

Annexure 5 - Stage 2 Safety Camera Rollout

(June 2023)

This annexure focuses on the activation of Stage 2 of the safety camera rollout programme. This stage involves having a fixed spot speed camera active on the roadside with appropriate safeguards in place, and a Waka Kotahi team capable of manually verifying and determining offences. It is part of the rollout that allows Waka Kotahi to pressure-test systems and processes on a smaller scale between 30 June 2023 – 30 November 2023 before the cameras go live and start enforcing speeding offences.

Stage 2 includes looking at the camera and the core camera management system and how data is captured, processed and verified. It will have a focus on:

- how data is captured by the camera – including, but not limited to, the use of automatic number plate recognition (ANPR) technology
- how this data is transferred, stored and retained in Redflex (camera vendor) and Waka Kotahi systems (including temporary off-shore storage),
- how offences are manually verified, and
- how infringement notices and traffic offence notices are made ready for issuing (but not issued).

Stage 2 will also involve preparations for testing point-to-point (average speed) camera technology in a controlled (off-road) environment before being trialled roadside in Stage 3. Another annexure to the PIA will be completed ahead of the Stage 3 roadside trial taking place.

Stage 2 will **not** involve:

- sending 'safety notices'
- issuing infringement or traffic offence notices
- point-to-point (average speed) cameras active on the roadside
- use of ANPR technology to collect the vehicle details of every vehicle passing the camera.

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Waka Kotahi intends to activate a new safety camera network starting with a rollout of new HALO spot speed cameras.

Background

The camera rollout programme comprises four stages:

Stage 1 – testing in a controlled environment

Stage 2 – operating roadside, verifying offences but not enforcing

Stage 3 – operating roadside, enforcing offences

Stage 4 - continue camera expansion, including transfer of camera assets from NZ Police

This annexure covers Stage 2 of the rollout.

Description of Stage 2

In this stage:

- one fixed spot speed safety camera will be installed roadside in Te Tai Tokerau Northland
- it will use technology to capture data on vehicles exceeding the set speed threshold, including ANPR to capture licence plate details.
- an interim data repository process will be developed to enable the use of the offence data for verification and infringement issuing process testing
- this data will be used to test the manual verification process to identify whether:
 - a speeding 'offence' has been committed
 - the 'offending' vehicle is clearly identifiable (e.g. if there are two or more vehicles in the image, ensuring the offending vehicle is clearly identified, vehicle attributes such as make and model match those in the Motor Vehicle Register [MVR] for that registration plate etc.)
 - the image quality is sufficient for evidentiary purposes (e.g. no sunbursts, the plate is not blurred, etc).
 - the vehicle registration plate can be matched to the registered person in the MVR
 - there is an address where an infringement offence notice can be sent.
- The offence issuing system will also be tested in so far as infringement notices will be populated but not issued
- Data will also be collected for research and analytics purposes, such as measuring speeds during the test period

Personal Information

Personal information collected will be:

1. Images of the registration number of the vehicle and other meta data will be captured - which may lead to identifying the registered owner of the vehicle.
2. Meta data that includes time, date and location of images and direction of travel.

Use of ANPR technology to collect registration plate details of 'offending' vehicles

ANPR is image-processing technology that converts an image of a registration plate into decipherable text using optical character recognition software without any human intervention. Such technology is critical to the operation of average speed point-to-point cameras. While it is not necessary to operate the HALO spot speed cameras, Waka Kotahi is taking the opportunity in Stage 2 to test the accuracy and reliability of ANPR.

Testing of ANPR technology will focus on matters such as:

- how well does it recognise plates,
- how well it can recognise the fonts used on NZ plates
- how well it converts the plate image into recognisable characters
- how does it cope with vehicles that have a plate in a non-standard place
- whether it can capture vehicle details if several offending vehicles go past or does it miss offending vehicle plates.

ANPR tends to be controversial. It can create concerns about privacy intrusions and other intrusions into civil liberties. A major concern with ANPR is that networks of cameras are capable not only of tracking individuals across a particular journey, but also that retaining that information may build up a database of vehicle movements over time.

The intended controls outlined below aim to mitigate these concerns.

Stage 2 Safety Camera Rollout (cont)

- The data flows will involve:
 - Offending vehicle details flowing from the Redflex camera into the Redflex camera management system
 - A secure network transfer into Waka Kotahi storage, currently sitting with Amazon Web Services (AWS) in Sydney, Australia, for middle office incident file creation
 - transitory storage in AWS only
 - integration through Azure Sydney to middle office incident file storage location for 30 days, ready for offence verification by Waka Kotahi
 - transfer into the New Zealand-based Waka Kotahi verification and offence processing production systems and becoming personal information (by virtue of being linked with registered person details in the MVR) so as to pressure-test the verification/infringement issuing processes prior to enforcing offences in Stage 3.

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Intended Controls

- **Clear purpose for camera use:** The clear purpose of Stage 2 is to have a roadside camera collecting vehicle details in 'test' mode to enable the pressure-testing of the manual verification and infringement issuing processes by Waka Kotahi – without issuing any infringement or traffic offence notices, and not storing personal information for any longer than is necessary to test the verification and infringement issuing processes.
- **Governance:** Safety Camera Programme management will provide oversight and governance to ensure privacy obligations are adhered to throughout Stage 2.
- **No enforcement:** Personal information (in the form of registration plate details that will then be matched to the MVR to identify the registered person for each offending vehicle) will be collected but no enforcement action or infringement notices will be issued.
- **Only critical data will be collected:** only 'offence' data will be captured by ANPR technology. ANPR will not be used to collect and retain the vehicle details of every vehicle that passed the camera. The 'offence' data may include still images and video footage with associated meta-data such as incident day of week, date of offence, time of offence, recorded speed, travel direction indicator, lane indicator, posted speed limit, site code, and a unique incident identifier. Non-personal survey data would also be collected for a research and analytics purpose. This will include anonymised data such as vehicle counts, overall speed data, offences detected, and camera performance metrics.
- **Security:** This data will be encrypted in transit, and at rest. The images will be stored digitally and cannot be overwritten or altered.
- **Offshore storage of offence data:** As noted above, offending vehicle details including registration plates will be stored by Waka Kotahi temporarily with AWS and Azure in Sydney, Australia awaiting transferral into the manual verification/offence processing production systems. Data sovereignty risks will be mitigated by:
 - such storage being temporary until such time as a storage centre is built in New Zealand (expected to be 2024)
 - Waka Kotahi already stores data with AWS and holds security certification and accreditation for this off-shore storage.
 - the data classification meeting security requirements for storage in Australia (and New Zealand)
 - this temporary storage solution will be reviewed for Stage 3 (and will be outlined in the proposed Stage 3 PIA).
- **Clear 3rd party accountabilities and responsibilities:** Redflex (the camera vendor) and temporary Waka Kotahi data storage providers are contractually required to (among other things):
 - comply at all times with New Zealand privacy laws
 - comply at all times with the Privacy at Waka Kotahi the NZ Transport Agency – A Guide for Suppliers and Service Providers (<https://www.nzta.govt.nz/about-us/about-this-site/privacy-guide-for-suppliers-and-service-providers/>)
 - meet Waka Kotahi security standards
 - allow for independent security audits and action audit findings
 - take all reasonable steps to prevent security breaches or unauthorised use
 - notify Waka Kotahi if any breaches or unauthorised use occurs and take steps to identify those involved, stop the occurrence and prevent any reoccurrence.

- **Access to camera** will be managed by security protocols built into the camera. On-site and remote access to the camera and the associated camera management system will be protected by a camera/back office unique identifier, a unique password as well as an additional password to coordinate all the various components to detect and create incident files.
- **User access will be logged:** The cameras record audit-related data for access and operational mode changes by user ID. Audit logs are maintained for access and changes made in the camera management system. Access log information is stored and available for auditing in the camera management system. These logs will be regularly reviewed and audited by the Safety Camera Management System Programme.
- **Data minimisation:** Throughout Stage 2 Waka Kotahi staff will have access to the vehicle data collected by the cameras. This is for the purpose of testing and modifying (if required) the end-to-end verification/offence issuing process, performing quality checks, and resolve issues. These staff will be made aware of their privacy obligations.
- **Limited retention period:**
 - Offence data captured by the Redflex camera will be deleted by Redflex as soon as it passes from the camera management system into the Waka Kotahi production system.
 - Vehicle plate detail held by AWS will be transitory in nature and AWS will be instructed not to retain any data once it passes onto Waka Kotahi systems in Azure. Once with Azure, Waka Kotahi will have full control over storage and retention (refer below for retention policy).
 - Offence data collected in Stage 2 will only be retained in the Waka Kotahi production system up until the end of Stage 2 on 30 November 2023 (i.e.) for a maximum of 5 months. Retention during Stage 2 is to enable re-testing of processes using the same offence data. For example, the same offence data could be used to re-test different verification scenarios. At the end of Stage 2, all offence data will be deleted from its systems by Waka Kotahi.
 - A small number of incident files will however be retained for training purposes but the personal information will be altered so as not to identify the offending vehicle or the registered person.
 - Anonymised survey data such as number of vehicles that passed the camera, and vehicle speeds will be retained indefinitely for research and analytic purposes.
- **Public awareness:**
 - Iwi, hapū, and local communities have been consulted on the roadside camera location
 - A public education strategy will support Stage 2. It will provide details on:
 - what's happening
 - why it is happening
 - when it is happening, and
 - what it means for the public/individuals
 - Use will be made of existing Waka Kotahi Customer Service Centre processes, tools and systems to record and respond to requests regarding the personal information collected in Stage 2.
- **Use of data:** as noted above, the data will be used to collect 'offending' vehicle details to enable the testing of the manual verification and offence issuing processes, and to collect anonymised survey data prior to enforcement getting underway in Stage 3.
- **Disclosure of data:** The only 3rd parties that will have access to offending vehicle details will be those listed above. This information will not be shared with 3rd parties such as NZ Police or Ministry of Justice. Such details will solely be used to pressure-test test the manual verification and offence issuing processes prior to the cameras being used for enforcement purposes in Stage 3.

Recommendations specific to Stage 2 (from wider Waka Kotahi roading management camera PIA)	Recommendation Reference	Action <ul style="list-style-type: none"> • Accepted • Implemented
Establish at an early stage the primary and directly-related purposes for using a roading management camera system and collecting personal information.	R6	Implemented for Stage 2 (refer intended controls)
Establish policy or guidance for each targeted deployment of roading management cameras, that prescribes the expectations of data minimisation so collection of unnecessary personal information is eliminated.	R7	Implemented for Stage 2 (refer intended controls)
Implement a transparency strategy to cover the deployment of a roading management camera system including comprehensive advice through appropriate agency channels.	R8	Implemented for Stage 2 (refer intended controls)
Establish technical security within the roading management camera system and storage that is commensurate with Waka Kotahi responsibility for security	R9	Implemented for Stage 2 (refer intended controls)
Develop a carefully designed set of user roles for access to retained information, ensuring access to personal information is limited to the appropriate staff.	R10	Implemented for Stage 2 (refer intended controls)
Ensure the system logs access to and activity within the roading management camera data and the log is audited.	R11	Implemented for Stage 2 (refer intended controls)
Ensure accountabilities and responsibilities are reflected, and passed on to 3 rd parties who undertake technical storage facilities or business processes on behalf of Waka Kotahi	R12	Implemented for Stage 2 (refer intended controls)
Support staff to use the roading management camera data appropriately through adequate guidance and/or training.	R13	Implemented for Stage 2 (refer intended controls)
Take steps to ensure 3 rd parties recognise and report any data breaches including near misses	R14	Implemented for Stage 2 (refer intended controls)
Create business processes to provide assurance the technical system is accurate and reliable.	R16	Implemented for Stage 2 (refer intended controls)
Create business processes providing for human oversight of roading management data that contributes to decision-making	R17	Implemented for Stage 2 (refer intended controls)
Set retention periods for personal information collected by individual roading management camera systems.	R18	Implemented for Stage 2 (refer intended controls)
Create policy defining the limited purposes for which the roading management camera system collects personal information and reflect the limited purposes in Waka Kotahi retention, use, and disclosure rules.	R21	Implemented for Stage 2 (refer intended controls)

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