

MUGGERIDGE'S PUMP STATION PROJECT

UPDATE ON COSTS AND OPTIONS



We have some important news to discuss with you regarding the proposed Muggeridge's Pump Station to improve the drainage and flood protection services currently provided.

As you may be aware, discussion on this joint project with Hauraki District Council has been happening for more than 20 years.

Investigations have now been completed, and we have a detailed design to deliver two 2 cumec pumps, a culvert and canal to better protect about 1100 hectares of already drained land near Ngātea.

However, the cost of this work will be greater than was estimated.

It is expected that the project will now cost up to a total of \$6 million, compared to the estimate of between \$3.2 million and \$3.5 million made in 2016.

This news may affect you as 32.5 per cent of the cost will be borne by landowners who directly benefit from the new pump station.

We are holding a landowner meeting on Monday, 15 October. Staff and councillors will be available to discuss the project with you and answer any questions you may have.

Also included with this newsletter is a submission form about the options for this project. It will need to be returned to any Waikato Regional Council office by 5 November, 2018.

LANDOWNER MEETING



Monday, 15 October
10am
Ngātea War Memorial Hall

ISSUE RECAP

When peat wetlands are developed for agriculture, the soils dry out from the top down. This drying peat decomposes, and the ground level sinks as a result. For the developed areas of the Hauraki Plains, this sinking is at an average rate of 20 millimetres per year.

The ground is now so low in some areas that water can't be adequately drained through the existing pumps, canals and floodgates. Indications are that most of the Muggeridge drainage will not reach existing floodgates by around 2062. Therefore, a pump station at the lowest point in the catchment is required to mechanically assist drainage.

WHAT WE'VE DONE SO FAR

- Obtained resource consent.
- Established current and future flood protection and drainage requirements.
- Reached agreement on installing Bedford Pumps' fish friendly submersible pumps, and confirmed supply arrangements.
- Developed detailed designs for the canal, pump station and culvert.
- Tendered the canal and stopbanks earthworks within budget.
- Completed a cost estimate review, as well as funding and rating assessments.

The cost of this work was approximately \$1.2 million.

NEW ESTIMATED COST

The cost of the Muggeridge's Pump Station is now estimated to cost up to a total of \$6 million, compared to the previous estimate of between \$3.2 million and \$3.5 million.

This new estimate is made up of a project delivery cost of \$5.5m and a contingency amount of \$500,000 to allow for market fluctuations in the tender process. However, it's important to note that should this project be approved to proceed to construction, the tender process will determine the final cost.

This is a significant increase, so we commissioned an independent economic analysis to determine whether it's still economically viable to build and fund this pump station. The outcome of that analysis is that it is still favourable.

Information about the economic analysis will be available at the landowner meeting on 15 October. If you are unable to attend that meeting and want to know more, please call Karen Botting on 0800 800 401 or 021 519 015.

WHAT'S CONTRIBUTED TO THE INCREASE?

We know that affordability is important, and while we've worked hard to estimate the expected overall costs, we always said that an accurate estimate was difficult without detailed designs.

Following completion of the detailed designs for the culvert and pump station in September, more robust cost estimates were produced by AECOM. Those estimates have shown that construction costs are much higher than initially thought. In particular, the number and size of the foundation piles, and the wall and slab thickness.

In addition to construction costs, the resource consent process, pumps and power supply have all proved more expensive than our original estimates.

THE OPTIONS

OPTION 1: DO NOTHING

Estimated cost: No further costs will be incurred, but the costs to date will need to be recovered. A decision will need to be made on how this will be done. Consideration will be given to the funding policy shown on the next page.

What will happen?

- The existing flood pumps and drainage management regime will remain in place.
- No additional pumping capacity will be provided.
- Under present land use, peat settlement will continue until the underlying clay levels are reached in approximately 100 years.
- The existing drainage outlets will be unable to provide adequate drainage to the catchment area.
- Approximately 65 per cent of the Mugeridge's area will be inundated or waterlogged within the next 15 to 25 years and 90 to 95 per cent within 50 years. The impact on productivity will be significant.









OPTION 2: MUGGERIDGE'S PUMP STATION WITH TWO PUMPS PREFERRED OPTION

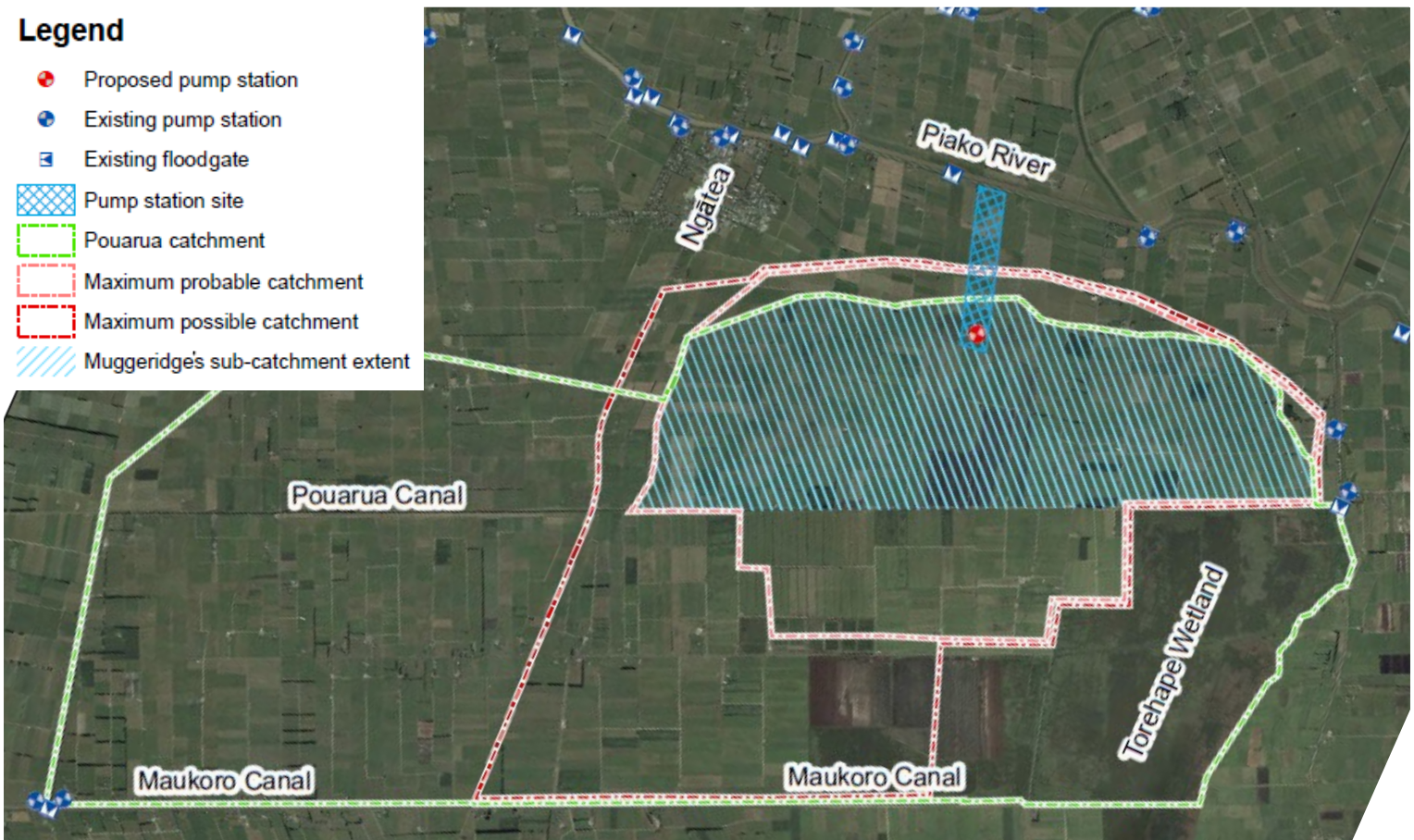
Estimated cost: \$6 million

What will happen?

- We will build a new pump station, containing two 2 cumec pumps, at the lowest point in the catchment.
- A canal/drain will be constructed to direct water into the pump station.
- An outlet canal and stopbanks will be constructed and restoration planting will be carried out.
- A culvert will be built under Kaihere Road to connect the scheme to the Piako River.
- Drains will service low lying areas.
- Drain controls (weirs/floodgates) will be put in place to manage water levels in drains and flow direction.

Legend

-  Proposed pump station
-  Existing pump station
-  Existing floodgate
-  Pump station site
-  Pouarua catchment
-  Maximum probable catchment
-  Maximum possible catchment
-  Mugeridge's sub-catchment extent



ANOTHER OPTION WE INVESTIGATED

A THIRD OPTION – LOWERING THE EXISTING PUMPS – WAS CONSIDERED. IT WAS DISCOUNTED FOR THE FOLLOWING REASONS.

- In order to maintain the current level of service, the existing three pump stations would need to be upgraded by lowering the intake sumps by 1.5 to 2.5 metres.
 - » To do that, the structures would have to be upgraded to meet current engineering, safety and environmental standards.
 - » The pumps would also need to be replaced to meet the current and expected future drainage requirements, including climate change and sea level rise.
 - » All this means full investigation, design and replacement of the three pump stations, as well as drainage network modifications necessary to deliver the runoff to the pumps.
- The efficiency of the existing four gravity floodgates has gradually reduced and these are only providing drainage during short periods of the low tide.
- Detailed investigations of peat depths across the area suggest that the deeper peat soils are further inland, away from the existing pump locations. Therefore, significant land would be inundated in the lower end of the catchment if the existing pumps were to continue at their current locations.

PROPOSED FUNDING POLICY

50 per cent	Piako River Scheme rate
32.5 per cent	Direct benefit landowners
7.5 per cent	Wider Waihou-Piako catchment
5 per cent	Waikato region
5 per cent	Hauraki District Council

FUNDING CONTRIBUTIONS

The funding contributions are based on the estimated project cost of \$6 million (GST exclusive). Please note that the rate revenue is inclusive of GST.

FUNDER	TOTAL CAPITAL FUNDING (INCL. GST)	30 YEAR REPAYMENT ANNUAL CAPITAL RATE REVENUE REQUIREMENT
Muggeridge's landowners (32.5%)	\$2,242,500	\$121,928
Piako River Scheme (50%)	\$3,450,000	\$187,581
General rate (5%)	\$345,000	\$18,758
Waihou-Piako catchment (7.5%)	\$517,500	\$28,137
Hauraki District Council contribution (5%)	\$345,000	
TOTAL (including GST)	\$6,900,000	\$356,404

PROPOSED RATING CLASSIFICATION



S P	Muggeridge's pump station	TARGETTED CAPITAL RATING CLASSIFICATION
	Canal	 MP1 (lower ground)
S P	Existing pump stations	 MP2 (higher ground)
A	Property references	
	Property boundaries	

- The rating classification is area based.
- Land below 1.5 metres (red on the map) will receive considerable benefit from the new pump station for 100 per cent of the next 50 years (i.e. low land).
- Land above 1.5 metres (green on the map) will receive maximum benefit from the new pump station after about 25 years. In other words, 50 per cent of the next 50 years (i.e. high land).

THE IMPACT ON RATES

The rating impacts are based on the estimated project cost of \$6 million (GST exclusive) and an interest rate of 3.5 per cent. They are inclusive of GST.

FOR DIRECT BENEFIT LANDOWNERS

\$6 MILLION	RATE FACTOR
Annual per hectare (30 year loan)	
High land	\$66 per hectare per annum
Low land	\$132 per hectare per annum

Lump sum per hectare (one-off payment)	
High land	\$1215 per hectare
Low land	\$2430 per hectare

FOR INDIRECT BENEFICIARIES

The table below shows the impact of this project on a sample of properties. This cost is in addition to your current rates for a 30 year term.

	RURAL PROPERTY \$3,400,000 CAPITAL VALUE	URBAN PROPERTY \$250,000 CAPITAL VALUE
Piako catchment	\$534.43 per annum	\$15.20 per annum
Waihou catchment	\$12.79 per annum	\$0.94 per annum

FLOOD PROTECTION INTO THE FUTURE

Building the Muggerridge's Pump Station at the lowest point future proofs it for the next 100 years. But as the land continues to sink, it's inevitable that more investment will be needed to maintain the flood protection and drainage services of the sub-catchment and wider catchment.

Catchment and service level reviews in the next 15 to 25 years will identify the needs, solutions and funding arrangements at the time. The solutions may include drainage network modifications and/or additional pumps or pump stations.

The cost of any future new capital investment would be funded by all beneficiaries, including landowners who directly benefit from the Muggerridge's Pump Station. The council's approved funding policy at that time would determine the rating levels.

WHAT HAPPENS NEXT?

5 October 2018	Consultation period opens
15 October 2018	Landowner meeting
5 November 2018	Consultation period closes
27 November 2018	Hearings and deliberations
12 December 2018	Council makes decision

IF THE PROJECT PROCEEDS

- Undertake canal and stopbank earthworks early 2019.
- Order pumps from Bedford Pumps in the United Kingdom.
- Tender construction of the culvert and pump station.
- Budget review once tenders received.
- If tenders are within budget, commence construction in late 2019.
- Pumps in service from early/mid 2020.
- Rating commences 1 July 2020.

IF THE PROJECT DOES NOT PROCEED

- Project closed and status quo retained.
- A decision will be made on how expenditure on the project to date will be recovered. Consideration will be given to the proposed Funding Policy outlined in the newsletter.

HOW YOU CAN BE INVOLVED

- Attend the landowner meeting on 15 October.
- Make a submission.
- Present your submission at the hearings or attend so you hear the discussion first-hand.
- Contact us.

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