



Meeting of the Hawke's Bay Regional Council

LATE ITEMS

Date: Wednesday 28 October 2020
Time: 11.00am
Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street
NAPIER

Agenda

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HAWKE'S BAY REGIONAL COUNCIL

Wednesday 28 October 2020

Item 16

Subject: CLIVE RIVER DREDGING

Reason for Report

1. This item informs Council of the Clive River dredging project, including the costs and project risks for land discharge and coastal discharge to enable a decision on the way forward, cognisant of those risk and cost limitations.
2. Further, this item outlines the opportunity of extending the scope of dredging on Clive River and seeks councillors' decision on whether this extended scope should be included for consideration in the 2021-2031 Long Term Plan.

Officers Recommendations

Part 1 – Current Project

3. Given the high costs and unresolved risks (refer to Table 2) associated with land based disposal the project team recommends a traditional ocean based disposal campaign for February 2021 with additional environmental monitoring.

Part 2 – Future Scope Opportunities

4. Council officers recommend that future dredging with land disposal, including associated funding requirements, is considered and consulted on through the 2021-31 Long Term Plan (LTP) development process.
5. Further, staff also recommend that the additional dredging further upstream to Kohupatiki Marae, funded by a mix of Central Government and/or additional Council funding is also considered and consulted on through the 2021-31 LTP process.

Part 1: Current Dredge Project for Traditional Scope

Background

6. The Clive river was previously dredged in 1998 and 2009. On each occasion the volume of dredged material was approximately 60,000m³, with the silt being discharged to the coastline, as shown in Figure 1 following. Disposal of dredged material was conveyed via a pipeline from the dredge to the sea. This methodology is considerably less expensive than disposal to land.
7. The current Clive River dredging activity was originally planned for the 2018-19 financial year.
8. Alternative discharge options were investigated due to environmental concerns with discharging sediment into the coastal marine environment and the presence of Australian tubeworm (*Ficopomatus enigmaticus*).
9. In 2019, Council was presented with four options for discharge of dredged material as an alternative to coastline discharge. Council approved further investigation for land-based discharge options and additional costs associated as a result of this change, as shown in the table attached.
10. Lengthy negotiations and lease agreements have been presented to landowners to secure a site for land based discharge with an option of lease to buy, purchase or lease only. The negotiation to date has been positive but with a condition which will be difficult to manage (organic status to be assured to the landowner after dredging is completed).
11. Two land-based discharge options have been considered, with significant cost and risk associated with each option.



Figure 1 – Historical coastline discharge

12. The Clive River dredging project was scheduled for completion in 2019, however, during the project planning phase it was noted by HBRC coastal scientists and Iwi groups that coastline disposal is no longer the preferred option and that other methodologies should be considered.
13. The Ngaruroro has an estimated total sediment load of around 704,000 t/yr and Tutaekuri has a total estimated sediment load of around 372,000 t/yr (TANK sediment sources report – September 2016). The silt discharge from the 1.2km dredging area is 60,000m³ which is approximately 108,000t.

Options Assessment

14. The three options investigated for this project are:
 - 14.1. Dredging to coast line as in previous years (1998, 2009) with environmental control in place before, during and after the operation
 - 14.2. Dredging to land - Two methodologies for discharge to land were considered, banded land discharge with ponding area, and dewatering bags (geotextile tubes). Both options have significant risk and costs associated with the respective methodologies.
15. The lease cost for both is estimated by a qualified valuer at \$30,000 p.a. The land owner is of the view that \$50,000 p.a. is fair and reasonable lease cost.
16. The purchase option is not an approved option by the land owner currently, however they have indicated they are open to have an ongoing discussion in the future.
17. As part of a land based disposal it is desirable for HBRC to have ongoing access given the 10 year frequency of dredging. The preference is for HBRC to own land available for land disposal to eliminate the risk of land access for future dredge activity.

Considerations of Tangata Whenua

18. Consultation with Tangata Whenua has been undertaken through multiple hui.
19. The general consensus is to not support the dredging of the lower reach of Clive River only for recreational purposes. The opinion expressed is that the dredging should extend upstream beyond Kohupatiki Marae.
20. Tangata Whenua strongly support land based disposal of dredging spoil.

Financial and Resource Implications

21. The budget allocated for the dredging project in the FY 2019-20 was \$1m, with \$85k expenditure for investigation and project delivery work having been spent to date. Currently \$964,000 funding is available from Reserves, as built up over the 10 year period between dredging activity.

Table 1 Options for funding

	Option 1	Option 2	Option 3
	Coastal Discharge	Land Discharge	Dewatering Bags
Project Cost	1,000,000	1,800,000	2,350,000
Reserve Funds available	(964,000)	(964,000)	(964,000)
Shortfall (Surplus)	36,000	836,000	1,386,000
How is shortfall funded	Rates	Loan	Loan
Annual Cost at 2.5% Interest	N/A	95,520	158,363

Table 2 – Rates Impacts for main dredging of lower reaches (funding over 5 years)

Option 1- Coastal Discharge \$1,000,000					
FY (5years)	20-21	21-22	22-23	23-24	24-25
Shortfall in funding	\$36,000				
Environmental monitoring	\$2,000	\$5,000			
Total Rates Impact	\$38,000	\$5,000			

Option 2- Land Discharge \$1,860,000					
FY (5years)	20-21	21-22	22-23	23-24	24-25
Loan Repayment for Shortfall (2.5% interest) 10years	95,520	95,520	95,520	95,520	95,520
Environmental Monitoring	0	10,000	10,000	5,000	5,000
Lease allowance	50,000	50,000	50,000	50,000	50,000
Other outgoing cost (rates, insurance)	2,000	2,000	2,000	2,000	2,000
Total Rate Impacts	147,520	157,520	157,520	152,520	152,520
Rater increase %	0.6				

Option 3 - Land Discharge (de watering bags) \$2,350,000					
FY (5years)	20-21	21-22	22-23	23-24	24-25
Loan Repayment for Shortfall (2.5% interest) 10years	158,363	158,363	158,363	158,363	158,363
Environmental Monitoring	0	10,000	10,000	5,000	5,000
Bag & Silt Removal	0	90,000			
Lease allowance	50,000	50,000	50,000	50,000	50,000
Other outgoing cost (rates, insurance)	2,000	2,000	2,000	2,000	2,000
Total Rate Impacts	210,363	310,363	220,363	215,363	215,363
Rater increase %	0.9				

22. Project risks are summarised in Table 3 following.

Table 3 – Risks Associated with Discharge Options

	Option 1 - Coastal Discharge	Option 2 - Land Discharge	Option 3 - De-watering Bags	Option 4 – Do Nothing
KEY RISKS	<ol style="list-style-type: none"> 1. Adverse effects on coastline. - Adverse effects on the coastline through discharge of sedimentation 2. HBRC reputation – HBRC are actively seeking options to mitigate the disposal of sediment from river mouths to the coastline 	<ol style="list-style-type: none"> 1. Delayed start date - Resource consent may be notified due to the nature of works resulting in consultation of affected parties 2. Project delay – Existing ground conditions (clay lenses) may result in dredged material taking longer to drain. Delays to dredging activities are approx. \$80k per week 3. Water discharge to river – High turbidity of water being pumped back into the Clive river may exceed background levels 4. Cost of lease – Initial cost for land lease was assessed at \$30k per year. Landowner has requested \$50k per year 5. Contaminated land – Receiving soil is organic certified, minimum time to reinstate leased land to organic status is 3 years 6. Archaeological – This area has been noted as being of archaeological interest 7. Weather – Dredged material would remain on site to dry out until it is suitable for cartage by local contractors. Inclement weather may impede this process which will have a knock-on effect to the reinstatement of organic land certification. 8. Unpleasant smell – Potential cost increases to mitigate any unpleasant odours during dredging 	<ol style="list-style-type: none"> 1. Water discharge to river – High turbidity of water being pumped back into the Clive river may exceed background levels 2. Cost of lease – Initial cost for land lease was assessed at \$30k per year. Landowner has requested \$50k per year 3. Contaminated land – Use of polymer to coagulate silt may not be suitable for re-use upon completion and may affect organic land certification 4. Archaeological – This area has been noted as being of archaeological interest 	<ol style="list-style-type: none"> 1. HBRC Reputation – Recreational user of river highlight unsatisfied due to 2019 postponed dredging.

Decision Making Process

23. Council and its committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:
 - 23.1. The decision does not significantly alter the service provision or affect a strategic asset, nor is it inconsistent with an existing policy or plan.
 - 23.2. The use of the special consultative procedure is not prescribed by legislation.
 - 23.3. The decision is not significant under the criteria contained in Council's adopted Significance and Engagement Policy.
 - 23.4. The persons affected by this decision are Tāngata Whenua and Clive River users.

- 23.5. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendations

That Hawke's Bay Regional Council:

1. Receives and considers the "*Clive River Dredging*" staff report.
2. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted Significance and Engagement Policy, and that Council can exercise its discretion and make decisions on this issue without conferring directly with the community or persons likely to have an interest in the decision.

Current Dredging Activity

3. Agrees that a traditional ocean based disposal dredging campaign be undertaken in February 2021 with a comprehensive communication package and monitoring programme.

Future Dredging Activity

4. Agrees to consider changing the scope of Clive River dredging from ocean based to land based disposal and appropriate funding of the project reserve as part of the 2021-2031 Long Term Plan development process.
5. Agrees to consider increasing the scope of Clive River dredging to incorporate a larger extent of the river, potentially up to Kohupatiki Marae, as part of the 2021-2031 Long Term Plan development process.
6. Requests that staff seek possible grants or other co-funding opportunities that could contribute either to reducing the cost or increasing the scope of future dredging activity.

Authored by:

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Attachment/s

- [1](#) Clive Dredging Methodology Options Costs July 2019

Item	Description	Unit	Option 1 Discharge to coast line				Option 2 Discharge into the sea 50m from coast line		Option 3 Discharge in land		Option 4 Cart away	
			Quantity	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	
1	Bond/Insurance	LS			\$10,000.00		\$10,000.00		\$10,000.00		\$10,000.00	
2	Establishment/disestablishment	LS			\$250,000.00		\$375,000.00		\$350,000.00		\$250,000.00	
	land preparation- stripping top soil- stopbank work - drain relocation								\$200,000.00		\$200,000.00	
2A	Land lease- cost - 5 years	yr	5					\$20,000.00	\$100,000.00	\$20,000.00	\$500,000.00	
3	Carting cost -digger, truck	wk	37							\$10,000.00	\$370,000.00	
5	(a) Dredging, start to x/s 2	m3	12342	\$8.00	\$98,736.00	\$10.00	\$123,420.00	\$10.50	\$129,591.00	\$18.50	\$228,327.00	
	(b) Dredging, x/s2 to x/s 4	m3	16949	\$12.00	\$203,388.00	\$13.50	\$228,811.50	\$15.50	\$262,709.50	\$13.50	\$228,811.50	
	(c) Dredging, x/s4 to x/s 6	m3	19086	\$14.00	\$267,204.00	\$15.50	\$295,833.00	\$15.50	\$295,833.00	\$18.50	\$353,091.00	
	Tug for offshore pipeline	wk	14			\$42,000.00	\$588,000.00					
	sub total				\$829,328.00		\$1,621,064.50		\$1,348,133.50		\$2,140,229.50	
11	Contingency 5% of CC	LS			\$38,000.00		\$81,053.23		\$67,406.68		\$107,011.48	
12	Supervision	wk	14	\$1,500.00	\$21,000.00	\$1,800.00	\$25,200.00					
12-3		wk	24					\$2,000.00	\$48,000.00			
12-4		wk	37		\$0.00		\$0.00		\$0.00	\$2,000.00	\$74,000.00	
	TOTAL CONSTRUCTION COST				\$867,328.00		\$1,727,317.73		\$1,415,540.18		\$2,321,240.98	