











How and where do you begin to recover an environment that's been devastated, and engulfed in millions of tonnes of sediment and debris?

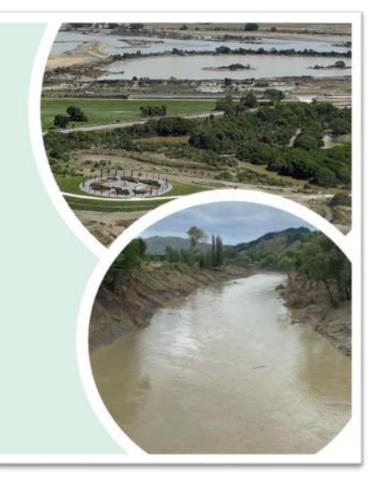
The Event

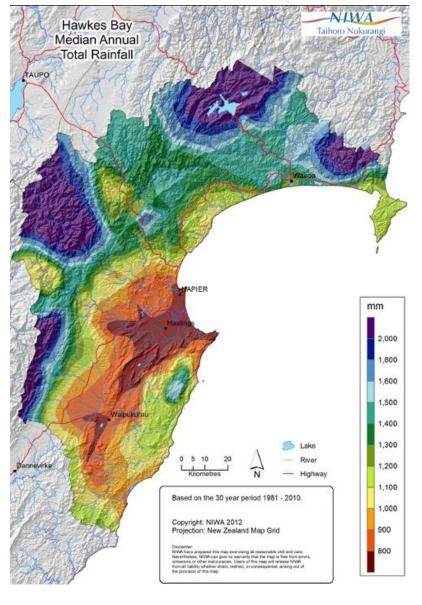
Rainfall during Gabrielle exceeded forecasts at the Glengarry gauge, one of the monitoring sites for the Esk Valley, by more than 250mm. It received 501mm over 24 hours – equal to nearly 6 months of rainfall.

The Fairview gauge, one of the monitoring sites for Wairoa, recorded 432mm over 24 hours, which is more than double the previous highest 24-hour total recorded at the site (206mm).

The LK4 Ngaroto Tūtaekurī gauge, one of the monitoring sites for the Ngaruroro/Tūtaekurī rivers, recorded 397mm over 24 hours, which is about 2.5 times the previous highest total (156mm).

The Waipoapoa gauge, one of the monitoring sites for the Tukituki River, recorded 393mm over 24 hours, which is nearly 3 times the average total for all of February in just one day.









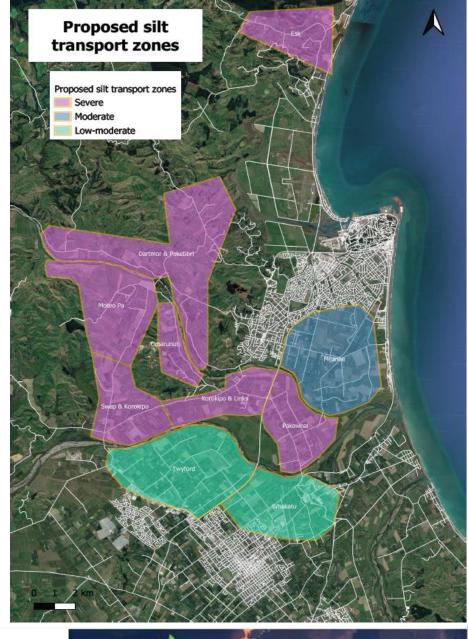




Horticulture

Silt Zones*	Silt level	Area (ha)
Dartmor, Springfield & Puketitiri	Severe	380
Moteo Pa	Severe	400
Korokipo & Links	Severe	300
Twyford	Low-moderate	1150
Meanee	Moderate	300
Pakowhai	Severe	460
Whakatu	Low-moderate	350
Swamp & Korokipo	Severe	430
Omarunui	Severe	110
Esk	Severe	70
	Total (ha)	3950

^{*}Intel from Horticulture NZ













Background

- Millions of cubic metres of sediment and debris has been deposited on productive Hawke's Bay whenua
- There is no playbook
- Regional landfill is stretched
- Roads have been significantly impacted, traditional routes aren't usable
- Time is critical for landowners and the sector
- Tier One contractors are focussed on roading recovery
- Resources in general are stretched
- Volumes and quantities are unknown













Our story

- Setup Multi-agency Taskforce
- Split Hawke's Bay into zones
- Enhanced and organised our contractors
- Contaminant Testing early
- MFE Waste Minimisation Act
 - Class 5 cleanfills
 - Processing site/ Transfer Stations
- Flood and Drainage studies
- Created workstreams to manage;
 - Wood
 - Silt and Debris Collections
 - Management of deposit/ processing sites





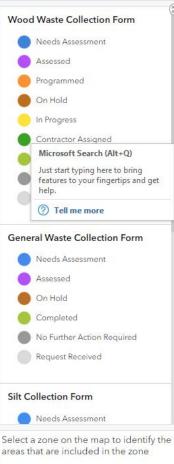








Select Zone No category selected Select General Waste Category No category selected Select Wood Status No category selected Select Silt Status No category selected Select General Status No category selected





Total Number of
High Priority Silt Requests

291

Total Number of Medium Priority Silt Requests

30

Total Number of Low Priority Silt Requests

97

Total Number of Tickets

Recieved

1,051

Total Number of Tickets

Completed

687

Wood Waste Recovery Status

Silt Waste Recovery Status

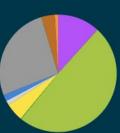
General Waste Recovery Status



23 of
Total Tickets Submitted

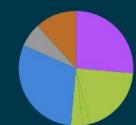
for Wood Waste

138



164 of
Total Tickets Submitted
for Silt Waste

674



173 of
Total Tickets Submitted
for General Waste

239

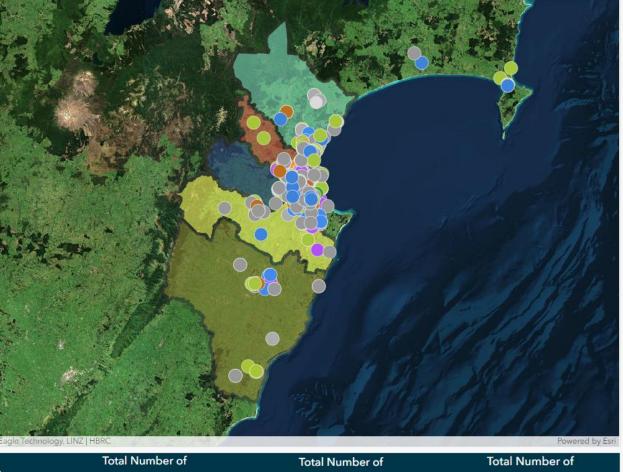








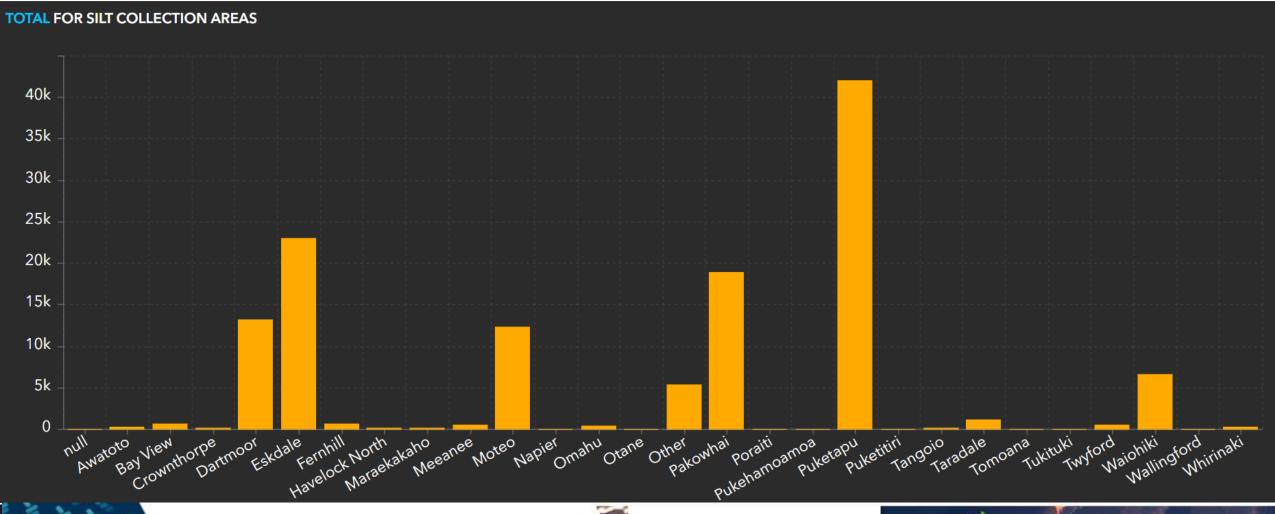






Truck movements to tell a story

This outlines where they trucks have come from, or collected the material from









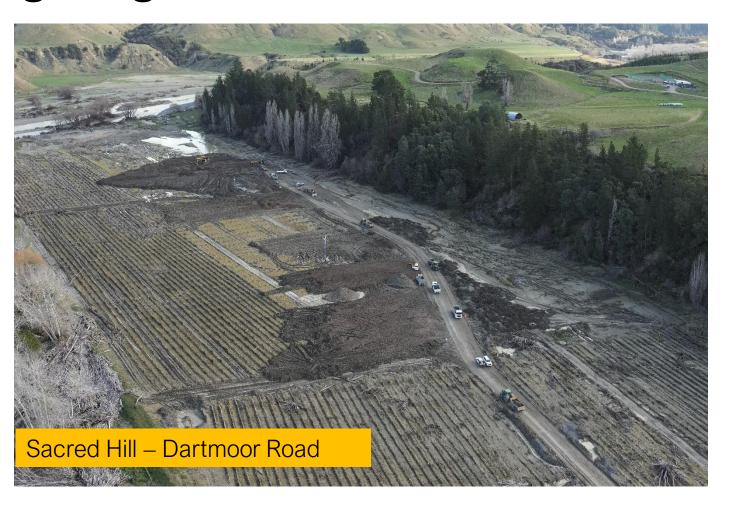




Where is the material going?

- Silt into basecourse/ aggregates
- Development
- Backfill material
- Topsoil/ Composting opportunities
- Filling large land voids
- Managed in situ spread/ levelled
- Stock piles silt/ wood
- Recovery activities roads/ stopbank













Funding

- Initially from government in May 2023 multi agency (DIA, MfE, MPI)
- \$70m grant funding for commercial properties (including farmers and growers) to help clean up their land and return to profit.
- Balance to council(s) to collect, transport, manage
- Regional Council is typically the administering agency – hosts the Taskforce, transferred from HDC.
- Regular reporting required
- Funding is to end of June 2024 (currently)

Cyclone Gabrielle: PM Christopher Luxon in Puketapu, announces \$63m funding for silt, debris removal

Hawkes Bay Today

11 Feb. 2024 02:33 PM © 3 mins to read.





Fund	Council	Budget Allocated at Feb 2024
Local Authority Fund	Silt Taskforce	\$112,179,359
	Napier City Council	\$12,060,252
	Wairoa District Council	\$9,441,054
	Hawke's Bay Regional Council	\$5,069,335
	Hastings District Council	\$3,700,000
	Central Hawke's Bay District Council	\$150,000
Commercial Category Funding	Administered by Hawke's Bay Regional Council	\$50,600,000
Whenua Māori Fund	Administered by Te Puni Kōkiri	\$15,000,000
TOTAL	Hawke's Bay	\$208,200,000









Challenges

- Funding the taskforce
- Community wellbeing
- Ground level indifference flood impacts
- Hydrology and survey impacts
- Consenting uncertainty
- Community patience
- Willing landowners for deposit sites
- Degrading roads due to additional traffic
- Detour routes
- Diversion from landfill
- Material to manage
- Dust



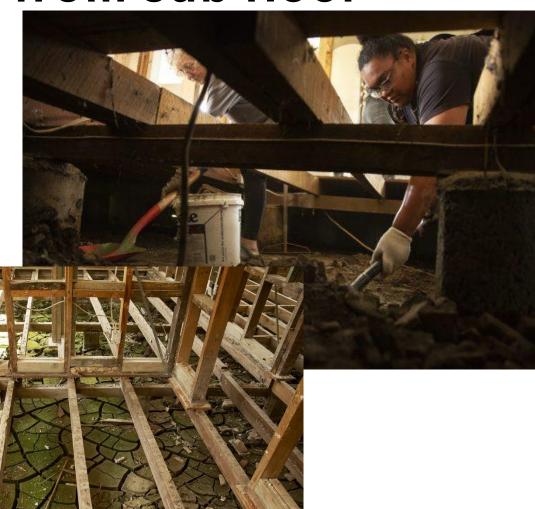


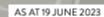
















Silt Recovery Taskforce guide:

Clearing silt from underneath your house

The flooding from Cyclone Gabrielle inundated many Hawke's Bay homes with silt and debris, with silt settling underneath some houses. The Silt Recovery Taskforce is working to collect silt and debris cleared from properties and placed in a pile for collection.

If you have silt underneath your house that needs to be cleared, there are companies that can do this for you. Before you get in touch with them, there are steps you can take to make the clean-up easier and help your house to dry out.

- 1. Drain any water still under your house.
- Increase airflow under your house by removing ventilation grilles in foundation walls, taking off some baseboards, leaving access doors open, and cutting back plants obstructing vents.
- Remove any silt that is obstructing vents, covers the connecting bolts to braces, or is within 550mm of a particle board or timber floor.
- 4. Remove insulation (including foil) where it has been under water, only keep polystyrene.
- Check for foundations damaged or undermined by water. Where water has entered the house, it may be necessary to remove part of the floor under baths/showers to remove silt.

SILT REMOVAL COMPANIES

These are some of the companies that remove silt underneath houses in Hawke's Bay, generally without removing floorboards:

- Clean sweep woolsheds: markturton@xtra.co.nz or 027 682 1186
- Clever Home Solutions NZ: cleverhomesolutionsnz@gmail.com or 027 503 1293
- Wilco Contracting: siltremoval@wilco.co.nz

There may be other suitable local suppliers in your areas. For suppliers in Wairoa please get in touch with the District Council 06 838 7309 or www.wairoadc.govt.nz

How do they remove the silt from sub floor?

For houses without a membrane and depending on the company, the silt is either removed by hand alongside a conveyer belt, or a hydraulic machine is used to remove the silt from underneath the house. If silt has built up on studs or floor board, a high pressure water jet will be used to clean the silt off.

If the house does have a membrane, the process is simpler because it can be removed in sections.

How do I get silt collected once removed?

Once silt has been removed from underneath your house, put it in a pile near the entrance to your property ready for it to be collected. Please request a collection by calling 0800 108 838 or filling in the online form.

References





CLAUDELANDS, HAMILTON



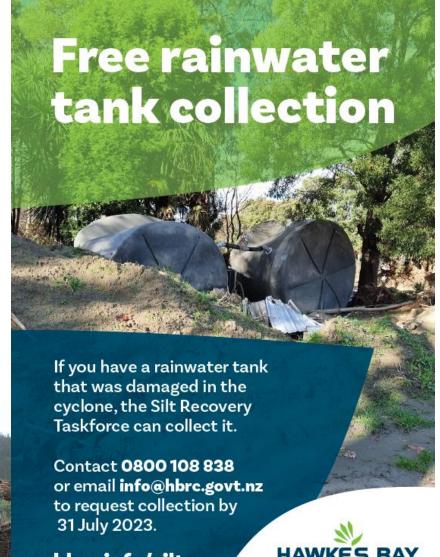


Debris









hbrc.info/silt



TE KAUNIHERA Ä-ROHE O TE MATAU-A-MÄUI



27-30 MAY 2024

CLAUDELANDS, HAMILTON







Debris

ON FARM

Recycled posts boost cyclone recovery



O :

X in \square

Repost's donation of 12,400 recycled posts for use on farms pummelled by Cyclone Gabrielle is a "fantastic demonstration of support".

















Spend Breakdown to March 2024

To end Feb 2024	Spent	%
Contractor	\$63,422,278	95.5%
Consultant	\$2,172,089	3.27%
Other (lease, council costs)	\$766,797	1.21%
TOTAL	\$66,361,163	
Budget	\$72,279,359	

Contractor Analysis	Māori Business	Local business
Spend	\$6,828,206	\$50,160,125
Spend %	11%	79%
# of contractors	10	45
# of contractors %	18%	80%
TOTAL Contractor Spend	\$63,422,278	\$63,422,278
Total Contractor #s	56	56













Acknowledge the Challenges

- Thousands of hectares of devastated land
- Travel is not as per normal
- Tier 1 contractors are busy
- Resources are limited
- Landfill has limited space
- What do we do with all the material?
- How do we manage our safety, and the public safety?

How can we be smart and help ourselves?













Agree Principles & Take action

- Zone Hawke's Bay
- Ownership within each Zone
- Assess and prioritise each job
- Minimise travel to and from the affected the Zones
- Focus on safety
- Land rehabilitation landowner commitment to clean up
- Future thinking for compliance, consenting
- Gather data
- Communicate, Assess, Engage
- Advocate for our communities.











Focus on what is important

- Can't be everywhere
 - Setup systems
 - Prioritise
- Our delivery role
 - Collecting
 - Transporting
 - Managing
- Keep on top of trends, emerging risks
 - Mixed Waste
 - Asbestos
 - Construction / Demolition
- Serving Community











Communicate and Engage

- Channels
- Consistently
 - Front up
- Clearly





2:17 pm on 27 September 2023













Hawke's Bay recovery: A million cubic metres of silt and debris still to be removed

region, its people and the economy if not finished

Government funding for silt removal

drying up in Hawke's Bay

work to remove silt and debris on

cyclone-hit orchards could cost the

The Hawke's Bay Fruitgrowers' Association says the slow-down of

10 Sep 2023

14 Sep 2023

Silt and debris removal in Hawke's Bay has slowed by half as funding runs short, with a million cubic metres left to





Do It Online

Popular Links

Silt Recovery Taskforce making headway

The Silt Recovery Taskforce has supported hundreds of locals with cleaning up silt following Cyclone Gabrielle, shifting around 350,000m³ of silt since February.

Regional Council Chair Hinewai Ormsby says the Taskforce has developed an efficient and effective way of tackling the silt challenge.

"Silt clean-up is a huge task for our rohe, and the Silt Recovery Taskforce is making headway in cleaning it up, with 199 jobs completed," says Chair Ormsby.











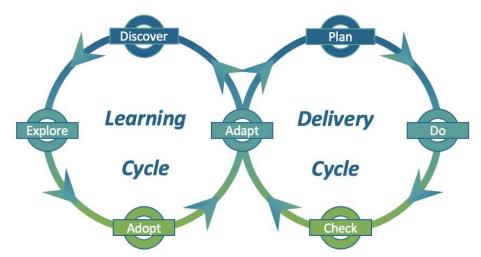




Progress over perfection



Learn to Adapt & Be Flexible From FULLERTON, CALIFORNIA



The Method Adoption Infinity Loop











Key Stats – early Mar 2024

200,000 tonnes of wood managed

1,651,616 m3 of silt collected/ managed

837 of 1107 jobs completed 1,099,082 m3 of silt to be collected

\$66,361,163 of \$112,679,359 Spent to date







145,911

trucks

logged as

entering

sites







LEARNINGS IN HINDSIGHT...

- Prepare..
- Identify sites that could be setup
 - Landowner arrangements
- Identify key routes
- Contracting arrangements
- Job management
- Resourcing
- Decision making
- Consenting / Testing / Data Collection



LEADING THROUGH ADVERSITY

- Organizing / coordinating teams - delegating
- Displaying deliberate calm and bounded optimism;
- Making decisions amid uncertainty;
- Demonstrating empathy;

and

Communicating clearly













Acknowledgements





MITCHELL L DAYSH

































+ 55 Contractors and many more





CLAUDELANDS, HAMILTON





