

I hereby give notice that an ordinary meeting of the Catchment Operations Committee will be held on:

Date: Wednesday, 9 September 2020
Time: 9.30am
Venue: Tararua Room,
Horizons Regional Council
11-15 Victoria Avenue, Palmerston North

CATCHMENT OPERATIONS COMMITTEE

AGENDA

MEMBERSHIP

Chair	Cr DB Cotton
Deputy Chair	Cr AL Benbow
Councillors	Cr EM Clarke
	Cr SD Ferguson
	Cr EB Gordon
	Cr FJT Gordon
	Cr RJ Keedwell
	Cr WM Kirton
	Cr JM Naylor
	Cr NJ Patrick
	Cr WK Te Awe Awe
	Cr GJ Turkington

Michael McCartney
Chief Executive

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www.horizons.govt.nz

Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. Items in the agenda may be subject to amendment or withdrawal at the meeting.

for further information regarding this agenda, please contact:
Julie Kennedy, 06 9522 800

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SERVICE CENTRES	Kairanga Cnr Rongotea & Kairanga-Bunnythorpe Rds, Palmerston North	Marton 19-21 Hammond Street	Taumarunui 34 Maata Street	Woodville Cnr Vogel (SH2) & Tay Sts
REGIONAL HOUSES	Palmerston North 11-15 Victoria Avenue	Whanganui 181 Guyton Street		
DEPOTS	Levin 120-122 Hokio Beach Rd	Taihape 243 Wairanu Rd		
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AGENDA

1 Welcome/Karakia

2 Apologies and Leave of Absence

At the close of the Agenda no apologies had been received.

3 **Public Forums:** Are designed to enable members of the public to bring matters, not on that meeting's agenda, to the attention of the local authority.

Deputations: Are designed to enable a person, group or organisation to speak to an item on the agenda of a particular meeting.

Requests for Public Forums / Deputations must be made to the meeting secretary by 12 noon on the working day before the meeting. The person applying for a Public Forum or a Deputation must provide a clear explanation for the request which is subsequently approved by the Chairperson.

Petitions: Can be presented to the local authority or any of its committees, so long as the subject matter falls within the terms of reference of the council or committee meeting being presented to.

Written notice to the Chief Executive is required at least 5 working days before the date of the meeting. Petitions must contain at least 20 signatures and consist of fewer than 150 words (not including signatories).

Further information is available by phoning 0508 800 800.

4 Supplementary Items

To consider, and if thought fit, to pass a resolution to permit the Committee/Council to consider any further items relating to items following below which do not appear on the Order Paper of this meeting and/or the meeting to be held with the public excluded.

Such resolution is required to be made pursuant to Section 46A(7) of the Local Government Official Information and Meetings Act 1987 (as amended), and the Chairperson must advise:

- (i) The reason why the item was not on the Order Paper, and
- (ii) The reason why the discussion of this item cannot be delayed until a subsequent meeting.

5 Members' Conflict of Interest

Members are reminded of their obligation to declare any conflicts of interest they might have in respect of the items on this Agenda.

Minutes of the third meeting of the eleventh triennium of the Catchment Operations Committee held at 9.30am on Wednesday 10 June 2020, in the Tararua Room, Horizons Regional Council, 11-15 Victoria Avenue, Palmerston North.

PRESENT Crs DB Cotton (Chair), AL Benbow, EM Clarke, SD Ferguson, EB Gordon, FJT Gordon, RJ Keedwell, WM Kirton, JM Naylor, NJ Patrick (via audio visual link), WK Te Awe Awe, and GJ Turkington.

IN ATTENDANCE Chief Executive Mr M McCartney
Committee Secretary Mrs JA Kennedy

ALSO PRESENT At various times during the meeting:

Mr R Strong (Group Manager River Management), Dr J Roygard (Group Manager Natural Resources & Partnerships), Mr G Cooper (Manager Land & Partnerships), Mr J Bell (Investigations & Design Manager), Mr K Russell (Operations Manager), Mrs C Hesselin (Senior Communications Manager), Ms J Jung (Design Engineer), Ms E Whale (River Management Analyst), Mr A Cole (New Zealand Landcare Trust), Ms M Poulton, Ms H Long, Mr J Vennell, Ms G Petit (Agricultural Communities Respecting the Environment (ACRE Group)), Mr D Morrison (Ministry of Primary Industries (via audio visual link)), and a member of the public.

The Chair welcomed everyone to the meeting.

APOLOGIES

There were no apologies.

PUBLIC FORUMS / DEPUTATIONS / PETITIONS

Representatives from Agricultural Communities Respecting the Environment (ACRE Group) had been granted a public forum.

Ms Poulton said the ACRE Group was a community driven group and summarised its purpose, achievements and journey to date. Mr Cole outlined the key groups who supported ACRE which included stakeholders in the community.

SUPPLEMENTARY ITEMS

There were no supplementary items to be considered.

MEMBERS' CONFLICTS OF INTEREST

There were no conflicts of interest declared.

CONFIRMATION OF MINUTES

COP 20-16 **Moved** **Naylor/Clarke**

That the Committee:

confirms the minutes of the Catchment Operations Committee meeting held on 11 March 2020 as a correct record, and notes that the recommendations were adopted by the Council on 7 April 2020.

CARRIED

LAND MANAGEMENT PROGRESS REPORT

Report No 20-78

Dr Roygard (Group Manager Natural Resources & Partnerships) and Mr Cooper (Manager Land & Partnerships) summarised the report which covered work carried out by the Natural Resources and Partnership-Land Management team for the period 1 February to 30 April 2020 and proposed work up until 30 June 2020. The report also covered the activity areas of the Sustainable Land Management Initiative (SLUI), Regional Land and Coast and Nursery.

A video presentation of the Ballance Farm Environment Awards, 2020 Regional Supreme Winner, Woodhaven Gardens was shown to the meeting.

COP 20-17 Moved Turkington/Te Awe Awe

That the Committee recommends that Council:

a. receives the information contained in Report No. 20-78 and Annex.

CARRIED

RIVER AND DRAINAGE ENGINEERING REPORT

Report No 20-73

Mr Strong (Group Manager River Management) reported on progress with river and drainage activities for the period March to May 2020. A powerpoint presentation was shown which illustrated items covered in the report.

COP 20-18 Moved Turkington/Keedwell

That the Committee recommends that Council:

a. receives the information contained in Report No. 20-73.

CARRIED

MOUTOA FLOODWAY

Report No 20-74

Ms Jung (Design Engineer) took Members through a presentation which gave an analysis of survey data from the Moutoa Floodway which focused on the capacity and future operations of the Floodway.

COP 20-19 Moved Clarke/Turkington

That the Committee recommends that Council:

a. receives the information contained in the presentation.

CARRIED

RANGITIKEI STOPBANK UPGRADE PROJECT UPDATE

Report No 20-75

Mr Strong (Group Manager River Management) updated Members on progress for the Rangitikei Stopbank Upgrade project.

COP 20-20 Moved Keedwell/Te Awe Awe

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-75 and Annex.

CARRIED

LOWER MANAWATŪ SCHEME RURAL UPGRADE PROJECT UPDATE

Report No 20-76

Mr Strong (Group Manager River Management) illustrated the progress around implementation of the Lower Manawātū Scheme (LMS) Rural Upgrade Project (RUP).

COP 20-21 Moved B Gordon/Benbow

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-76.

CARRIED

POHANGINA GRAVEL RESOURCE STUDY

Report No 20-77

Ms Whale (River Management Analyst) presented a powerpoint presentation which informed Members of the findings of an updated assessment of the gravel resource of the Pohangina River (from just above the confluence with the Makawakawa Stream to the Manawātū River confluence).

COP 20-22 Moved F Gordon/Kirton

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-77.

CARRIED

PROCEDURAL MOTION TO EXCLUDE THE PUBLIC

COP 20-23

Moved

Turkington/Te Awe Awe

THAT the public be excluded from the following part(s) of the proceedings of this meeting. The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 and section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

CARRIED

General subject of each matter to be considered	Reason for passing this resolution	Ground(s) under section 48(1) for the passing of this resolution
PX1 Infrastructure Industry Reference Group Request For Shovel-Ready Infrastructure Projects	s7(2)(h) - the withholding of the information is necessary to enable the local authority to carry out, without prejudice or disadvantage, commercial activities. The Kumeroa Quarry proposal has a degree of confidentiality to it and debate in a public arena might not aid it's development. Improper gain or advantage refers to the land purchase components particularly the Mangaone stopbank rebuild/setback. s7(2)(j) - the withholding of the information is necessary to prevent the disclosure or use of official information for improper gain or improper advantage.	s48(1)(a) The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.
PX2 Council / Committee to consider whether any item in the Public Excluded minutes can be moved into the public domain and define the extent of the release		

The meeting adjourned to the Public Excluded part of the meeting at 11.39am and resumed at 12.16pm.

The meeting closed at 12.17pm.

Confirmed

CHAIR

GROUP MANAGER RIVER MANAGEMENT

GROUP MANAGER NATURAL RESOURCES
AND PARTNERSHIP

Report No.	20-124
Decision Required	

RIVER AND DRAINAGE ENGINEERING REPORT

1. PURPOSE

- 1.1. The purpose of this item is to report on progress with river and drainage activities for the period June to August 2020.

2. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-124.
- b. approves the cost share change for the Pohangina-Oroua as it relates to bank protection work from 60:40 landowner-scheme to 50:50.

3. FINANCIAL IMPACT

- 3.1. Funding provision for all activities reported on in this item is either included in the River and Drainage General or River and Drainage Schemes Activity sections of the 2018-28 **Long-term Plan (LTP)**; is covered by an approved carry-forward of unexpended budget from the 2019-20 financial year; or additional approval will be specifically sought by way of recommendation in the item.
- 3.2. Noting that the cost share change proposed for the Pohangina-Oroua Scheme has no financial impact for that scheme. Although targeted rate revenue requirement for that scheme (including GST) dropped slightly from the 2020FY to the 2021FY (\$428,157 to \$427,799) in response to the impacts of COVID-19 pandemic, requests for bank protection works have been over-subscribed since the 2018 floods. As they have done since 2018 reserve provide a buffer to meet period of higher demand particularly in critical sections e.g. achieving a contiguous protection line across multiple properties. That is, some prioritisation will be required in any event, regardless of how the cost share is weighted.

4. SIGNIFICANT BUSINESS RISK IMPACT

- 4.1. There are no significant risks relating to the adoption of the recommendations contained in this report.

5. CLIMATE CHANGE IMPACTS

- 5.1. While this item doesn't specifically consider climate change impacts clearly climate change is a significant influence for the activity as a whole, reflected in the fact that the current 30 year Infrastructure Strategy highlights climate change as a significant issue.

6. DISCUSSION

- 6.1. In addition to year end processes and the work associated with updating Council's LTP, matters shovel ready have been a significant focus over the period. Five projects with a

- total estimated delivery cost of \$35.9M were submitted to Central Government for consideration in April with confirmation of funding to a value of \$26.9M confirmed in July.
- 6.2. Consideration of those projects and some of the key project delivery elements / actions has been on the minds of staff since April, with momentum continuing to build through the announcements in July and confirmation by Council on 25 August of the projects and the local share contribution (the \$9M balance).
 - 6.3. Resourcing considerations related to those shovel ready projects coincides with some feedback from Audit around capital project delivery. Confirmation around shovel ready projects provides an opportunity for more critical mass with resourcing of capital project delivery across the board.
 - 6.4. A range of enabling works have been underway for some time, balancing expectations around shovel ready status while not presupposing the confirmation of funding from either Central Government or Council.
 - 6.5. One key factor with capital expenditure for the 2018-19 financial year being well short of budget were matters relating to the Oroua River component of the Rural Upgrade Project. That project includes, amongst other things, the construction of a new section of stopbank on the true left side of the river between Awahuri and Feilding. The remaining component of the Oroua work is joining the sections of stopbank already built from the upstream and downstream ends centred on Te Arakura Road.
 - 6.6. Construction work was halted back in January when protesters occupied the site; the alignment proposed crosses a number of small parcels of land each with very complex ownership. Mandate in the form of the provisions of Section 137 (Notice in respect of works to be undertaken on private land) of the Soil Conservation and Rivers Control Act 1941 to undertake the work had been obtained.
 - 6.7. In August staff and consultants engaged met to discuss the respective merits of the options on the table, mapping out a potential solution. Further work is now being undertaken with a view to presenting that solution to a Council workshop in October.
 - 6.8. As noted to the Committee previously the demand for aggregate from fluvial sources, either directly or indirectly, continues to grow, fueled not only by the region's demands but also by demand from further afield. That's reflected in part with plans for new / enlarged land-based extraction operations on both sides of the Manawatu River east of Palmerston North and adjoining the Rangitikei. River Management has submitted in opposition to a proposed operation adjoining the Manawatu on the basis that the effects assessment does not adequately address likelihood and consequence of the river in flood breaching into the formed pit.
 - 6.9. Noted in subsequent sections of this item are the Lower Manawatu and Rangitikei Scheme meetings that took place in July. At the request of Cr Ferguson videoconferencing was trialed with the Rangitikei meeting, an initiative that worked well and that staff intend to roll out (depending to some degree on circumstance / technology) with the meeting schedule intended to coincide with consultation on the updated LTP next year.
 - 6.10. Noting the continuing emphasis with the activity in being connected to the region's district and city councils. Staff together with Crs Cotton and Patrick provided Whanganui District Mayor and Councillors with an update on river management matters relevant to Whanganui on 18 August. A briefing to the Rangitikei District Mayor and Councillors with Cr Turkington took place on 27 August. An update to Tararua District Council with Cr Benbow is being arranged.
 - 6.11. One matter highlighted to the Committee in June was the increase in the valuation as it relates to River Management assets, particularly the increase in the value of the 54 detention dams Council owns. That valuation now sits at around \$650M excluding the

training structures along the lower reach of the Whanganui River, likely to increase that total to around \$700M.

- 6.12. Finally acknowledging the service of Senior Engineering Officer Ian McMahon, currently covering the vacant position of Area Engineer Central – staff recently celebrated Ian's 35th work anniversary. Ian is intending to retire in 2021.

7. INVESTIGATIONS AND DESIGN

- 7.1. During this reporting period, Shaun Edwards has joined the team as a Project Engineer to deliver the Rural Upgrade Project while Claire Platts is on maternity leave.
- 7.2. The team has also welcomed Zané Mostert who has taken on the role of Assets and Environmental Engineer. As well as continuing the Asset Management work that the team is responsible for, Zané will also be assisting the wider River Management Group with managing environmental compliance with the consents under which works are carried out.
- 7.3. The Investigations and Design Team has a large and complex programme of works for delivery this financial year. As well as a programme of Scheme and classification reviews, there are also a number of design tasks that are required to support the Area River Management Teams. In addition to the programmed work the team has also moved quickly to support work associated with the application for funding of 'Shovel Ready' projects by Central Government.
- 7.4. The following summarises the work that the team has undertaken during this reporting period.

ARAWHATA STREAM AND HOKIO DRAINAGE NETWORK STUDY

- 7.5. This project is looking at the Hokio Drainage network with a view to both increasing the level of service as well as seeking opportunities to reduce the sediment load in the drains that eventually flow into Lake Horowhenua.
- 7.6. The Horizons team working on this project has been made up of staff from the Investigations & Design Team and the Southern Area Team, as well as from the Science & Innovation Team.
- 7.7. During this reporting period staff have reviewed the literature and data review that consultants Tonkin & Taylor have produced. The consultants are progressing the technical work which continues to evolve, especially in light of the Arawhata Wetland project that makes up part of the 'Jobs for Nature' project.

KOPUTAROA SCHEME REVIEW

- 7.8. The review of the Koputaroa Scheme is a significant piece of work, as it seeks to understand the multiple issues and drivers that will shape the Scheme's operation and management well into the future.
- 7.9. Since coming out of the COVID-19 shutdown, staff have been able to refocus on this piece of work, with significant work going into shaping the report into a concise document. It's intended to present this to the December committee meeting.

FLUVIAL PROGRAMME

- 7.10. The fluvial programme looks at the gravel resource throughout the Region's rivers and is undertaken in collaboration with the Science & Innovation, Environmental Data & Survey Teams.
- 7.11. During this reporting period staff have been looking closely at this programme with regard to the upcoming LTP, and ensuring that the programme is focused in the right areas and is collecting and analysing the best data to enable informed sustainable resource management decisions to be made.

MANAWATU DRAINAGE SCHEME MODELLING

- 7.12. Staff together with representatives from engineering consultant Tonkin and Taylor will present on this project as a separate item to this meeting.

ASSET MANAGEMENT

- 7.13. Staff have invested a significant amount of time over the last few months on the year end revaluation and capitalisation of Horizons' Infrastructural Assets. This works is an important part of the Annual Report, and the accurate accounting helps to ensure that appropriate levels of insurance cover are in place.
- 7.14. Additionally, as part of the year end reporting, staff have been assisting the Area Teams with the collation and reporting of asset condition data, as well as its transition to the new Asset Management Information System.

REGULATORY ADVICE

- 7.15. During this reporting period, advice was provided on a number of substantive matters. This regulatory work has included specialist advice on flood risk and the production of technical reports for consent applications, rezoning and subdivisions.

SHOVEL READY PROJECTS

- 7.16. During this reporting period staff have been heavily involved helping to shape the shovel ready projects. Working alongside the Science & Innovation Team workshops have been facilitated to develop options to mitigate sedimentation effects in the lower reaches of the Manawatu and Oroua Rivers.
- 7.17. Additionally staff have been working alongside Palmerston North City and their consultants looking at options relating to the Mangaone stopbanking and the proposed Kakatangiata Plan Change on the western edge of the city.

LOWER MANAWATU SCHEME RURAL FLOOD PROTECTION UPGRADE PROJECT

- 7.18. During this reporting period, staff have been working to ensure that works that were suspended by the COVID-19 shutdown can be re-started once the summer construction period begins.

8. CENTRAL AREA

- 8.1. This reporting period has been unseasonably dry with only a few periods of rain and therefore only relatively minor flow events in the Manawatu and tributaries.
- 8.2. The LMS Catchment Community Meeting was held on the 29 July. The meeting was chaired by Cr David Cotton, with Cr Keedwell and Cr Ferguson attending and a small turnout of ratepayers.
- 8.3. The first draft design drawings for raising the height of Burke's Gates were received in mid-August. This project is planned to be completed this financial year, part of the completion of the Rural Upgrade Project.

LOWER MANAWATU SCHEME

- 8.4. Works undertaken on the various rivers within the Scheme this period include the following:

MANAWATU RIVER

- 8.5. Staff have been looking at the reinstatement of targeted gravel extraction for river management purposes for the reach of the Manawātū between Palmerston North and Ashhurst, consistent with the updated resource assessment presented to the June 2019 Committee meeting. It is intended to workshop this with Council.

- 8.6. Over 10km of vegetation mulching and layering has been completed across various sites along the Manawatū this period. Minor stopbank repairs were also completed in some locations while contractors were onsite.
- 8.7. Over 1100 poles have been planted across various sites so far this season. A total of 40m of concrete riprap hard bank protection has been placed across two sites. 780m of fencing has been reinstated or replaced as part of works this period. A short section of erosion repairs and pole planting was completed on the right bank at 98km. A relief channel is being created on the opposite beach to reduce pressure on the newly planted river bank.
- 8.8. During these works a large anchor was discovered. The anchor is presumed to be from a late 1800s barge that ferried people across the river in this area. Heritage New Zealand has been contacted to document the find. Repairs and restoration of the anchor are currently being undertaken.
- 8.9. Additional tree groynes were completed along the Manawatū River at Ashhurst Domain. Lupin and wattles were removed from the planted area. Further pole planting is planned for the coming weeks. River protection works that have been damaged by four wheel drive enthusiasts and determined fly-tippers will also be repaired.
- 8.10. The debris from clearing the Fitzroy Groynes earlier in the year was burned with remnants buried. The Fitzroy Bend drains were mechanically cleared while the contractor was onsite.
- 8.11. The outlet for the toe drain of the primary stopbank near Ruahine Street was used as a test for the CCTV gear recently purchased by the Environmental Data Team. Just under 60m of the more than 200m long pipe was inspected and appeared in good condition.
- 8.12. Staff have monitored, met and worked with **Palmerston North City Council (PNCC)** across various other projects this reporting period. These included progressing the river pathway extension upstream of Riverside Drive, concreting the pathway opposite ANZAC Cliffs, installing lighting in the Esplanade river lookout area, asphaltting and creating hard stand areas along He Ara Kotahi downstream of Fitzherbert Bridge, creating new bike tracks within the river corridor, and berm planting enquiries.
- 8.13. The Whirikino Trestle Bridge is continuing to be demolished. Much of the platform and footings within the floodway section have been crushed and reutilised by the contractor. Bridge footings located in the stopbank were removed to just below ground level with the stopbank being rebuilt and repaired where necessary. It is hoped that suitable concrete from the Manawatu River section can be utilised for erosion protection work nearby.

OROUA RIVER

- 8.14. The latest silt removal contract has been completed with the final fencing finished in June.

9. NORTHERN AREA

RANGITIKEI RIVER CONTROL SCHEME

- 9.1. The annual Rangitikei River Scheme meeting was held on the 22 July in the Marton Service Centre Boardroom.
- 9.2. Staff attended the Ngā Puna Rau o Rangitīkei meeting at Regional House on the 14 August and provided an overview of the management strategy in current form. Staff also raised the matter of aerial spraying to control pest plants in the river fairway – a new resource consent is required. The likelihood of advancing this application on a non-notified basis appears remote.
- 9.3. The Parewanui Stopbank upgrade for 2020-21 has been surveyed and construction drawings prepared. Tender documents will be compiled shortly for the summer construction season. This year's upgrade should complete the Rangitikei Stopbank upgrade project.

POHANGINA-OROUA RIVER CONTROL SCHEME

- 9.4. Prior to lockdown the early versions of the 2020-21 Annual Plan included a proposal to change the scheme: land owner cost share for bank protection works from 40:60 to 50:50. The abbreviated Annual Plan process constrained the engagement planned around this change (specifically the scheme meeting) but based on past ratepayer feedback staff are intending to proceed with the adoption of a 50:50 cost share (see recommendations).
- 9.5. While demand continues to run high this change is intended with a longer term view, looking to make protection planting more contiguous at key locations by making the investment a little more attractive from a landowner perspective.

UPPER WHANGANUI RIVER MANAGEMENT SCHEME

- 9.6. **Ruapehu District Council (RuDC)** have engaged Horizons to provide engineering services to upgrade a number of stormwater culverts under the stopbanks in Taumarunui. The first of these is on Taupo Road and known as the Tuku Street culvert.
- 9.7. The Snookerbob swim spot site in Raetihi is nearly complete. The BBQ and Picnic table have been installed in a collaborative effort between Horizons and the Raetihi Promotions Team. Once the artwork is finalized and applied to the changing structure it will be installed.

POREWA FLOOD CONTROL SCHEME

- 9.8. An in-depth inspection was carried out on the concrete spillways of Dam's 46 and 100, including dewatering to allow a visual assessment of the energy dissipation blocks. A replacement inlet screen has been built in preparation for asset renewal work on Dam 82.

LOWER WHANGANUI SCHEME

- 9.9. Funding for the \$15M river training structures repair project is now confirmed with \$7.5M being provided through Central Government's Provincial Growth Fund. More detail is provided in the separate item.

OHAKUNE SCHEME

- 9.10. Work this year will largely focus on a resource consent application to allow scheme work to be undertaken.

RUAPEHU DISTRICT WIDE SCHEME

- 9.11. A tree blockage was removed from the Pungapunga Stream just downstream of the Orangi Road Bridge.

10. EASTERN AREA

TARARUA DISTRICT RIVER MANAGEMENT SCHEME

- 10.1. Extensive channel clearing works were undertaken on an organic farm situated on the Eastern Manawatū River. This involved the mechanical removal of willows that were encroaching on the river margins. This farm was not sprayed under the old Eastern Manawatū Scheme because of its organic status, and the work completed allowed the last of the stream constrictions to be removed in this reach of the river.
- 10.2. Channel clearing works were also completed on a section of Stoney Creek, near Mangatainoka. This was a section that had almost been completely closed in and was causing year round flooding and boggiess on the adjacent land.
- 10.3. Vegetation clearance works were also undertaken on the Mangahei Stream to clear willow congestion and prevent flooding - which usually resulted in the closure of the Mangahei Road where it crosses the stream.

- 10.4. There are several projects planned for the Tararua River Management Scheme this financial year that tie in with jobs that the Land Management Team are undertaking, particularly in the Tiraumea River Catchment near Alfredton.

SOUTH EASTERN RUAHINE SCHEME

- 10.5. Channel clearing works have been completed between Cole Street and Smith Road on the Tapuata Stream in Dannevirke, tidying up the last of the old willows within the stream through the township. This, alongside the completion of environmental grant work – entailing a rock lining upstream of the Victoria Avenue Bridge to protect the foundations of an old villa, largely complete the works within the Tapuata Stream area. A small diversion of the stream on lifestyle blocks between Cole Street and Smith Road is also being planned to prevent flooding of adjacent land.

TAWATAIA - MANGAONE SCHEME

- 10.6. Continuing monthly dam inspections show that the detention dam is still in good working order. Planned works for this scheme were put on hold at the end of the 2019-20 financial year due to the COVID-19 level 3 and 4 restrictions. These will pick up in this financial year. A comprehensive works plan has been put together for the next 10 years, this includes general maintenance as well as some potential upgrades.

11. SOUTHERN AREA

- 11.1. Staff attended an onsite meeting with representatives from the Bainesse Drainage Scheme and **Manawātū District Council (MDC)** to discuss potential funding options or a collaborative working approach towards the ongoing maintenance of several drains within the Bainesse Drainage Scheme which benefit the Te Kawau Drainage Scheme. Consideration has been given to approaching MDC about absorbing those Schemes into the Te Kawau Scheme.
- 11.2. A 'near miss' has been recorded in relation to a section of Manawatu Scheme Drain previously identified by the landowner as not to be sprayed. Earlier this year a section of Koputaroa Scheme Drain was sprayed where staff had previously been asked for this not to happen, requiring a subsequent mechanical clean and disposal of the soil off site. This has prompted a review of the way in which this information is managed and spray contractors are audited.
- 11.3. Staff have been working closely with Horizons Science Team to develop a network catchment study for Koputaroa No.4 Pumpstation which will look to identify the fish species and numbers present within the catchment, investigate the current water quality throughout the network, and assess culvert and fish friendly floodgates to maximize fish passage throughout the network. At the same time staff are looking to install nets on the pump outlet to monitor and record potential fish mortality as a result of the pumpstation operation.

12. ENVIRONMENTAL GRANT WORKS AND ENGINEERING ADVICE

- 12.1. No new environmental grant applications have been received over the period. One outstanding environmental grant for the Tapuata Stream in urban Dannevirke has been completed with the construction of a rock lining on the outer bend of the stream, upstream from the Victoria Ave Bridge.
- 12.2. Hilton Shane – Tapuata; Construction of a limestone rock lining for bank and house foundation protection. Work onsite was completed in August.
- 12.3. The status of all Environmental Grant works is as follows:

2020 – 2021 Environmental Grant work

<i>Name</i>	<i>River or Stream</i>	<i>Job No.</i>	<i>Type of work</i>	<i>Work status</i>	<i>Estimated work cost (\$)</i>	<i>Value of grant (\$)</i>
Cvitanovech	Makiriki	IN	Tree work groynes	Pending approval	\$20,572	\$6,172
Te Rongaroa Marae	Ongarue	IN	Rock Lining, Layering Planting	Approved	\$	\$
Morrison	Mangara	IN	Vege Clearance	Pending Approval	\$	\$
RuDC	Mangateitei	IN	Erosion Repair	Completed	\$7,000	\$2,100
Palmer	Okahukura Saddle Rd	IN	Vege clearance	Application being prepared	\$	\$
Hilton Shane	Tapuata Stream	IN1513	Rock Lining	Complete	\$4600	\$1380

13. SIGNIFICANCE

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

Ramon Strong

GROUP MANAGER RIVER MANAGEMENT

ANNEXES

There are no attachments to this report.

Report No.	20-125
Information Only - No Decision Required	

PRESENTATION: MANAWATU DRAINAGE NETWORK INVESTIGATIONS

1. PRESENTATION

- 1.1. Council has, amongst other things, a commitment in its current Long-term Plan to investigate / analyse the Manawatu Drainage Scheme network, identifying robust solutions to particular level of service issues.
- 1.2. It also considers land use change / development in the catchment, climate change and other factors that will place different demands on the network in the future, mapping out a strategy in the form of network modifications that best places the scheme to meet those future challenges.
- 1.3. Engineering consultants **Tonkin and Taylor Limited (T&T)** have been engaged to undertake the assessment; Horizons and T&T staff will present the technical work completed to date.

2. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information in the Manawatu Drainage Network Investigations presentation.

3. SIGNIFICANCE

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

Jon Bell
INVESTIGATIONS & DESIGN MANAGER

Ramon Strong
GROUP MANAGER RIVER MANAGEMENT

ANNEXES

There are no attachments for this report.

Report No.	20-126
Information Only - No Decision Required	

PRESENTATION: DEVELOPMENT OF AN ANZAC PARADE FLOOD RESILIENCE STRATEGY

1. PRESENTATION

- 1.1. Council's current Long-term Plan outlines, amongst other things, the development of a resilience strategy for the part of Anzac Parade in Whanganui exposed to Whanganui River flooding.
- 1.2. Massey University Professor and EQC Chair in Natural Hazards Planning Bruce Glavovic is leading that strategy development, assisted by post-doctoral fellow Dr. Martin Garcia. Both Bruce and Martin will provide an outline of the strategy development process.

2. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information presented in the Development of an Anzac Parade Flood Resilience Strategy.

3. SIGNIFICANCE

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

Ramon Strong
GROUP MANAGER RIVER MANAGEMENT

ANNEXES

There are no attachments for this report.

Report No.	20-127
Decision Required	

IHURAUUA SCHEME RESERVES

1. PURPOSE

- 1.1. To seek the approval of the Committee to transfer the Ihurauua Scheme reserve balance to the Ihurauua / Tiraumea Catchment Group.

2. EXECUTIVE SUMMARY

- 2.1. The Ihurauua Scheme was dissolved in 2018 with the advent of the Tararua District-Wide Scheme, with the maintenance tasks previously undertaken by the Ihurauua Scheme absorbed into the new district-wide scheme.
- 2.2. The question around what to do with the reserve associated with that scheme was not adequately resolved at the time of dissolution. Staff have, through discussion with former Ihurauua Scheme Chair David Nelson, identified a simple way of returning those surplus funds to the community in a manner consistent with good environmental stewardship.

3. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-127 and Annex.
- b. approves the transfer of the Ihurauua Scheme reserves balance of \$3,522 to the Ihurauua / Tiraumea Catchment Group;
- c. approves the transfer of the outstanding Eastern Manawatu Scheme reserve balance of \$2,845 to the Tararua district-wide Scheme.

4. FINANCIAL IMPACT

- 4.1. As the item proposes the transfer of reserves for a dissolved scheme there is no particular financial impact – funding collected for a specific purpose and not easily / justifiably allocated outside of the community that it was collected from.

5. COMMUNITY ENGAGEMENT

- 5.1. No community engagement has been undertaken specific to this item, though engagement was attempted with Ihurauua Scheme ratepayers in March 2018. Community engagement did take place with the establishment of the Tararua District-Wide Scheme, including the distribution to all Tararua district ratepayers outlining the new scheme proposed and the dissolution of the three schemes. That included a reference to consulting with the ratepayers of those scheme to be dissolved as to what to do with any reserves balances.
- 5.2. Note that the former Chair of the Ihurauua Scheme, David Nelson, is now the Chair of the Ihurauua / Tiraumea catchment group; many of the former members of the Ihurauua Scheme Liaison Committee are now members that group.

6. SIGNIFICANT BUSINESS RISK IMPACT

- 6.1. There is no significant business risk impact associated with this item.

7. BACKGROUND

- 7.1. The Ihuraua Scheme was formed in 1970 with the objective of undertaking channel clearing, improvement works and ongoing maintenance of a 14km length of Ihuraua Stream from the Route 52 Bridge to Alfredton Domain.
- 7.2. Most of the major work was completed between 1971 and 1995, where large sections of the channel were cleared of vegetation and straightened to provide for flood flows and increase channel capacity. From 1995 the Scheme was in a maintenance phase.
- 7.3. In the 2018 financial year income for the Ihuraua Scheme totalled approximately \$6000, 80% of which came from differential rates, with 20% from general rates. The scheme was made up of 8 direct and 25 indirect contributors, with the bulk of the scheme funds (84%) coming from the direct contributors.
- 7.4. As with other river management schemes, the Ihuraua Scheme maintained a reserve fund, albeit for a slightly different purpose than for most other schemes. Essentially the work programme was set to a three-yearly cycle, the most efficient delivery model for a small scheme in a relatively remote location; much of the revenue collected outside that three yearly cycle fell into the reserve, drawn back out when that three-yearly interval rolled around.
- 7.5. The Ihuraua Scheme, along with the Eastern Manawatu and Akitio Schemes, was dissolved in 2018 with the advent of the Tararua District-Wide Scheme; one of the intents with the district-wide approach was to remove the duplication that existed across multiple small willow control / channel management schemes.
- 7.6. Note that the Akitio Scheme is technically in abeyance; a group of ratepayers met with staff and (at the time) Cr Barrow to air concerns that a broader management approach across the district might mean a loss of focus on the Akitio. Council subsequently resolved to keep the Akitio Scheme 'on paper' and to re-evaluate the effectiveness of the district-wide model with the 2021 refresh of the [Long-term Plan \(LTP\)](#).

8. DISCUSSION

- 8.1. One consideration with the dissolution of the Ihuraua, Akitio and Eastern Manawatu Schemes was the reserves held by each scheme. With the Eastern Manawatu Scheme the loan balance was close to the reserve total. Currently there remains \$2,845 within the Eastern Manawatu reserves. Discussion with the former Scheme Chair and Committee members favour transfer of this balance to the Tararua River Scheme.
- 8.2. The loan associated with the Akitio Scheme was paid off in 2017, leaving a reserves balance of \$18,595; if Council chooses to dissolve the Akitio Scheme as part of the 2021 LTP update it will, in a similar vein to the Ihuraua Scheme, need to decide what to do with the balance.
- 8.3. To date there has been very limited interest from former Ihuraua Scheme ratepayers on what to do with the reserves balance of \$3,522. The Alfredton community still maintains a passionate interest in the waterways in their community and have founded the Ihuraua / Tiraumea Community Catchment Group. Work has been undertaken by the Catchment Group in partnership with the Horizons Freshwater Team to complete riparian planting and develop wetlands and projects have been identified with the Horizons Science Team to improve water quality.
- 8.4. Area Engineer Eastern James Feary has received a letter from former Ihuraua Scheme Liaison Committee Chair David Nelson (Annex A). This formally requests that the

remaining Scheme Reserve funds for the Ihuraua Scheme be transferred to the Ihuraua / Tiraumea Community Catchment Group for use in improving water quality in these rivers. In this case the purchase of **Stream Health Monitoring and Assessment Kit (SHMAK)** test kits for water testing.

9. COMMENT

- 9.1. Given that the Ihuraua Scheme is now defunct, options for the remaining reserves held by Council are considered to be:

(i) Used for river management work alongside the Tararua Scheme;

- 9.2. As the Ihuraua Scheme no longer exists, the work of the Ihuraua Scheme is currently being done by the Tararua Scheme and the all previous Ihuraua Scheme members are being rated for the activities directly through the targeted Tararua Scheme rates. There are no obvious river management projects in the immediate area that fit with the amount in question; in any event the amount is relatively small and would not translate to (again in relative terms) much in the way of materials/ machine time, particularly when staff time is accounted for.

(ii) Returned to the ratepayers directly;

- 9.3. Returning the funds directly to the ratepayers would involve a large amount of administrative time and it would be a cost either directly borne by Horizons or provisioned for by taking the additional cost from the funds returned. The total value of returns will be small for most ratepayers, at around \$22 per property. The two largest beneficiaries would receive a quarter of the returned funds each. Both are members of the Catchment Community Group.

(iii) Used for a purpose expressly approved of by the ratepayers;

- 9.4. Distributing the funds directly to the Catchment Community Group would allow for community activities to be carried out that have a benefit to the local community and environment which would not otherwise have been able to be provided for under the Ihuraua or Tararua River Schemes. It would also involve the least level of administration of the options.
- 9.5. In this case, the largest contributor to the reserve funds are the principle members of the Catchment Community Group. They have canvassed the opinions of other former Ihuraua Scheme ratepayers who are in favour of using the reserve funds in the manner recommended in the item.

10. RECOMMENDATIONS

- 10.1. It is recommended that the \$3,522 surplus of the disbanded Ihuraua Scheme be distributed to the Ihuraua /Tiraumea Community Catchment Group to undertake community works on improving water quality.

11. SIGNIFICANCE

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

James Feary
AREA ENGINEER (EASTERN)

Ramon Strong
GROUP MANAGER RIVER MANAGEMENT

ANNEXES

A David Nelson letter

Ratahiwi
R.D.3
Eketahuna
4996
2 July 2020

Dear James,

I write as a member of the Ihuraua /Tiraumea catchment group to formally request the release of the remaining funds of the Ihuraua River protection scheme.

I believe Horizons are holding these funds and would like to see them come back to a worthwhile community project .The recently established Ihuraua / Tiraumea catchment group has established two water testing sites to determine the current state of these waterways and identify areas to focus on for improvement if required .

We have contacted as many of the prior contributors to the scheme as possible and all are in favour of the remaining fund being used for this purpose.

If you require any further information in regard to this request please contact the writer.

Yours sincerely
David Nelson

Report No.	20-128
Decision Required	

TE PUWAHA PROJECT UPDATE

1. PURPOSE

- 1.1. This item updates members on work associated with repairs to the Lower Whanganui River training structures, the Horizons operational component of the Te Puwaha / Whanganui Port Revitalisation Project. It also seeks confirmation from the Committee for arrangements as they relate to both the role of Project Director and the application of Tupua Te Kawa.

2. EXECUTIVE SUMMARY

- 2.1. With the adoption of the 2018-28 **Long-term Plan (LTP)** Horizons accepted ownership and responsibility for the various training structures that regulate the alignment of the lower reach of the Whanganui River. Those structures have, for various reasons, been neglected for many decades; their condition is poor and continuing to deteriorate.
- 2.2. The structures are, amongst other things, an integral part of an operable port for the city and accordingly Horizons has been working on a plan to repair those structures in parallel with aspirations that the **Whanganui District Council (WDC)** has for the city's port. Funding for both projects and other associated commercial projects through the **Provincial Growth Fund (PGF)** was confirmed in July of this year.
- 2.3. Overarching those plans is the 2017 Te Awa Tupua (Whanganui River Claims Settlement) Act and in particular Tupua Te Kawa – the natural law and value system of Te Awa Tupua, which binds the people to the river and the river to the people. Ensuring that the values defined by Tupua Te Kawa are imbued through the project has required a fundamentally different way of working for staff, requiring more emphasis on collaboration and engagement.

3. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-128.
- b. delegates to the Chief Executive the authorisation to enter into a funding agreement between Horizons, Ngā Tāngata Tiaki and Whanganui District Council that provides for both a Project Director and that allows Ngā Tāngata Tiaki to fulfil its statutory function as defined by the 2017 Te Awa Tupua (Whanganui River Claims Settlement) Act.

4. FINANCIAL IMPACT

- 4.1. As noted previously (Item PX19-137 presented to the September 2019 Committee meeting) the LTP, in its current form, has limited provision within the Lower Whanganui Scheme budget relating to repairs to the river training structures. That expenditure profile was set before discussions with central government around the prospect of obtaining PGF assistance from Central Government had shown any promise.
- 4.2. The current annual plan includes both the revised capital expenditure budget and the new PGF revenue source, with the intent of including the expanded / accelerated expenditure profile in the updated LTP. That requires a larger revenue requirement from both targeted

and regional river and drainage rates alongside the contributions from the WDC and the PGF. Total project cost is estimated to be \$15M with \$7.5M met by way of a grant from the PGF and a \$1.8M contribution from the WDC, with the balance falling to Horizons. The project (training structures) is due for completion in 2025.

- 4.3. In keeping with a project of this size and scale the estimated delivery cost covers a wide range of components across staff time, survey, design, consenting and construction. Some conservatism / margin exists within the \$15M estimate largely related to one of the biggest cost variables - rock rip-rap supply. The project requires a considerable volume (in the order of 70 to 80 thousand tonnes), with fairly demanding specifications particularly for the mole armouring / heads.
- 4.4. While handling / placement is a subset of that cost component, sourcing / carting is the most significant element and one that still has some questions around it; the ability for WDC to provide rock rip-rap from their Waitahinga Quarry that meets required specifications has yet to be determined.
- 4.5. Other sources exist but with greater haul distances – that and the emphasis on wider benefits to the local economy has meant a preference for local sources, but clearly not to the detriment of the timelines Horizons is bound by with the PGF funding agreement.
- 4.6. Costs related to both the Project Director role and the application of the principles of Tupua Te Kawa are largely unbudgeted, noting that the latter is a statutory requirement. Provision has been made for RMA-related processes – requirements related to Te Awa Tupua are expected to be offset to some degree by reduced resource consent costs (the strength of the relationships with both Iwi / Hapu and the local community that will result from the Te Awa Tupua process) but the bulk of the expenditure will rest as an additional cost.
- 4.7. The portion of the cost with these two aspects proposed to be borne by Horizons is estimated to be up to \$500k. Although at an early stage of project delivery the staff view is that these are likely to be able to be accommodated within the overall \$15M budget. In any event other Central Government funding options (both within MBIE and across other government departments) exist – part of the Project Director role will be to secure other external funding to offset those additional costs. However some risk around overall delivery cost remains.

5. COMMUNITY ENGAGEMENT

- 5.1. Engagement with Whanganui residents has, in the main, been concentrated in and around both the 2017-18 Annual Plan and the 2018-28 LTP, complemented by ongoing Scheme Liaison Committee Meetings. The Te Awa Tupua way of working will undoubtedly increase that level of engagement, already evident with the approach taken with the stockpile area intended to be located off Morgan Street.

6. SIGNIFICANT BUSINESS RISK IMPACT

- 6.1. There is no significant business risk impact with this item. Project-related risks are highlighted elsewhere in the item.

7. CLIMATE IMPACT STATEMENT

- 7.1. While the work associated with fortifying the river training structures primarily addresses deferred maintenance over many decades, clearly the work also needs to consider climate change effects; rising sea levels, more frequent storms and a changing flood frequency for the awa. The design includes those aspects and was reviewed by coastal engineering experts from engineering consultant Tonkin and Taylor, in part to ensure adequate consideration was given to climate change impacts.

8. BACKGROUND

- 8.1. The importance of a port and the evident operational complexities with a river port saw significant investment by the Harbour Board and its predecessors in training structures along the lower reach of the Whanganui River in the late 1800's and early 1900's; the moles, revetments and various groyne structures that line the lower reach of the river. The present-day value of that investment (including all of the various dividing walls and other measures that were constructed essentially from the town bridge to the mouth) is significant – as much as \$100M.
- 8.2. The decline of the port's fortunes meant little investment in those structures over the past 40 to 50 years, while part of Whanganui (particularly commercial / industrial / infrastructure) continued to develop around the alignment set by those structures. The transfer of port ownership from private owner to WDC, WDC's intent to revitalise the port and the importance of the training structures (amongst other things) to port operation put the condition / integrity of those structures back in the spotlight.
- 8.3. The level of Horizons operational involvement in Whanganui (in a river management context) has been progressively building since 2007. The most recent development with the adoption of the 2018-28 LTP is the Horizons commitment to assuming ownership of those assets; the true (facing downstream) left downstream of Landguard Bluff and the true right from the start of the Balgownie stopbank to the mouth (excluding the port area itself and the dividing walls in the main river channel).

9. TE AWA TUPUA

- 9.1. On 5 August 2014, at Ruakā Marae in Rānana, the Crown and Whanganui Iwi signed Ruruku Whakatupua, the deed of settlement for the Whanganui River. Ruruku Whakatupua has two parts – Te Mana o Te Awa Tupua and Te Mana o Te Iwi o Whanganui – which together give legal recognition to Te Awa Tupua, establishing a new legal framework for the Whanganui River (Te Pā Auroa nā Te Awa Tupua). The 2017 statute, Te Awa Tupua (Whanganui River Claims Settlement) Act enacts that framework.

10. DISCUSSION

- 10.1. Focus with project delivery at the current point in time is in two main areas – rock supply and resource consents. Staff continue to work with WDC staff on Waitahinga Quarry development to ascertain the risks associated with (both in part and in full) supply from that site. Alternatives have been identified and pending approval from the Project Governance Group (refer to Item 20-89 presented to the June 2020 Council meeting) procurement processes that put in place a blended supply arrangement will follow.
- 10.2. Consenting is the other obvious critical path (sequence of events tied to a particularly activity that dictates the completion date) for project delivery; as noted elsewhere application of the Te Awa Tupua process has a beneficial effect on that critical path, addressing some of the risks but also developing relationships that are ultimately likely to help expedite the process. As you'd expect staff are well versed with the regulatory requirements (in this instance both WDC and Horizons) with a significant amount of preparatory work completed, including a comprehensive assessment of effects on ecosystems for both the awa and the coastal marine area.
- 10.3. Two aspects related to both the inter-connected nature of the council and commercial elements of Te Puwaha and the application of Tupua Te Kawa have been identified subsequent to the PGF application prepared and submitted in 2019; they are conditions contained in the funding agreement with MBIE. The Project Director role is outlined with Item 20-89 and is a necessary element to support a complex project with many moving parts and many inter-dependencies.

- 10.4. The application of Tupua Te Kawa required by the 2017 Te Awa Tupua statute rests with **Ngā Tāngata Tiaki (NTT)**, the post-settlement governance entity for Te Awa Tupua. That leans heavily on input at a hapu / marae / whanau level to apply the principles of Tupua Te Kawa in their purest form. The project has reached a point where, understandably, NTT require a funding commitment from both councils and the commercial partner to meet the costs associated with applying those principles.

11. TUPUA TE KAWA

- 11.1. Tupua te Kawa comprises the intrinsic values that represent the essence of Te Awa Tupua, namely—

Ko Te Kawa Tuatahi

- a) **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

- b) **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

- c) **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

- d) **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.

12. CONSULTATION

- 12.1. No specific consultation (other than that planned as part of project delivery) is intended with this item.

13. SIGNIFICANCE

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

Ramon Strong
GROUP MANAGER RIVER MANAGEMENT

Michael McCartney
CHIEF EXECUTIVE

ANNEXES

There are no attachments for this report.

Report No.	20-129
Decision Required	

MATARAWA STREAM FLOODWATER DIVERSION

1. PURPOSE

- 1.1. This item summarises matters relating to the Matarawa diversion structure, specifically whether any scope exists to fully divert flood flows around Whanganui East.

2. EXECUTIVE SUMMARY

- 2.1. The Matarawa Scheme provides benefit in the form of flood control for the valley floor of the Matarawa Stream, including parts of Whanganui East. The main components are five floodwater detention dams in the upper catchment and a diversion structure in the lower catchment.
- 2.2. Staff have been assessing the state of the diversion structure and the scope for complete rather than substantive diversion of floodwater from the upper Matarawa Stream catchment. That technical work concludes that a complete rebuild of the structure is warranted given the critical nature of the structure, its age and condition and the limitations associated with the current configuration.

3. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-129 and Annexes.
- b. endorses the replacement of the Matarawa Stream diversion structure for consideration as part of Council's 2021 Long-term Plan (LTP) update.

4. FINANCIAL IMPACT

- 4.1. This item recommends the replacement of the existing structure, estimated to be in the order of \$300,000. That expenditure is intended to be included in the updated LTP as a capital expenditure line item for the Matarawa Scheme funded by way of a loan against that Scheme. The debt servicing costs associated with that loan are intended to be met solely by the Whanganui urban part of the scheme targeted rate classification as the benefit is confined to the city.

5. CLIMATE CHANGE IMPACTS

- 5.1. The recommendations contained in this item are consistent with the underlying approach to climate change; a greater level of operational resilience in the face of likely changes in flood frequency for the Matarawa Stream.

6. TE AWA TUPUA

- 6.1. The Matarawa Stream is a part of the Whanganui catchment and as such the values associated with Te Awa Tupua, Tupua Te Kawa, apply. No engagement has yet taken place with the Te Awa Tupua governance entity **Ngā Tāngata Tiaki (NTT)** around this particular project and whether it fits with the values of Tupua Te Kawa; the focus to date

has been determining whether modifying the structure has merit from a flood control perspective.

7. BACKGROUND

- 7.1. The need to divert floodwater in the Matarawa Stream around Whanganui was identified relatively early in the city's development. A diversion structure and associated diversion channel to the Mateongaonga Stream was built in the 1950's by the then Whanganui City and County Councils. Originally intended as a high flow bypass, successive floods have progressively enlarged the diversion channel to the Mateongaonga Stream enabling it to carry larger flows over time.
- 7.2. The Matarawa Scheme was established by the Rangitikei – Whanganui Catchment Board in the early 1980's, with the focus on the construction of the five detention dams in the upper Matarawa Stream catchment. The Catchment Board also assumed ownership of the diversion structure with the establishment of the Scheme, and in the late 1980's the structure was modified to its current form.
- 7.3. The Matarawa Scheme has had numerous 'tests' since its inception with perhaps the greatest test the June 2015 flood event. The current estimate (bearing in mind that the flood frequency relationship for the Matarawa Stream continues to evolve as the rainfall and stream flow dataset accumulates over time) puts detention dam capacity at around a 50 year return period storm, compared with the original design estimate of 25 years.
- 7.4. However floodwater storage is sensitive to storm duration – a lower peak rainfall intensity but longer storm duration will also fill the dams and once the dams are at capacity they cease to have any attenuation. That was particularly the case with the June 2015 event, placing considerable pressure on the diversion structure and leading to (in combination with intense / prolonged lower catchment rainfall and a flooded Whanganui River) flooding of valley floors including parts of Whanganui East.
- 7.5. The diversion structure as currently configured includes two culverts that allow Stream low flow to pass through the city. The flow in those culverts is not regulated – although a large percentage of flood flow is diverted some discharge to the lower reach of the Stream continues, with the discharge increasing as flood levels through the diversion increase.
- 7.6. The February 2004 flood saw flood flow bypass the diversion structure; repairs following that event included earthworks adjacent to the structure to limit how much flow can bypass the structure in the future. Staff also blocked off one culvert leaving only one culvert to convey low flow to the lower reach of the Stream.
- 7.7. Horizons response to the June 2015 flood event, as it applies to the Matarawa, was two-fold; clear vegetation from the urban reach of the Stream to allow freer movement of flood flow and assess whether upper catchment flood flow could be fully diverted around the city. That has also included adding the city to the targeted rate classification to ensure benefit, in broad terms, is still apportioned correctly with the funding model.

8. DISCUSSION

The flood event of June 2015

- 8.1. A considerable number of Whanganui East properties were affected in the June 2015 event. Extremely heavy rainfall fell in the catchment, resulting in flooding in the lower stream reaches with an assessed return period well in excess of 100 years.
- 8.2. Even though the resultant peak flows in the diversion channel were an estimated 16% greater than the design flow for the channel, it is understood that, unlike in the 2004 event, the control structure or its immediate surrounds were not overtopped or bypassed to any great degree. This was partly due to the fact that a bypass mechanism was available across the road, just to the east of the road bridge. (see aerial photo in S7.5)



Photo credit Bill Harding

- 8.3. By and large the diversion structure performed its primary function. It must be noted that there is an additional ~180ha or so of catchment draining directly to the Matarawa below the control structure; the flood runoff from this portion of the catchment is not attenuated in any way.

The current control structure

- 8.4. This most recent assessment of the structure has focussed on further modifications to reduce the flood flow in the Matarawa Stream downstream of the diversion. This analysis looks at a maximum flood water level of RL 14.10 or thereabouts. This is the highest ponded water level possible, as at around this level ponded floodwaters start crossing over No. 3 Line which effectively acts as a much wider control weir, as shown above during the 2004 event. The escaping water then skirts through and around the western corner of Gordon's Bush, to re-join the diversion channel.
- 8.5. This would have happened in 2015, when rainfall was even greater. Furthermore the 2008 remedial and enhancement works around the diversion structure raised the maximum ponding level attainable. At this level around 6 cumecs is squeezing through the solitary pipe, with the balance of flow going out either along the diversion, or via the road overflow point.



Photo credit Bill Harding

Discussion and Findings

- 8.6. Flow behaviour at the diversion is complex, and this analysis relies on some simplifications. Nevertheless, it clearly shows that flow through the pipe varies with the water level at the diversion, and that the peak flow able to squeeze through the solitary pipe is still too high. Ideally what would be more useful is some form of adjustable inlet gate, the opening of which decreases as water level increases, thereby achieving a properly clipped flow.
- 8.7. A set throttle for the existing solitary pipe would have quite serious adverse impacts. It would divert an even larger fraction of what constitutes the now present day catchment's dominant discharge away from its natural watercourse through the city. Due to the diversion structure's existing operational mechanism this flow has already been markedly cut, with too much flow going via the diversion in normal flows.
- 8.8. With zero or negligible flow for much of the time, the watercourse through Whanganui East has suffered, not so much from too much flood flow, but from not enough sustained smaller 'flushing' flows. Growth of all sorts has become problematic as weeds and the like are allowed to establish a better foothold in the substrate. In a heavy rain event even the runoff coming from just the 200ha catchment below the diversion will cause problems if a viable resilient watercourse is not kept available, or its conveyance capabilities continue to deteriorate.
- 8.9. The watercourse must remain healthfully open, and the best way to do this is to allow as much of the centuries-proven dominant discharge runoff to flow along its natural course, thereby giving back to the watercourse a degree of resilience to the higher flood flows it will still episodically experience. What are needed are changes to the control structure to facilitate improved environmental flows whilst still limiting undesirable flood flows.
- 8.10. This can be best achieved by replacing the existing twin circular pipe setup with a single 2m W x 1m H box culvert, governed by a flow control gate. Whilst this need be capable of only partially throttling the new box culvert, pragmatically it should be capable of full closure. A smaller version of the Makino floodgate is envisaged.

- 8.11. In addition the existing weir needs raising by 400mm or so. Without this measure it is impossible to force the requisite beneficial dominant flow down along its original natural watercourse; flows will still preferentially head the diversion way.
- 8.12. It is considered that these modifications should be able to be carried out without any recourse to a new or modified consent application. The key tenet here is that, to a great extent, whatever is allowed to flow or not flow through the culvert is essentially immaterial in a large event. Large flood flows will always still cross over the crown of No 3 Line Road regardless.
- 8.13. It is also worth noting that whilst these large events can contribute to the extensive higher bank scouring along the diversion channel and further downstream, as evidenced after an event, the erosion in the Mateongaonga Stream owes its origins chiefly to the changes in the geomorphological forces shaping it, brought about by the establishment of the dominant discharge in the diversion channel.
- 8.14. Thus the conclusions drawn from the assessment are that the existing diversion structure should be demolished and replaced with a single 2m wide by 1m high box culvert, set at the same invert. A vertical flow control gate would be installed at the same time with an automated operating regime. The scope of work would include the refurbishment and enhancement of the existing concrete weir, including raising it by 400mm.

9. COMMENT

- 9.1. The control structure can be modified to help better meet two of the goals of enlightened river management practice: the mitigation of extreme event adverse flows; and the enhancement of environmentally beneficial flows. In the case here of the Matarawa Stream, these two goals need are not mutually exclusive, they can be met together.

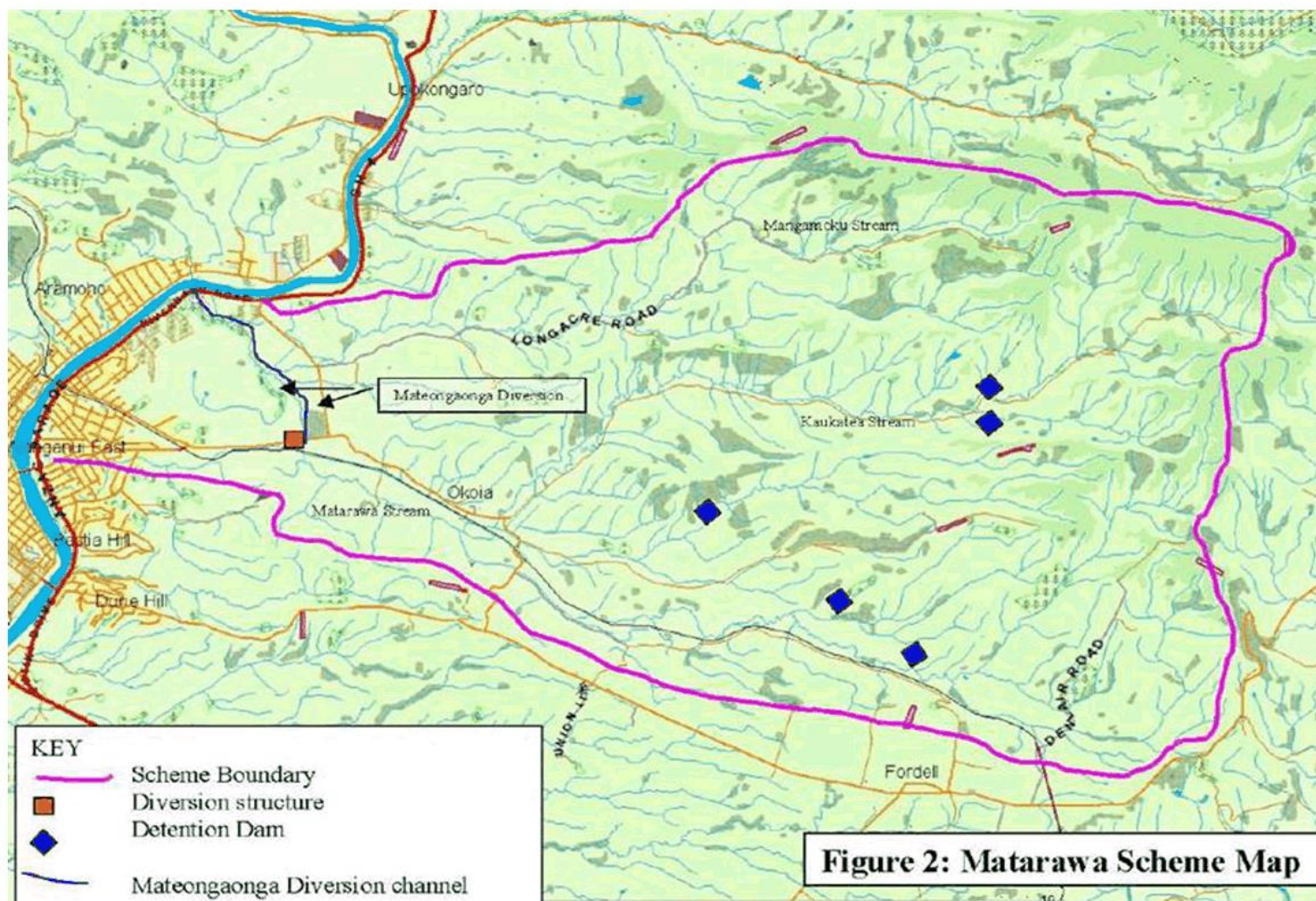
10. SIGNIFICANCE

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

Ramon Strong
GROUP MANAGER RIVER MANAGEMENT

ANNEXES

- A Matarawa Scheme Map
B Diversion Structure





Diversion Structure

Report No.	20-130
Information Only - No Decision Required	

LAND MANAGEMENT PROGRESS REPORT

1. PURPOSE

- 1.1. This report covers work carried out by the Natural Resources & Partnerships – Land Management Team for the 2019-20 financial year. It includes the activity areas of SLUI, Regional Land and Coast, and Nursery. The annex provides an update on progress for the start of this financial year (1 July to 15 August 2020).
- 1.2. This is the second year we have provided the Annual Report as part of the Catchment Operations report where previously the annual summary was included as part of the annual Operational Plan.

2. EXECUTIVE SUMMARY

- 2.1. All of the 2019-20 Annual Plan non-financial targets were met. Activities included 7,596 hectares of on-farm work including more than 5 million trees planted and 205 km of fencing completed. This is the largest work programme completed since SLUI began in 2006. This result was achieved in a year where the work programme was interrupted by Covid-19.
- 2.2. Our **Whole Farm Plan** (WFP) programme achieved 22,671 ha of new farm plans mapped, bringing the overall total of WFPs within SLUI to 583,232 ha.
- 2.3. Nursery production and procurement was down on last year as anticipated, as the cycle of new poles coming into production stabilises. Overall, 31,732 poles were distributed.
- 2.4. We continued to support industry and good management farming practices in our Region, particularly through our support of the Ballance Farm Environment Awards and the Poplar and Willow Research Trust.
- 2.5. The annex provides an update on progress for the current financial year, including introducing the Annual Plan and Hill Country Erosion Fund targets.

3. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 20-130 and Annex.

4. FINANCIAL IMPACT

- 4.1. There are no direct financial impacts associated with this report. However, it does update Members on a number of financial matters associated with SLUI, Regional and Coast, and Nursery activities.

5. COMMUNITY ENGAGEMENT

- 5.1. Consultation was carried out through the 2012-22 Long-term Plan (LTP) submission process and the recent Annual Plan process.
- 5.2. The **Ministry for Primary Industries** (MPI) has a key role in part-funding and overseeing the SLUI section of this activity.

- 5.3. The SLUI Advisory Group is updated on SLUI progress approximately every six months, however, this year the group only met once as the second meeting was called off due during Covid-19 lockdown.

6. SIGNIFICANT BUSINESS RISK IMPACT

- 6.1. There are no significant risks inherent in the adoption of the recommendations contained in the report.

7. ACTIVITY

Annual Plan, Contract Targets and Operational Plan Results

- 7.1. The tables below provide an overview of the Land Team results against annual work targets. More commentary on these results will be provided in the Activity section of this report.

Table 1 Annual Plan Results 2019-20

MEASURE	TARGET	RESULT	%	COMMENT
Sustainable Land Use Initiative				
Erosion reduction works programmes in targeted SLUI catchments (hectares).	3,440	7,375	214	Achieved. A record year for SLUI works.
Hectares of Whole Farm Plan properties mapped per year.	22,500	22,671	101	Achieved. More plans were mapped but not provided for End of Year.
Regional Land Initiatives, WCS, Coastal and Nursery				
Manage environmental grant programme to deliver erosion reduction works (hectares).	175	221	126	
Support industry initiatives that promote sustainable land use via industry partnerships (including Whanganui River Enhancement Trust WRET).	5	8	160	Achieved. PWRT*, BFEA*, Beef & Lamb NZ, MDFFA*, SFFF*, TSLMG*, ACRE*, LandWise (* see below).
Operate Council nursery and source additional commercial material to deliver poles (poplar and willow) to erosion control programmes (number of poles).	30,000	31,732	106	

* PWRT – Poplar & Willow Research Trust

* BFEA – Ballance Farm Environment Awards

* MDFFA – Middle Districts Farm Forestry Association

* SFFF – Sustainable Food and Fibres Future Fund

* TSLMG – Taumarunui Sustainable Land Management Group

* ACRE – Agriculture Communities Respecting the Environment

Table 2 SLUI Contract Results 2019-20

MEASURE	TARGET	RESULT	%	COMMENT
Sustainable Land Use Initiative				
Erosion reduction works programmes in targeted SLUI catchments (hectares).	3,440	7,375	214	Achieved.
Hectares of Whole Farm Plan properties mapped per year.	22,500	22,671	101	Achieved.
Catchment Operation Committee Reports completed	4	4	100	Achieved.
Financial reports completed	7	8	114	Achieved.
Case studies completed	1	0	50	Not achieved. Not completed due to Covid-19.
Feasibility reports completed (afforestation)	6	7	117	Achieved.
SLUI Advisory Group meetings held	2	1	50	Not achieved. Not completed due to Covid-19.

Financial Results

- 7.2. Overall financial results are reported in the Annual Report. The Land activity section of the Annual Report results includes Fluvial Resources and Land Research activities which are part of the Natural Resources & Partnerships Group – Science activity.
- 7.3. The financial results for the Land Management programme, excluding the Land Science programme, are outlined below.

Revenue

- 7.4. Overall revenue including rates was \$7.168 m against a budget of \$7.160 m. Revenue in total was lower this year than in 2018-19. In 2018-19 there were two extra Government-funded programmes which contributed more than \$600,000 to the programmes.

Expenditure

- 7.5. Overall expenditure was \$6.739 m against a budget of \$6.514 m. This was due to a favourable result in Regional and Coast (\$0.058), offset by expenditure exceeding budget in SLUI (\$0.242 m) and Nursery (\$0.041).
- 7.6. Capital expenditure was below budget for both Joint Venture forestry and Nursery. In both cases work was disrupted by Covid-19 and an application to carry reserves over to 2020-21 has been made.

Overall land management activity

- 7.7. The overall results for all the Land activity are shown in Table 3. There was a \$428,651 favourable balance, primarily due to additional revenue from WRET and Nursery, with lower expenditure in **Regional and Coast (R&C)**. The forestry revaluation revenue appears in the Profit and Loss, but it is not expendable revenue.

Table 3 Revenue and Expenditure for NRP Land activity

Actuals	Rates Revenue	External Revenue ²	Total Revenue	Total Expenditure	Net result	% external
SLUI	\$3,695,160	\$1,733,600	\$5,428,760	\$5,415,962	\$12,798	32
Forestry revaluation ¹		\$308,561	\$308,561		\$308,561	
R&C	\$696,360	\$103,726	\$800,086	\$703,277	\$96,809	13
Nursery	\$-13,200	\$643,676	\$630,476	\$619,993	\$10,483	103
Total	\$4,378,320	\$2,789,563	\$7,167,883	\$6,739,232	\$428,651	39
Net result without forest revaluation					\$120,090	
Capex (Joint Venture Forestry)				\$218,972		
Capex Nurseries				\$47,978		

¹ Net revaluation figure equals increase in forest value less capex expenditure

² Excludes Landowner contribution.

7.8. Key points:

- SLUI revenue at \$1,733,600 was an increase on 2018-19. At \$1.733 m this contributed 32% of the SLUI revenue.
- Overall SLUI expenditure at \$5,415,962 was \$242,000 above budget. Some of this extra expenditure was budgeted within the new SLUI contract with Government, however was not able to be reflected in the Annual Plan budget due to the timing of the contracting process. Some of the additional expenditure relates to approved use of SLUI reserves.
- The increase in the SLUI Joint Venture Forest value was below budget. The forest value increased by \$527,533 which was offset by silviculture costs of \$218,972. The net increase of forestry was therefore \$308,491. This is less than the budgeted increase of \$383,000.
- The Regional and Coast activity revenue at \$800,086 was an increase on last year and was \$38,726 more than budgeted. This was due to an additional payment from WRET for increased environmental grant works (offset by an increase in grant expenditure) and accrued income from a joint regional council programme in support of poplar sawfly research.
- Overall, Regional and Coast expenditure at \$703,277 was \$58,000 less than budget due to less labour cost (staff time) and vehicle running. In part this is reflected in more labour charged to SLUI while also reflecting less time in the field during Covid-19 lockdown.
- The Nursery activity revenue at \$643,676 was \$43,826 above budget due to increased nursery sales from product bought in i.e. poles, Dynex for protective sleeves, and pine seedlings).
- Nursery expenditure at \$619,993 was \$42,873 above budget, reflecting extra cost in growing poles, product purchases and expanding new production beds.
- Overall, the Nursery made a surplus of \$10,482.
- External revenue makes up 39% of total revenue or 27% when forestry revaluation is excluded.

- SLUI **Uniform Annual Charge (UAC)** rated activity had a favourable result and when the forestry revaluation was excluded there was \$12,798 available for SLUI reserves. This is despite a record year for the work programme and a grant expenditure cost of more than \$2.7m.
- Regional Land and Coast, and Nursery, General-rated activity had a favourable result of \$96,809 and \$10,483 respectively.

Activity Results

The favourable financial end of year results were achieved within a work programme that achieved all of its main targets. In terms of environmental works completed, SLUI and the Environmental Grant programmes exceeded targets. Whanganui Catchment Strategy (WCS) results are also included in Table 4 below.

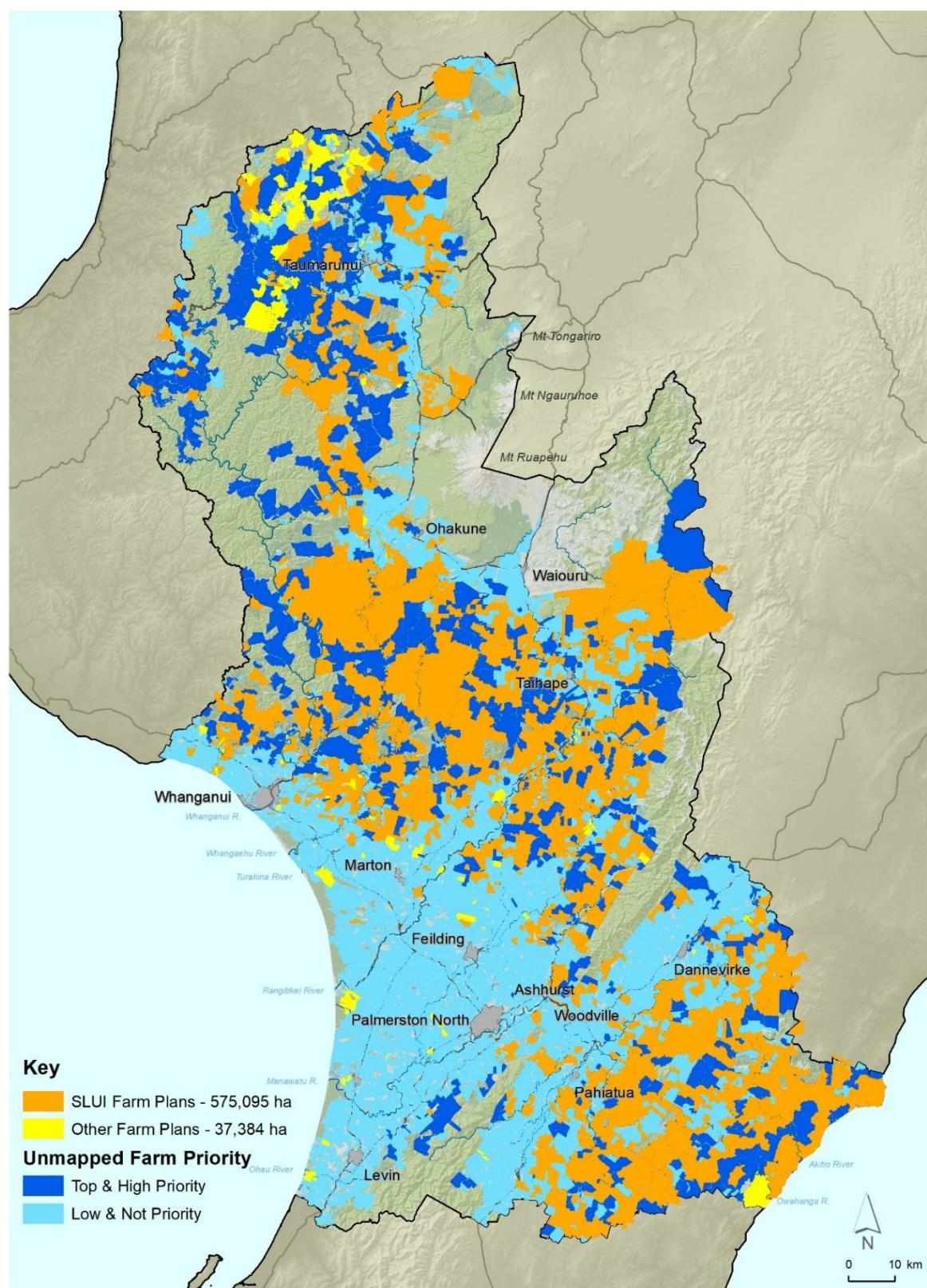
Table 4 Summary of work programme for Land activity by activity area

Programme	# Jobs	Total \$	Grant \$	Hectares	No. Trees	Fencing (m)
SLUI	525	9,782,074	2,703,326	7,375	4,927,187	169,882
WCS	49	303,170	137,881	113	2,865	28,047
E-Grant	48	270,716	83,372	108	91,534	7,925
TOTAL	622	10,355,960	2,924,579	7,596	5,021,586	205,854

7.9. The key points from Table 4:

- Overall in the activity areas 622 jobs were claimed compared to 579 in 2018-19, a 7% increase.
- Total expenditure on works was just over \$10.3 m with the various grant programmes committing \$2.92 m and landowners \$7.423 m (72%).
- The landowner commitment is inflated due to the expenditure on works exceeding the 150 ha limit for afforestation projects. In a normal year the landowner commitment is about 50% of total cost.
- 7,596 ha of works were completed and claimed, compared to 3,612 ha in 2018-19. All programmes met their targets.
- 5.021 m trees were planted, including more than 22,000 poplar and willow poles.
- 205 km of fencing was completed with the bulk of this carried out for retirement and riparian retirement programmes.

SLUI, Regional and Coast Activity



SLUI Plan Progress

Map prepared by W McKay, NRP Group on 06/08/2020

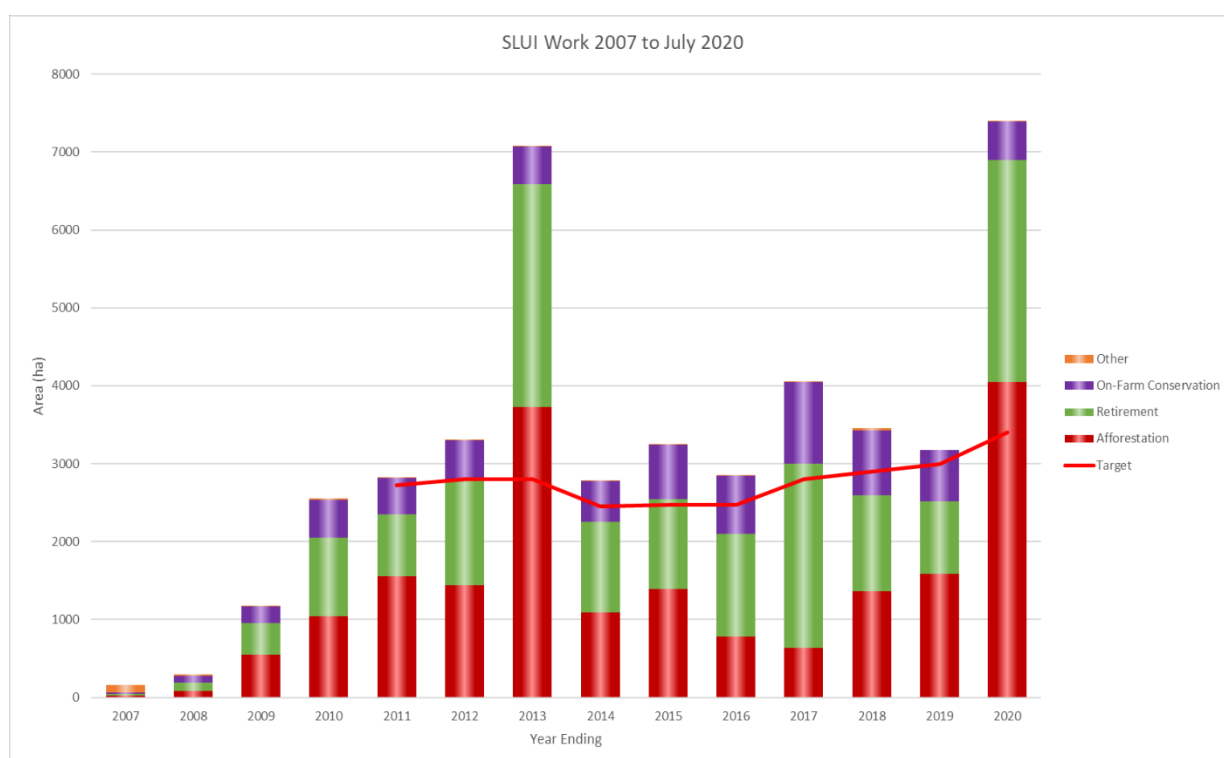
Map 1 SLUI target farms and Whole Farm Plans

- 7.10. The SLUI work programme met its major work targets with Te Uru Rakau – Forestry NZ (TUR). This included the target for new WFPs, where 22,671 ha of new plans were mapped to take the total area of WFPs under SLUI to more than 583,000 ha and 796 farms (Map 1).
- 7.11. The work programme involved 525 individual claims (compared to 480 and 437 in preceding years) on more than 316 farms (Table 5).
- 7.12. Targeting of farm plans to priority and grants for works completed by priority continue to have an emphasis. In doing this we will treat our top priority farmland, which is the land providing the greatest quantity of sediment to water, at the fastest possible rate.
- 7.13. In 2019-20 we completed 7375 ha of work under SLUI, with:
- 1,617 ha on Top Priority land (22%)
 - 2,334 ha on Highly Erodible land (32%)
 - 2,916 ha on Erodible land (40%) and
 - 508 ha on Non-Erodible land (6%)
- 7.14. Over SLUI's life to date 31% (13,561 ha) of 44,313 ha total SLUI works completed have been on Top priority land. An additional 13,596 ha was on Highly Erodible land.
- 7.15. As a rule of thumb Top Priority land is likely to produce 100 times more sediment than Non-Priority land, and at the extreme level Manaaki Whenua Landcare Research suggests our most erodible land classes will produce 400 times more sediment than the lesser erodible land classes.

Table 5 Summary of work programme by work type

JobType	Hectares	Trees Planted	# Farms done Works	# Claims	Total Cost	Grant Amount	Metres of Fencing
<i>Afforestation</i>	4,040	4,878,163	35	69	\$ 6,218,731	\$ 985,041	14,170
<i>Retirement</i>	2,617	5,400	63	70	\$ 1,240,774	\$ 606,336	72,243
<i>Riparian Retirement</i>	170	15,813	80	123	\$ 1,365,589	\$ 678,313	67,254
<i>Wetland Retirement</i>	11	2,920	18	23	\$ 150,003	\$ 74,380	8,822
<i>Managed Retirement</i>	42	-	6	6	\$ 104,705	\$ 40,022	6,905
<i>Space Planting</i>	494	24,791	217	221	\$ 579,642	\$ 289,259	329
<i>Structures/Earthworks</i>	-	-	6	6	\$ 66,386	\$ 27,425	-
<i>Other</i>	1	100	7	7	\$ 56,244	\$ 29,550	159
Totals	7,375	4,927,187	316	525	\$ 9,782,074	\$ 2,730,326	169,882

- 7.16. Total grant expenditure over the work programme has increased over each of the last three years:
- 2017-18 \$1.778 million
 - 2018-19 \$2.074 million
 - 2019-20 \$2.730 million
- 7.17. Table 5 notes 7,375 ha of works were completed this year against a target of 3,440 ha. This is the record for work completed under the SLUI programme, as shown in Graph 1. This is also the year with greatest afforestation work; the 2013 total was primarily due to the Afforestation Grant Scheme while last year the main driver was afforestation for carbon sequestration (investment).



Graph 1 Summary of SLUI work by year and by work type

- 7.18. As with 2018-19, the commitment of funds to grant works was greater than the final claims. In February 2020 the forecast grant expenditure was more than \$4 m while the final spend was \$2.73 m. Covid-19 will have impacted on this.
- 7.19. Afforestation was well ahead of recent years. This reflects the planting of carbon properties in Taranui and Ruapehu areas. The funding of these programmes was limited to 150 ha per property but all work completed was recorded against SLUI targets. Further claims for work are being claimed from these work programmes in 2020-21, but these are for planting in spring 2019. No planting has been approved for this winter.
- 7.20. Council policy requires large grant programmes to be protected through a **Resource Conservation Agreement (RCA)**. An RCA is registered against the title of the property and grant funds payable to the landowner are not paid out until the RCA is registered. One RCA was registered in 2019-20 for a forestry project in the Whanganui District. Three other RCAs are in the process of registration, two for afforestation (Taranui and Ruapehu) and one for land retirement (Rangitikei District). The funding for these jobs is included in the 2019-20 financial year but has not yet been paid.
- 7.21. There was a significant increase in retirement funding this year. This is in part due to one very large retirement job in the upper Rangitikei Catchment and due to a reallocation of jobs classified as riparian to retirement.
- 7.22. SLUI space planting of poplar and willow poles included 24,791 poles (28,834 last year). The decline in pole numbers was expected due to nursery production fluctuating as the development phase continues.

Key points in Land Operational Plan

7.23. Key points in SLUI activity:

- Recognise Whanganui Catchment Strategy Plans (WCS) as SLUI Plans and utilise SLUI funding on these farms, allowing more works to be funded.

This was completed this year and 12 WCS plans completed works with SLUI funding.

- Maintain high level of active plans through periodic reviews and customer contact.

Both grant jobs completed and number of active plans increased during the year.

- Implement new SLUI limits on funding for whole farm afforestation as approved by Council in June 2019 and reclassification changes of some hill country riparian fencing projects to retirement projects, clarifying grant rates for the different types of plan.

*This was completed; two jobs had a funding limit of 150 ha imposed (although a larger area was planted) and riparian projects in hill country **Land Use Capability (LUC)** Class 6 and 7 land were reclassified to retirement.*

- Reviewing and increasing auditing of works to deliver on contract targets and proof of establishment. Supply an annual report on this work.

Completed; the audit report will be completed for the next Milestone report to TUR.

- Upgrading information management to improve reporting processes and connectivity between the various sources of information in the programme, such as field information, SLUI database, financial reporting and council/contract reporting and compliance.

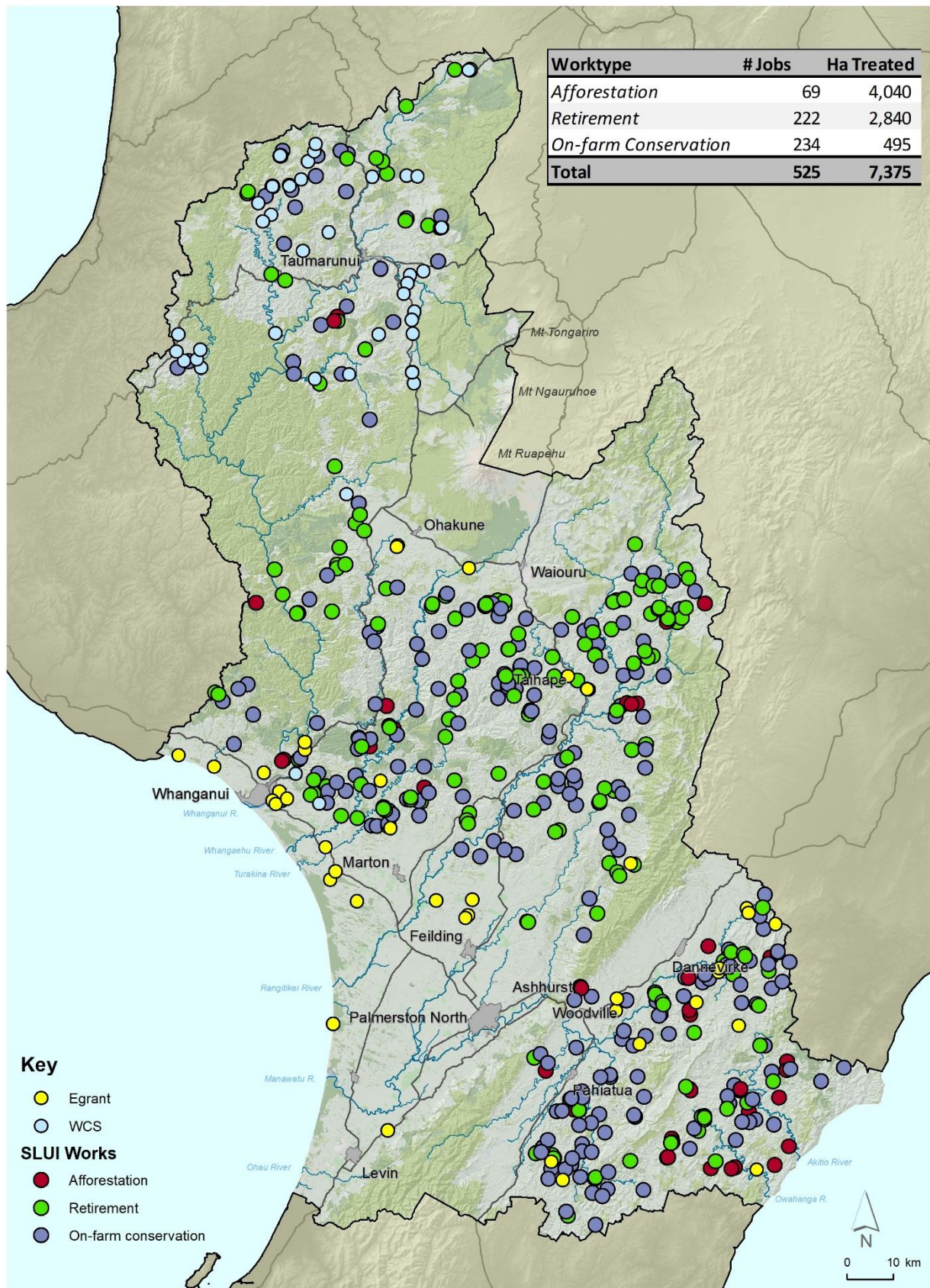
This work is still in progress and was disrupted by Covid-19 lockdown.

- Increase alignment with other NRP teams to deliver on integrated catchment management outcomes. This will include alignment with biodiversity and biosecurity (weed and pest) functions.

This remains a work in progress.



Photo 1 Fenceline track and new fence on 10.7ha of retirement in the upper Rangitīkei area within SLUI Whole Farm Plan (Libby Owen, June 2020).



2020 Worktype Locations

Map prepared by W McKay, NRP Group on 18/08/2020

Map 2 SLUI, Regional & Coast and Whanganui Catchment Strategy work types and locations.

Regional Coast and Land Activity (including WCS and WRET)

7.24. The Regional Coast and Land activity met all its Annual Plan targets and Environmental Grant programmes in Regional and WCS targets were both exceeded. This was despite some works normally funded in WCS being moved to SLUI. There was increased funding provided by the Whanganui River Enhancement Trust for grant projects, which was targeted to riparian fencing within the Ohura River Catchment.

Table 6 Summary of Environmental Grant programme for Regional and Coast. Target 100 ha.

Work Type	# Jobs	Total \$	Grant \$	Hectares	No. Trees	Fencing (m)
Afforestation	8	136,508	41,950	72.1	81,900	785
Retirement	3	24,132	7,239	4.5	-	905
Riparian Retirement	5	46,180	13,812	7.1	1,200	6,034
Wetland Retirement	4	8,157	2,447	1.8	186	201
Space/Gully Planting	27	41,765	13,731	22.9	2,248	-
Other	1	13,974	4,192	-	6,000	-
Total	48	270,716	83,372	108.4	91,534	7,925

Table 7 Summary of Environmental Grant Programme for WCS/WRET. Target 75 ha.

Work Type	# Jobs	Total \$	Grant \$	Hectares	No. Trees	Fencing (m)
Afforestation	-	-	-	-	-	-
Retirement	4	44,296	20,373	46	-	2,353
Riparian Retirement	18	214,598	103,010	39.8	600	24,780
Wetland Retirement	5	9,712	3,813	2.6	732	700
Space/Gully Planting	22	34,564	10,686	24.1	1,565	-
Total	49	303,170	137,881	112.5	2,865	28,047

- 7.25. The land Environmental Grant programme consisted of 48 projects (c.f. 53 projects in 2018-19) with a grant spend of \$83,372.
- 7.26. The bulk of the work programme is pole planting, usually on land that isn't high priority for SLUI or with landowners who are only interested in pole planting and have been doing so for years. The average pole job was 83 poles (range 15-300).
- 7.27. The "other" project funded within the programme was for a share of dune stabilisation and replanting with Manawatu District Council at Himatangi Beach.
- 7.28. The WCS Environmental Grant programme consisted of 49 projects (c.f. 46 projects in 2018-19) with a grant spend of \$137,881. WRET contributed \$87,000 grant to these projects. These projects can take place throughout the Whanganui River Catchment, but there is an emphasis on works within the Ohura and Waikaka Catchments, relating to their high sediment loads.
- 7.29. Space planting accounted for the most projects with 22 jobs but numbers were down on previous years with fewer poles available. The average job was 71 poles (c.f. 116 last year).

- 7.30. Riparian retirement made up the bulk of the grant cost at \$103,010 and the bulk of the fencing at 24.8 km. This is work traditionally supported by WRET.

Key points in Land Operational Plan

- 7.31. Key points in this activity:

- Maintain the funding partnership with WRET.

WRET agreed to increased funding and have agreed to works completed. Annual Report to WRET due September.

- Maintain industry partnership programme, particularly the key funded programmes with Ballance Farm Environment Awards programme and Poplar and Willow Research Trust.

BFEA – disrupted by Covid-19. The regional winners were announced online rather than at an awards dinner. The field day has been postponed until 2020-21 financial year.

Covid-19 has prompted the NZ Farm Environment Trust to reset the awards process and agreement was reached to an interim change for 2020-21 where no regional awards programme will be held.

PWRT – Horizons has representation on the Poplar and Willow Research Trust through the Land Manager. The Trust continues to support the research and advocacy of poplar and willow planting for erosion control and river management.

As part of the programme the Trust and SCION were successful in obtaining funding for work looking at the life cycle and distribution of the poplar sawfly, which has established around Dunedin.

Year three of a winter grazing best practice campaign has been rolled out this winter in a programme funded by Beef and Lamb NZ and a number of Regional Councils.

- Continue to support wider organisational activities including liaison with River Management, Consents and Compliance teams.

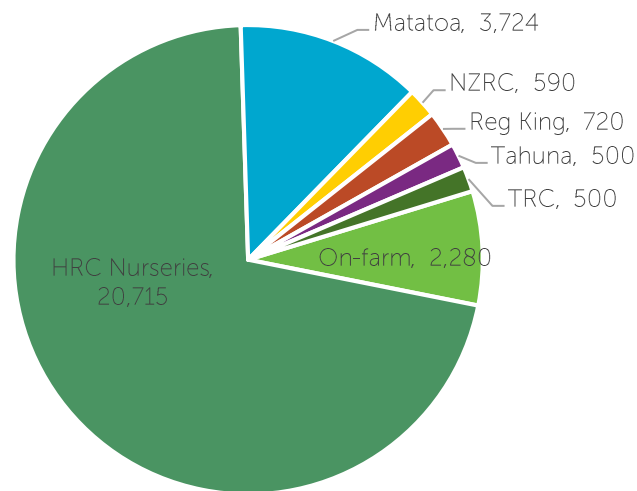
Staff have provided advice to landowners around the hill country management provisions of the One Plan as while staff no longer carry out “in the field consenting” they do provide advice around consent needs and around the environmental issues that applicants need to address. A total of 278 hours of staff time was charged to this activity.

- Provide advice on soil health and soil management, and promote and demonstrate Visual Soil Assessment.
- Maintain the Regional SOE soil quality monitoring, complete an annual monitoring report.

Nursery Activity

- 7.32. The nursery activity met its Annual Plan target with 31,732 “A” and “B” grade poles distributed in the winter of 2019. This is fewer than the 37,624 poles distributed in 2018 and is part of the ongoing fluctuations as nursery production is increased. This fluctuation includes renewing the stool beds to replace old plants and change species (Photo 2).
- 7.33. These poles were sourced from a number of areas, with most from Horizons nurseries but others are supplied by commercial growers and farmers.
- 7.34. Horizons Nurseries produced 71% of the total 3 m A-Grade pole supply this year. On-farm nurseries supplied 8% and the remaining 21% came from other nurseries (Graph 1).

3m A-Grade Pole Supply 2019



Graph 1 A grade pole suppliers in winter 2019.

- 7.35. The Woodville nursery produced 13,155 of the 20,715 poles produced by Horizons, compared to 22,500 in the previous season.
- 7.36. The nursery budget is also used to buy in poles and sleeves required for erosion control plantings, pine seedlings for afforestation projects and a small number of native plants for riparian projects. Purchased material is on-charged to landowners undertaking work programmes.
- 7.37. Development in the Woodville nursery continued with new blocks of willow planted. The last major infrastructure project for the nursery is development of an irrigation system. A contract for a feasibility study was let after some delays due to Covid-19 lockdown.



Photo 2 Clearing old stool beds to establish a new block of Veronese poplar at Bulls nursery (Sara Mathieson, August 2019).

8. SIGNIFICANCE

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

Grant Cooper
ENVIRONMENTAL MANAGER LAND

Jon Roygard
GROUP MANAGER NATURAL RESOURCES & PARTNERSHIPS

ANNEXES

- A Land Management Activity



LAND MANAGEMENT ACTIVITY – 1 JULY 2020 TO 15 AUGUST 2020

1. OVERVIEW

- 1.1.1 The purpose of this report is to update Council on the Land Management activity within the **Sustainable Land Use Initiative** (SLUI), Regional and Coast, and Nursery activities carried out under the Annual Plan, the **Te Uru Rakau – Forestry NZ** (TUR) contract, and the Operational Plan for the year to date. The report is presented in five sections:
1. Activity over the last reporting period and upcoming activity.
 2. Report on progress against the Annual Plan, and contract outputs.
 3. SLUI activity by **Whole Farm Plan** (WFP) production, work completed life-to-date and year-to-date, and against Operational Plan targets.
 4. Regional and Coast work completed against year-to-date and Operational Plan targets and
 5. Nursery activity.
- 1.1.2 The Land Management programme's primary activity is to reduce hill country erosion in order to increase the resilience of the Region to storm events and improve water quality. The **Sustainable Land Use Initiative** (SLUI) is the main component of the programme. It has more than 583,000 ha of farm plans across 796 farms and aims to complete approximately 3,065 ha of erosion control works and 22,500 ha of new farm plans in the 2020-21 year.
- 1.1.3 Beyond hill country erosion control, the Land programme also supports industry partnerships, including the Ballance Farm Environment Awards and events that enable discussion among industry professionals and farmers around land management activity. The Land Management team also provides support to the regulatory teams around the implementation of the **National Environmental Standard for Plantation Forestry** (NES-PF) and the implementation of One Plan policies and rules around land disturbance and vegetation clearance.
- 1.1.4 Management of poplar and willow nurseries in order to provide the necessary materials for the hill country erosion work is the final component of the Land activity. Upgrades to Horizons' Woodville nursery will continue this year. The programme aims to produce and plant more than 30,000 poplar poles

- 1.1.5 The Annual Plan and contract targets are agreed, with the latest **Ministry of Primary Industries** (MPI) contract signed in August 2019. This commits MPI funding of more than \$6.4 million over four years until 30 June 2023. The overall budget for this programme exceeds \$30 million, consisting of funding from Horizons, MPI and landowners.
- 1.1.6 Operational Plan targets for 2020-21 are yet to be presented to Council. The Land Management activities of this year's work programme link to the Council's Long-term Plan 2018-28 and to the non-regulatory methods of the One Plan (Chapter 5, Policies 5-1 & 5-5).

2 ACTIVITY

2.1 ACTIVITY DURING LAST REPORTING PERIOD

- 2.1.1 This activity report relates to the period 1 July 2020 – 15 August 2020, the beginning of the 2020-21 financial year. Work completed up until the end of June 2020 is included in the Annual Report.
- 2.1.2 The priority for field staff is to ensure winter planting programmes are completed. This includes staff arranging delivery of poplar and willow poles and giving advice and assistance to landowners to ensure poles are planted correctly. Afforestation projects will also be underway with some landowners procuring trees through the Horizons contract supply.
- 2.1.3 Fencing claims continue to occur. Fifteen claims have been processed for this financial year to date.
- 2.1.4 The winter period has been relatively kind for farming activities after autumn rainfall set up reasonable pasture growth and a mild winter has seen growth continue. There are still parts of the Region where it is drier than normal and some landowners in the Turakina/Rangitikei/Taihape areas are cutting back on pole planting because of hard ground conditions.
- 2.1.5 Staff have more than 4,600 ha and \$3.7 m of works allocated for the 2020-21 year. There are other funding programmes ("shovel-ready" and green projects both internal and external) that may pick up some of this work and staff are finding it difficult to get a clear picture of their work for the year.
- 2.1.6 For office staff the priority has been completing end of year reports including: EOY Milestone report to TUR (report, financial report, shape files, invoice), Annual Report on Land Management activity, EOY financial reports and targets for the Council Annual Report and early work for the Long-term Plan.
- 2.1.7 Staff have continued to assist with input into possible "shovel-ready" environmental projects for consideration by Central Government.
- 2.1.8 Staff are working on providing an annual report to WRET for their AGM in September. At this time a formal application is made for funding for 2020-21.
- 2.1.9 Staff were present for harvesting poles in the WRET-supported nursery on Whio (Blue Duck) Station. The harvesting was being filmed by the "Country Calendar" team for an upcoming television episode.

- 2.1.10 Pole harvesting has been completed in all Council nurseries and even though supply numbers were down, late cancellations from farmers due to dry ground conditions have meant most farmers wanting poles have been able to get them this year.
- 2.1.11 Staff have attended and presented at a number of events. Once Covid-19 restrictions ended, a number of the events continued to be run as virtual meetings. This mix of events include:
- Attended Taumarunui Sustainable Land Management meeting,
 - Two virtual Land Management Group **Special Interest Group** (SIG) meetings (a meeting of land managers from regional councils and unitary authorities across New Zealand),
 - Presented at the **Agricultural Communities Respecting the Environment** (ACRE) winter workshop at Massey University,
 - Attended a Tatarua Right Tree, Right Place workshop as part of a Billion Trees partnership programme,
 - Joined two meetings for a Farm Environmental Planner reference group as part of a proposed Massey University short course,
 - Attended a regenerative agriculture seminar at Linnburn Station (Huntermville)
 - Attended an "understanding farm business" course run by Ag Women and Red Meat Profit Partnership.
- 2.1.1 SLUI Whole Farm Plans continue to be produced, with plans not completed in 2019-20 carried over into this financial year, Table 1

Table 1: WFP production (life-to-date)

No. of Plans	Hectares	Comments
745	552,067	WFPs completed in SLUI to 30 June 2019
22	10,207	Plans completed in 2019-20 and delivered to landowners
28	12,464	Plans/ha mapped in 2019-20 but yet to be delivered to landowners
17	7,927	Plans on the list in 2020-21 and with contractor to complete
50	22,671	Equals (22 + 28) Plans on list to be mapped in 2019-20 financial year
62	71,870	Information with landowner who is still to finally commit to a plan

- 2.1.2 All WFPs from the 2018-19 plans have been delivered and 22 from the 2019-20 programme. Of the 22 plans delivered, 10 have agreed to a programme at this stage.
- 2.1.3 There are 17 (7,927 ha) of plans allocated to the contractor in 2020-21. This number will increase as staff revisit those noted as having information out with landowner.
- 2.1.4 A virtual meeting was held with the Poplar and Willow Trust and funding partners to discuss progress on the poplar sawfly research carried out last summer. This work is carried out by SCION with support from PWRT and Regional Councils (see info sheet below). Covid-19 lockdown impacted the end of this project and the project team will apply to the SFF Futures for additional funding for another summer programme.



Agriculture & Investment Services
Ministry for Primary Industries
Manatū Ahu Matua

SFF Futures

The biology and impact of poplar sawfly in New Zealand



Snapshot

Industry partners: NZ Poplar and Willow Research Trust

Project length: 1 year

Start date: December 2019

Estimated completion date: November 2020

Industry funding: \$25,000

MPI funding: \$100,000

Research on the poplar sawfly's biology and impact on different poplar varieties will inform New Zealand's approach to long-term management of this pest.

The opportunity

An established population of poplar sawfly (*Cladius grandis*) was detected in Dunedin in January 2019. It feeds on most poplars currently in slope stabilisation programmes. New Zealand has three native sawfly species (all distantly-related parasites of wood-boring insects) and no native poplars. This species may spread rapidly throughout New Zealand. It's essential to understand the potential impacts of the pest upon the currently grown poplar varieties that have been bred specifically for New Zealand conditions.

The solution

Before long-term management options can be considered, basic information on the biology of poplar sawfly must be gathered to quantify its potential impact. This project will monitor the life-cycle of poplar sawfly for 12 months to determine the number of generations per year, the rate it is spreading, and its initial impact on New Zealand poplar varieties. Evidence of larvae observed to be infected with potential microbial or insect biocontrol agents will be kept for future analysis to inform

future decision-making on potential bio-control options. Monitoring fieldwork will be carried out at known infested sites and poplar trial sites around Dunedin to help shape the New Zealand Poplar and Willow Research Trust's future poplar breeding programme to maximise tolerance to poplar sawfly.

The public will also be encouraged to put any finds of the pest onto the web platform iNaturalist. A project to track its spread has been set up here: inaturalist.nz/projects/tracking-the-poplar-sawfly

The benefits

If successful, this project could benefit New Zealand by:

- protecting investment in poplar plantings as a critical tool for stabilising erosion-prone land and reducing runoff to waterways;
- informing the best approach for long-term pest management of poplar sawfly.

March 2020

SFF Futures

Make it happen

Info Sheet 1: Poplar sawfly information material (SCION)

3 ACTIVITY OVER THE NEXT THREE MONTHS

3.1.1 During August - October staff will:

- Continue to keep in touch with landowners regarding grant work;
- Begin working through the list of plans where work has not been carried out in the last five years and, where necessary, re-establishing contact with landowners;
- Work through claim processing, visiting farms and inspecting works which at this stage will mostly be fencing projects;
- Finalise a new time for SLUI Advisory Group meeting (this was originally planned for June but was postponed and will now aim to return to the normal twice-yearly cycle);
- Deliver completed farm plans and discuss work programmes;
- Complete registration of three large grant works programmes and authorise payment of grant funds;
- Liaise with **Poplar and Willow Research Trust** (PWRT) to update pole trial sites in our Region;
- Continue to liaise with **Ministry for the Environment** (MfE) over the government's Freshwater proposals;
- Continue monitoring/audit programme for SLUI plans, with the aim of having a report available to meet the TUR contract target of August 2020;
- Plan new season work programmes in both Joint Venture forests and nurseries.

4 REPORT ON PROGRESS

4.1 ANNUAL PLAN AND CONTRACT TARGETS (2020-21)

4.1.1 The Annual Plan and **Hill Country Erosion Fund** (HCEF) contract targets for 2020-21 are shown in Table 2 below.

Table 2: Annual Plan and HCEF contract targets 2020-21

MEASURE	ANNUAL PLAN	HCEF CONTRACT	TARGET	YTD	PREDICTED RESULT
Sustainable Land Use Initiative					
Erosion reduction works programmes in targeted SLUI catchments (ha)	3,100	3,065	3,100		4,600 ha work proposed to date. 18 claims completed.
Whole Farm Plan properties mapped per year (ha)	20,000	22,500	22,500		
Farm or paddock assessments mapped per year (ha)		1,000	1,000		
Case study completed (number)		1	1		
Feasibility reports (number)		6	6		
Regional and Coast					
Manage grant programmes to deliver erosion reduction works (ha)	175		175	1.0	3 claims completed.
Support industry initiatives that promote sustainable land use (number)	5		5		
Operate council nurseries and source additional commercial pole material to deliver poplar and willow poles to control erosion (number of poles)	30,000		30,000		Pole harvest completed, stakes still to complete.

4.2 SLUI GRANT WORKS TARGETS (2020-21)

Table 3: Work this financial year (contract vs forecast vs actual by hectares and dollars).

Work Type	Hectares				Dollars \$ x 1000			
	Contract Target	Forecast	Actual	Actual vs Contract	Contract Target	Forecast	Actual	Actual vs Contract
Afforestation	1,250	1,794			939	1,331		
Retirement	600	2,064			261	897		
Riparian Retirement ^{*A}	220	381			357	1,114		
Managed Retirement	85	8			25	5		
Space Planting & Gully Planting	900	401			398	185		
Structures/Earthworks	10	39			60	24		
Other (including blank)	-				63			
Total	3,065	4,688			2,102	3,723	1,619	

^{*A} – includes wetland retirement

- 4.2.1 Contract targets are in place and agreed within the SLUI four-year contract. While there are individual work targets, TUR generally accept that these are difficult to manage on a yearly basis and tend to look at the overall outcome. This year the funding provided by TUR is reduced compared to last year. This is reflected in a slight decrease in the contracted work target, from 3,440 ha last year to 3,065 ha this year.
- 4.2.2 Forecast work already exceeds the contract target. The 4,688 ha forecast to be completed is from 498 individual jobs. This forecast will continue to change throughout the year and we would expect more jobs to come onto the allocation as staff visit new WFP landowners and discuss work programmes. Inevitably, jobs will drop off as circumstances change through the year.

4.3 REGIONAL LAND AND COAST AND WCS GRANT WORKS TARGETS (2020-21)

- 4.3.1 Environmental Grant funding is in place to support landowners to undertake works that will reduce erosion and protect the environment. This funding is targeted slightly differently between the **Regional Land and Coast** (RL&C) Environment Grant and the **Whanganui Catchment Strategy** (WCS) grant. Under the WCS, support from **Whanganui River Environmental Trust** (WRET) enables a greater variety of work to be funded and at higher grant rates in some areas.

Table 4: Work area and budget expenditure for the year to date

Grant Type	WORK AREA (ha)				BUDGET (\$)			
	AP Target	Allocated	Complete	AP % Complete	AP Budget	Allocated	Complete	AP % Complete
WCS	75	56	1.0	1.0	113,000*1	51,875	2,048	2.0
RL&C	100	86	-	-	80,000	79,716	-	-
Total	175	142	1.0	0.6	193,000	131,591	2,048	1.0

Note *1 - this is \$50,000 Horizons and \$63,000 WRET

- 4.3.2 A total of 92 projects have been allocated to date with an estimated work area of 142 ha.
- 4.3.3 Space planting accounts for 47 of the 92 projects and riparian retirement 18.
- 4.3.4 WRET allocation of \$63,000 cannot be confirmed until their AGM has been held in September.
- 4.3.5 Three projects have been completed within the WCS area to date this year.

Public Excluded Section

RECOMMENDATION

That the public be excluded from the remainder of the Council meeting as the general subject matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48 (1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

General subject of each matter to be considered	Reason for passing this resolution	Ground(s) under section 48(1) for the passing of this resolution
PX1 Confirmation of Public Excluded Meeting held on 10 June 2020	s7(2)(h) - the withholding of the information is necessary to enable the local authority to carry out, without prejudice or disadvantage, commercial activities.	s48(1)(a) The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.
PX2 Council / Committee to consider whether any item in the Public Excluded minutes can be moved into the public domain and define the extent of the release		