Contractor's newsletter Te karere a te kaikirimana Fulton Hogan/HEB Joint Venture





Wairoa West August 2023 I runga: Wairoa ki te Uru Ākuhata 2023

Earthworks begin

2)

Planning is underway for the 2023/24 spring and summer construction season, and people can expect to see work ramp up at key sites as part of the Takitimu North Link project.

Earthworks have started with the target of moving 700,000 cubic metres of material across the whole site this season. When the weather is in our favour, the team can move a significant amount of material – in total we have 3,000,000 cubic metres to shift and can build up around 6 metres per season in fill areas. The photos above show the change in ground height in just a few weeks at Wairoa Valley west, one of the largest cuts on the site. We are, on average, 12 metres below the original ground level with another 9 metres remaining to get to the level required for the new road.

Wairoa West September 2023 I runga: Wairoa ki te Uru Hepetema 2023

Ka tīmata ngā tūkari whenua

Kua tīmata ngā whakariterite mō te kaupeka hanga o te kōanga me te raumati 2023/24, ā, ka kite te iwi i ngā mahi hanga ki ngā wāhi matua, hei wāhanga o te kaupapa o Te Ara o Takitimu ki te Raki.

Kua tīmata ngā tūkari whenua, me te whai anō ki te nuku i te 70,000 mita pūtoru oneone puta noa i te wāhi mahi i tēnei kaupeka. Ina pai ana te huarere, ka nui te oneone ka nekehia - hui katoa, he 3,000,000 mita pūtoru hei neke, ā, ka taea te whakapiki mā te 6 mita i ia kaupeka i ngā wāhi hei whakakīnga. E whakaatu ana ngā whakaahua i raro i te rerekētanga o te teitei o te whenua i te rua wiki noa i te riu o Te Wairoa, tētahi o ngā keringa nui rawa. He 12 mita toharite te heke i raro o te teitei o te whenua ake, otirā he 9 mita kei te toe, e heke atu ai ko te wāhi tika mō te ara hou.







Wairoa Road Overbridge

The Wairoa Road Overbridge is nearing completion. Over the next couple of months, the barriers will be installed and fixed into position, so they are permanently connected to the bridge structure. Once completed, traffic will be diverted onto the new bridge in December.

Te Arawhiti o Te Ara o Wairoa

Kua tata te oti o Te Arawhiti o Te Ara o Wairoa. Hei ngā marama nei whakatūria ai ngā pātakitaki kia pūmau ai te noho ki runga i te arawhiti. Kia oti katoa, ka āia ngā waka ki te arawhiti hou nei ā te Tīhema.



Wairoa Road Bridge

Te Arawhiti o Te Wairoa

Goodbye La Niña, hello El Niño

After an extremely soggy start to 2023, which significantly impacted our work programme, New Zealand's north can expect a shift to drier conditions.

Because our environmental team works closely with NIWA, we have built a greater understanding of wider climatic influences on the weather we experience on the ground here at Takitimu North Link. The record-breaking levels of rainfall we experienced were linked to a La Niña weather pattern.

The climatologists have stated that this year's El Niño event is the strongest they have seen developing since 1997. From this we can expect more sunshine, more frequent high-pressure systems, potentially stronger than normal westerly winds and below average rainfall and this is welcome news for the construction season.

Hei konā La Niña, haere mai El Niño

l raru nui ngā hōtaka mahi nā te mākū o te hiku o te tau 2023, engari ināianei e manakohia ana ngā huarere maroke ake mō te raki o Aotearoa.

Nā te mahi tūtata o tā mātou tira taiao ki a NIWA, kua mārama haere mātou ki whānuitanga o te pānga āhuarangi ki te huarere o te wāhi nei i Te Ara o Takitimu ki te Raki. Nā te tauira huarere o La Niña te nui o te ua i pā ki te motu, otirā he hekenga nui rawa.

Ko te kī a ngā mātanga āhuarangi, ko te El Niño o te tau nei te mea pakari rawa mai anō i te tau 1997. Nā tēnei, ko te matapae ake, ka nui ake te whitinga o te rā, ka auau ake ngā huarere pēhanga teitei, ka kaha ake te hauāuru, ka iti iho te ua, ā, he rongo pai tēnei mō te kaupeka hanganga.

Aerial flyover – winter 2023

Ataata ā-rangi - takurua 2023

Our latest aerial flyover of the site captured progress to Winter 2023. View it at <u>nzta.govt.nz/takitimunorth</u> under Videos.

Major works ahead for new Cambridge Road Overbridge

Construction work to complete the new Cambridge Road Overbridge, between Bethlehem and Tauriko, has entered its final phase. This next phase involves major tie-in work to connect the new bridge with Cambridge and Moffat roads.

The crew has already completed service relocations, earthworks, piling, laid beams and poured the concrete deck, now the bridge is nearly complete, the focus shifts to the tie-in work which will result in the new alignment of Cambridge and Moffat roads.

This next phase is complex as it requires coordination between multiple teams working on the bridge structure, utilities, drainage, earthworks, and pavement crews – as well as significant traffic management including detours, road and lane closures and temporary speed limits. Road users should expect disruption during this important phase of construction.

Work will be carried out in three phases, the second phase will see a full closure of a section of Moffat Road, between January and April 2024. A detour route will be in place. Further information on the timing of specific road closures and detours will be shared on Journey Planner at journeys.nzta.govt.nz, VMS boards, and the Waka Kotahi Waikato Bay of Plenty Facebook page <u>facebook.com/NZTAWaikatoBoP</u>, we encourage everyone who travels through this area to look out for updates.

The Cambridge Road Overbridge is expected to be complete and open mid-2024. Once completed, the bridge will become the new local road, linking Cambridge and Moffat roads, and allowing for the Takitimu North Link expressway to be built underneath.

Ngā hanganga nui mō te Arawhiti hou o Te Ara o Cambridge

Kua kuhu atu ki te wāhanga whakamutunga o ngā mahi hanga i te Arawhiti hou o Te Ara o Cambridge, i waenga i Pēterehema me Tauriko. Kei roto i te wāhanga nei ngā mahi nunui ki te tūhono i te arawhiti hou ki ngā ara o Cambridge me Moffat.

Kua oti kē i ngā kaimahi te whakauru i ngā ratonga, kua oti ngā tūkarikari, ngā pou tūāpapa, ngā kurupae me te putu i te papa raima, ā, kua tata oti te arawhiti, nā reira kua huri te aro ki te kōtuitui haere, ko te mutunga mai, ko te tīaroaro hou o ngā ara o Cambridge me Moffat.

He tuatini te mahi ināianei i te mea me āta ruruku i ngā rōpū maha e waihanga ana, ngā rōpū ratonga tūmatanui, ngā hopunga wai, ngā tūkarikari me ngā rōpu hanga ara - tatū noa ki ngā whakahaerenga waka matua pēnei i ngā autaki, ngā katinga ara me ngā tepenga tere taupua. Ka whakararuraruhia ngā kaiwhakamahi huarahi i tēnei wā, otirā he wāhanga nui o te hanganga.

Ka toru ngā huringa kawenga mahi, ko te tuarua ko te katinga o tētahi pito o te Ara o Moffat, hei te Hānuere ki te Āperira 2024. Ka whakaritea he ara autaki. Ka whakaaturia ngā mōhiohio o ngā wā kati me ngā autaki huarahi ki Journey Planner, journeys.nzta.govt.nz, ngā papa VMS, me te tā Waka Kotahi Waikato Bay of Plenty whārangi Facebook <u>facebook.com/NZTAWaikatoBoP</u>, e akiaki ana kia tirohia e te iwi hāereere i tēnei takiwā ngā mōhiohio nei.

Ko te tikanga ka oti te Arawhiti o te Ara o Cambridge ā te puku o te 2024. Ka oti ana, ka noho hei huarahi hou e tūhono ana i ngā huarahi o Cambridge me Moffat, kia pai ai te hanga i te ara puaki o Te Takitimu ki te Raki i raro iho.



Kūmara planted in community māra kai

Project Planting Coordinator Chrissy McLeod has been working with the local Te Puna Kindergarten, with support from a Pirirakau whānau member, to develop a community māra kai (food garden). The māra kai has two garden beds prepared and ready for planting. Kūmara was chosen as the first crop and the tipu (seedlings) have started to sprout and will be ready for planting in the next few weeks. The team are being guided by maramataka (the Māori lunar calendar) as to the best time to plant.

Chrissy has been able to share her extensive horticultural knowledge with the teachers and the children at the kindergarten by showing them how to grow vegetables. Now term 4 is underway the tamariki (children) are going to hang CDs around the beds to deter the Pūkeko from eating the seedlings. Our environmental team also supported the project by providing some labour to help create the garden beds.

The project also provided recycled cardboard for the base of the garden beds and donated mulch from the trees that have been felled. Being able to recycle, reuse and repurpose materials is part of our commitment to sustainability.

Initiatives like this, that support our local community, are part of Takitimu North Link's ongoing commitment to broader social outcomes.

l onokia he kūmara ki te māra kai ā-hapori

I te mahi tahi a Chrissy McLeod, Kairuruku Hōtaka Whakatō, me te Kinikātene o Te Puna, otirā me te tautoko hoki a tētahi mema o te whānau o Pirirākau, ki te hanga i tētahi māra kai ā-hapori. E rua ngā pārekereke kua whakaritea ki te whakatō kai. Ko te kūmara te kai tuatahi, ā, kua tīmata ngā tipu ki te pihi ake, kāore e roa ka rite ēnei tipu mō te whakatōtanga hei ēnei wiki nei. E ārahitia ana te rōpū nei e te maramataka, ki te wā pai hei whakatō.

I whai wāhi a Chrissy ki te tuku i ōna mōhiotanga ahumāra ki ngā kaiako me ngā tamariki o te kinikātene, mā te whakaatu me pēhea te whakatipu huawhenua. Kua tīmata te wāhanga 4 o te tau, ā, kua tahuri ngā tamariki i te whakairi CD hei whakapāhunu i ngā Pūkeko, kei kainga ngā tipu. I tautoko hoki tā mātou tira taiao i te kaupapa nei mā te āwhina ki te hanga i ngā pārekereke o te māra.

l tuku hoki rātou he pepamārō hei tūāpapa mō ngā pārekereke, me te tuku one pōpopo mai i ngā rākau kua tuaina. Ko te hangarau, te whakamahi anō me te hangahou i ngā rauemi tētahi o ā mātou mahi toitū.

Ko te tautoko i te hapori tūtata tētahi kaupapa a Te Ara o Takitimu ki te Raki e puta ai he hua pāpori ki te iwi.



Kūmara growing and kūmara patches Chrissy McLeod

Ngā kūmara e tipu ana, me ngā māra

Construction snapshot: what's happening on site

TE PUNA

6

Overbridge interchange at

Minden Road

TE PUNA

Takitimu North Link - Stage One Takitimu Drive Toll Road

Proposed shared walking & cycling path

Te Rangituanehu/

7

< TO WAIHI

KEY

Tirohanga hanganga: he aha ngā whakaritenga

BETHLEHEM

New bridge

crossing at

Wairoa Awa (river)

Wairoa Road

Overbridge

Ν

New Fifteenth Ave connection to Takitimu Drive Toll Road

Northbound flyover/ Southbound bypass lane at Takitimu Drive Toll Road interchange.

1. SH29 Takitimu Drive Toll Road

- Reduced speed to 80km/h throughout the work site
- Setting up the site for Takitimu Drive Flyover Bridge construction
- · Enabling works for road widening

2. Smith's Farm

- · Construction of the largest fill on the job
- Construction of other large fill areas
- Starting construction of the Smith's Farm Bridge

3. Cambridge Road/Moffat Road

- Tie in works for the Cambridge Road Bridge
- A section of Moffat Road will be closed Jan-Apr with a detour in place

4. Wairoa Road & Valley

- Stop/go traffic management in place for trucks crossing Wairoa Road
- Tie in works for the Wairoa Road Bridge
- Trucks carting materials down to the Wairoa Valley
- Wairoa River Bridge under construction

5. Te Mete Road/SH2 Area

• Hauling materials along SH2 into the Te Mete Valley

6. Minden Gully & Road Area

- Minden Gully Bridges are under construction
- Minden Road Overbridge is nearing completion
- Earthworks continue
- Planning works for the diamond interchange roundabout

7. SH2/Loop Road area

- Vegetation clearance
- Environmental controls
- Service relocations

1. Te Huarahi Utu o Takitimu Drive SH29

Cambridge Road

Overbridge

- Ka whakahekea te tepenga tere ki te 80km/h i te wāhi mahi.
- Te whakarite i te wāhi mō te hanganga o te Arawhiti Rere o Takitimu Drive
- Te whakarite mahi whakawhānui i te huarahi

2. Te Pāmu o Smith:

- Te hanganga o te putunga oneone nui rawa
- Te hanganga o ētahi atu putunga nunui
- Te tīmata ki te hanga i te Arawhiti o te Pāmu o Smith

3. Te Ara o Cambridge/Moffat

- Ngā mahi kōtuitui i te Arawhiti o Te Ara o Cambridge
- Ka katia tētahi wāhanga o te Ara o Moffat ā te Hānuere-Āperira, me te whakarite autaki

4. Te Ara o Te Wairoa me te Riu

- Ka tū ngā whakaritenga tuku i ngā taraka ki te whakawhiti i te Ara o Te Wairoa
- Ngā mahi kōtuitui i te Arawhiti o Te Ara o Tte Wairoa
- Ngā taraka kawe rawa ki te Riu o Te Wairoa
- Kua tīmata te hanga i te Arawhiti o Te Ara o Te Wairoa

5. Te Ara o Te Mete/SH2

• Te kawe rawa i te ara o SH2 ki te Riu o Te Mete

6. Te Rangi Tuanehe me te Ara

- Kua tīmata te hanga i ngā Arawhiti o Te Rangi Tuanehe
- Kua tata te oti o Te Arawhiti o Te Ara o Minden
- Ka haere tonu ngā mahi tūkarikari oneone
- Ngā whakamaheretanga o te pūtahi porotaka taimana

7. Wāhi o SH2/Loop Road

- Whakawātea tipu
- Ngā whakahaere ā-taiao
- Te neke i ngā ratonga tūmatanui

Fish relocation

In October 2023 the project hit a major milestone of relocating over 10,000 native fish since the project began in 2021. This is a great example of work that goes in behind the scenes of a major infrastructure project that people may not be aware of.

Before our earthworks team build the road, farm drains and streams need to be diverted or culverts installed. Any time we work with a waterway, we need to undertake 'de-fishing' or fish relocation.

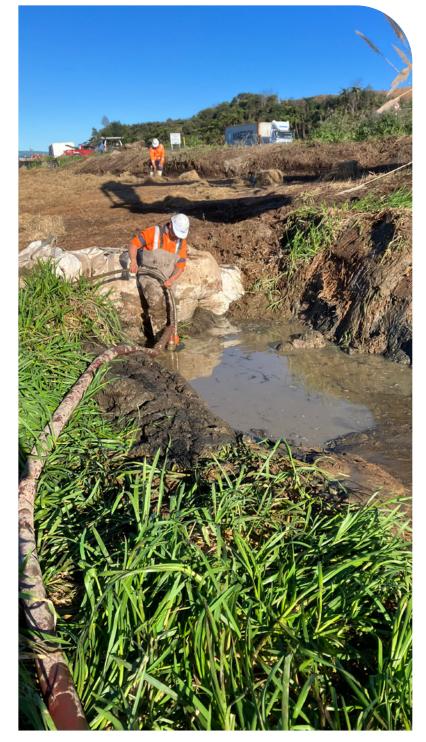
We have an Indigenous Native Fish Management Plan which sets out the processes to safely relocate fish. An ecologist and project kaitiaki set up traps in the water and do a minimum of two nights of fishing. Any fish caught are recorded and relocated safely downstream away from the works.

After trapping is completed, we undertake a muckout process. The farm drains on our project have large volumes of silt in the base. Eels in particular love to burrow down in the silt and can evade the traps. To ensure we get every fish possible we scoop the muck out of the drain using a digger, spread it out and then grab any remaining fish and relocate them downstream also.

A huge amount of work and effort goes into the de-fishing process by our digger operators, ecologists, kaitiaki and site environmental team. We are incredibly proud of the work we do to protect the wildlife living in farm drains that people would typically look at and disregard as being environmentally important.

Native fish including kokopu, bully, short fin eels and longfin eels have been relocated on the project. Facts about longfin eels (Anguilla dieffenbachia) include:

- Females can reach 2m long and weigh up to 40kg – however, now we would be lucky to find one that weighs more than 10kg due to overfishing, pollution and other human factors.
- Migrating females can outlive humans! Their lifespan has been found to be 25 - 60 years in lowland areas to an average of 93 years in highland waterbodies.
- Longfin eels breed only once, at the very end of their life, and travel 5000km to the sub-tropical Pacific Ocean near Tonga to spawn.
- They can travel overland for up to two days as long as their skin stays moist.
- Elvers (young eels) can climb waterfalls and even dams – some heights ranging up to 20m tall.





Te kawe i ngā ika ki wāhi kē

I te Ōketopa 2023, i tutuki tētahi whāinga nui o te kawe i ngā ika māori, neke atu i te 10,000, mai i te tīmatanga o te kaupapa nei i te 2021. He tauira pai tēnei o ngā mahi huna o tētahi kaupapa tūāhanga nui kāore pea te iwi i te tino mōhio ake.

l mua i te hanga a te tira tūkari i te ara, me autaki ngā wāra pāmu me ngā kōawa, me whakauru karawata rānei. l ngā wā ka mahi i runga i ngā ara wai, me "tango i ngā ika", me kawe rānei ki wāhi kē.

He Mahere Whakahaere Ika Māori tā mātou e whakatakoto ana i te tukanga ki te kawe haumaru i ngā ika. Ka whakarite hīnaki te mātanga hauropi me tētahi kaitiaki, ā, ka noho ki te hao mō te rua pō. Ka āta tuhia, ka kawea hoki aua ika ki wāhi kē o te awa, kia tawhiti atu i ngā keringa.

Kia oti te hao, ka tīmataria he tukanga koutu i ngā paruparu. Inā te rahi o te parahuhu kei te pūtake o ngā wāra pāmu i tō mātou kaupapa. He rawe hoki ki ngā tuna te hanga rua i rō parahuhu, ā, ka puta i ngā hīnaki. E mātua whakarite ai te haonga o ngā ika katoa, ka koutua te paru i ngā wāra mā te wakakari, ka horahia, ā, ka tangotangohia ngā ika e toe ana, ka kawea ki wāhi kē.

He nui te mahi o te tango i ngā ika e ō mātou kaimahi wakakari, ngā mātanga hauropi, ngā kaitiaki me te tira taiao. E poho kererū ana mātou ki ā rātou mahi tiaki i ngā kīrehe kei ngā wāra pāmu e noho ana, tē tino kitea e te tangata, otirā kāore pea e whai whakaarotia te whaitake ki te taiao.

Ko ngā momo ika kua kawea ki wāhi kē, ko ngā momo tuna, me ngā momo kōkopu. He meka mō ngā tuna rōroa:

- Ka eke ki te 2m te roa o ngā uha, ka eke ki te 40kg

 engari ko te taumaha e kitea ana e mātou, kāore
 e neke atu i te 10kg nā te kore tuna, te parakino me
 ētahi atu take ā-tangata nei.
- He roa ake te oranga o te tuna uha i te tangata! Ko te roa o te oranga i ngā wāhi papatahi he 25-60 tau, ā, he 93 tau i ngā wāhi tuawhenua.
- Kotahi anake te wā whakawhānau o ngā tuna rōroa, i te mutunga rā anō o te oranga, ā, ka kau i te 5000km ki ngā wai mahana o Te Moana-nui-a-Kiwa, pātata ki Tonga ki reira whakawhānau ai.
- Ka haere mā runga whenua mō te rua rā, mēnā e mākū ana te kiri.
- Ka piki ngā kūao i ngā wairere me ngā aukati atu ki te 20m te teitei.



Nõema November 2023

Tale of two bridges

Steel plates purchased for the Takitimu North Link project's bridge at Minden have taken a detour to a new destination – to the bridge being built in the Coromandel, as part of the recovery works underway. State Highway 25A in the Coromandel, between Kōpū and Hikuai, suffered significant damage in late January 2023 with the road collapsing after a major storm event. The road is closed while repairs on this vital route to the Coromandel take place.

The urgency of this work has meant the Coromandel team has had to take a dynamic approach to the project including how to quickly construct a 124 metre, 3 span bridge with the expectation that the road will be open to traffic in March 2024.

This is where the Takitimu North Link project team came into the picture, redirecting steel plates to Napier to fabricate the girders (beams) to help the SH25A team progress their bridge.

These plates weren't due to be installed until a later date at the Minden site. The bridges on both projects are designed with steel beams of a very similar profile. There are slight dimensional differences however the steel thicknesses are equal for the most part.

It is a great example of collaboration and prioritisation to support those communities with the greatest need in a timely way.

View how the steel plates are being used to fabricate the beams here. <u>www.youtube.com/watch?v=iZpzLHBsEsY</u>

He kōrero mō ngā arawhiti e rua

E rua ngā pereti maitai i hokona mō te Ara o Takitimu ki te Raki mō te arawhiti ki Te Rangi Tuanehe, kua autakina kētia ki tētahi wāhi hou - arā, te arawhiti e hangaia ana i Hauraki, hei wāhanga o ngā mahi whakaora o reira. I pā kinotia te Huarahi Matua 25A i Hauraki i waenga o Kōpū me Hikuai i te Hānuere 2023, ā, ka papahoro te huarahi. E kati ana te huarahi i te wā e whakatikahia ana te huarahi, i te mea he ara matua tēnei ki roto o Hauraki.

Nā te kōhukihuki o ngā mahi nei, kua whāia e te tira o Hauraki tētahi hātepe hirahira ki te whakatū wawe i tētahi arawhiti 124 mita te roa, e 3 tāwhana hoki, me te tūmanako ka huaki te ara ā te Maehe 2024.

Koinei te wāhi i kuhu atu ai te rōpū mahi o Te Ara o Takitimu ki te Raki, arā he tuku i ngā pereti maitai ki Ahuriri hei hanga i ngā kurupae, e tutuki ai te arawhiti o SH25A.

Kāore anō i tae ki te wā e whakaurua ai ēnei pereti ki te wāhi i Te Rangi Tuanehe. He ōrite te hoahoa o ngā arawhiti e rua nei, me ngā kurupae maitai. He paku noa ngā rerekētanga engari he ōrite te mātotoru o te maitai.

He tauira pai tēnei o te mahi ngātahi me te whakaarotau, hei tautoko i aua hapori e tino pokea ana i te wā nei.

Tirohia te āhua o te āta waihanga i ngā kurupae mai i ngā pereti maitai ki konei.

https://www.youtube.com/watch?v=iZpzLHBsEsY



Coromandel SH25A Hauraki SH25A



Minden Bridge, Takitimu North Link Te arawhiti o Te Rangi Tuanehe, Te Ara o Takitimu ki te Raki



For more information

Read more and sign up for updates about the project at: **nzta.govt.nz/takitimunorth**

Takitimu North Link Stage One Project Team Te Tira Mahi o Te Ara o Tākitimu Wāhanga Tuatahi

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