Warkworth to Wellsford
STORMWATER AND FLOODING FACT SHEET

The design, construction and operation of state highways can potentially affect natural waterways and drainage patterns. Although careful consideration is taken during design and route selection, the alignment of some state highways can intercept waterways and overland flow paths, increase erosion rates and potentially increase flood flows.

Stormwater runoff during construction and from the road during operation can impact the quality of water in receiving environments. The NZ Transport Agency aims to mitigate these adverse effects through design and implementing best practice management and water treatment techniques.

During the planning and design process, technical investigations are undertaken that take into consideration engineering, water quality science, freshwater and riparian ecology, landscaping and cultural values. We take a proactive approach to minimising the adverse effects of our activities on receiving environments.

During construction, when the soil is exposed due to earthworks, we adopt best practice methods for the control of erosion and controlof the sediment that is generated. Sedimentation ponds and measures to protect or stabilise the soil surface are implemented, alongside close monitoring by construction personnel. Regular and ongoing checks are made by regulatory authorities, to ensure compliance with relevant consent conditions.

The quantity and flow of stormwater run-off from state highways, if not controlled, can cause flushing and disturbance of receiving water bodies, or erosion where stormwater is discharged to land. Careful design of the conveyance and outfall systems can manage these effects. In order to mitigate flooding, flood modelling can be used to inform the design of the project.

When designing roads, the Transport Agency recognises that vehicles on state highways produce pollutants that mix with rainwater and have the potential to enter surface and groundwater via drains and infiltration. Pollutants from vehicles can include waste products from braking, tyres and exhaust emissions. We treat all stormwater from the highway using a range of devices including constructed wetlands.

THE WARKWORTH TO WELLSFORD PROJECT

The Warkworth to Wellsford project is the second section of Ara Tūhono Pūhoi to Wellsford. The Indicative Alignment travels west of Warkworth and east of both Wellsford and
Te Hana, connecting back into the existing State Highway 1 north of Maeneene and Waimanu Roads.

Engagement and specialist technical investigations have helped us to better understand the area and refine the project design. This has included expert knowledge and consultation with local communities that have highlighted the existing flooding issues along the Indicative Alignment, especially around the Wayby Valley and Kaipara Flats areas.

We have undertaken flood modelling to understand the potential impact of the project on the various waterways and catchments in the area. We are developing a design that will be resilient to flood events as a result of stormwater generated by the project and changes to drainage patterns, without exacerbating existing flooding.

All stormwater from the new highway will be treated using treatment ponds prior to discharging to the receiving environments. Consideration has also been given to how large quantities of earthworks will be managed, to reduce effects associated with sediment discharges. Conditions of consent are also being drafted for stormwater management and mitigation that will be presented at the Council hearing.

CONTACT US

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