

18 October 2018

Jo Lines-MacKenzie  
Reporter  
*Stuff*  
[jo.lines-mackenzie@stuff.co.nz](mailto:jo.lines-mackenzie@stuff.co.nz)

REF: OIA-4211

Dear Jo

**Request made under the Official Information Act 1982**

Thank you for your email of 20 September requesting information under the Official Information Act 1982.

We have responded to each of your questions below, in the order they have been asked:

*1. I would like to know how much has been spent on fixing the rutting that is on Waikato Expressway?*

The sections of the Waikato Expressway that have been impacted by rutting are Te Rapa and Ngaruawahia. Te Rapa opened in December 2012 and Ngaruawahia in December 2013.

The NZ Transport Agency has spent \$755,000 to date on interim rutting repairs on the Te Rapa section.

We have excluded the costs associated with rutting repairs on the Ngaruawahia section because the costs have been undertaken by the construction contractor. To date, the contractor has not sought reimbursement from the Transport Agency for any such costs.

*2. What sections have been repaired the most frequently?*

Three interim repairs have been made to the Te Rapa section, and nine interim repairs have been made to the Ngaruawahia section.

*3. How many times is that?*

See our answer to question 2.

*4. What is the cost of fixing the rutting?*

While we have a total figure, we do not have any specific breakdowns of cost associated with individual rutting repairs as the size and extent of each repair may be different. Please see our answer to question 1.

*5. What is used to fix them?*

See our answer to question 6.

*6. How is the rutting fixed?*

The interim rut repairs to the Te Rapa section has involved milling away the existing surface, applying a 30mm Mix 10 to fill the rut and reapplying 30mm of Open Graded Porous Asphalt (OGPA).

On the Ngaruawahia Section, isolated potholing has been addressed by milling to a depth of between 50mm and 150mm, and reinstating with AC14 Asphalt.

*7. What has caused the rutting?*

On the Ngaruawahia section, we are continuing to work closely with the contractor to determine the root cause of the rutting. The subgrade materials below the pavement used to form the road have performed poorly and have become weaker when moisture content increases. This results in reduced support for the pavement layers and traffic loading makes the pavement susceptible to rutting. As rutting increases, the pavement and road surface start breaking up, allowing more moisture to enter the pavement causing further and rapid deterioration of the pavement.

The pavement designs for the Te Rapa section differed from the Ngaruawahia section in that the pavement is supported by a thick layer of rock-fill overlaying the existing soils. It is currently being confirmed through ongoing investigations that the rock layer consolidated under heavy traffic creating a loss of support for the upper pavement layers which in turn caused rutting and cracking of the road surface. Cracking of the road surface allows moisture to then penetrate and accelerate the damage to the pavement. The Transport Agency is working with experts on a long-term repair solution.

When the issues became apparent with the Te Rapa and Ngaruawahia sections, the Transport Agency set about developing a new pavement design that could be constructed successfully in similar conditions. This new pavement design is currently being constructed on the Longswamp, Huntly and Hamilton sections of the Waikato Expressway.

*8. What is the biggest section of rutting you have had to fix?*

The longest section of rut repairs undertaken by the Transport Agency is approximately 643 metres.

*9. Have there been any official complaints on the rutting?*

The Transport Agency has received one official complaint.

*10. What type of correspondence was that through?*

The complaint was made by email.

*11. What has been the outcome of those complaints?*

We provided the complainant with information on both the work to maintain the road surface, including rutting repairs, and the process being undertaken to identify a permanent solution to the rutting issue.

*12. Have there been any accidents because of the rutting?*

The rutting has not been attributed to any accidents.

*13. Are there any photos or videos that relate to this that you could please include?*

We have enclosed two photos of the Ngaruawahia (Image 1) and the Te Rapa (Image 2) sections that show the rutting.

If you would like to discuss this reply further with the Transport Agency, please contact Natalie Mankelow, Media Manager, by email to [natalie.mankelow@nzta.govt.nz](mailto:natalie.mankelow@nzta.govt.nz) or by phone on 021 928 413.

Yours sincerely

A handwritten signature in cursive script that reads "Chris Hunt".

**Chris Hunt**  
Senior Manager, Delivery