

# Flood Recovery Status Update

MONTHLY UPDATE ON WORK COMPLETED

Issued by: Programme Controller | Month: August 2024

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#### **OVERVIEW**

The Recovery Team is focusing on providing information on key priorities as follows:

- Continue responding to our community's needs, in particular isolated communities.
- ▶ Consolidate updates from contractors across Auckland Region with focus on full road closures updates, damage assessment report and budget.
- Coordinating geotechnical assessments with key operational functions, prioritizing safety of staff and communities.
- ▶ Provide a map overview and statistics showcasing the response to road closures across all regions.
- Updating AT websites with current information on the work in progress.

## PROJECT OVERALL STATISTICS

	North Rural	North Urban	West	South Rural	South Urban	Central/ GBI/ WI & Rakino
Total no. of Major Projects	<i>7</i> 8	38	72	22	1	15
Major Active Projects	24	18	51	14	0	10
Major Projects Completed	54	20	21	8	1	5
Projects in Investigation stage	2	5	17	2	0	1
Projects in Design stage	16	9	25	8	0	9
Projects in Construction stage	6	4	9	4	0	1
No. of projects expected to be completed by end of FY24-25	24	18	51	14	0	10

<sup>\*\*:</sup> These figures are correct at the time of issuing this report and are subject to change.

#### **ROAD STATUS**

Currently there are 10 local roads with full closures in place, 22 roads open to single lane, 2 roads open under restrictions, and 9 roads closed – (residents' access only). This remains fluid and will change depending on the road work requirements.



#### **AREA: NORTH URBAN**

#### WORK COMPLETED IN THE LAST MONTH

- ▶ Hinemoa Terrace, Birkenhead
- ▶ John Brian Drive, Redvale (site 1 of 2)

## **PROJECTS IN CONSTRUCTION PHASE**

SITE NAME	ESTIMATED COMPLETION DATE			
Duck Creek Road (2 sites)	February 2025			
Twin Wharf Road, Herald Island	November 2024			

Upcoming sites include Spur Road (Stillwater), Masterton Road (Rothsay Bay), John Brian Drive 2 (Redvale), Raymond Terrace (Birkenhead), Hibiscus Coast Highway (Hatfields Beach).

#### **CONSTRUCTION PROGRESS UPDATE**

➤ DUCK CREEK ROAD: Work started 30 June 2024 to the underslip area. Three timber retaining walls are planned - two on the north (valley) side, measuring 16 metres wide and 86 metres long, and one on the embankment (south) side, 95 metres long. Duck Creek Road remains open, but is reduced to one lane of traffic through the work site. Work is progressing well and is currently on programme (expected completion February 2025).





➤ HINEMOA TERRACE: Repairs to a huge slip on Hinemoa Terrace began in early February 2024 and work was completed in July 2024. We sincerely thank neighbours for their ongoing input and patience throughout the work period.







➤ **JOHN BRIAN DRIVE:** Work at Site 1 began in June and was completed by the end of July. Work included a new retaining wall as well as kerb and channels and pavement. Design and pricing for Site 2 is still being finalised.





> TWIN WHARF ROAD: Work started in April 2024 to repair where the road and footpath have slumped towards the water. Work on stage 1 is well underway. The retaining wall on the seaward side of the road is now complete and the team have begun work on the pole installation on the bank side. Stage two will then start. Temporary stairs are in place to provide access.





#### **ROAD STATUS**

#### **CLOSED**

None

#### OPEN - SINGLE LANE

- > Twin Wharf Road, Herald Island
- > Duck Creek Road, Stillwater

## **OPEN – UNDER RESTRICTION**

> None

#### **CLOSED - RESIDENTS ACCESS ONLY**

None



#### **AREA: NORTH RURAL**

#### WORK COMPLETED IN THE LAST MONTH

- Ahuroa Road, Ahuroa (2 sites)
- Weranui Road, Wainui (2 sites)

## **PROJECTS IN CONSTRUCTION PHASE**

SITE NAME	ESTIMATED COMPLETION DATE			
Weranui Road, Puhoi (649)	September 2024			
Matakana Valley Road, Matakana (4900)	August 2024			
Takatu Rd, Matakana (8300 & 8281)	July 2024			
Ahuroa Road, Puhoi (7784)	August 2024			
West Road, Kaukapakapa (271)	September 2024			
Ridge Road, Riverhead	October 2024			

Upcoming sites include Ridge Road, Riverhead (starting Monday 5 August), Pinchgut Road and Mill Flat Road Bridge.

#### **CONSTRUCTION PROGRESS UPDATE**

➤ AHUROA ROAD: Work east of J Tolhopf (Site RP7784) started on 27 May and is progressing despite the weather and difficult ground conditions. To date 38 of 46 piles have been drilled and concreted.



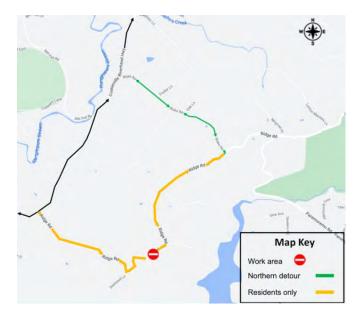


> MATAKANA VALLEY ROAD: Permanent slip repair work began on 28 Feb 2024 and has progressed ahead of schedule. Eight the 10 slip sites along this road are complete, with one in construction (RP4900 shown below) and one in design. 16 piles were installed at site 9 this month. All piling and retaining wall work is now complete at site 9 and pavement work will progress this coming month. Site 10 remains in design and work is planned to begin later in the year.





> RIDGE ROAD: Work is planned to start on Ridge Road from Monday 5 August 2024 to construct two retaining walls and repair the road shoulder. A letter drop to neighbours has been completed and geo-targeted social media advertising is underway to advise of the road closure and extended detour. The detour has residents and motorists utilising -Riverhead Highway and Wake Road, as shown below.



➤ TAKATU ROAD: Work started here in December 2023. Repairs include 5 soil-nailed shotcrete walls and one mass-gravity rock buttress to address the 6 slips identified. The rock buttress works have been completed, along with the guardrail installation.

An additional slip has also been discovered. The team have mobilised during July to install 26 soil nails (shown by the blue paint in the image below) to stabilise the slip. They have been working in challenging wet conditions. During August, the team will install mesh and spray shot-crete, similar to the other slips in the same area.





➤ WERANUI ROAD: On the second site (RP3132), Repairs to the large slip began on 21 May and all 122 piles were drilled by mid-July. The lagging and backfilling were completed throughout the month and the road regraded and opened in this area. A new 'rock mattress' has been installed (see image below) which helps to buffer the stormwater outflow into the Wainui Stream area. Work on the third and final major site, near the bridge at the intersection of Weranui Road and Waiwera Road, will start from 29 July.





> WEST ROAD: Work on West Road started on 1 July 2024 and the first hole was drilled on 11 July. As can be seen in the images below, this area is very soft clay. The team initially drilled to a depth of 9m and then to 11.5m, with no rock found. The team are currently reviewing the design and looking at options to proceed.





> MILL FLAT ROAD BRIDGE: A WhatsApp group has been set up with the Mill Flat Road community to liaise during design and construction. The design stage is now complete. A resource consent has been lodged and the construction is out for tender. Access during Stage 2 construction will be restricted for larger trucks and truck and trailer units. An update had been prepared and submitted to the Local Board, and an update will go out to the community shortly.





#### **ROAD STATUS**

#### **CLOSED**

None

#### **OPEN - SINGLE LANE**

- > Takatu Road, Tāwharanui Peninsula
- Weranui Road, Wainui
- West Road, Kaukapakapa
- Matakana Valley Road, Matakana-Wellsford

#### **OPEN - UNDER RESTRICTION**

None

#### **CLOSED - RESIDENTS ACCESS ONLY**

- > Red Hill Road, Te Arai
- Ridge Road, Riverhead (from 5 August)



## **AREA: SOUTH RURAL & URBAN**

#### WORK COMPLETED IN THE LAST MONTH

Awhitu Road, Awhitu (site 1 of 2)

## **PROJECTS IN CONSTRUCTION PHASE**

SITE NAME	ESTIMATED COMPLETION DATE			
Awhitu Road, Awhitu (Site 2 of 2)	August 2024			
Grahams Beach Road, Manukau Heads	July 2024			
Monument Road, Clevedon (2 sites)	August 2024			

#### **CONSTRUCTION PROGRESS UPDATE**

➤ AWHITU ROAD: Two slips have occurred on Awhitu Road – near property #1966 and near property #2049. The new retaining wall is now in place at the slip near 2049 Awhitu Road. At the slip near #1966 Awhitu Road, work started on 24 June 2024. Soil nails will be used to reinstate the slip area. This is a large slip and will take approximately 6 weeks to complete. The work involves installing soil nails, a concrete retaining wall, guardrail and pavement works.





MONUMENT ROAD: Works started on 24 June 2024 to repair the two slips at Monument Road, with works now well underway and expected to be completed by the end of August. The work involves the construction of a timber retaining wall, drainage improvements, guardrail and pavement works. To date, the team have prepared the site and started installing the timber poles. Retaining wall on one side is complete on site 2. The road is fully closed for construction during construction due to the space required for the construction equipment, a detour has been installed for the general public to provide access to the Hunua/Clevedon area. Residents' access is always available. The road is open at night and at the weekend as a single lane to provide access to through traffic, however, the road is narrow, and caution is required while travelling.



> GRAHAM BEACH ROAD: Works started on May to repair the slip. We have completed the enabling works for the soil nail team to move in and complete stabilisation. The team working on the Awhitu Road will be same crew that will work on Grahams Beach Road and the work will start after the Awhitu Road slip is complete.

#### **ROAD STATUS**

#### **CLOSED**

Manukau Heads Road, Manukau Heads

#### **OPEN - SINGLE LANE**

- > Awhitu Road, Pollok
- Union Road, Mauku

## **OPEN - UNDER RESTRICTION**

None

## **CLOSED - RESIDENTS ACCESS ONLY**

- Monument Road, Clevedon (only during construction)
- McNicol Road, Clevedon



## **AREA: WEST**

## WORK COMPLETED IN THE LAST MONTH

- Gum Road, Henderson Valley
  Yelash Road, Massey
  Bethells Road, Bethells, 4 Sites
  Coulter Road, Swanson
  Mountain Road, Henderson Valley 1 site

## CONSTRUCTION PHASE – NEXT 3 MONTHS

SITE NAME	ESTIMATED COMPLETION DATE				
Bethells Road, Waitakere (1 Sites)	August 2024				
Karekare Road, Piha	December 2024				
Lone Kauri Road, Piha	February 2025				
Mountain Road, Henderson Valley (2 sites currently in construction, 5 sites awaiting construction)	December 2024				
Scenic Drive, North Swanson	September 2024				
Scenic Drive, Waiatarua (on hold)	Unknown- pending Cat 3 buy-out process				
Takahe Rd, Titrangi	September 2024				
Wairere Road, Rooster Ridge (2 x sites)	August 2024				
Wairere Road, S bend past Caton	Unknown				
Scenic Drive, Titirangi	October 2024 - pending programme update				
Scenic Drive, Arataki	September 2024				
Scenic Drive between Shaw Road and Arataki - 3 sites	Unknown				
Whatipu Road	August 2024				
Forest Hill Road, Waiatarua	August 2024				
Kellys Road, Oratia	Unknown, pending Vector works				
Scenic Drive, Auckland City Lookout, Waitatarua	August 2024				
Glenesk Road, Piha	August 2024				
Kay Road, Swanson	Dec 2024				
Te Henga Road, Waitakere	Unknown				



#### **CONSTRUCTION PROGRESS UPDATE**

> 73 BETHELLS ROAD, (NEAR STEAM HAULER TRACK): This slip repair has included a 30-metre-long, 2-metre-high stone wall to support the road. Over 500 cubic meters of material has been removed from the site.

Additional drainage issues were identified during the works, which were then coordinated with other works in the area. This has meant the work took longer than originally planned, but the repair will be more resilient for the future.

We expect this site to be finished in the first week of August.

4 other sites on Bethells Road were completed in July. One large site remains to be repaired in drier months and will be programmed for the summer.



Block retaining wall almost complete

> TE HENGA ROAD: We are preparing to begin works between number 60 and 66 Te Henga Road. This section of the road is currently partially closed with a one-lane closure in place. We will be repairing the large slip which is currently extending across half of the road. A retaining wall will be constructed to support the road.

We are planning to start works on 12th August. Works will take up to 2 months to complete, weather dependent.







- > FOREST HILL ROAD, WAIATARUA: Works began outside 346 Forest Hill Road, Waiatarua, on 13 May 2024. The road is closed. During the works, we discovered that powerlines need to be moved. This work was completed by Vector, and we are now on track to complete this work and open the road in mid-August.
- > GLENESK ROAD, PIHA: Works began on Glenesk Road on 25 March 2024. Downer on behalf of Auckland Transport (AT) are undertaking slip repair works outside numbers 7 and 19 Glenesk Road. This involves the construction of a retaining wall, repair of the footpath and shoulder. This work is almost complete with the resurfacing to be done when we have a fine patch of weather.



Slip repair on Glenesk Road

> GUM ROAD, HENDERSON VALLEY: Work was started and completed in July to repair the slip near 11 Gum Road. This work included installation of Gabion baskets to stabilize the bank. The road is reopened, and the work is complete.



Slip repair on Gum Road Henderson Valley



➤ KAREKARE ROAD AND LONE KAURI ROAD, KAREKARE: Slip repair works have progressed well on Karekare Road and Lone Kauri Road. The first round of works is due to be completed on Lone Kauri Road at the start of August. Works will then move back to Karekare Road until December 2024 to complete two remaining sites (K4 and K5). Following Karekare Road completion, Lone Kauri Road will then be closed again in January 2025 to complete one more site (L4). The Contractors will try and maintain a traffic lane after hours (when no work is happening), but this is unconfirmed and will depend on available room on site. More information about road closures will be provided when the dates are confirmed.

There is also rock-scaling work being completed in the next month on Karekare Road at The Cutting where rocks and debris are falling from the bank above the road. This is near the top site, which was completed earlier this year.



One of the completed sites on Karekare Road, Karekare

MOUNTAIN ROAD: Work on Mountain Road is continuing to progress well, with roadworks underway. This includes soil nailing, and shotcreting and work is expected to continue until end of 2024. We have completed 3 sites and are currently working on the next 2 sites. Work on Mountain Road is restricted by the narrow width of the road. Logistics involved with transporting equipment can restrict how many repair activities can be carried out at the same time.



 $Work\ on\ Mountain\ Road-image\ shows\ the\ narrow\ nature\ of\ Mountain\ Road$ 



> SCENIC DRIVE, NORTH SWANSON: Repairs are being made to the carriageway and the drainage on this section of the road. This will be completed under stop/go traffic management and one lane will be open at most times. There may be a time when the road will be closed in short periods of up to 15mins if required. This repair work is expected to be completed in September 2024







Works on Scenic Drive, North Swanson

> RP 8.25 412 SCENIC DRIVE, NEAR ARATAKI: The excavation of this site took longer than expected, with poor ground conditions. A lot of the material had to be removed from site and its condition meant that it was unable to be reused. All piling is now complete and new retaining wall built. The Contractor is now backfilling and compacting material behind the new wall before completing finishing works. Completion is now anticipated at start of September. Vector will be moving the power from temporary generator and reinstating the permanent power poles in middle of August.



Works progressing, with backfill and culvert works.



Retaining wall construction on the site on Scenic Drive, just past Arataki



> SCENIC DRIVE, TITIRANGI RP 0.75, RP0.85, RP0.9: We started work on 27 February 2024. This site has had some over slips occur and some – rocks falling from above, which we are investigating. As a result, we have had to close the pedestrian access and the other culvert works through the site. Pedestrians need to go via Kohu Road.

## Within the closure there are three key sites:

**Site RPo.75** (**750m from Roundabout**) – The new retaining wall is now built, and they are backfilling behind the new wall.



Retaining wall constructed at Titiangi end of Scenic Drive.

#### Site RPo.8o (800m from Roundabout)

This site was discovered during the works, and there is likely to be an imminent failure or slip here. The ground under the road is likely to fail, and we will need to build a retaining wall of 74m long to protect this section of the road before we can reopen the road.

This site will join up the two retaining walls at RPo.75 and RPo.90, this is in the last design phase, but the programme for works, including the manufacturing of the steel piles will push out the finish date of this site.

It is also anticipated that an overslip in this area requires more stabilisation works than originally anticipated. This is currently being investigated and reviewed.

Site RPo.90 (900m from the Roundabout) - The retaining wall is completed, and the team are backfilling the road.



RP0.90 Scenic Drive Titirangi



**Rockfall and Embankment instability** – The contractors began work in July on Rock scaling on the embankment above the road. This involves abseiling on the embankment to check for any unstable portions and to remove these rocks, and stablise the embankment. We have had great support from residents above the embankment to allow access across their properties to do this work.

SCENIC DRIVE (NEAR TO THE AUCKLAND CITY LOOKOUT): The soil nail wall has been completed and finishing works remain (guardrail and drainage). This site is expected to be fully complete by middle of August.



Scenic Drive, Auckland City Look-out slip repair, soil nail wall complete.

TAKAHE ROAD, TITIRANGI: Works to repair the slip on Takahe Road began on Monday 17 June. The road is fully closed during the works around number 32. The work is expected to take 12 weeks to complete (weather dependent) and is currently progressing on track.



Slip repair during July on Takahe Road



➤ WAIRERE ROAD: Two slips will be completed early August at the "Roster Ridge" section of Wairere Road, where there is one lane closed. We expect by the end of the second week of August this section of the road will reopen to two-way traffic.



Damaged material being removed from under the pavement on Wairere Road, at Rooster Ridge.

We have reviewed the geotechnical testing that was completed at the large site outside 349 Wairere Road and the proposed repair involves digging out the failed section of road and reconstructing it along with upgrades to adjacent drainage. This will include a full closure of the road. This is the only access point for Wairere, Mildon, Horsman and Jonkers Roads. We are currently working with the community to establish a timetable when the road will be open for a short time during the day for vehicles to come in and out. After hours we expect the road will be open to one lane. Work is likely to commence in October.



Wairere Road slip site 349 Wairere Road

➤ WOODLANDS PARK ROAD, WAIMA: Further geo tech testing is completed, and we are currently in the repair design phase for Woodland Park Road. As this road is currently a part of the detour route for the works on Scenic Drive, the repair work will be scheduled once Scenic Drive, Titirangi is completed.



YELASH ROAD, MASSEY: Construction near 13 Yelash Road in Massey is completed.



Slip repair underway on Yelash Road

#### **ROAD STATUS**

#### **CLOSED**

- ➤ Kay Road, Waitakere
- > Takahe Road, Titirangi
- Paturoa Road 17, Titirangi
- Scenic Drive, Titirangi, Woodlands Park Road to Titirangi
- > Scenic Drive, Waiatarua, West Coast Road to Arataki Visitors Centre
- Kohu Road, Titirangi, Western End
- ➤ Te Henga Road, Bethells, will be closed from 12 August
- Mountain Road, Henderson Valley
- Forest Hill Road, Oratia

#### **OPEN - SINGLE LANE**

- ➤ Huia Road, Titirangi
- > Huia Road, Piha
- ➤ Huia Road 634, Titirangi
- Karekare Road, Piha
- > Kellys Road, Glen Eden or Oratia
- Konini Road 157, Titirangi
- > Tanekaha Road 28, Titirangi
- Tasman View Road, Te Henga
- > Taunton Road 45, Blockhouse

#### **OPEN - UNDER RESTRICTION**

- Piha Road, Piha (2 sites)
- Rayner Road, Piha

#### **CLOSED – OPEN TO RESIDENTS ONLY**

- ➤ Glenesk Road, Piha
- Karekare Road, Karekare
- ➤ Lone Kauri Road, Karekare
- Mountain Road, Henderson Valley
- Scenic Dr, Waiatarua Slip at #412 Scenic Drive closed between Forest Hill Rd and North Way



## AREA: CENTRAL (URBAN)/ WAIHEKE & RAKINO ISLANDS/ GREAT BARRIER ISLAND

## WORK COMPLETED IN THE LAST MONTH

> Waikowhai Road, Hillsborough

## **PROJECTS IN CONSTRUCTION PHASE**

SITE NAME	ESTIMATED COMPLETION DATE		
203-231 Orapiu Road, Cowes Bay, Waiheke Island	September 2024		

## **CONSTRUCTION PROGRESS UPDATE**

**WAIKOWHAI ROAD, HILLSBOROUGH:** Construction work began on 29 April and was completed early July 2024. The construction team repaired the slip using a Soil Nail and Concrete retaining wall.











➤ ORAPIU ROAD, COWES BAY, WAIHEKE: Construction started on 24 June 2024 and is expected to be completed ahead of schedule in August 2024. The repair consists of a 45m long retaining wall with steel piles. The repair is progressing well with the steel beams in place and timber lagging 50% through installation. The road is restricted to one lane and about 200m meter of road around the slip is be affected. A Stop/Go is operating during construction hours 7am-7pm and a traffic light system is in place after hours.





#### **ROAD STATUS**

## **CLOSED**

None

#### **OPEN - SINGLE LANE - STOP/GO**

- Shoal Bay Road, Tryphena
- > Orapiu Road, Cowes Bay
- > Hekerua Road, Little Oneroa, Waiheke Island
- ➤ View Road, Waiheke Island
- Wharf Road (by Boat Ramp), Ostend, Waiheke Island

#### **OPEN - UNDER RESTRICTION**

> None

#### **CLOSED - RESIDENTS ACCESS ONLY**

None



## APPENDIX 1 - REGION-WIDE DETAILED SITE INFORMATION

Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
Central Urban	Hillsborough	Waikowhai Road	34595	200	Under slip	Open - Single Lane	Design
Great Barrier Island	Shoal Bay	Shoal Bay Road	34415	2292	Under slip	Open - Single Lane	Design
Great Barrier Island	Tryphena	Cape Barrier Road	33406	1522	Under slip	Open - Normal	Complete
Great Barrier Island	Awana #3	Aotea Road	35034	19498	Under slip	Open - Single Lane	Design
Great Barrier Island	Blind Bay	Blind Bay Road	33342	6015	Under slip	Open - Single Lane	Complete
Great Barrier Island	Awana #1	Aotea Road	35034	8274	Under slip	Open - Normal	Design
Great Barrier Island	Awana #2	Aotea Road	35034	8638	Under slip	Open - Single Lane	Design
Great Barrier Island	Whangaparapara	Whangaparapara Road	34647	2922	Under slip	Open - Single Lane	Complete
Waiheke Island	Cowes Bay	203-231 Orapiu Road	34189	1995	Under slip	Open - Single Lane	Design
Waiheke Island	Little Oneroa	40 Hekerua Road	33765	175	Under slip	Open - Single Lane	Design
Waiheke Island	Ostend	Wharf Road / Waitai Road	34606	460	Under slip	Open - Normal	Complete
Rakino		South Pacific Road	34963	0	Under slip	Open - Single Lane	Design
Rakino		Jane York Place	34964	100	Under slip	Open - Single Lane	Investigation
Waiheke Island		The Esplanade Seawall (opposite 46 Moa Avenue)	34515	170	Scouring	Open - Normal	Scoping
West (Ventia)	Waitakere	Bethells Road	41069	3790	Under slip	Open - Normal	Approval
West (Ventia)	Waitakere	Bethells Road	41069	2799	Under slip	Open - Single Lane	Construction
West	Waitakere	Bethells Road	41069	9315	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Bethells Road	41069	9308	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Bethells Road	41069	11036	Under slip	Open - Normal	Complete

Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
West (Ventia)	Waitakere	Caton Road 16	41033	91	Under slip	Open - Residents Only	Construction
West (Ventia)	Massey	Chamberlain Road	41020	1675	Under slip	Open - Normal	Complete
West	Piha	Glenesk Road	40862	61	Under slip	Open - Residents Only	Construction
West	Piha	Glenesk Road	40862	178	Under slip	Open - Residents Only	Construction
West (Ventia)	Piha	Huia Road	40787	12500	Under slip	Open - Normal	Investigation
West (Ventia)	Titirangi	Huia Road	40787	4072	Under slip	Open - Single Lane	Investigation
West (Ventia)	Piha	Huia Road	40787	11347	Under slip	Open - Normal	Investigation
West (Ventia)	Titirangi	Huia Road 634	40787	6384	Footpath collapsed	Open - Normal	Investigation
West (Ventia)	Titirangi	Huia Road 81-85	40787	916	Under Slip	Open - Normal	Investigation
West (Ventia)	Titirangi	Huia Road	40787	13700	Under slip	Open - Normal	Scoping
West	Piha	Karekare Road	40758	582	Under slip	Open - Residents Only	Design
West	Piha	Karekare Road	40758	1260	Under slip	Open - Under Restrictions	Complete
West	Piha	Karekare Road	40758	1141	Under slip	Open - Under Restrictions	Complete
West	Piha	Karekare Road	40758	150	Under slip	Open - Single Lane	Complete
West (Ventia)	Waitakere	Kay Road	40758	1090	Under slip	Closed	Investigation
West (Ventia)	Glen Eden or Oratia	Kellys Road	40747	240	Under slip	Open - Single Lane	Design
West (Ventia)	Oratia	Kellys Rd int w/ West Coast Rd	40741	5954	Over Slip	Open - Normal	Complete
West (Ventia)	Titirangi	Konini Road 157	40718	1501	Under slip	Open - Single Lane	Investigation
West	Laingholm	Laingholm Drive	41208	0	Bridge/structure Failure	Open - Normal	Investigation
West	Laingholm	Laingholm Drive-Helios Place	40716	300	Over Slip	Open - Normal	Design
West	Laingholm	Laingholm Drive 182	40716	2250	Over Slip	Open - Normal	Design
West	Piha	Lone Kauri Road	40690	2085	Under slip	Open - Residents Only	Construction



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
West	Piha	Lone Kauri Road	40690	600	Under slip	Open - Residents Only	Design
West	Piha	Lone Kauri Road	40690	2500	Under slip	Open - Residents Only	Investigation
West	Piha	Lone Kauri Road	40690	5170	Under slip	Open - Under Restrictions	Complete
West (Ventia)	Henderson Valley	Mountain Road	40610	655	Under slip	Closed	Construction
West (Ventia)	Henderson Valley	Mountain Road	40610	712	Under slip	Closed	Design
West (Ventia)	Henderson Valley	Mountain Road	40610	899	Under slip	Closed	Investigation
West (Ventia)	Henderson Valley	Mountain Road	40610	1318	Under slip	Closed	Investigation
West (Ventia)	Henderson Valley	Mountain Road	40690	636	Under slip	Closed	Construction
West (Ventia)	Henderson Valley	Mountain Road	40610	1387	Under slip	Closed	Investigation
West (Ventia)	Henderson Valley	Mountain Road	40610	1468	Under slip	Closed	Investigation
West (Ventia)	Henderson Valley	Mountain Road	40610	2775	Under slip	Closed	Design
West (Ventia)	Henderson Valley	Mountain Road	40610	1664	Under slip	Closed	Investigation
West (Ventia)	Henderson Valley	Mountain Road	40610	1833	Under slip	Closed	Investigation
West (Ventia)	Titirangi	Ngaio Road		25	Over Slip	Open - Normal	Investigation
West (Ventia)	Henderson Valley	Opanuku Road	40572	1265	Under slip	Open - Normal	Scoping
West (Ventia)	Henderson Valley	Opanuku Road	40610	1536	Under slip	Open - Normal	Scoping
West (Ventia)	Titirangi	40 Otitori Bay Road	40570	270	Under slip	Open - Single Lane	Construction
West	Titirangi	Paturoa Rd 15	40545	260	Under slip	Open - Normal	Design



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
West	Titirangi	Paturoa Road	40545	200	Under slip	Closed	Design
West	Piha	Piha Road	40533	12782	Under slip	Open - Under Restrictions	Complete
West	Piha	Piha Road	40533	12782	Under slip	Open - Under Restrictions	Design
West	Piha	Rayner Road	40487	560	Under Slip and Over Slip	Open - Under Restrictions	Investigation
West (Ventia)	Massey	Red Hills Road	40485	2150	Under slip	Open - Normal	Investigation
West (Ventia)	Waiatarua	Scenic Dr	40442	6580	Under slip	Open - Single Lane	Investigation
West (Ventia)	Waiatarua	Scenic Dr	40442	6735	Under slip	Open - Normal	Complete
West	Waiatarua	Scenic Dr	40442	6770	Under slip	Closed	Construction
West	Swanson	Scenic Dr	40442	12500	Road Surface	Open - Normal	Design
West	Titirangi	Scenic Dr	40442	900	Under slip	Open - Single Lane	Design
West	Titirangi	Scenic Dr	40442	750	Under slip	Open - Single Lane	Design
West	Waiatarua	Scenic Dr	40442	9500	Under slip	Open - Normal	Design
West	Waiatarua	Scenic Dr	40442	8250	Under slip	Closed	Construction
West	Waiatarua	Scenic Dr	40442	850	Under slip	Open - Normal	Scoping
West	Oratia	Shaw Rd	40442	3720	Road Surface	Open - Normal	Investigation
West	Henderson Valley	Simpson Road	40427	1850	Bridge/structure Failure	Open - Normal	Design
West (Ventia)	Waitakere	Stoney Creek Drive	11354	775	Over Slip	Open - Normal	Investigation
West (Ventia)	Waitakere	Stoney Creek Drive	11354	850	Under slip	Open - Normal	Investigation
West	Titirangi	Takahe Rd	40359	261	Under slip	Closed	Construction
West (Ventia)	Titirangi	Tanekaha Road 28	40351	513	Under slip	Open - Normal	Investigation
West (Ventia)	Te Henga	Tasman View Road	40345	65	Under slip	Open - Single Lane	Investigation
West (Ventia)	Blockhouse Bay	Taunton Road 45	40359	119	Under slip	Open - Single Lane	Investigation
West	Waitakere	Te Henga Road	31321	0	Under slip	Open - Under Restrictions	Design
West	Waitakere	Te Henga Road	31321	1600	Under slip	Open - Single Lane	Design



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
West	Titirangi	Titirangi Beach Rd	40312	375	Under slip	Open - Normal	Construction
West	Titirangi	Titirangi Beach Rd	40312	735	Under slip	Open - Normal	Construction
West	Titirangi	Titirangi Road	40310	4246 (418)	Under slip	Open - Normal	Complete
West	Waitakere	Wairere Road	11111	3427	Under slip	Open - Normal	Design
West		West Coast Road	40204	5267	Under slip	Open - Normal	Design
West (Ventia)	Huia	Whatipu Road	40234	3762	Under slip	Open - Normal	Investigation
West		Woodlands Park Road	40223	1511	Under slip	Open - Normal	Design
West (Ventia)		42 Otitori Bay Road	40565	247	Under slip	Closed	Construction
West		Vineyard Road	40271	615	Under slip	Open - Normal	Complete
North Urban	Birkenhead	Hinemoa Tce	22901	11	Under slip	Closed	Construction
North Urban	Redvale	John Brian Dr	11479	30	Under slip	Open - Under Restrictions	Construction
North Urban	Albany	Bush Rd	20057	33	Under slip	Open - Normal	Investigation
North Urban	Matakatia	Hobbs Rd		127	Under slip	Open - Normal	Complete
North Urban	Herald Island	Twin Wharf Rd	40293	149	Under slip	Open - Single Lane	Construction
North Urban	Lucas Creek	Paremoremo Rd Site #1	20059	166	Under slip	Open - Normal	Complete
North Urban	Bayswater	Sir Peter Blake Pde	24116	180	Under slip	Open - Normal	Complete
North Urban	Northcote	Raymond Tce	20560	230	Under slip	Open - Normal	Design
North Urban	Redvale	John Brian Dr	11479	240	Under slip	Open - Under Restrictions	Design
North Urban	Birkenhead	Inkster St	22094	267	Under slip	Open - Normal	Complete
North Urban	Greenhithe	Rahui Rd		304	Under slip	Open - Normal	Investigation
North Urban	Stanmore Bay	Riverhaven Dr	80482	358	Under slip	Open - Normal	Complete
North Urban	Albany Heights	Albany Heights Road		545	Under slip	Open - Normal	Design
North Urban	Albany	Gills Road	20665	591	Under slip	Closed	Complete
North Urban		Masterton Road		663	Under slip	Open - Under Restrictions	Design
North Urban	Greenhithe	Tauhinu Rd	20056	723	Under slip	Open - Normal	Complete
North Urban	Stanmore Bay	Scott Rd	10849	920	Under slip	Open - Normal	Complete
North Urban	Paremoremo	Elmore Road 93		940	Drainage	Open - Normal	Construction



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
North Urban	Glenfield	Kaipatiki Rd (Rp1077)	20045	1077	Under slip	Open - Normal	Complete
North Urban		Ridge Road	10805	1160	Under slip	Open - Normal	Complete
North Urban	Riverhead	Ridge Road	10805	1188	Under slip	Open - Normal	Complete
North Urban	Riverhead	Ridge Road	10805	1234	Under slip	Open - Normal	Complete
North Urban	Whangaparoa	Wade River Rd	10998	1615	Under slip	Open - Single Lane	Design
North Urban		Lonely Track Road		1930	Under slip	Open - Normal	Design
North Urban	Stillwater	Duck Creek Road Improvements	10244	2360	Under slip	Open - Normal	Investigation
North Urban	Stillwater	Spur Rd	10890	2465	Under slip	Open - Under Restrictions	Design
North Urban	Stillwater	Duck Creek Road Emergency Works	10244	2503	Under slip	Open - Normal	Design
North Urban	Paremoremo	Paremoremo Rd Site #2	20059	2794	Under slip	Open - Normal	Complete
North Urban	Torbay	Glenvar Rd	20741	3030	Under Slip	Open - Normal	Complete
North Urban	Paremoremo	Paremoremo Rd Site #3	20059	3275	Under slip	Open - Normal	Complete
North Urban	Whenuapai	Brigham Creek Road	41049	3655	Under slip	Open - Normal	Investigation
North Urban	Paremoremo	Paremoremo Rd Site #4	20059	3773	Under slip	Open - Single Lane	Complete
North Urban	Orewa	Hibiscus Coast Hwy 987		3850	Drainage	Open - Normal	Scoping
North Urban	Albany Heights	Dairy Flat Highway #2	25002	4252	Under slip	Open - Normal	Complete
North Urban	Waiwera	Weranui Rd	11034	2152	Under slip	Open - Normal	Complete
North Urban		Hibiscus Coast Hwy		4676	Drainage	Open - Normal	Scoping
North Urban	Albany Heights	Dairy Flat Highway #1	25002	4784	Under slip	Open - Normal	Complete
North Urban	Hadfields Beach	Hibiscus Coast Hwy		6155	Under slip	Open - Normal	Design
North Urban	Orewa	Hibiscus Coast Hwy 533		6350	Drainage	Open - Normal	Investigation
North Urban	Redvale	East Coast Road		9916	Under slip	Open - Normal	Design
North Urban		Hibiscus Coast Highway	80271		Over Slip		Complete
South Rural	Karaka	Linwood Rd 1	70340	9100	Under slip	Open - Normal	Complete
South Rural	Waiuku	Linwood Rd 2	70340	8750	Under slip	Open - Normal	Complete
South Rural	Manukau Heads	Manukau Heads Rd	70383	6960		Closed	Design
South Rural	Clevedon	Monument Rd	51939	6000	Under slip	Open - Single Lane	Design
South Rural	Clevedon	Monument Rd	51939	6400	Under slip	Open - Single Lane	Design



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
South Rural	Hunua	Moumoukai Hill Rd	51946	3440	Under slip	Open - Normal	Design
South Rural	Clevedon	Otau Mountain Rd	52049	3300	Under slip	Open - Normal	Complete
South Rural	Awhitu Rural	Awhitu Rd	70028	23454	Over Slip	Open - Single Lane	Construction
South Rural	Wiauku	Kohekohe Kariotahi	70061	3500	Under slip	Open - Normal	Design
South Rural	Pukekohe	East St (Pukekohe)	70490	285	Over Slip	Open - Normal	Complete
South Rural	Awhitu Rural	1966 Awhitu Road	70028	23750	Under slip	Open - Single Lane	Construction
South Rural	Mauku	Union Road	70614	2346	Under slip	Open - Normal	Design
South Rural	Awhitu	Kemp Road	70312	3455	Under slip	Open - Normal	Design
South Rural	Awhitu	Te Toro Road	70590	740	Under slip	Open - Normal	Design
South Rural	Karaka	Urquhart Road	70616	295	Under slip	Open - Normal	Investigation
South Rural	Manukau Heads	Grahams Beach Road	70225	780	Under slip	Open - Normal	Construction
South Rural	Hunua	Hunua Gorge Road	60473	2098	Under slip	Open - Normal	Design
South Rural	Patumahoe	Kingseat Road	70321	2680	Under slip	Open - Normal	Complete
South Rural	Hunua	Skyhigh Road	70398	2575	Under slip	Open - Single Lane	Construction
South Rural	Clevdon	McNicoll Road	51887	0	Under slip	Open - Under Restrictions	Investigation
South Urban	Cockle Bay	Marine Parade	51830	392	Under slip	Open - Normal	Complete
South Rural	Whakatiwai	East Coast Road	70162		Over Slip	Open - Single Lane	Design
North Rural		Tuhirangi Road		2650			Design
North Rural	Warkworth	Moir Hill Rd	10643	111	Under slip - Major	Open - Normal	Complete
North Rural	Leigh	Goat Island Rd	10346	133	Under slip - Major	Open - Single Lane	Complete
North Rural	Warkworth	Moir Hill Rd	10643	162	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	10643	198	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	10643	279	Under slip - Major	Open - Normal	Complete
North Rural	Dome Valley	Waiwhiu Rd	11014	498	Under slip - Major	Open - Normal	Complete



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
North Rural	Te Arai	Atkins Rd/493	10043	500	Under slip - Major	Open - Normal	Complete
North Rural		Wishart Rd	11079	961	Under slip - Major	Open - Normal	Design
North Rural		Wishart Road		961	Under slip - Major		Investigation
North Rural	Kaukapakapa	Pinchgut Rd	10744	1015	Under slip - Major	Open - Normal	Design
North Rural	Coatesville	Potter Rd	10764	1259	Under slip - Major	Open - Normal	Design
North Rural	Snells Beach	Mahurangi East Rd	10570	1450	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	10643	1531	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	10529	1550	Under slip - Major	Open - Single Lane	Complete
North Rural	Mahurangi East	Ridge Rd	10806	1672	Under slip - Major	Open - Normal	Design
North Rural	Puhoi	Krippner Rd	10529	1821	Under slip - Major	Open - Normal	Complete
North Rural	Waitoki	Kahikatea Flat Rd	10479	1877	Under slip - Major	Open - Normal	Complete
North Rural	Wainui	Haruru Rd	10397	1990	Under slip - Major	Open - Normal	Complete
North Rural	Wainui	Haruru Rd	10397	1993			Complete
North Rural	Puhoi	Krippner Rd	10529	2074	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	10529	2214	Under slip - Major	Open - Normal	Complete
North Rural	Dome Forest	Smyth Rd	10879	2301	Under slip - Major	Open - Single Lane	Investigation
North Rural	Warkworth	Moir Hill Rd	10643	2317	Under slip - Major	Open - Normal	Complete



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
North Rural	Puhoi	Krippner Rd	10529	2351	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	10529	2400	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	10529	2475	Under slip - Major	Open - Single Lane	Complete
North Rural	Puhoi	Krippner Rd	10529	2506	Under slip - Major	Open - Single Lane	Complete
North Rural	Puhoi	Krippner Rd	10529	2550	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd (This Is Not A Duplicate!)	10529	2584	Under slip - Major	Open - Normal	Construction
North Rural	Puhoi	Krippner Rd	10529	2626	Under slip - Major	Open - Single Lane	Complete
North Rural		Tuhirangi Road		2650			Design
North Rural	Puhoi	Krippner Rd	10529	2656	Under slip - Major	Open - Normal	Complete
North Rural	Leigh	Pakiri Rd	10719	4013	Under slip - Major	Open - Normal	Design
North Rural	Leigh	Pakiri Rd	10719	4218	Under slip - Major	Open - Normal	Complete
North Rural	Makarau	Makarau Rd	10582	4740	Under slip - Major	Open - Normal	Complete
North Rural		Makarau Road		4740	Under slip - Major		Complete
North Rural	Matakana	Matakana Valley Rd(Not A Duplicate)	10604	5875	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Matakana Valley Rd	10604	5990	Under slip - Major	Open - Normal	Construction
North Rural	Matakana	Takatu Rd	10915	6109	Under slip - Major	Open - Single Lane	Complete
North Rural	Puhoi	Weranui Rd (Rural)	80451	6280	Under slip - Major	Open - Normal	Design
North Rural	Matakana	Matakana Valley Rd	10604	7037	Under slip - Major	Open - Single Lane	Construction



Area	Suburb	Road Name	Road ID	Fault RP	Failure type	Road status	Stage
North Rural	Matakana	Matakana Valley Rd (Apart of RP7037)	10604	7091 (7037)	Over Slip - Major	Open - Single Lane	Construction
North Rural	Puhoi	Weranui Rd (Rural)	80451	7312	Over Slip - Major	Open - Normal	Investigation
North Rural	Matakana	Matakana Valley Rd	10604	7500	Under slip - Major	Open - Normal	Construction
North Rural	Puhoi	Ahuroa Rd(Included In The July/Aug23)	10003	7540	Under slip - Major	Open - Normal	Construction
North Rural	Puhoi	Ahuroa Rd	10003	7555	Under slip - Major	Closed	Construction
North Rural	Matakana	Matakana Valley Rd	10604	7604	Under slip - Major	Open - Normal	Construction
North Rural	Matakana	Matakana Valley Rd	10604	7730	Under slip - Major	Open - Normal	Construction
North Rural	Matakana	Takatu Rd	10915	7852	Over Slip - Major	Open - Normal	Construction
North Rural	Wainui	Wainui Rd (Albert Su- July/Aug23 Storm)		7960	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Takatu Rd	10915	8281	Under slip - Major	Open - Normal	Construction
North Rural		Takatu Rd	10915	8290	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Ahuroa Rd (Hill)- Realignment	10003	8330	Under slip - Major	Closed	Construction
North Rural	Matakana	Takatu Rd	10915	8381	Under slip - Major	Open - Normal	Construction
North Rural	Puhoi	Ahuroa Rd (Hill)- Realignment	10003	8400	Under slip - Major	Closed	Construction
North Rural	Puhoi	Ahuroa Rd (Hill)- Realignment	10003	8530	Under slip - Major	Closed	Construction
North Rural	Puhoi	Ahuroa Rd	10003	8710	Under slip - Major	Closed	Construction
North Rural	Kaipara Flats	Tauhoa Rd	10925	9516	Under slip - Major	Open - Single Lane	Complete
North Rural	Wainui	Haruru Rd	10397	9536	Under slip - Major	Open - Normal	Complete



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North Rural	Leigh	Pakiri Rd	10719	12768	Under slip - Major	Open - Normal	Complete
North Rural	Woodcocks	West Coast Rd (Woodcocks)	11035	13570	Under slip - Major	Open - Normal	Complete
North Rural	South Head	South Head Rd	10884	23717	Under slip - Major	Open - Normal	Complete
North Rural	South Head	South Head Rd	10884	35389	Under slip - Major	Open - Normal	Investigation
North Rural	Woodcocks	West Coast Rd (Woodcocks)	11035	10429 (11900)	Under slip - Major	Open - Normal	Complete
North Rural	Tahekeroa	Tahekeroa Rd (Kiwi Rail)	10912		Over Slip - Major	Open - Normal	Complete

