

Flood Recovery Status Update

MONTHLY UPDATE ON WORK COMPLETED

Issued by: Programme Controller | Month: October 2024

Contents

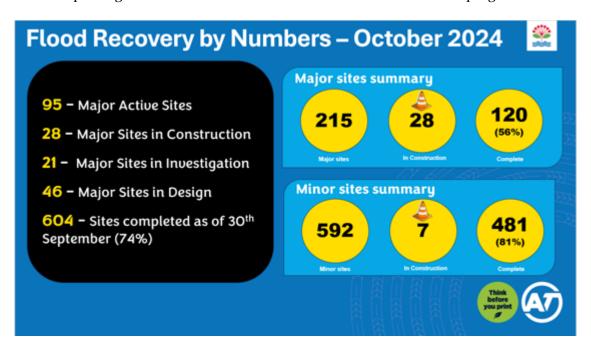
Overview	3
Project Overall Statistics	3
Road Status	4
Media and Communications	4
Area: North Urban	5
Area: North Rural	8
Area: South Rural & urban	12
Area: West	14
Area: Central (Urban)/ Waiheke & Rakino Islands/ Great Barrier Island	26
Appendix 1 - Region-Wide Detailed Site Information	28



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.



PROIECT OVERALL STATISTICS

	North Rural	North Urban	West	South Rural	South Urban	Central/ GBI/ WI & Rakino
Total no. of Major Projects **	74	38	71	21	1	10
Major Active Projects	18	17	47	9	0	4
Major Projects Completed	56	21	24	12	1	6
Projects in Investigation stage	2	5	12	2	0	0
Projects in Design stage	9	7	23	4	0	3
Projects in Construction stage	7	5	12	3	0	1
No. of projects expected to be completed by end of FY24-25	18	17	47	9	0	4

^{**:} These figures are correct at the time of issuing this report and are subject to change.



ROAD STATUS

Currently there are 12 local roads with full closures in place, 20 roads open to single lane, 1 roads open under restrictions, and 5 roads closed – (residents' access only). This remains fluid and will change depending on the road work requirements.

MEDIA AND COMMUNICATIONS

This month:

- ➤ We produced another Flood Recovery Status Update
- Created more site completion stories for internal and external distribution: Takatu Road, Paremoremo Road and Tauhino Road.
- > Created and presented an internal power point presentation for I&P's quarterly meeting showcasing the flood recovery programme work to date.
- ➤ Interviewed Ian Bielawa onsite at Herald Island explaining the engagement and repair work to date at Twin Wharf (in progress).
- ➤ Produced media tiles to inform the public about the work being carried out on Duck Creek Road encouraging adherence to the 30km speed limit.
- ➤ The West team produced videos to showcase:
 - The work AT is doing to repair slips on Karekare Road and Lone Kauri Road in the Waitakere Ranges - <u>Work on Karekare Road and Lone Kauri Road in the Waitakere</u>
 - The scale of works happening on Scenic Drive <u>Behind the Scenes Repairing storm damaged</u> roads across Auckland
- AT's social media team received content to profile:
 - o The above videos
 - o The latest Flood Recovery statistics
 - AT's collaboration with KiwiRail at Tahekeroa following the opening of the NAL north of Helensville: Kiwi Rail collaboration with AT at Tahekeroa site



AREA: NORTH URBAN

WORK COMPLETED IN THE LAST MONTH

➤ No completed sites to report this month

PROJECTS IN CONSTRUCTION PHASE

SITE NAME	ESTIMATED COMPLETION DATE
Duck Creek Road, Stillwater (2 projects)	February 2025
Masterton Road, Rothesay Bay	December 2024
Spur Road, Stillwater	November 2024
Twin Wharf Road, Herald Island	November 2024

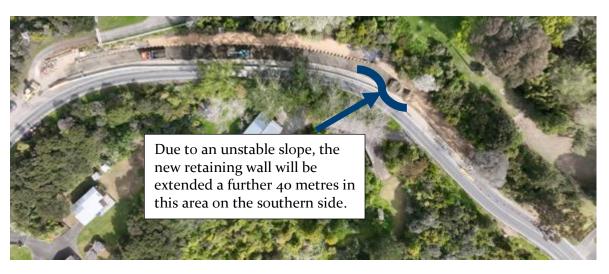
Upcoming sites include Rahui Road (Greenhithe) starting 14 October, Hibiscus Coast Highway (Hatfields Beach), Raymond Terrace (Northcote) and Lonely Track Road (Albany).

CONSTRUCTION PROGRESS UPDATE

➤ DUCK CREEK ROAD: The first retaining wall on the south side is progressing well. Following investigations on site, this south-side retaining wall will be extended a further 40+ metres to further stabilise the bank in this area. The team will switch over to working on the north side towards the end of October. Posting on the local Stillwater social media has been working well.

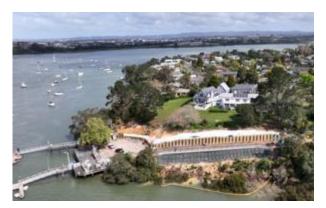








> TWIN WHARF ROAD: Stage 1 and 2 work is drawing to a close along Twin Wharf Road in Herald Island, with the final road paving reinstatement scheduled for mid-late October. Following this, work on the new staircase will begin adjacent to the toilets at the wharf. Topsoil will be placed early in October, on the upper bank, enabling planting to take place with guidance from the local environmental group.





➤ MASTERTON ROAD: Work got underway this month on 11 September to repair the underslip at the bottom of Masterton Road in Rothesay Bay. A new 27m long timber retaining wall and riprap (rock buttress) will be built around the stream edge. The specialist team are working amongst the elements, considering factors such as a recent king tide and soft ground conditions. Work is expected to take around three months and be completed in time for the summer at the beach opposite.





> SPUR ROAD: Work also got underway at the start of September to repair the slip / slump along Spur Road in Stillwater. The team are constructing a 63m long timber retaining wall to support the road in this area. Work is expected to take around two months to complete. Spur Road remains open, with temporary traffic lights directing traffic through the single open lane.











ROAD STATUS

CLOSED

> Twin Wharf Road, Herald Island

OPEN - SINGLE LANE

- > Duck Creek Road, Stillwater
- ➤ Wade River Road, Wade Heads
- > Spur Road, Stillwater

OPEN – UNDER RESTRICTION

> None

CLOSED - RESIDENTS ACCESS ONLY

> Masterton Road, Rothesay Bay (cul-de-sac end)



AREA: NORTH RURAL

WORK COMPLETED IN THE LAST MONTH

- Weranui Road, Puhoi (RP649) Ridge Road, Riverhead (1 of 2 sites)

PROJECTS IN CONSTRUCTION PHASE

SITE NAME	ESTIMATED COMPLETION DATE
Ahuroa Road, Puhoi (7784)	On hold pending details for anchors
Pinchgut Road, Kaukapapa	October 2024
Pine Valley Road, Dairy Flat	December 2024
Ridge Road, Riverhead (1 of 2 sites)	October 2024
West Road, Kaukapakapa (271)	On hold pending design change
Wishart Road, Helensville	October 2024

Upcoming sites include Leigh Road (Leigh) - starting 7 October, Smyth Road (Warkworth) and Takatu Road (Tawharanui Peninsula).

CONSTRUCTION PROGRESS UPDATE

➤ AHUROA ROAD: All piles have been constructed at the slip site east of J Tolhopf (Site RP7784). The site team has temporarily disestablished from site while the details for the anchors are addressed. A lane closure with stop/go traffic signals remains in place.















➤ PINCHGUT ROAD: Slip repair work near 171 Pinchgut Road started on Monday 23 September and is expected to take approximately 1 month to complete. This work will involve the construction of a retaining wall and shoulder repair.





➤ RIDGE ROAD: Work started on Ridge Road on 5 August 2024 to construct two retaining walls and repair the road shoulder. Retaining wall works are now complete and the team are working on the final road preparation, chip sealing, line marking and guardrail installation to conclude works.







> WERANUI ROAD: Work on the third and final major site near the bridge at the intersection of Weranui Road and Waiwera Road started on 29 July and was completed early September. All slip repair work on Weranui Road is now complete. Weranui road had 6 slips along its length, with little traffic delay experienced as it remained open during the repair work.









➤ PINE VALLEY ROAD: Slip repair work on Pine Valley Road started on Monday 2 September and is expected to take three months to complete. The complex repair project includes building a 500+ block Magnum stone wall to support the damaged road and installing a 2.5m x 2m long box culvert to direct water from the Southern side to the Northern side, preventing erosion and maintaining road stability. To further protect the embankments, large stones called riprap are being placed to absorb and deflect water energy, stopping soil erosion. The road is currently closed as the team excavate the roadway and existing culvert, with over 3,000 tonnes of soil removed to date. A detour is in place via Kahikatea Flat Road and Dairy Flat Highway for both eastbound and westbound traffic.





➤ 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. Work was delayed while a new design was developed. Work on this site restarted on 26 September 2024 and is expected to take one month to complete.







➤ MILL FLAT ROAD BRIDGE: AT's construction team have picked up the reins from the design team who have now completed their part. A contractor is expected to be appointed during October. Resource consent has been granted. Sub-contractors and team members are expected on site over the next few weeks undertaking surveys and preparation works. From mid-late October, pending the findings of the surveys, Treescape will be on site undertaking vegetation work.





➤ WISHART ROAD: Work started on Wednesday II September and is expected to be completed over a month. The work involves the installation of a drainage system to redirect water from the slip area and surrounds. Existing traffic management, which includes a lane closure with stop/go signals and temporary speed restrictions, will remain in place.





ROAD STATUS

CLOSED

None

OPEN - SINGLE LANE

- > Ahuroa Road, Puhoi
- Pinchgut Road, Kaukapakapa
- > West Road, Kaukapakapa
- Wishart Road, Helenville

OPEN - UNDER RESTRICTION

None

CLOSED - RESIDENTS ACCESS ONLY

➤ Pine Valley Road, Dairy Flat



AREA: SOUTH RURAL & URBAN

WORK COMPLETED IN THE LAST MONTH

- ➤ Awhitu Road, Awhitu (2 of 2 sites)
- > Grahams Beach Road, Manukau Heads

PROJECTS IN CONSTRUCTION PHASE

SITE NAME	ESTIMATED COMPLETION DATE	
Hunua Gorge Road, Hunua	November 2024	
McNicol Road, Clevedon	October 2024	

Upcoming sites include Union Road (Mauku) which is starting 1st week of October and is expected to take 7 to 8 weeks. During the construction, Union Rd will be closed with traffic detours in place. AT will continue to review the construction methodology as the construction progresses with the view to open one lane using stop/go operations.

CONSTRUCTION PROGRESS UPDATE

➤ AWHITU ROAD: Work started on 25 June 2024 All work at the two slip sites on Awhitu Road have been completed during September.





➤ GRAHAM BEACH ROAD: The team re-mobilised to the site late August and have completed all work as at the end of September. The work consisted of using soil nails and shotcrete to stabilise the slip in this location.





➤ MCNICOL ROAD: Work started early September on two small retaining walls and rock armour protection to repair the slip on this road. Work on this road nearly complete, with the finishing touches underway.





ROAD STATUS

CLOSED

Manukau Heads Road, Manukau Heads

OPEN - SINGLE LANE

- > Hunua Road, Clevedon
- > Union Road, Mauku

OPEN – UNDER RESTRICTION

None

CLOSED - RESIDENTS ACCESS ONLY

> McNicol Road, Clevedon



AREA: WEST

WORK COMPLETED IN THE LAST MONTH

- Scenic Drive, Arataki PR8.25
- Bethells Road, Waitakere (One Site)
- Scenic Drive RPo.75, RPo.9 two sites

CONSTRUCTION PHASE - NEXT 3 MONTHS

SITE NAME	ESTIMATED COMPLETION DATE
Forest Hill Road, Waiatarua	October 2024
Huia Road, 6 Sites	June 2025
Karekare Road, Karekare, x2	December 2024
Kay Road, Swanson	June 2025
Kellys Road, Oratia	December 2024
Lone Kauri Road, Piha	February 2025
Mountain Road, Henderson Valley multiple sites (8)	December 2024
Scenic Drive, North Swanson	October 2024
Scenic Drive, 'Elevation' Waiatarua (on hold)	Unknown- pending Cat 3 buy-out process
Scenic Drive, Titirangi, 1 site and 1 embankment	December 2024
Scenic Drive, Arataki, 2 sites (RP6.75 and RP6.58)	February 2025
Scenic Drive /Shaw Road	Unknown – awaiting Cat 3 buyout
Takahe Rd, Titrangi	October 2024
Te Henga Road, Waitakere	October 2024
Wairere Road, S bend past Caton	January 2025
West Coast Road, Oratia	To start late October

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. 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. The site is largely completed, with one or two small items to be finished.



Block retaining wall completed, seeding and matting has been done and we expect to see the grass growing through soon.



TE HENGA ROAD: Work began on Te Henga Road slip between number 60 and 66 Te Henga Road on 19 August 2024. This section of the road is fully closed during works, with access being maintained for residents within the closed area. A retaining wall will be constructed to support the road. We have completed the vegetation clearance and the excavation of the site and established the piling platform. Recent weather has made work at this site challenging, with additional ground water to deal with. The batter slope has been also challenging, as it has been failing, so we have had to install a temporary sheet pile wall to protect the site. We have installed 42 sheet piles but will likely have to install a further section. This work is likely to add 2-3 weeks to the programme of works at this site.



Slip repairs underway on Te Henga Road, temporary sheet pile wall installed central to the picture.

Forest Hill Road, Waiatarua: Works began outside 346 Forest Hill Road, Waiatarua, on 13 May 2024. Works have progressed with the installation of the retaining wall, and the resealing of the road. The road was reopened for traffic on Wednesday 25 September, with the remainder of the finishing works to be completed while the road is open.





Retaining wall, near completion and road seal going on Forest Hill Road, 25 September 2024.



➤ GLENESK ROAD, PIHA: Works began on Glenesk Road was completed in August, with some planting to be completed. We expect the seeding under the matting will soon grow through. We are pleased to have been able to restore this section, with greater resilience for the future.



Slip repair on Glenesk Road

- > Huia Road, six sites: The work planned for the site near 81 Huia Road has been delayed until we are able to open Scenic Drive on Titirangi end. We are currently reviewing the programme for the other 5 sites, and will provide an update on the timeline for these sites.
- > Kellys Road Oratia: Kellys Road, Oratia, has a one lane closure due to an underslip. The repair on this site will begin on 2 October, 2024. We expect works to take 10 weeks. Vector will be on site first to isolate the isolate the powerlines above this slip to make the site safe for excavation and construction. We will be installing a retaining wall and doing drainage works, and rebuilding the road.

Due to the narrow nature of the road, and the nature of the works, the road will be fully closed at this location during the works.



Slip site on Kellys Road Oratia, road will be fully closed during works.



- ➤ KAREKARE ROAD AND LONE KAURI ROAD, KAREKARE: On the 19 of August moved back to Karekare Road where we will be working on two sites (K4 and K5) until December 2024. Following Karekare Road completion, Lone Kauri Road will then be closed again in January 2025 to complete one more site (L4). Karekare Road is fully closed during works, all traffic must go via Lone Kauri Road. When there is access available to residents after work hours each day on Karekare Road, the contractor can let the community know through their community WhatsApp group.
- RPo.582KAREKARE ROAD: 582 METERS FROM PIHA ROAD: Final design has been prepared and this is now under PS2 review nearing completion Works are programmed to start mid-September.





Slip site RPo.582 Karekare Road

RPo.582KAREKARE ROAD: 582 METERS FROM PIHA ROAD: (K5): Works have started in September on this site on Karekare Road, clearance of the site, and benching has started.





Slip site RPo.582 Karekare Road



RPo.980 KAREKARE ROAD (980M FROM PIHA ROAD) (K4): Works should be completed at this site early October. Guardrail and the line marking to complete.



Site underway 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. The next 2 sites will be underway soon. 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. This road has sustained a lot of damage, and more damage is found as we start on each site.



Work on Mountain Road – images shows the narrow nature of Mountain Road, works underway on sites.



Scenic Drive, North Swanson: Repairs are being made to the carriageway and the drainage on this section of the road. Swale construction, footpath construction and drainage has been completed. At the end of September, we began resealing the road. Works left to complete include replacing a guardrail and line marking. We expect this work will be completed by early October. There has also been long term monitoring of the bore holes at this site to monitor any further movement.





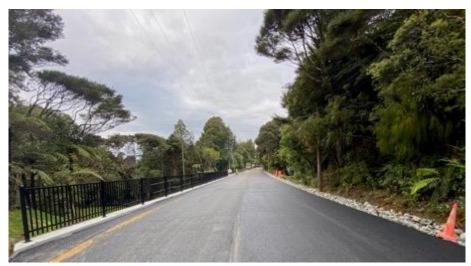
Works on Scenic Drive, North Swanson

➤ RP 8.25 - 412 SCENIC DRIVE, BETWEEN ARATAKI AND WEST COAST ROAD: This section of Scenic Drive is now completed, and open to traffic through to residential homes in the area. The retaining wall and drainage is complete. A new rail has been installed along the top of the retaining wall. The road has been sealed. This section of Scenic Drive between West Coast Road and Arataki Visitors Centre remains closed to through traffic, as there are two other sites that will be repaired next.



Before

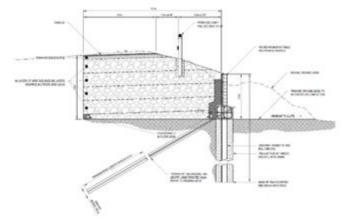




Before and After Scenic Drive RP 8.25

➤ RP 6.73 SCENIC DRIVE, BETWEEN ARATAKI AND WEST COAST ROAD: Design is complete and construction is programmed to start October 7. This site will require a full road closure, with access only to residents. Residents on the Waiatarua side of the closure will need to change their access route to West Coast Road.



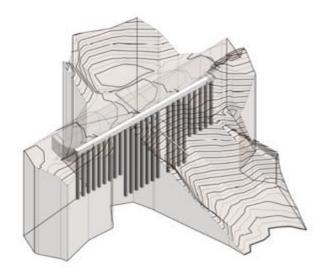


Site ready to start works from 7 October, 2024, The design of the repair.



➤ RP 6.58 SCENIC DRIVE, BETWEEN ARATAKI AND WEST COAST ROAD: The design for this repair is concrete piled tied back wall. We are programmed to start construction in November. This repair will require full road closures, with access only to residents, from the West Coast Road side of the closure.





Site ready to start works in early November. The 3D model of the repair shows the slip path and the repair design, which retains the road and pins it back.

> RP 6.58 SCENIC DRIVE, BETWEEN ARATAKI AND WEST COAST ROAD: Design is nearing completion on the concrete piled tied back wall. We are programmed to start construction in October. This repair will require full road closures, with access only to residents.



Site ready to start works once the large site at RP8.25 is complete.



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, we are currently working on agreements with landowners to complete repairs on the embankment – as this is privately owned.

Due to the falling material, we have had to close the pedestrian access. Pedestrians and cyclists need to go via Kohu Road.

We have completed the works on two of the retaining walls, at RPo.75 and RPo.9 and have installed the Balustrades. On the third wall, we have installed 2/3 of the piles by end of September and have also begun installing the ground anchors.

We have also completed Rock scaling on the embankment above the road to remove any loose rocks, and hydroseeding of parts of the embankment.

The completion date of this work to December 2024. The road, and the pedestrian access will remain closed until then.





RPO.75 Scenic Drive Titirangi (Balustrade installed.)

RP0.85 Scenic Drive Titirangi (Piling and anchoring underway.)

Takahe Road, Titirangi: Works to repair the slip on Takahe Road began on Monday 17 June. The road was fully closed during the works around number 32. We were able to get the road sealed and one lane open on the last day of September 2024. We are awaiting delivery of the blocks for the top of the wall, and this has delayed the completion date. We expect there will be around 5 weeks of work to complete this site, which will be completed on a one lane closure. The remaining lane is open under traffic lights, and the school bus will be able to return to service this road from the beginning of term 4.





Block retaining wall almost completed on Takahe Road, Road sealed 30 September 2024.



> WAIRERE ROAD: Two slips were completed in August at the "Roster Ridge" section of Wairere Road. When we were working on this site, we uncovered additional drainage that needed clearing and restoration which we were able to add into the repair.



Repaired pavement on Wairere Road, at Rooster Ridge.

➤ WAIRERE ROAD: 2 SLIPS AT 349 WAIRERE ROAD: The repair includes removing some vegetation and soil nailing, then shotcreting this section of the road. It will include pavement and drainage repairs and improvement.

This is the only access point for Wairere, Mildon, Horsman and Jonkers Roads. We have worked 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 will start on 14 October 2024. We expect that the first portions of the works will require a full road closure, and once we get past the corner and the powerpole, we will look to open one lane to traffic.

The school bus timetable has been adjusted to suit the road closure, the community has all been updated about the changes and the timetable, and we have established a Whatsapp Group for the contractors to push out instant notifications to the community, if the road is open at any time other than the timetabled openings.

The information provided to the community is available here: <u>wairere-road-repair-frequently-asked-questions.pdf (at.govt.nz)</u>



Wairere Road slip site 349 Wairere Road



> WEST COAST ROAD, ORATIA Work is programmed to start on West Coast Road in late October or early November 2024. This work will require a lane closure, but one lane will remain open. Before this work commences, we will complete Forest Hill Road and re-open it.



West Coast Road, Oratia slip site.

> WOODLANDS PARK ROAD, WAIMA: We are in the final stages of the design work for this repair. 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. We expect to start this repair in January 2025. We plan to engage with the community in Waima/Woodlands Park in the last quarter of 2024 around the works in preparation for the start of works. This section of the road is in the stream path/bed. It is ideal that these works begin in the driest time of the year.



Woodlands Park Road Slip Site



ROAD STATUS

CLOSED

- ➤ Kay Road, Waitakere
- > 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, near #60
- Mountain Road, Henderson Valley
- > Forest Hill Road, Oratia
- Karekare Road, Karekare

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
- > Takahe Road, Titirangi
- Tasman View Road, Te Henga
- Taunton Road 45, Blockhouse

OPEN - UNDER RESTRICTION

Rayner Road, Piha

CLOSED – OPEN TO RESIDENTS ONLY

- Mountain Road, Henderson Valley
- > Scenic Dr, Waiatarua Scenic Drive closed between Forest Hill Rd and North Way, this section of road between West Coast Road and Arataki Visitors center will remain closed when the next two sites start, straight after this site is complete.



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

WORK COMPLETED IN THE LAST MONTH

Puriri Bay Road, Great Barrier Island (5 of the 9 sites completed)

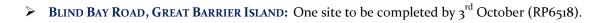
PROJECTS IN CONSTRUCTION PHASE

SITE NAME	ESTIMATED COMPLETION DATE	
Puriri Bay Road, Aotea, Great Barrier Island	December 2024	

CONSTRUCTION PROGRESS UPDATE

➤ Puriri Bay Road, Aotea Great Barrier Island: Total of 9 slips had been identified. Repairs have begun on Puriri Bay Road with 3 sites completed on 6th September and an additional 2 sites completed (RP1584 & 2164) since then. The remaining 4 sites (RP1091, RP1774, RP2477 & RP2685) to be completed in the coming months.











ROAD STATUS

CLOSED

> Hekerua Road, Little Oneroa, Waiheke Island

OPEN - SINGLE LANE - STOP/GO

- > Shoal Bay Road, Tryphena, Great Barrier 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	Fault RP	Failure type	Road status	Stage
North Urban	Birkenhead	Hinemoa Tce	11	Under slip	Open - Normal	Complete
North Urban	Redvale	John Brian Dr	30	Under slip	Open - Under Restrictions	Complete
North Urban	Albany	Bush Rd	33	Under slip	Open - Normal	Investigation
North Urban	Herald Island	Twin Wharf Rd	149	Under slip	Open - Single Lane	Construction
North Urban	Lucas Creek	Paremoremo Rd Site #1	166	Under slip	Open - Normal	Complete
North Urban	Bayswater	Sir Peter Blake Pde	180	Under slip	Open - Normal	Complete
North Urban	Northcote	Raymond Tce	230	Under slip	Open - Normal	Design
North Urban	Redvale	John Brian Dr	240	Under slip	Open - Under Restrictions	Design
North Urban	Birkenhead	Inkster St	267	Under slip	Open - Normal	Complete
North Urban	Greenhithe	Rahui Rd	304	Under slip	Open - Normal	Investigation
North Urban	Stanmore Bay	Riverhaven Drive	358	Under slip	Open - Normal	Complete
North Urban	Albany Heights	Albany Heights Road	545	Under slip	Open - Normal	Design
North Urban	Albany	Gills Road	591	Under slip	Open - Normal	Complete
North Urban		Masterton Road	663	Under slip	Open - Under Restrictions	Construction
North Urban	Greenhithe	Tauhinu Rd	723	Under slip	Open - Normal	Complete
North Urban	Stanmore Bay	Scott Road	920	Under slip	Open - Normal	Complete
North Urban	Glenfield	Kaipatiki Rd (Rp1077)	1077	Under slip	Open - Normal	Complete
North Urban		Ridge Road	1160	Under slip	Open - Normal	Complete
North Urban	Riverhead	Ridge Road	1188	Under slip	Open - Normal	Complete
North Urban	Riverhead	Ridge Road	1234	Under slip	Open - Normal	Complete
North Urban	Whangaparoa	Wade River Rd	1615	Under slip	Open - Single Lane	Design
North Urban		Lonely Track Road	1930	Under slip	Open - Normal	Design
North Urban	Stillwater	Spur Rd	2465	Under slip	Open - Under Restrictions	Construction
North Urban	Stillwater	Duck Creek Road Emergency Works	2503	Under slip	Open - Normal	Construction
North Urban	Paremoremo	Paremoremo Rd Site #2	2794	Under slip	Open - Normal	Complete
North Urban	Torbay	Glenvar Road	3030	Under Slip	Open - Normal	Complete
North Urban	Paremoremo	Paremoremo Rd Site #3	3275	Under slip	Open - Normal	Complete

Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
North Urban	Whenuapai	Brigham Creek Road	3655	Under slip	Open - Normal	Investigation
North Urban	Albany Heights	Dairy Flat Highway #2	4252	Under slip	Open - Normal	Complete
North Urban	Stillwater	Duck Creek Road	4400	Under slip	Open - Normal	Complete
North Urban	Albany Heights	Dairy Flat Highway #1	4784	Under slip	Open - Normal	Complete
North Urban	Hadfields Beach	Hibiscus Coast Hwy	6155	Under slip	Open - Normal	Design
North Urban	Redvale	East Coast Road	9916	Under slip	Open - Normal	Design
North Urban	Birkenhead	Huka Road	80	Under slip	Open - Normal	Investigation
North Urban	Stillwater	Duck Creek Rd Improvements	2630	Under slip	Open - Normal	Construction
North Urban	Whangaparoa	Hobbs Rd	127	Under slip	Open - Normal	Complete
North Urban	Birkdale	Lanigan Street	260	Under slip	Open - Normal	Investigation
North Urban	Paremoremo	Paremoremo Road (site4)	3773	Under slip	Open - Normal	Complete
North Rural	Coatesville	Mill Flat Road Bridge	0	Bridge/structure Failure	Closed	Construction
North Rural	Matakana	Matakana Valley Rd(Not A Duplicate)	5875	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	2400	Under slip - Major	Open - Normal	Complete
North Rural	Kaukapakapa	West Rd (Kaukapakapa)	271	Under slip - Major	Open - Normal	Construction
North Rural	Wainui	Haruru Road	9536	Under slip - Major	Open - Normal	Complete
North Rural	Dome Valley	Waiwhiu Rd	498	Under slip - Major	Open - Normal	Complete
North Rural	Kaukapakapa	Pinchgut Road	1673	Under slip - Major	Open - Normal	Design
North Rural		Wishart Road	961	Under slip - Major	Open - Normal	Construction
North Rural	Kaukapakapa	Pinchgut Road	1015	Under slip - Major	Open - Normal	Design
North Rural	Te Arai	Red Hill Rd	1155	Under slip - Major	Open - Normal	Design
North Rural	Warkworth	Moir Hill Rd	2317	Under slip - Major	Open - Normal	Complete
North Rural	Coatesville	Potter Road	1259	Under slip - Major	Open - Normal	Scoping
North Rural	Kaukapakapa	Pinchgut Road	1339	Under slip - Major	Open - Normal	Design
North Rural	Makarau	Makarau Rd	4740	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	1821	Under slip - Major	Open - Normal	Complete
North Rural		Takatu Rd	8290	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Takatu Rd	8381	Under slip - Major	Open - Normal	Complete



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
North Rural	Matakana	Matakana Valley Rd	7330-7257	Under slip - Major	Open - Normal	Complete
North Rural	Riverhead	Ridge Road	1672	Under slip - Major	Open - Normal	Construction
North Rural	Kaukapakapa	Pinchgut Road	1673	Under slip - Major	Open - Normal	Design
North Rural	Dairy Flat	Pine Valley Rd	1790	Under slip - Major	Closed	Construction
North Rural	Matakana	Matakana Valley Road	5900		Open - Normal	Complete
North Rural	Matakana	Matakana Valley Rd	5990	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Matakana Valley Rd	7500	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	111	Under slip - Major	Open - Normal	Complete
North Rural	Dome Forest	Smyth Rd	2301	Under slip - Major	Open - Single Lane	Design
North Rural	Leigh	Pakiri Rd	4218	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	198	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	279	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	1550	Under slip - Major	Open - Single Lane	Complete
North Rural	Wainui	Haruru Road	2000	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd (This Is Not A Duplicate!)	2584	Under slip - Major	Open - Normal	Complete
North Rural	Makarau	Makarau Rd	4740			Complete
North Rural	Matakana	Matakana Valley Rd (Apart of RP7037)	7091 (7037)	Over Slip - Major	Open - Single Lane	Complete
North Rural	Warkworth	Moir Hill Rd	1531	Under slip - Major	Open - Normal	Complete
North Rural	Leigh	Goat Island Rd	133	Under slip - Major	Open - Single Lane	Complete
North Rural	Woodcocks	West Coast Rd (Woodcocks)	10429 (11900)	Under slip - Major	Open - Normal	Complete
North Rural	Woodcocks	West Coast Rd (Woodcocks)	13570	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	2550	Under slip - Major	Open - Normal	Complete
North Rural	Leigh	Leigh Rd	5577	Under slip - Major	Open - Normal	Design
North Rural	Puhoi	Krippner Rd	2351	Under slip - Major	Open - Normal	Complete
North Rural	Leigh	Pakiri Rd	12395	Under slip - Minor	Open - Normal	Complete
North Rural	Leigh	Pakiri Rd	12768	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Weranui Road	7312	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Takatu Rd	6109	Under slip - Major	Open - Single Lane	Design



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
North Rural	Puhoi	Weranui Road	6280	Under slip - Major	Open - Normal	Construction
North Rural	Dairy Flat	Dairy Flat Highway/6634	6634	Under slip - Minor	Open - Normal	Investigation & Design
North Rural	Wainui	Wainui Rd (Albert Su-July/Aug23 Storm)	7960	Under slip - Major	Open - Normal	Complete
North Rural		Wainui Road	7960-8115			Complete
North Rural	Kaipara Flats	Tauhoa Rd	9516	Under slip - Major	Open - Single Lane	Complete
North Rural	Matakana	Matakana Valley Road	4900	Drain-Scour Damages		Complete
North Rural	South Head	South Head Road	23717	Under slip - Major	Open - Normal	Complete
North Rural	Waitoki	Kahikatea Flat Rd	1877	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Ahuroa Rd/7784	7784	Under slip - Major	Open - Single Lane	Construction
North Rural	Matakana	Takatu Rd	7852	Over Slip - Major	Open - Normal	Design
North Rural	Puhoi	Krippner Rd	2214	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Krippner Rd	2656	Under slip - Major	Open - Normal	Complete
North Rural		Ashton Road	1350	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Ahuroa Rd	8710	Under slip - Major	Closed	Complete
North Rural	Snells Beach	Mahurangi East Rd	1450	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Matakana Valley Rd	7730	Under slip - Major	Open - Normal	Complete
North Rural	Makarau	Jordan Rd (Makarau)	1453	Under slip - Minor	Open - Normal	Complete
North Rural	Matakana	Matakana Valley Rd	7037	Under slip - Major	Open - Single Lane	Complete
North Rural	Puhoi	Ahuroa Rd(Included In The July/Aug23)	7540	Under slip - Major	Open - Normal	Complete
North Rural	Warkworth	Moir Hill Rd	162	Under slip - Major	Open - Normal	Complete
North Rural		Coatesville-Riverhead Highway	1178	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Takatu Rd	8281	Under slip - Major	Open - Normal	Complete
North Rural	Matakana	Takatu Rd	8329	Under slip - Major	Open - Normal	Complete
North Rural	Tahekeroa	Tahekeroa Rd (Kiwi Rail)	0	Over Slip - Major	Open - Normal	Complete
North Rural	Tahekeroa	Tahekeroa Rd	3610	Under slip - Major	Open - Normal	Complete
North Rural	Puhoi	Ahuroa Rd (Hill)-Realignment	8200-8600	Under slip - Major	Closed	Complete
North Rural	Puhoi	Ahuroa Rd (Hill)-Realignment	8330	Under slip - Major	Closed	Complete
North Rural	Matakana	Takatu Rd	8300	Under slip - Major	Open - Normal	Complete



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
North Rural	Matakana	Takatu Rd	8350	Under slip - Major	Open - Normal	Complete
Central Urban	Hillsborough	Waikowhai Road	200	Under slip	Open - Single Lane	Complete
Great Barrier Island	Tryphena	Cape Barrier Road	1522	Under slip	Open - Normal	Complete
Great Barrier Island	Blind Bay	Blind Bay Road	6015	Under slip	Open - Single Lane	Complete
Great Barrier Island	Whangaparapara	Whangaparapara Road	2922	Under slip	Open - Single Lane	Complete
Waiheke Island	Cowes Bay	203-231 Orapiu Road	1995	Under slip	Open - Single Lane	Complete
Waiheke Island	Little Oneroa	40 Hekerua Road	175	Under slip	Open - Single Lane	Construction
Waiheke Island	Ostend	Wharf Road / Waitai Road	460	Under slip	Open - Normal	Complete
Rakino		South Pacific Road	0	Under slip	Open - Single Lane	Design
Rakino		Jane York Place	100	Under slip	Open - Single Lane	Design
Waiheke Island		The Esplanade Seawall (opposite 46 Moa Avenue)	170	Scouring	Open - Normal	Design
South Rural	Karaka	Linwood Rd 1	9100	Under slip	Open - Normal	Complete
South Rural	Karaka	Linwood Rd 2	8750	Under slip	Open - Normal	Complete
South Rural	Manukau Heads	Manukau Heads Rd	6960		Closed	Design
South Rural	Clevedon	Monument Rd	6000	Under slip	Open - Normal	Complete
South Rural	Clevedon	Monument Rd	6400	Under slip	Open - Normal	Complete
South Rural	Clevedon	Otau Mountain Rd	3300	Under slip	Open - Normal	Complete
South Rural	Awhitu Rural	Awhitu Rd	23454	Over Slip	Open - Normal	Complete
South Rural	Wiauku	Kohekohe Kariotahi	3500	Under slip	Open - Normal	Design
South Rural	Pukekohe	East St (Pukekohe)	285	Over Slip	Open - Normal	Complete
South Rural	Awhitu Rural	1966 Awhitu Road	23750	Under slip	Open - Normal	Complete
South Rural	Mauku	Union Road	2346	Under slip	Open - Residents Only	Construction
South Rural	Awhitu	Kemp Road	3455	Under slip	Open - Normal	Design
South Rural	Awhitu	Te Toro Road	740	Under slip	Open - Normal	Design
South Rural	Karaka	Urquhart Road	295	Under slip	Open - Normal	Investigation
South Rural	Manukau Heads	Grahams Beach Road	780	Under slip	Open - Normal	Complete
South Rural	Hunua	Hunua Gorge Road	2098	Under slip	Open - Single Lane	Construction



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
South Rural	Patumahoe	Kingseat Road	2680	Under slip	Open - Normal	Complete
South Rural	Hunua	Skyhigh Road	2575	Under slip	Open - Normal	Complete
South Rural	Clevdon	McNicoll Road	0	Under slip	Open - Residents Only	Construction
South Urban	Cockle Bay	Marine Parade	392	Under slip	Open - Normal	Complete
South Rural	Whakatiwai	East Coast Road		Over Slip	Open - Single Lane	Investigation
West (Ventia)	Titirangi	40 Otitori Bay Road	270	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Bethells Road	3790	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Bethells Road	2799	Under slip	Open - Normal	Construction
West	Waitakere	Bethells Road	9315	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Bethells Road	11036	Under slip	Open - Normal	Complete
West (Ventia)	Waitakere	Caton Road 16	91	Under slip	Open - Normal	Complete
West (Ventia)	Massey	Chamberlain Road	1675	Under slip	Open - Normal	Complete
West	Piha	Glenesk Road	61	Under slip	Open - Normal	Complete
West	Piha	Glenesk Road	178	Under slip	Open - Normal	Complete
West (Ventia)	Piha	Huia Road	12500	Under slip	Open - Single Lane	Design
West (Ventia)	Titirangi	Huia Road	4072	Under slip	Open - Single Lane - Traffic Lights	Design
West (Ventia)	Piha	Huia Road	11347	Under slip	Open - Single Lane	Design
West (Ventia)	Titirangi	Huia Road	13700	Under slip	Open - Normal	Scoping
West (Ventia)	Titirangi	Huia Road 81-85	916	Under Slip	Open - Normal	Design
West	Piha	Karekare Road	582	Under slip	Closed - Residents Only	Construction
West	Piha	Karekare Road	1260	Under slip	Closed	Complete
West	Piha	Karekare Road	1143	Under slip	Closed	Complete
West	Piha	Karekare Road	938	Under slip	Closed	Construction
West	Piha	Karekare Road	150	Under slip	Closed	Complete
West (Ventia)	Waitakere	Kay Road	1090	Under slip	Closed	Investigation
West (Ventia)	Oratia	Kellys Rd int w/ West Coast Rd	5954	Over Slip	Open - Normal	Complete
West (Ventia)	Glen Eden or Oratia	Kellys Road	240	Under slip	Open - Single Lane	Design
West (Ventia)	Titirangi	Konini Road 157	1501	Under slip	Open - Single Lane	Design
West	Laingholm	Laingholm Drive	0	Bridge/structure Failure	Open - Normal	Investigation



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
West	Piha	Lone Kauri Road	2085	Under slip	Closed - Residents Only	Complete
West	Piha	Lone Kauri Road	600	Under slip	Closed - Residents Only	Complete
West	Piha	Lone Kauri Road	2500	Under slip	Closed - Residents Only	Design
West	Piha	Lone Kauri Road	5170	Under slip	Closed - Residents Only	Complete
West (Ventia)	Henderson Valley	Mountain Road	655 (No. 177)	Under slip	Closed - Residents Only	Complete
West (Ventia)	Henderson Valley	Mountain Road	712	Under slip	Closed - Residents Only	Complete
West (Ventia)	Henderson Valley	Mountain Road	899	Under slip	Closed - Residents Only	Design
West (Ventia)	Henderson Valley	Mountain Road	1318	Under slip	Closed - Residents Only	Design
West (Ventia)	Henderson Valley	Mountain Road	636	Under slip	Closed - Residents Only	Complete
West (Ventia)	Henderson Valley	Mountain Road	1387	Under slip	Closed - Residents Only	Design
West (Ventia)	Henderson Valley	Mountain Road	1468	Under slip	Closed - Residents Only	Design
West (Ventia)	Henderson Valley	Mountain Road	2775	Under slip	Closed - Residents Only	Design
West (Ventia)	Henderson Valley	Mountain Road	1664	Under slip	Closed - Residents Only	Construction
West (Ventia)	Henderson Valley	Mountain Road	1833	Under slip	Closed - Residents Only	Construction
West (Ventia)	Titirangi	Ngaio Road	25	Over Slip	Open - Normal	Investigation
West (Ventia)	Henderson Valley	Opanuku Road	1265	Under slip	Open - Normal	Investigation
West (Ventia)	Henderson Valley	Opanuku Road	1536	Under slip	Open - Normal	Investigation
West	Titirangi	Paturoa Rd 15	0.224	Over slip	Closed	On Hold
West	Titirangi	Paturoa Road 15	262	Under slip	Closed	Design
West	Titirangi	Paturoa Road 17	260	Under slip	Closed	Design
West	Piha	Piha Road	12782	Under slip	Open	Design
West	Piha	Rayner Road	47	Under Slip and Over Slip	Open - Under Restrictions	Investigation
West (Ventia)	Massey	Red Hills Road	2150	Under slip	Open - Normal	Design
West (Ventia)	Waiatarua	Scenic Dr	6580	Under slip	Open - Single Lane/ Residents only	Design
West (Ventia)	Waiatarua	Scenic Dr	6735	Under slip	Open - Single Lane/ Residents only	Design
West	Swanson	Scenic Dr	12500	Road Surface	Open - Normal	Complete
West	Titirangi	Scenic Dr	900	Under slip	Closed	Construction



Area	Suburb	Road Name	Fault RP	Failure type	Road status	Stage
West	Titirangi	Scenic Dr	750	Under slip	Closed	Construction
West	Waiatarua	Scenic Dr	9500	Under slip	Open - Normal	Design
West	Waiatarua	Scenic Dr	8250	Under slip	Closed	Construction
West	Waiatarua	Scenic Dr	850	Under slip	Closed	Construction
West	Waiatarua	Scenic Drive North	166	Under slip	Open - Single Lane	Construction
West	Oratia	Shaw Rd	3720	Road Surface	Open - Normal	Investigation
West	Henderson Valley	Simpson Road	1850	Bridge/structure Failure	Open - Normal	Design
West (Ventia)	Waitakere	Stoney Creek Drive	775	Over Slip	Open - Normal	Investigation
West (Ventia)	Waitakere	Stoney Creek Drive	850	Under slip	Open - Normal	Investigation
West	Titirangi	Takahe Rd	261	Under slip	Closed	Construction
West (Ventia)	Titirangi	Tanekaha Road 28	513	Under slip	Open - Single Lane	Investigation
West (Ventia)	Te Henga	Tasman View Road	65	Under slip	Open - Single Lane	Investigation
West	Waitakere	Te Henga Road	1600	Under slip	Closed	Construction
West	Titirangi	Titirangi Beach Rd	375	Under slip	Open - Normal	Complete
West	Titirangi	Titirangi Beach Rd	735	Under slip	Open - Normal	Complete
West	Titirangi	Titirangi Road	4246 (418)	Under slip	Open - Normal	Complete
West		Vineyard Road	615	Under slip	Open - Normal	Complete
West	Waitakere	Wairere Road	3430	Under slip	Open - Single Lane	Design
West	Oratia	West Coast Road	5267	Under slip	Open - Normal	Design
West	Titirangi	Woodlands Park Road	1511	Under slip	Traffic light Priority give-away	Design
West	Massey	Yelash Road	538	Under slip	Open - Normal	Complete

