

Christchurch Traffic APIs

For reference

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Please note this is an archive of the NZTA InfoConnect webpage available for existing users' reference. This API is no longer available for new account requests.

Getting Started: What is the Christchurch Traffic API?

The TMP for Chch API lets you access information on all known planned events on the roading network within the Christchurch City boundary including Banks Peninsula i.e. the area bounded by the following co-ordinates:

- West Bounding Coordinate 172.393024;
- East Bounding Coordinate 172.808181;
- North Bounding Coordinate -43.390128;
- South Bounding Coordinate -43.628620.

The API makes available two sets of data:

- Road works: This is a list of roadwork locations on the Christchurch Roding Network, along with details of the duration of the work and impacts.
- Planned public events: This is a list of planned public events within Christchurch that have an associated temporary traffic management plan (TMP), including the duration of any road closures and impacts to transport associated with the public event (such as the Christchurch Marathon).

The data is sourced from the Christchurch Transport Operations Centres' (CTOC) Temporary Traffic Management Database (TMPforCHCH.co.nz) and published on the TransportforChristchurch website. If you already subscribe to the NZTA's TREIS highway Info API, you may find some duplication in the information you receive relating to the State Highways within the Christchurch City boundaries, specifically around significant road works and public events which impact a state highway. The two systems have different business rules around the data provided. NZTA and the CTOC cannot take any responsibility for duplication in the data, and it is our expectation that developers using these two feeds will apply their own filters to ensure duplication is removed.

Accessing and using the data

SOAP

<https://infoconnect1.highwayinfo.govt.nz/ic/jbi/TMP/SOAP/FeedService/main.wsdl>

REST

<https://infoconnect1.highwayinfo.govt.nz/ic/jbi/TMP/REST/FeedService/>

Usage instructions

To successfully call the SOAP feed, a ws-security token containing the users credentials must be included in the SOAP header.

A ws-security token looks like:

```
<wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
```

```
  <wsse:UsernameToken>
```

```
    <wsse:Username>...</wsse:Username>
```

```
    <wsse:Password Type="PasswordText">...</wsse:Password>
```

```
  </wsse:UsernameToken>
```

```
</wsse:Security>
```

To successfully call the REST feeds, the user's credentials ('username' and 'password') must be included in the HTTP header.

Fields made available by the SOAP API

Object: TrafficManagementPlan

Attribute	Type	Null	Description	Example
id	int	N		
title	string	N	Title	Ferrymead Bridge Upgrade Works
address	string	N	Nearest street address as provided by the contractor	1070 Ferry Road
startdate	date	N	Date in yyyy-MM-dd format. The Date that the current revision of the Traffic Management Plan begins. As extensions are granted the start date may change and does not necessarily reflect the original start date or the works. This date should not be used for calculating the total duration of works.	2013-04-19
enddate	date	N	Date in yyyy-MM-dd format. The date at which the Traffic Management Plan is scheduled to be completed. This does not always reflect the actual completion date of works and should be regarded as a target date. In practice	2014-03-20

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			extension may be granted or works may be completed ahead of schedule. We rely on contractors to manually close plans when they are completed ahead of schedule.	
publicdescription	string	Y	Public description of plan	One traffic lane in each direction will be maintained using temporary bridges, with a shared cycle-lane and footpath on both sides. Right-turn movements are not possible out of Bridle Path Road and St Andrews Hill Road. Click here to see more.
roadclosurestatus	string	N	Does the Traffic Management Plan contain a Road Closure.	Road Closure
Lastupdated	dateTime	N	Timestamp indicating when this plan was last updated.	2013-02-05T11:34:08
Jobtype	string	N	Type of Traffic Management Plan. Road Works or Event - other types such as incident are likely to be added.	Road Works
Significance	string	N	Public significance used to classify which Traffic Management Plans are likely to be of public importance. Options are Major Roadworks or Roadworks.	Significant / Major
Timeofday	string	N	Time of day the TMP will be active.	All Day (24 hours a day)
Joblevels	tns:stringArray	N	CoPTTM TMP Levels. These have little relevance to the public but may be helpful in classifying traffic impacts.	[Level 1, Level 2, Road Closure]
Trafficimpacts	tns:stringArray	Y	Traffic Impacts that apply	[Capacity Reduction, Vehicle Lane(s) Closed]
Locations	tns:LocationArray	N	All Location objects associated with this plan (excludes Location	

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			objects associated with any road closures of this plan)
Roadclosures	tns:RoadClosureArray	N	All RoadClosure objects associated with this plan

Object: Location

Attribute	Type	Null	Description	Example
type	string	N	focus, road-closure-focus, extent, road-closure-focus, detour, or road-closure-detour. Focus: Represents a centre or focus of activity. Extent: Represents the total area affected. Detour: Represents any required traffic detours.	road-closure-focus
datatype	string	N	point, polygon, or polyline. Describes how the coordinates should be interpreted.	point
coordinates	string	N	WGS84 (GPS) Latitude and Longitude pairs. Encoded as a JSON string of x,y coordinate pair objects. If more than one coordinate exists for this location (e.g., location is a polygon or polyline) the coordinates are returned as an array.	<pre>[{"x": "-43.5287286569079", "y": "172.63242648277287"}, {"x": "-43.528845337575504", "y": "172.63242648277287"}]</pre>

Object: RoadClosure

Attribute	Type	Null	Description	Example
description	string	N	Short description of the road closure. Road closures always have a parent TMP.	Shortland Street: From McHaffies Place to Pages Road
startdate	date	N	Date in yyyy-MM-dd format at which the road closure begins	2013-05-28
enddate	date	N	Date in yyyy-MM-dd format at which the road closure is completed	2013-05-29
locations	tns:LocationArray	N	All Location objects associated with this road closure	

Known limitations

- We are not currently recording the direction of traffic impacts or the affected nodes within the transport network. This includes the direction of lane closures and turn movement restrictions. Without this, the data has limited use as a routing engine / journey planner.
- Because of the dynamic and complex nature of road works in Christchurch the data may not reflect exactly what is physically deployed on the road at any one time.

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