

Report No.	22-37
Decision Required	

LOWER WHANGANUI SCHEME - TE PŪWAHA UPDATE

1. PURPOSE

- 1.1. This item updates members on progress with the river training infrastructure upgrade component of the Te Pūwaha / Whanganui Port Revitalisation Project. The item also updates financial forecasts through to project completion and seeks Councils direction on budgets for the project.

2. EXECUTIVE SUMMARY

- 2.1. Te Pūwaha refers to the gateway, or river mouth. It is also the name of the Whanganui port revitalisation project. Te Pūwaha is a partnership involving Whanganui Iwi and five other groups invested in the project: **Whanganui District Council (WDC)**, **Horizons Regional Council (Horizons)**, Q-West Boat Builders, Whanganui District Employment Training Trust and central government. The total investment in Te Pūwaha is over \$50M, with infrastructure works carried out in several sub projects. This Council item focuses on the component of the project to strengthen and upgrade old river training structures in the lower reach of the Whanganui River. More information on Te Pūwaha and the other components of work is available on [Horizons](#) and [WDC](#) websites.
- 2.2. A project governance structure has been established in accordance with the legislation requirements under the **Te Awa Tupua (Whanganui River Claims Settlement) Act, 2017 (Te Awa Tupua Act)**. Project delivery is being managed as a partnership between Te Mata Pūau and Horizons staff. Te Mata Pūau are the hapū collective leading application of Te Awa Tupua framework together with key partners across the governance and operational levels.
- 2.3. Te Awa Tupua Act was enacted to implement the historical Treaty Settlement with Whanganui iwi in relation to the Whanganui River. Te Awa Tupua represents a new beginning in terms of respect for the Whanganui River and recognition of the inalienable connection between Whanganui Iwi and the Whanganui River. This is a detailed set of legislation which includes a range of mechanisms to recognise the Whanganui River as Te Awa Tupua and to provide legal expression to the relationship between Whanganui Iwi and the River.
- 2.4. A fundamental driver for Te Pūwaha as a project is the requirement for all communities and authorities to uphold the values of Tupua te Kawa are the intrinsic values that represent the essence of Te Awa Tupua. These values include:
- Ko Te Kawa Tuatahi - Ko te Awa te mātāpuna o te ora: the River is the source of spiritual and physical sustenance: Te Awa Tupua is a spiritual and physical entity that supports and sustains both the life and natural resources within the Whanganui River and the health and well-being of the iwi, hapū, and other communities of the River.
 - Ko Te Kawa Tuarua - E rere kau mai i te Awa nui mai i te Kahui Maunga ki Tangaroa: the great River flows from the mountains to the sea: Te Awa Tupua is an indivisible and living whole from the mountains to the sea, incorporating the Whanganui River and all of its physical and metaphysical elements.

- Ko Te Kawa Tuatoru - Ko au te Awa, ko te Awa ko au: I am the River and the River is me: the iwi and hapū of the Whanganui River have an inalienable connection with, and responsibility to, Te Awa Tupua and its health and well-being.
 - Ko Te Kawa Tuawhā - Ngā manga iti, ngā manga nui e honohono kau ana, ka tupu hei Awa Tupua: the small and large streams that flow into one another form one River: Te Awa Tupua is a singular entity comprised of many elements and communities, working collaboratively for the common purpose of the health and well-being of Te Awa Tupua.
- 2.5. The River Training Structures part of the overall Te Pūwaha programme is funded via an agreement between central government, via the **Ministry of Business, Innovation and Employment (MBIE)**, and Horizons dated 10 July 2020. This provides for a central government contribution of up to \$7.5M towards a \$15M project to strengthen and upgrade old river training structures in the lower reach of the Whanganui River. Horizons contribution to this project is \$5.7M and WDC's contribution \$1.8M.
- 2.6. The project as scoped included three stages with Stage 1 being the North Mole reconstruction works and Stage 2 the South Mole reconstruction works. The third stage is the possible extension to the Tanae Groyne and improvements/strengthening of South Spit erosion protection/training structures upstream of Tanae Groyne. Stage 1 of the 3 stage project is now well advanced and is scheduled for completion in late 2022. Preliminary work in respect of Stage 2 is also well underway with commencement of physical works scheduled for November 2022.
- 2.7. This paper seeks Council direction on the budgets for the Whanganui Scheme related rates in the upcoming Annual Plan processes to account for the following factors:
1. Increased costs for the delivery of Stage 1 and 2 which is now projected to be delivered for a total budget of \$16.2M, being approximately \$2.75M or 20% higher than originally budgeted. Cost increases relate to project management and communications \$1.297M, consenting and design \$0.254M, construction costs for stage 1 (\$0.8M) and for Stage 2 \$0.4M. It is noted that the cost projection for Stage 1 construction includes a provisional sum of an additional \$0.75M for two fishing platforms and staff are working to get further certainty around this amount prior to the Council meeting;
 2. Alignment of Horizons funding contribution with the funding commitments of the government contract for the River Training Structures part of the Te Pūwaha project. Currently Horizons **Long-term Plan (LTP)** for 2018-2028 and LTP 2021-2031 both overestimate the WDC contribution at 25% rather than the fixed \$1.8 million contribution;
 3. Updated phasing of Horizons planned expenditure on this project given new information from the current delivery of the project to the end of March 2022;
 4. Removal of the delivery of Stage 3 from the scope of the Government and WDC co-funded project to offset the increased costs for the Stage 1&2. Note the paper recommends a resolution for Council to direct the CE to present further information on Stage 3 to the Annual Plan process in 2023-24;
 5. Inclusion of a budget of \$100,000 over two years for scoping and monitoring work to inform planning for Stage 3;
 6. Providing a budget for further scoping and delivery of amenity enhancement projects (noting this is additional to the costs provisioned for in 1 above); and
 7. Other changes to work programmes for other Whanganui Scheme related activity to further reduce the impact of the cost increases identified for Stage 1 and 2 above and in recognition of the readiness of that other activity and capacity of Horizons and project partners to deliver this additional work during the next two years.

- 2.8. It is noted that the project budgets are subject to further change as additional design and consenting work etc. is completed and inflationary pressures, contractor pricing etc. are further accounted for.
- 2.9. In total the increased funding required from Horizons for this project is \$2.2M. As a part of the review of the LTP year 2 budgets to the Annual Plan for 2022-23 there have been revisions to the budgets and phasing of works and associated loan repayments for the Lower Whanganui Scheme rates, which are funded 80% by targeted rate and 20% general rate. As a result the proposed impact of this change in budgets, the targeted rates required this Annual Plan has been slightly reduced compared to year 2 of the LTP (-\$12k), and \$16k up on year 3 of the LTP. It is noted that some work within the Whanganui Scheme has been deferred to beyond that period, however this is not fully scoped making it difficult to forecast budgets for that work.

3. RECOMMENDATION

It is recommended that Council:

- a. receives the information contained in Report No. 22-37.
- b. notes progress to date with Te Pūwaha Project Stage 1 physical works and Stage 2 preparatory work;
- c. notes the revised budget estimates indicate an overspend of \$1.4M against the original project budget of \$15M. This includes additional funding for Stages 1 and 2 completion (additional \$2.75M), scoping of Stage 3 (\$100,000) and scoping and delivery of amenity enhancement works (\$100,000). Notes these additional costs are partially offset by removing delivery of Stage 3 from the work programme which was budgeted at \$1.587M. Further notes design, consenting, inflationary pressure and other factors may lead to revised project budgets into the future.
- d. notes that if Stage 3 works were to be completed, an additional budget of \$2.5M is estimated to be required, including additional design and consenting work beyond that which will be completed in the scoping study identified above.
- e. directs the Chief Executive to present further information on Stage 3 of this project as a part of the Annual Plan process for budgets for the 2023-24 financial year.
- f. notes that amenity enhancement works are being identified as a part of the project with some being scoped/delivered within the budgets identified above and that further requests for Council funding of such elements may be presented to Council in the future.
- g. approves the allocation of Horizons share of the funding for this project as revised in the paper taking the total project cost to \$16.4M including MBIE (\$7.5M) and WDC (\$1.8M) share. This includes the additional funding for the completion of Stages 1 and 2 as identified in the paper, scoping work for Stage 3 and including up to \$100,000 for scoping and delivering amenity enhancement projects over the next two years.

4. FINANCIAL IMPACT

- 4.1. This item outlines revised budgets for the Whanganui River Training structures project part Te Pūwaha project and broader Lower Whanganui Scheme over the next two years and beyond. Financial impacts are discussed in the item including rating impact for the 2022-23 and 2023-24 years. This is summarised in the Executive Summary above and in Section 12 below.

5. Mouri Ora, Mouri Awa, Mouri Tangata

- 5.1. Extensive effort has been made to place Te Awa Tupua at the heart of the Te Pūwaha programme in a way that has established a unique partnership model between Horizons, Whanganui Iwi, WDC, central government, private business and the Whanganui community.
- 5.2. Hapū play a significant role at the centre of the project through the establishment of Te Mata Pūau to steer and guide the project. Te Mata Pūau is a hapū collective that invites participation from all hapū with interest. Project partners have needed to commit to upholding Te Awa Tupua in the way they work. Horizons has committed to this process and has been directed and supported to do so by Te Mata Pūau, supported by Ngā Tangata Tiaki and a Programme Director. The project has and will continue to have a strong focus on empowering the community and involving the community in discussions and approach to project issues and outcomes outside the regulatory process.
- 5.3. Iwi and hapū need to be recognised for their contribution to ensuring the project has been developed and guided by Tupua te Kawa and in the context of the Te Awa Tupua Act. This relationship has helped guide the approach through Te Pūwaha Project Framework and ensured a Te Awa Tupua lens has been applied to the overall project. The support and guidance from iwi and hapū has helped ensure that the implementation of Te Awa Tupua Act and establishment of a framework for this project has been upheld across the key partners at both governance and operational levels.
- 5.4. He Ara Tuku Rau is an abundance model that has been developed as a support mechanism for Te Mata Pūau and its decision making. He Ara Tuku Rau seeks to support Te Mata Pūau and in-turn the project partners to:
 - Address historic losses and provides a pathway to avoid contemporary adverse effects.
 - Set long-term visions and goals for enhancement across appropriate dimensions aligned with Tupua te Kawa.
 - Place Te Mata Pūau at the centre of decision-making enabling adverse effects that undermine Tupua te Kawa (across all dimensions) to be avoided.
 - Support decision-making in order to enhance Mouri Ora, Mouri Awa, Mouri Tangata.
 - Provide a pathway for activities to occur in and around Te Pūwaha.
 - Be based on recognised conceptual foundations and can incorporate existing models, methods and tools or those designed for a specific project.
 - Emphasise restoration and the concept of abundance.
 - Inform a monitoring programme that enables performance reporting for enhancement interventions that enrich Mouri ora, Mouri awa, Mouri Tangata.
 - Be robust, transparent, and repeatable.
 - Be able to be applied commensurate to the scale of the project.
- 5.5. The environmental effects associated with the resource consent issues for the North Moles can be avoided, remedied, or mitigated and are assessed to be no more than minor. However, consistent with the way we are working on this project from a holistic manner the project partners are working towards a strategic outcome of Mouri Ora, Mouri Awa, Mouri Tangata.
- 5.6. Horizons have committed to Te Awa Tupua and He Ara Tuku Rau. The outcomes achieved should not be considered positive effects in relation to the proposed activities, but more a set of deliberately designed outcomes to achieve the strategic aspiration of Mouri Ora, Mouri Awa, Mouri Tangata. These aspirations are implicit in what Tupua Te kawa is and a

product of the community led approach. Some examples of how Horizons are contributing to these aspirations beyond the proposed activities are yet to be determined with Te Mata Pūau.

- 5.7. There are some clearly defined community aspirations which are the product of a successful community engagement process led by Horizons towards consenting for the North Mole. The proposed works are considered to improve the integrity of key infrastructure and reduce the risk of erosion and flooding to the lower Whanganui community. The Resource Consent Conditions note that works will also result in an improvement to the access of this area through the provision of fishing platforms and dune management. These are the agreed outcomes which funding is being sought for to achieve the community's aspirations.

6. SIGNIFICANT BUSINESS RISK IMPACT

- 6.1. There is no significant business risk arising from this item. Some of the project-related risks are addressed elsewhere in the item.

7. CLIMATE IMPACT STATEMENT

- 7.1. While the work associated with strengthening the river training structures primarily addresses deferred maintenance over many decades, the work also considers climate change effects, including rising sea levels, more frequent storms, and a changing flood frequency for the awa. The design takes into account these factors and was reviewed by coastal engineering experts at engineering consultancy Tonkin and Taylor, to ensure that sufficient consideration was given, amongst other things, to climate change impacts. While the work seeks to provide greater resilience to storm and flood events, there are elements of the delivery that will contribute to climate impact for example the use of fossil fuels etc.

8. BACKGROUND

- 8.1. In December 2011 Horizons received a formal request from WDC to extend its then current river management function, through its Lower Whanganui River Scheme, to include maintenance of old channel management infrastructure along the lower reach of the Whanganui River. While a decision on that request was deferred at the time, Council instructed officers to work collaboratively with WDC to explore options for the longer term management of issues associated with both river and port management.
- 8.2. Ultimately the scope of the Lower Whanganui River Scheme was extended through adoption of the 2015-25 Long Term Plan, initially to accommodate river alignment and erosion control along the South Spit, with the objective of maintaining existing river alignment upstream of the South Mole.
- 8.3. Over the following three years, some minor maintenance works were completed along the South Spit; monitoring of erosion at various sites was undertaken; and further investigations were commissioned with respect to the wider issues. Costs were shared by WDC and Horizons.
- 8.4. Investigations undertaken by Tonkin and Taylor Ltd and Coastal Systems Ltd (Dr Roger Shand) formed the basis of a Situations and Recommendations Report produced in March 2017. That report identified that infrastructure was in a worse state than previously reported and noted, amongst other things, that slumping and scouring had occurred at various sites along the North Mole and South Spit since June 2015. The need for maintenance or improvement works at certain sites was considered urgent.
- 8.5. A joint Councils' project team, established to progress the issue as a priority, held technical workshops involving coastal and river engineers having long associations with the subject river reach, and ultimately developed a programme of works that would achieve a balance

- between the risk of existing structure failure and a spread of expenditure that best managed rating impacts.
- 8.6. At the same time, the matter of apportionment of funding responsibility was considered and recommendations were put before both Horizons and WDC in August 2017 (Item [17-153](#)).
- 8.7. In its [2018-28 LTP](#), HRC made provision for a programme of essential maintenance works to ensure that the aging river control works, designed to regulate the alignment of the lower reach of river and protect the port, continues to function as intended. WDC, through its [LTP](#) (page 15), made provision for funding 25% of work on the moles at the river mouth for a period of 10 years.
- 8.8. Concurrent with the development of the 2018-28 LTP, discussions were progressed with Central Government in an effort to secure funding assistance with the works that in particular would enable an accelerated programme and commensurate reduction in the risk of failure of existing structures.
- 8.9. Ultimately an application for funding through the Provincial Growth Fund was lodged in August 2019 and in July 2020 an agreement between MBIE and Horizons was executed. The agreement, which terminates in March 2025, provides for a defined programme of work, estimated to cost \$15M, with a maximum MBIE contribution of \$7.5M. Council item [20-128](#) identified the change in expenditure profile. With the Central Government funding secured, Horizons formally committed to the River Training Structures Project and made provisions for funding through adoption of the 2021-31 Long Term Plan.
- 8.10. The agreement with MBIE included a key Establishment Condition Precedent requiring the funding recipient to establish a governance structure consistent with legislative requirements under the Te Awa Tupua Act, with appropriate stakeholder and community membership, including the Recipient, WDC and Ngā Tāngata Tiaki o Whanganui. Furthermore the Precedents required that the Project be a truly community led exercise in accordance with the Te Awa Tupua legislation; that there be effective engagement with, and the support of Whanganui Settlement Negotiations Trust and Ngā Tāngata Tiaki; and that Tupua te Kawa, the innate values of Te Awa Tupua legislated in the 2017 Act, be incorporated into the governance model and project delivery approach of the project.
- 8.11. In accordance with these precedents, a Governance Group has been established; a Project Director (Hayden Turoa) has been appointed; a hapūtuawhā mandated group of five – Te Mata Pūau, has been formed to lead the project partners to a greater understanding of their obligations to Te Awa Tupua and Tupua Te Kawa; and formal approval for progression from Establishment Phase to Delivery Phases has been received from Kānoa – the Regional Development and Investment Unit of MBIE. At a delivery level, the river training structures project component of the overall Whanganui Port Revitalisation Programme, now referred to as Te Pūwaha, is being managed as a true partnership between Te Mata Pūau and Horizons staff.
- 8.12. The other components of Te Pūwaha are:
- The Port Revitalisation Project (port structures and dredging) managed by WDC;
 - The Q West Project (relocation and expansion of boat building business), managed by Q-West Properties; and
 - The Te Ara Mahi Project (Port Employment Precinct) managed by Whanganui District Employment Training Trust.

9. ORIGINAL PROJECT SCOPE & BUDGET

- 9.1. A summary of the three stages of the River Training Structures Project, including the budgets as approved by Central Government through MBIE is shown in Table 1. An overview of the location and works is provided in Figure 1.

Table 1: Summary of the three stages of the project as approved by central government.

Stage	Description	Original Estimated Cost (\$)
1	Project establishment and upgrade/strengthening of North Mole and revetment	7,026,667
2A	Construction of trial section (50m) of Tanae Groyne and upgrade of South spit Interface wall.	1,000,000
2B	Upgrade/strengthening of South Mole	5,386,667
3	Possible extension of Tanae Groyne and improvements/strengthening of various South Spit training structures	1,586,667
Total		15,000,000

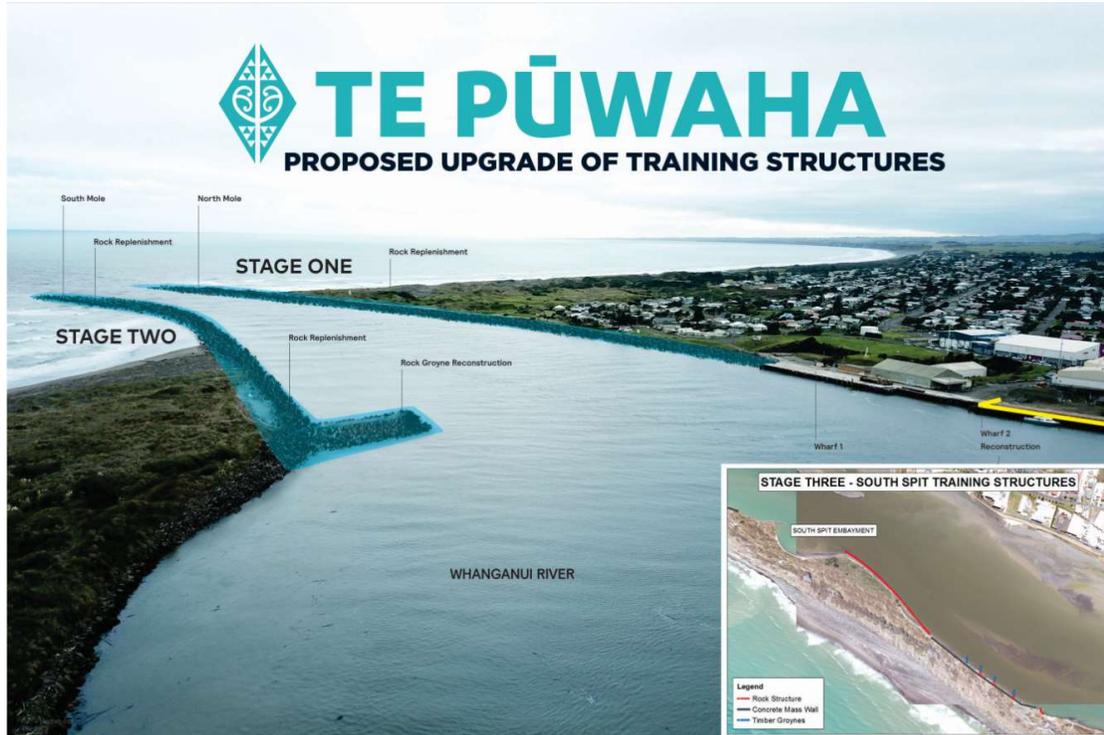


Figure 1: Photo of the area showing the location of the North and South Mole, as well as the Tanae Groyne (labelled Rock Groyne reconstruction on the image). Inset shows the current erosion control structures and south spit embayment (upstream of the Tanae Groyne), relating to Stage 3.

10. PROJECT PROGRESS

- 10.1. The project has successfully developed a project management structure that is consistent with the Te Awa Tupua legislation; obtained resource consents, awarded contracts and progressing Stage 1 works.
- 10.2. Major contracts have been awarded for rock supply (\$3,273,420) and North Mole re-construction (\$3,979,140), a total of \$7,252,560. As at the end of March, rock supply is 65% completed and is on track for completion in accordance with the contract schedule. The placement contract has been blessed with some extremely clement weather, is approximately 28% complete, and is presently on schedule for completion in November 2022.
- 10.3. With Stage 1 works now well underway, some staff resources have been assigned to preparatory work in relation to both Stages 2A and 2B. The decision to separate these components was driven by the fact that for Stage 2A (trial section of Tanae Groyne and associated works) design work had already been completed and relatively straight forward consenting and community consultation processes were anticipated. By comparison, a

significant amount of design, options assessment, and execution methodology work in respect of Stage 2B (South Mole) is yet to be undertaken.

- 10.4. To date, with respect to Stage 2A a draft **assessment of environmental effects (AEE)** has been completed and is presently being reviewed by Te Mata Pūau and a draft consent application is near completion. It is anticipated that a consent will be granted and that we will be in a position to call tenders for the work in July. Completion is programmed during year 2022/23.
- 10.5. As for Stage 2B, Tonkin and Taylor have been commissioned to undertake preliminary design and option assessment work. Other consultants have been engaged to complete an aquatic impact assessment and to prepare a draft resource consent application. It is anticipated that design options, which could have significantly different cost impacts, will be available for assessment and for Council's consideration in May. Current programming assumes that a single rock supply and placement contract for this work will be awarded by October 2022, and that all work will be completed in the 2023/24 year.

11. REVISED BUDGET

- 11.1. At the funding application stage, estimates were necessarily 'rough order of cost' on account of the substantial quantities of particularly large sized and high quality rock required and the known difficulty of sourcing that material. There was also little recent experience with placing such large material in such an exposed coastal location.
- 11.2. Now that the major contracts have been awarded for Stage 1, there is increased confidence in our revised estimated cost to completion of Stages 1 & 2 (Table 2). Revised cost estimates for Stages 2A and 2B take account of experience gained through Stage 1 contract processes; reflect now understood broader project management costs; and to the extent possible, anticipate increased civil engineering works costs resulting from fuel price increases and strained industry capacity. Revised estimates for Stage 2A can be regarded with a reasonable degree of confidence, however until a preferred design for Stage 2B has been approved, and consequently rock type and quantities are known, estimates for that work must be regarded as 'rough order'.

Table 2: Comparison of the original and proposed revised budget for Stage 1 & 2 of the project.

Stages 1 & 2	Estimated cost - original budget (\$)	Estimated revised cost March 2022(\$)	Difference (\$)	Difference (%)
<u>Project planning and support</u>				
Consents	130,000	229,915	99,915	77%
Investigation/designs	160,000	313,995	153,995	96%
Comms + project management	833,334	2,130,970	1,297,636	156%
Sub total	1,123,334	2,674,880	1,551,546	138%
<u>Construction</u>				
Stage 1 North mole	6,490,000	7,286,638	796,638	12%
Stage 2 A Tanae Groyne	800,000	1,000,000	200,000	25%
Stage 2 B South Mole	5,000,000	5,200,000	200,000	4%
Sub total	12,290,000	13,486,638	1,196,638	10%
Total Stages 1 & 2	13,413,334	16,161,518	2,748,184	20%

- 11.3. The current estimated cost to completion for Stage 1&2 (Table 2), including all project establishment and management costs, is \$16,161,518 which is 20% over the original estimate (\$13,413,334). The updated estimate does include a contingency sum and at this stage it is assumed that will be required. The main outstanding uncertainty is in relation to the two fishing platforms that are currently the subject of a Provisional Sum in the

placement contract. Staff are aiming to have a firm sub-contract price for that item confirmed for Council on 27 April.

- 11.4. These fishing platform costs are a key contributor to the variance for Stage 1. These are an example of the cost of meeting community aspirations for enhanced amenity and were committed to as a part of the consent for delivery within the project works. Developing such ideas is an integral part of the project (see Section 14 below). Within the Stage 1 project the two original fishing platforms that had to be demolished as part of the works comprised simple concrete slabs at the top of the river bank. Estimated cost to demolish and replace these at the top of the raised and reconstructed rock lining was identified and budgeted at \$250,000. However, an extensive engagement process has arrived at a preference for more elaborate stepped concrete structures which will provide for considerably improved fishing amenity and a multi-purpose function. A detailed design has been completed and a Provisional Sum of \$1.0M is included in the placement contract for construction of these much more complex structures. Further comment is made below with regard to potential amenity enhancement costs over the balance of the project.
- 11.5. A variety of factors contribute to the other variances in the revised budget for Stage 1&2, including (primarily) the above referred to uncertainty around rock supply and placement costs; project-heavy communications activity, and costs related to the Project Director role and the application of the of the principles of Tupua Te Kawa being largely unbudgeted at the time of seeking PGF funding. These costs were not included in the estimates submitted with the funding application and Council via item [20-128](#) authorised Horizons entering into a funding agreement between NgāTangita Tiaki, WDC, and Horizons "... that provides for both a Project Director and that allows for Ngā Tangata Tiaki to fulfil its statutory function as defined by the 2017 Te Awa Tupua (Whanganui River Claims Settlement) Act". While these costs were not originally identified with the project budgets MBIE has recently confirmed that they are eligible for the 50% funding assistance, but only to the extent that they can be accommodated within the fixed government contribution of \$7.5M. A breakdown of budgeted project management costs for the project (all three stages) and the updated estimates through to the completion of Stage 2, is shown in Table 3.

Table 3: Summary of changes to River Training Structures project management costs for the project.

Description	Original Estimate (\$)	Revised budget (\$)	Difference (\$)	HRC share of cost (\$)
Horizons River Management staff inputs to funding application, consents, community consultation, contract documentation, tender processes, contract management, works supervision, reporting.	1,200,000	1,366,489	166,489	1,366,489
Project Director - overall Te Pūwaha Project leadership. Note this is 30% of the overall cost. The other 70% (not shown in this table) is paid for by WDC over and above the WDC commitment to the river training structures component of the Te Pūwaha project. This arrangement reflects Horizons funding the Project Director contribution to the River Training Structures part of the broader Te Pūwaha project.	nil	215,834	215,834	215,834
Te Mata Pūau - leading the funded project partners to a greater understanding of their obligations to Te Awa Tupua and Tupua Te Kawa. Horizons portion (30% of total cost for the broader project).	nil	201,640	201,640	201,640
Cultural Monitor / Iwi Advisor	nil	192,146	192,146	192,146
Total	1,200,000	1,976,109	776,109	1,976,109

- 11.6. A summary of revised estimated costs for Stages 1 and 2, relative to original estimates for the whole project, is presented in the Table 4 below. As a result of the increases in costs for delivery of Stages 1 & 2 there is insufficient budget to complete both Stages 1 & 2 and a reduced scope for the project as Stage 3 can no longer fit into the budget.

- 11.7. To complete Stages 1&2 it is estimated that \$1.162M of further funding will be required over and above the total project budget of \$15M. For the purposes of the resolution for Council this paper has included additional sums of \$100,000 for scoping in relation to Stage 3 works (see Section 13 below) and \$100,000 for amenity enhancement works (see Section 14 below). The total additional budget required to complete Stage 1&2 and these additional pieces of work is estimated at \$1.36M above the original project budget. As noted above there are uncertainties in this estimate and for the purposes of the resolution the amount has been rounded to \$1.4M, noting uncertainties still remain even with that increased amount.
- 11.8. Horizons have notified the Governance Group of the project, WDC and MBIE of the budget shortfalls including the reduction in scope to remove Stage 3 from the central government co-funded project. MBIE have verbally accepted this change in scope, and Horizons are awaiting written confirmation of the acceptance of this change in scope to the contract.

Table 4: Comparison of the original and proposed revised budget for the project.

Stage	Estimated cost - original budget (\$)	Estimated revised cost - March 2022 (\$)	Difference (\$)	Difference (Percentage)
1	7,026,667	8,563,647	1,536,980	22%
2A	1,000,000	1,200,000	200,000	20%
2B	5,386,667	6,397,871	1,011,204	19%
Stage 1 & 2 subtotal	13,413,334	16,161,518	2,748,184	20%
Stage 3	1,586,667	0	-1,586,667	removed from scope
Stage 3 scoping only		100,000	100,000	new
Further amenity enhancement scoping & implementation		100,000	100,000	new
Total	15,000,000	16,361,518	1,361,517	8% with reduced scope
Funding				
KANOA/MBIE	7,500,000	7,500,000	0	0%
Horizons	5,700,000	7,061,518	1,361,518	24%
WDC	1,800,000	1,800,000	0	0%
Total	15,000,000	16,361,518	1,361,518	8% with reduced scope

12. POTENTIAL RATING IMPACT

- 12.1. The River Training Structures part of the overall programme is funded via an agreement between MBIE and Horizons dated 10 July 2020. This provides for a Central Government contribution of up to \$7.5M towards a \$15M project to strengthen and upgrade old river training structures in the lower reach of the Whanganui River. Horizons contribution to this project is \$5.7M and WDC's contribution \$1.8M. Horizons contribution to this project is loan funded over 25 years from 2021/22. The loan being serviced via the Lower Whanganui River Scheme that has a funding policy of 80% targeted rates and 20% general rate contribution.
- 12.2. The Lower Whanganui Scheme has other current/planned capital projects including:
- Kowhai Park Egress Gate upgrade which is loan funded over 20 years from 2023/24;
 - Kowhai Park water inflated property protector (WIPP) replacement which is loan funded over 20 Years from 2021/22;
 - Putiki Stopbank Project which is loan funded over 20 Years from 2023/24;
 - CBD Upgrades/Climate Change which is loan funded over 20 Years from 2023/24;
 - Q-West Stopbank Upgrade which is planned to be loan funded.
- 12.3. The proposed changes to the Annual Plan budget for 2022-23 and beyond include consideration of a range of factors as outlined below.

- 12.4. A primary consideration for the revised budgets is the forecast increased costs for the delivery of Stages 1 and 2 which are now projected to be delivered for a total budget of \$16.2M, being approximately \$2.75M or 20% higher than originally budgeted. Cost increases relate to project management and communications \$1.297M, consenting and design \$0.254M, construction costs for stage 1 (\$0.8M) and for Stage 2 \$0.4M. It is noted that the cost projection for Stage 1 construction includes a provisional sum of an additional \$0.75M for two fishing platforms and staff are working to get further certainty around this amount prior to the Council meeting;
- 12.5. Proposed budgets for the Annual Plan also require alignment with Horizons rating with the funding commitments of the government contract for the River Training Structures part of the Te Pūwaha project. Currently Horizons LTP for 2018-2028 and LTP 2021-2031 both overestimate the WDC contribution at 25% rather than the fixed \$1.8 million contribution. This requires an increase of the Horizons contribution via the loan and is partially offset over the longer term by Horizons having committed additional funding to this work over a longer period of time in the LTP.
- 12.6. The revised budgets also account for new information on the phasing of Horizons planned expenditure on this project. This includes under expenditure in previous years and updated budgets for the next two years. The Lower Whanganui Scheme was \$3.065 million underspent in the 2020-21 year (last financial year) including \$2.883M for the River Training Structures project. The forecast for the current year is to spend \$5.633M of the \$6.698M budget a saving of \$1.065M for the Lower Whanganui Scheme projects. These savings to the budgets have an impact of lower loan repayment requirements for this and the future years until the works programme “catches up”.
- 12.7. The underspends in the previous years have also required additional work to be programmed, and budget to be allocated, for the next two years in order to deliver the River Training Structures project, including the increased costs that have been identified above. These costs will impact on the loan repayments to a limited extent in the year the work is completed and more so in the years of the loan after the work is completed.
- 12.8. The phasing of other Lower Whanganui Scheme related work has also been revised as shown in Table 5. Overall the increased costs for the two years is \$1.365M more than the LTP noting some works previously budgeted have been deferred to 2024 or beyond.

Table 5: Comparison of LTP and proposed revised budgets for the 2022-23 and 2023-24 financial years.

Project	LTP Budget 2022-23	Forecast 2022-23	Difference 2022-23	LTP Budget 2023-24	Forecast 2023-24	Difference 2023-24	LTP Budget 2022-24	Forecast 2022-24	Difference 2022-24
Q-West stopbank upgrade	175,026	25,361	-149,665	0	23,520	23,520	175,026	48,881	-126,145
Climate change impact - CBD	178,768	28,061	-150,707	162,639	176,100	13,461	341,407	204,161	-137,246
Kowhai Park - replacement of portable flood barriers	0	243,104	243,104	161,461	19,725	-141,736	161,461	262,829	101,368
Kowhai Park egress gate	0		0	164,172	164,603	431	164,172	164,603	431
Putiki flood protection project	26,914	26,912	-2	529,830	472,668	-57,162	556,743	499,580	-57,163
Sub total	380,708	323,438	-57,270	1,018,101	856,616	-161,485	1,398,809	1,180,054	-218,755
River Training works	6,455,608	7,661,444	1,205,836	1,863,806	2,241,933	378,127	8,319,414	9,903,377	1,583,963
Total Lower Whanganui Scheme	6,836,316	7,984,882	1,148,566	2,881,907	3,098,549	216,642	9,718,223	11,083,431	1,365,208

- 12.9. The under expenditure in previous and current years, re-phasing of budgets and the loan mechanism for Horizons funding all combine to limit the impact of the increased budgets for the River Training Structures project on Lower Whanganui Scheme Rates over the next two years (Table 6). However the deferral of other Lower Whanganui Scheme works and increased work programme on the River Training Structures over the next two years are

projected to result in increases in 2024-25 and beyond. These increases are difficult to forecast at this stage, as some of the work is not fully scoped at this point in time, including if the potential budgets for Stage 3 of the River Training Structures project.

Table 6: Comparison of Horizons targeted rate contributions to the Lower Whanganui Scheme.

Financial year	2021-22	2022-23	2023-24	Total
Long Term Plan year	1	2	3	
Project year	Year 2	Year 3	Year 4	
LTP Targeted rate (\$)	\$619,019	746,911	807,357	2,173,287
New Annual Plan targeted rate (\$)	\$619,019	735,055	823,033	2,177,107
Movement (\$)	0	-11,856	15,676	3,820

13. STAGE 3 WORKS

13.1. The works proposed under Stage 3 comprised of:

- Possible extension of Tanae Groyne; and
- Improvements/strengthening of South Spit erosion protection/training structures upstream of Tanae Groyne.

13.2. The purpose of Tanae Groyne is to deflect river flows into the port entrance adjacent to Wharf 1, to facilitate necessary sedimentation for south westerly wave dissipation and to protect the South Mole and Interface Wall structures. Deflecting river flows will ensure a navigable depth for vessels to enter the turning basin and possibly reduce the amount of dredging that is required. The purpose of strengthening the very old South Spit erosion control structures would be to maintain river alignment and reduce the likelihood of the river breaching through the Spit (as happened in 1946, Figure 3) and outflanking the South Mole, particularly at the South Spit embayment.

13.3. The possible need to extend the initial 50m length of Tanae Groyne (to be constructed in Stage 2A), in order to achieve the desired degree of sedimentation and main flow deflection from South Spit, has previously been raised by Tonkin and Taylor. However before a decision is made in that regard, some monitoring of the performance of the initial trial section of Groyne should be undertaken. It is likely to require at least two or three annual floods before effects are apparent and accordingly it is difficult at this stage to predict if an extension is indeed required, what scale of extension might be required, and what the timing of any works should be.

13.4. A similar situation applies with regards to improvements to certain erosion protection/training structures along South Spit (Figure 4, Figure 5). In particular the treatment of a large erosion embayment immediately upstream of the Tanae Groyne is specifically identified in the funding agreement. However the nature and extent of works required, and possibly even the need for works, could well be influenced by the performance of the trial section of Tanae Groyne being constructed as Stage 2A of the project (scheduled for completion by 30 June 2023).

13.5. Accordingly, given that the full cost of Stage 3 works will need to be funded by Horizons. Council may wish to defer any Stage 3 work at this time and to receive separate proposals for funding of such works under the Whanganui River Scheme, as and when their need is confirmed. In this case, staff would recommend that the sum of \$100,000 be included in the revised Te Pūwaha project budget to allow for monitoring of completed Stage 1 and 2 works and for scoping investigations into possible Stage 3 measures. Detailed design and consenting for any ultimately recommended measures would then be included in future estimates.



Figure 3: Photos of the breach of the South Spit in 1946 (Source unknown).



Figure 4: Photo of the area showing the location of key river management infrastructure in the lower Whanganui River. Note Stage 3 of the project relates to structures upstream of the Tanae Groyne on the same side of the river, including the South spit embayment, south spit Groynes and concrete walls. Map created in 2017.



Figure 5: Map of the South Spit erosion protection/alignment control works.

14. Amenity enhancement projects

- 14.1. The amenity enhancement works that have been specifically included in the revised project budgets are those relating to the enhanced fishing platform construction referred to above; a North Mole amenity concept design and a star compass design. A report on the He Ara Tuku Rau abundance model has also been completed, in February 2022, as a part of the project providing an abundance focussed assessment framework to support decision making.
- 14.2. Other additional potential amenity enhancement items that have been identified to date through community engagement include those identified in Table 6 below. Cost estimates have been derived through an informal working group including the Project Director, members from Horizons, WDC, and the community group Progress Castlecliff. Some items have been priced to a reasonable degree of accuracy, for example the carpark, which was estimated by the WDC Roading Alliance. The majority of estimates are however 'rough order', being based on concepts rather than defined outcomes. There is clearly a desire from the community that Horizons and WDC deliver these outcomes, with as much external funding assistance as can possibly be sourced, however, no commitment has been given to delivery or funding of these at this point in time. It is important to note that WDC are currently recruiting for a Project Manager to drive these sub-projects, including the application for external funding, and it has been proposed that Horizons contribute to this position.
- 14.3. This paper highlights to Council the types of projects that are being considered and discussed as a part of the community engagement and includes a provision for some projects (as outlined above). The proposed revised budgets above also make provision for further scoping and potentially further implementation of some of these up to a total budget of \$100,000 over the next two years with any further proposals to be decided on by Councillors through the usual Council processes including Annual Plan and Long-term Plan processes.

Table 6: Potential projects identified through community engagement in relation to the Te Pūwaha Project.

	Item	'Rough order' estimated cost
1	Improved North Mole Car Park (including services, lighting and viewing area)	\$1,500,000
2	Toilet & Shower	\$250,000
3	Dune Restoration (North and South)	\$200,000
4	Additional Fishing Platforms (x2) – further to those in Stage 1	\$800,000
5	Star Compass	\$100,000
6	North Mole Landscaping (Arts & Design eg interpretive panels and māori artwork)	\$200,000
7	Upstream Amenities (small carpark, picnic area, seating etc.)	\$500,000
8	Project Management Resource to deliver outcomes	\$600,000
	Total	\$4,150,000

15. CONSULTATION

- 15.1. Community engagement through Te Mata Pūau will be ongoing for the term of the River Training Structures project. No additional consultation is planned at present, however it is likely that the Te Pūwaha project could be included in some form of further consultation related to the forthcoming Annual Plan processes.

16. TIMELINE / NEXT STEPS

- 16.1. Councils decisions on this paper will be incorporated into the Annual Plan process and inform next steps for the project.

17. SIGNIFICANCE

- 17.1. This is not a significant decision according to the Council's Policy on Significance and Engagement.

Allan Cook
PROJECT ENGINEER

Dougal Ross
PROJECT ENGINEER

Adrian Smith
CHIEF FINANCIAL OFFICER

Jon Roygard
GROUP MANAGER CATCHMENT OPERATIONS

ANNEXES

There are no attachments for this report.