a monthly basis
- Provide the ASP–Operator Agreement to an Operator once an agreement to provide services for the scheme has been made
- Be responsible for the installation, operation and maintenance of telematics devices and the reporting of data received from those devices and any connected devices
- If required by the Authority, provide Certificates of Enrolment to enrolled Operators, using the template received from TCA, and coordinate their removal from vehicles no longer enrolled in the scheme
- Pay Operational Fee Invoices received from TCA, generated upon receipt of enrolment reports, within the timeframe shown on the invoice
- In the event of a device malfunction: liaise with the Operator and/or device supplier to resolve the issue; report the malfunction (unidentifiable) to TCA within the required time period; monitor via TAP whether the device malfunction has been resolved within agreed timeframes; and notify TCA when the malfunction has been resolved
- Provide back office capability to process collected data records as required by the scheme
- Deliver data records to TCA, using agreed data delivery mechanism, required data formats and meeting data reporting requirements.

Operators will:

- Access scheme rules and entry conditions on the Authority website (or other website as applicable, such as the National Heavy Vehicle Regulator) and determine whether they meet those conditions
- Access the applicable Notice and/or permit and ensure compliance with its requirements for the scheme
- Upon self-assessment that scheme entry conditions are met, notify the ASP of its intention to enrol in the scheme
- Agree to share data collected by its ASP with TCA for the scheme using a signed TMA ASP–Operator Agreement
- Follow rules for enrolment in the scheme
- Store original signed ASP–Operator Agreement and forward copies to the ASP and TCA (on request)
- Install telematics devices and engage an ASP to provide services for the scheme
- If a vehicle will monitor mass and vehicle configuration, ensure that the OBM system supplier (or Operator-nominated personnel that the supplier authorises as suitably trained) installs a Smart OBM system
- Notify the ASP of the date that a vehicle or the Operator will no longer participate in the scheme.

A Acronyms and Definitions

Acronyms

Acronym	Definition
API	application programming interface
ASP	Application Service Provider
FTPS	File Transfer Protocol Secure
NTF	National Telematics Framework
OBM	on-board mass
PBS	Performance-Based Standards
TAP	Telematics Analytics Platform
TMA	Telematics Monitoring Application
UTC	Coordinated Universal Time

Definitions

Term	Definition
application	A capability of the NTF that provides business value to stakeholders, delivered as an assembly of policy, business components and technical components, within in the context of an identified level of assurance.
Application Service Provider (ASP)	A service provider that has been certified by TCA as meeting the requirements of one of more telematics applications.
approval mechanism	The mechanism by which TCA approves a device, such as a telematics device or connected device, for use in a telematics application. The approval mechanism used may be type-approval, or an equivalent approval mechanism acceptable to TCA.
ASP–TCA Certification Agreement	The written agreement made between an ASP and TCA that recognises the fact that the ASP, having satisfied TCA’s requirements for appointment as an ASP, is appointed in that capacity, and sets out the legal obligations of each party with respect to the ongoing role of the ASP.
ASP–Operator Agreement	A written agreement between an ASP, an Operator and TCA which sets out the terms on which the ASP will provide application services to the Operator, and the intended purpose for collecting data from the Operator’s vehicle(s) enrolled in the scheme.
Authority	An entity, associated with a jurisdiction, responsible for the administration of one or more NTF applications. An Authority may appoint an administrator to perform its functions. <i>See also jurisdiction.</i>
connected device	Any device or technology connected to a telematics device.
data collection period	A whole number of days in the UTC time zone for which all application data is provided. Successive data collection periods are contiguous.

Term	Definition
data package	A package of information sent via Tier 3 Data Exchange for a data collection period.
data record	A discrete and defined set of data elements generated by a device.
enrolment	Both the process and outcome by which an Operator enters an Authority's scheme. Each vehicle must be enrolled for each scheme it participates in. Enrolment also confirms the application and conditions (if applicable) that the vehicle is monitored under.
enrolment form	An electronic document that formally and simultaneously records the enrolment of a vehicle within a scheme, and within the application required by that scheme.
enrolment report	A summary of enrolments relevant to a given Authority for a specified reporting period, including any aggregated data required by specific applications.
jurisdiction	A geographical area containing a road network (i.e. typically an Australian state or territory).
level of assurance	An assurance level that supports telematics applications, structured around the intended use of a telematics application, risks being managed, and the needs and expectations of consumers and other stakeholders.
Level 2 Assurance	Independent assessment of specific elements of a telematics application. Telematics data is combined with other data sources.
OBM system category	<p>A category of OBM system that is defined as follows:</p> <ul style="list-style-type: none"> Category A – OBM systems in this category electronically display collected data to drivers and/or loaders. Category B – OBM systems in this category also collect data and transfer the collected data to a telematics device using a mechanism agreed and implemented by the ASP and supplier of the OBM system. Category C – OBM systems in this category collect data and transfer data records in a standardised way to a telematics device (in accordance with <i>Interconnectivity of Telematics Device with Other Systems Functional and Technical Specification</i>).
Operator	An entity that operates one or more vehicles eligible to enter a scheme.
Performance-Based Standards (PBS)	An alternative compliance scheme for heavy vehicles setting minimum performance levels for safe and efficient operation (as opposed to standard prescriptive rules). Greater access is generally afforded for higher performance.
scheme	The generic term for a specific use of an application linked to delivering a policy objective.
Smart OBM system	An OBM system approved by TCA to Category B or C. <i>See also: OBM system category</i>
telematics device	The primary telematics unit which monitors vehicle parameters.
Tier 1 Data Exchange	A web services solution where structured information is exchanged that complies with requirements such as authentication, security, privacy and certainty of delivery. It includes exchanges of information related to a vehicle's enrolment in telematics applications, conditions and adherence to those conditions.

Term	Definition
Tier 2 Data Exchange	The human-initiated (rather than automated) exchange of business-related information and advice. Typical exchanges via this tier include reporting of issues and resolutions, correspondence regarding certification and re-certification, advice regarding information and communications technology (ICT), data assurance and other reporting.
Tier 3 Data Exchange	The packaging and delivery of data packages, comprising data records and enrolment-related artefacts. Data packages have several uses which include data analysis by the recipient, data assurance, and for research purposes.
vehicle category	A named business-level description of a prime mover/rigid truck and any trailers as defined by a vehicle category data set approved for use by TCA. Example: 'Semi Trailer 6 Axle'.

B TMA PBS Level 1 Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 1 Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of PBS Level 1 vehicles up to 20 metres in length operating under the *National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice 2022* on the NSW road network.

Note:

1. *Eligible PBS Level 1 Quad-Axle Semi-Trailers operating at Tier 3 masses must also comply with National Class 2 Performance Based Standards Vehicle (High Productivity) Authorisation Notice.*
2. *Applicable Notice conditions will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately.*

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable Notice. PBS Level 1 vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the applicable Notice and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 1 vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table B.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 1 Vehicle Monitoring Scheme	TMAPBSL1	NSW

C TMA PBS Level 2A Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 2A Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of the PBS Level 2 access class 'A' (i.e. Level 2A) vehicles up to 26 metres in length operating under the *National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice 2022* ('Notice') on the NSW road network (noting the Notice conditions will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the Notice. PBS Level 2A vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the Notice and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 2A vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table C.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 2A Vehicle Monitoring Scheme	TMAPBSL2A	NSW

D TMA PBS Level 2B ≤ 30m Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 2B ≤ 30m Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of PBS Level 2 access class 'B' (i.e. Level 2B) vehicles up to 30 metres in length operating under the *National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice 2022* on the NSW road network.

Note:

1. *Eligible PBS Level 1 Quad-Axle Semi-Trailers operating at Tier 3 masses must also comply with National Class 2 Performance Based Standards Vehicle (High Productivity) Authorisation Notice.*
2. *Applicable Notice conditions will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately.*

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable Notice. PBS Level 2B vehicles up to 30 meters in length must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the applicable Notice and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 2B vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table D.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 2B ≤ 30m Vehicle Monitoring Scheme	TMAPBSL2B	NSW

E TMA PBS Level 2B > 30m Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 2B > 30m Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of PBS Level 2 access class 'B' (i.e. Level 2B) vehicles greater than 30 metres in length operating under the applicable NHVR permit on the NSW road network (noting the permit to operate will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable permit on the NHVR website. PBS Level 2B vehicles greater than 30 metres in length must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the permit and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 2B vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table E.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 2B > 30m Vehicle Monitoring Scheme	TMAPBSL2B_GT30M	NSW

F TMA PBS Level 3A Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 3A Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of the PBS Level 3 access class 'A' (i.e. Level 3A) vehicles up to 36.5 metres in length operating under the *National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice 2022* ('Notice') on the NSW road network (noting the Notice conditions will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the Notice. PBS Level 3A vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the Notice and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 3A vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table F.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 3A Vehicle Monitoring Scheme	TMAPBSL3A	NSW

G TMA PBS Level 3B Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 3B Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of PBS Level 3 access class 'B' (i.e. Level 3B) up to 42 metres in length operating under the applicable NHVR permit on the NSW road network (noting the permit to operate will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable permit on the NHVR website. PBS Level 3B vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the permit and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 3B vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table G.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 3B Vehicle Monitoring Scheme	TMAPBSL3B	NSW

H TMA PBS Level 4A Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 4A Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of the PBS Level 4 access class 'A' (i.e. Level 4A) vehicles up to 53.5 metres in length operating under the *National Class 2 Performance Based Standards Vehicle (Tier 1) Authorisation Notice 2022* ('Notice') on the NSW road network (noting the Notice conditions will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the Notice. PBS Level 4A vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the Notice and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 4A vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table H.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 4A Vehicle Monitoring Scheme	TMAPBSL4A	NSW

I TMA PBS Level 4B Vehicle Monitoring Scheme

Purpose

The TMA PBS Level 4B Vehicle Monitoring Scheme is a scheme administered by TfNSW to monitor road utilisation of PBS Level 4 access class 'B' (i.e. Level 4B) up to 60 metres in length operating under the applicable NHVR permit on the NSW road network (noting the permit to operate will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable permit on the NHVR website. PBS Level 4B vehicles must be fitted with a TCA-approved telematics device.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the permit and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 4B vehicles on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table I.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA PBS Level 4B Vehicle Monitoring Scheme	TMAPBSL4B	NSW

J TMA PBS Vehicle Mass Monitoring Scheme (NSW)

Purpose

The TMA PBS Vehicle Mass Monitoring Scheme (NSW) is a scheme administered by TfNSW to monitor road utilisation of eligible PBS Level 1–4 vehicles required to monitor mass and vehicle configuration, operating under the applicable instrument of access approval on the NSW road network (noting the Notice and/or permit to operate will be related to this network only, and any other Notices or permits that vehicles operate under are considered separately).

Background

To participate in the scheme, Operators must conform with the requirements specified within the applicable instrument of access approval (see Table 2).

Eligible PBS Level 1–4 vehicles must be fitted with a TCA-approved telematics device and a TCA-approved Smart OBM system.

TfNSW monitors vehicles enrolled in the scheme on routes as described in the instrument of access approval and indicated on network maps available on the TfNSW website.

Scheme Features

Through TAP, the Authority and participating local governments will have access to specific reporting that includes road utilisation of PBS Level 1–4 vehicles required to monitor mass and vehicle configuration on the NSW road network.

Other aspects of this scheme operate in accordance with generic PBS Level 1–4 Vehicle Monitoring processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form.

Table J.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code
TMA PBS Vehicle Mass Monitoring Scheme (NSW)	PBSMASSNSW	NSW



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