

Report No.	20-76
Information Only - No Decision Required	

## LOWER MANAWATŪ SCHEME RURAL UPGRADE PROJECT UPDATE

### 1. PURPOSE

- 1.1. The purpose of this item is to update Committee members on progress with implementing the **Lower Manawatū Scheme (LMS) Rural Upgrade Project (RUP)**.

### 2. EXECUTIVE SUMMARY

- 2.1. The RUP represents the single largest direct investment in flood protection by Horizons, spanning 15 years with a total value in excess of \$50M. It's a direct response to the devastating February 2004 floods, with a focus on providing a consistent 100 year Return Period flood protection standard outside of Palmerston North.
- 2.2. The components of the project include modifications to Kopane Bridge and the construction of the Burkes pump station but the primary focus has been on stopbank raising, with the scope of work driven by freeboard deficiency; upgrading those sections more than 100mm lower than the 100 year Return Period flood level.
- 2.3. The integrity of the network is greatly improved with the upgrade work, particularly along the Oroua River where virtually the entire length from Feilding to Rangiotu has been raised / rebuilt. However around half the network has not been touched and there remain significant lengths where (notwithstanding the fact that those sections have seen a few floods) cross-sectional profile is not consistent with best practise for an engineered embankment; to height but with a less than desirable shape.
- 2.4. The RUP has, not surprisingly given the size, duration, diversity and complexity of the different components, faced a range of challenges that have ultimately seen the original budget and timeline exceeded. Arguably the most challenging component has yet to be completed – new stopbanking in the vicinity of Te Arakura Road; staff are not confident that the project will be completed next financial year. Further funding may also be required.

### 3. RECOMMENDATION

That the Committee recommends that Council:

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

### 4. FINANCIAL IMPACT

- 4.1. This project has been fully budgeted for through the 2019-20 and 2020-21 Annual Plans. The table below provides a summary of the key financial information:

<b>2019-20 Budget</b>	<b>\$5.42M</b>
<b>Forecast 2019-20 Expenditure</b>	<b>\$3.2M</b>
<b>Estimated 2019-20 Carry-forward</b>	<b>\$2.22M</b>
<b>2020-21 Annual Plan Budget</b>	<b>\$400K</b>
<b>Total 2020-21 Budget</b>	<b>\$2.62M</b>

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**5. COMMUNITY ENGAGEMENT**

- 5.1. Community engagement with this project has mainly taken the form of meetings with both the scheme liaison committee and annual scheme meetings. Public meetings have been held from time to time related to specific issues (e.g. 2017 public meeting at Awahuri Hall, various meetings held at Kauwhata Marae).
- 5.2. Project completion celebrations were planned for April 2020 but those plans were put on ice early in 2020 with the issues around the Te Arakura Road section (clearly the COVID-19 lockdown would have had the final say in any event). A range of factors may make it difficult to plan any such celebrations in 2021 too far in advance.

**6. SIGNIFICANT BUSINESS RISK IMPACT**

- 6.1. Implementing the RUP significantly reduces business risk associated with the provision of LMS flood protection. Although much of the focus with the RUP has been on gross standards of protection, the work also strengthens a significant proportion of the network ultimately providing a higher level of operating reliability. This in turn, translates to a tangible and substantial (but not quantified) reduction in expected damage costs across a significant portion of the lower Manawatū River floodplain.

**7. BACKGROUND**

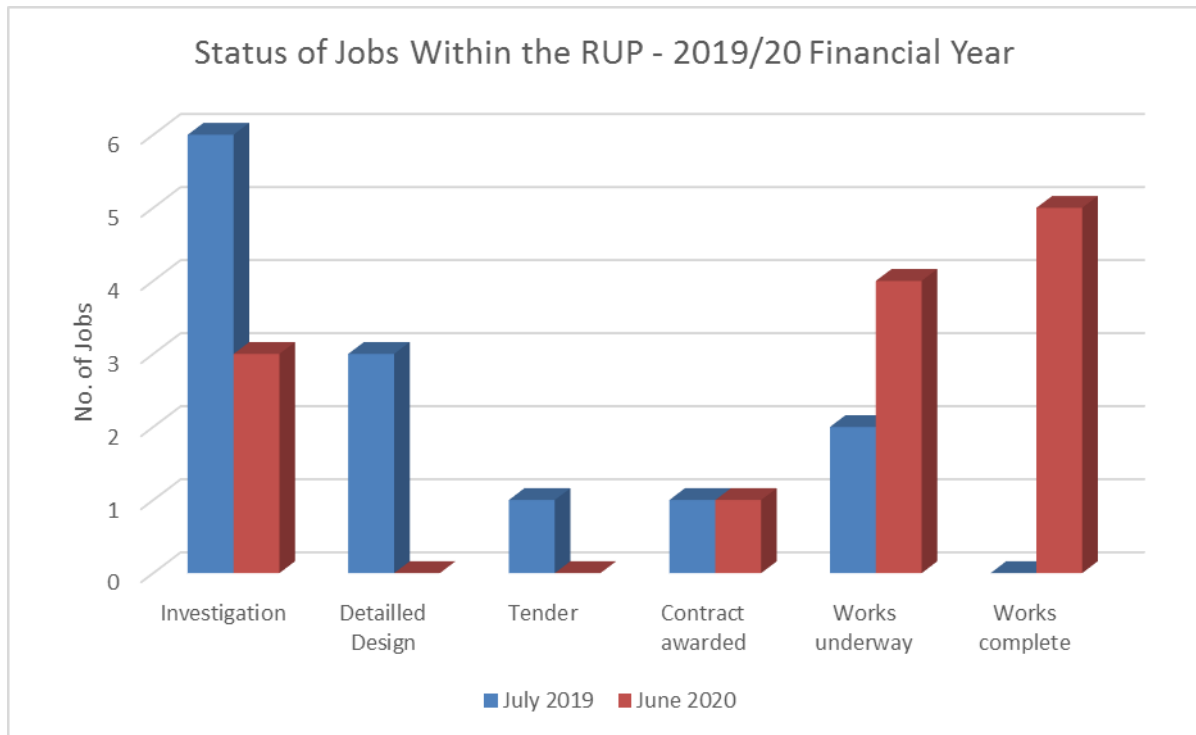
- 7.1. The RUP forms part of Council’s response to the February 2004 floods, with the intent of providing a higher and more uniform standard of flood protection to those on the Manawatū floodplain outside of Palmerston North. Consultation took place in 2008 with the project formally adopted through the 2009-19 Long-Term Plan. Project scope has largely been determined using freeboard deficit criteria – where a section of stopbank has a freeboard deficit exceeding 100mm.
- 7.2. Delivering a project of this size and duration has provided a range of challenges. The scope of the project has evolved as it has progressed, requiring a range of value judgements to be made along the way. It has also been subject to a range of delays relating to consenting, the occasional poor construction season (wet summer) and accommodating the diverting of resources to address flood damage repairs. The project has also had to manage a range of weather-related risks, primarily a large flood event occurring at an inopportune time.
- 7.3. As we approach the end of this programme of work resource planning, stakeholder engagement and risk management are paramount to ensuring a successful delivery of the final projects in the 2020-21 construction season.

**8. 2019-20 CONSTRUCTION SEASON**

- 8.1. The budget at the start of the 2019-20 financial year was comprised as follows:

<b>2019-20 Annual Plan Budget</b>	<b>\$231k</b>
<b>2018-19 Carry-forward</b>	<b>\$5.19M</b>
<b>Total 2019-20 Budget</b>	<b>\$5.42M</b>
<b>Forecast 2019-20 Expenditure</b>	<b>\$3.2M</b>

- 8.2. At the start of the 2019-20 financial year there were 13 work packages to be completed. These jobs were at various stages between investigation and construction. The chart below illustrates the progress that has been made over the 2019-20 year.



- 8.3. The construction season started well for the delivery of the RUP. With contracts being let early in the financial year and settled weather before the Christmas break good progress was able to be made.
- 8.4. The relatively dry construction season has meant that, even with a number of contracts being temporarily suspended due to COVID-19, the upgrade work for the Manawatu and Tokomaru Rivers is now complete.
- 8.5. Although work to raise stopbanks along the Kara and Mangapuketea Streams (tributaries of the Tokomaru River – work visible from State Highway 57 heading north out of Shannon) started relatively late in the season that work would have been completed but for the COVID-19 lockdown. That work has been suspended for the winter and will recommence later in the 2020 calendar year when conditions permit.
- 8.6. Work to raise / rebuild the section of Oroua stopbank that protects Feilding (Johnston Park to the Railway Bridge) was also initially halted with the late March nation-wide lockdown but restarted toward the end of Level 4. That work has been completed.
- 8.7. The most notable event of the season related to the section of new stopbank intended to be constructed on the true (facing downstream) left side of the Oroua River between Feilding and Awahuri. Work over previous seasons had seen the upstream section of the structure built; protracted negotiations required a formal process to be followed with the southern section, with construction of that section completed early in the season.
- 8.8. The gap between those sections is broadly centred on Te Arakura Road, crossing a number of relatively small land parcels with very complex ownership. Discussions with the trustees of those land parcels began well in advance of the work programme and while concerns appeared to be resolved work was halted (and subsequently abandoned for the season) in January due to protest action.

**9. REMAINING WORK PROGRAMME**

- 9.1. The single largest package of works remaining to be completed in the RUP is the Te Arakura Road section of Oroua stopbanking. The January protests appear to be in part based on incorrect information provided by an adjoining landowner around alignment

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options / alternatives available to Horizons. Staff have commissioned some detailed hydraulic modelling for this reach and that work will be digested along with other information before discussions with trustees around the available options takes place.

- 9.2. Other than the work on the Oroua River, much of the remainder of the RUP is made up of a number of relatively small packages of work. These include completing the Kara / Mangapuketea upgrade and the construction of bunds around two houses in the Taonui Basin, completing the mitigation work captured in resource consent conditions associated with the expanded basin floodwater storage.
- 9.3. With the aim of completing the RUP in the coming financial year staff will also be working to ensure that the project is fully closed out. This vital work will essentially form an audit of the RUP, to confirm that all of the upgrades have been carried out and that all relevant consent conditions and requirements have been met.

## 10. COMMENT

- 10.1. As noted earlier there have been a range of additions and deletions to scope during the latter stages of this project. Additions include land purchase at Rangiotu to enable the rebuilt stopbank to be set back from the Oroua River.
- 10.2. Deletions (deferrals) include the Te Matai Road section of stopbank east of Palmerston North, where the overlap between the Manawatu and Stoney Creek floodplains requires specific / detailed investigation and analysis. Upgrade of a section of the Tokomaru stopbank adjacent to the Makuera Swamp (proper name) was also deferred pending the development of a plan for enhancing the health of the wetland (the wetland borders the Tokomaru River), a joint Horizons, Department of Conservation, Rangitaane and Raukawa initiative.

## 11. SIGNIFICANCE

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

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Jon Bell  
**MANAGER INVESTIGATIONS AND DESIGN**

Ramon Strong  
**GROUP MANAGER RIVER MANAGEMENT**

## ANNEXES

There are no attachments for this report.