City of Busselton
Geographe Bay

Waterways Management Committee

Minutes

Wednesday 11 December 2024

MINUTES

Minutes of a meeting of the Waterways Management Committee held in the Council Chambers, Administration Building, Southern Drive, Busselton, on Wednesday 11 December 2024 at 9:00 am.

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1 OFFICIAL OPENING

The meeting opened at 9.03am.

The Presiding Member welcomed Committee members, staff, guests and members of the public to the Waterways Management Committee meeting of 11 December 2024.

The Presiding Member acknowledged the Wadandi and Bibbulmun people as the traditional custodians of this region and paid respects to Elders past and present.

This meeting was audio recorded for minute taking purposes.

2 ATTENDANCE

PRESIDING MEMBER	MEMBERS
Cr Anne Ryan	Cr Val Kaigg
	Cr Jarrod Kennedy
	Cr Mikayla Love
	Mr Steve Disley
	Ms Vicki Viela

OFFICERS	
Mr Oliver Darby	Director Infrastructure and Environment
Mr Brad Reynolds	Manager Parks and Environment
Ms Danielle Halliday	Senior Sustainability / Environment Officer
Ms Tegan Robertson	Governance and Risk Coordinator
Mrs Marie Vukotich	Governance Support Officer

APOLOGIES	
Nil	

3 DISCLOSURES OF INTEREST

Nil

4 PUBLIC QUESTION TIME

4.1 RESPONSES TO PREVIOUS QUESTIONS TAKEN ON NOTICE

Nil

4.2 QUESTION TIME FOR PUBLIC

Andrew Dickie

Question:
Are the committee members happy with the Department of Health statement *Lower Vasse River, Busselton – Blue-Green Algae and Human Health* or would they like to amend the statement for the City of Busselton community?

Response:
(Cr Anne Ryan)
The City has recently written to the Minister for Health, Hon. Amber-Jade Sanderson MLA regarding community concern in relation to the Lower Vasse River, and this correspondence is available with the agenda for the November 2024 ordinary Council meeting. I was not satisfied with the response and will enquire with the CEO regarding next steps.

Response:
(Oliver Darby, Director Infrastructure and Environment)
While the City can issue communications to the community, it may not be appropriate to comment on information issued by the Department of Health. We will take that question on notice to obtain the necessary advice, and report back to the Committee.

Vernon Bussell:

Question:
What approximate percentage of the known nutrient rich sediment do Busselton Civil Pty Ltd (BCP Group) believe they can remove from the river if they are awarded the contract for tender RFT 02/24 Sediment Removal in the Lower Vasse River?

Response:
(Ms Danielle Halliday, Senior Sustainability / Environment Officer)

The City requires various approvals to undertake the works, and the conditions of these approvals will determine how closely to the original riverbed works can occur. Currently the City is not proposing to use the percentage of in situ sediment excavated as a metric for evaluating the success of the works. The direct excavation methodology has many unknown factors, and it is recognised that the City and contractor may need to adapt the approach as required over time.

Question:
If BCP Group are awarded the contract for tender RFT 02/24 Sediment Removal in the Lower Vasse River, what type of equipment will they use for the works.

Response:
(Ms Danielle Halliday, Senior Sustainability / Environment Officer)

The City has obtained rates for using a small excavator within the river or a long reach excavator which may be used if it is determined to be favourable, to extract dewatered sediment from the riverbed. Dewatered sediment will be transferred from the river to an adjacent pad using mini dump trucks. The material will then be moved by semi-truck to be treated for acid sulphate soils off-site.

Question:
Does the City plan to undertake further remediation on stages 1 and 2 of the Lower Vasse River, noting that a significant amount of nutrient rich sediment remains this these areas?

Response:
(Cr Anne Ryan)

Remediation for stage 3 of the river is currently the priority, and undertaking further works on stages 1 and 2 is not planned in the near future. While the City is the Interim Asset Manager for the Lower Vasse River, it is ultimately the responsibility of the State government.

Howard George

Question:
Is the Old Butter Factory weir heritage listed?

Response:
(Cr Anne Ryan)
We will take that question on notice.

Stuart Anderson

Question:
Fountains are now being used to aerate Almond Parkway Lake and Footprint Lake in Busselton. Has the City had any feedback from the Department of Water and Environmental Regulation regarding the proposed aeration trial in the Lower Vasse River?

Response:
(Cr Anne Ryan)
The subsurface aeration trial will be going ahead, however to clarify, the trial will not be using water fountains to deliver aeration.

5 CONFIRMATION AND RECEIPT OF MINUTES

5.1 Waterways Management Committee 23 October 2024

COMMITTEE DECISION

WM2412/4 Moved Cr Jarrod Kennedy, seconded Cr Val Kaigg

That the minutes of the Waterways Management Committee meeting on 23 October 2024 be confirmed as a true and correct record (as published on 11 December 2024 on the City of Busselton's website, inclusive of any confidential material published on the restricted internal Docs on Tap application).

CARRIED 6 / 0

FOR: Cr Anne Ryan, Cr Val Kaigg, Cr Mikayla Love, Cr Jarrod Kennedy, Mr Steve Disley and Ms Vicki Viela

AGAINST: Nil

6 REPORTS

6.1 RFT02/24 Sediment Removal in the Lower Vasse River

Strategic Theme:	Key Theme 1: Environment 1.3 Work with key partners to improve the health of the Vasse River and other waterways in the Geographe catchment.
Directorate:	Infrastructure and Environment
Reporting Officer:	Senior Sustainability/Environment Officer - Danielle Halliday
Authorised By:	Director Infrastructure and Environment - Oliver Darby
Nature of Decision:	Contractual: To enter into a contract e.g. a lease or the award of a tender etc.
Voting Requirements:	Simple Majority
Disclosures of Interest:	No officers preparing this item have an interest to declare.
Attachments:	1. CONFIDENTIAL - RF T 02-24 - Tender Evaluation Report Final [**6.1.1** - 22 pages] 2. CONFIDENTIAL - Post Tender revised Program 20241126 [**6.1.2** - 1 page] 3. CONFIDENTIAL - BCP Post Tender Query Response 26.11.2024 [**6.1.3** - 9 pages] 4. CONFIDENTIAL - A.4 Additional Price Schedule Stage 3 (Final) 20241126 [**6.1.4** - 1 page]

The presiding member called on a Committee member to move a motion to close the meeting to the public to consider attachments confidential under s5.23(2)(c) of the *Local Government Act 1995*, as they contain information relating to a contract entered into, or which may be entered into, by the local government. The motion was moved and carried.

COMMITTEE DECISION

WM2412/6 Moved Cr Mikayla Love, seconded Cr Val Kaigg

That the Council close the meeting to the public to consider attachments that are confidential pursuant to s5.23(2)(c) of the Local Government Act 1995.

CARRIED 6 / 0

FOR: Cr Anne Ryan, Cr Val Kaigg, Cr Mikayla Love, Cr Jarrod Kennedy, Mr Steve Disley and Ms Vicki Viela

AGAINST: Nil

9:18am: At this time, the meeting was closed to members of the public.

COMMITTEE DECISION

WM2412/7 Moved Cr Val Kaigg, seconded Cr Jarrod Kennedy

That the meeting be reopened to members of the public.

CARRIED 6 / 0

FOR: Cr Anne Ryan, Cr Val Kaigg, Cr Mikayla Love, Cr Jarrod Kennedy, Mr Steve Disley and Ms Vicki Viela

AGAINST: Nil

9:32am: At this time, the meeting was reopened to members of the public.

COMMITTEE RECOMMENDATION

WM2412/5 Moved Mr Steve Disley, seconded Ms Vicki Viela

That the Council endorse the outcome of the evaluation panel's assessment of the tender submissions received in response to RFT 02/24 Sediment Removal in the Lower Vasse River and accept the tender from Busselton Civil Pty Ltd (BCP Group) for separable portions 1, 2 and 3 on a schedule of rates basis as the most advantageous to the City.

CARRIED 6 / 0

FOR: Cr Anne Ryan, Cr Val Kaigg, Cr Mikayla Love, Cr Jarrod Kennedy, Mr Steve Disley and Ms Vicki Viela

AGAINST: Nil

OFFICER RECOMMENDATION

That the Council endorse the outcome of the evaluation panel's assessment of the tender submissions received in response to RFT 02/24 Sediment Removal in the Lower Vasse River and accept the tender from Busselton Civil Pty Ltd (BCP Group) for separable portions 1, 2 and 3 on a schedule of rates basis as the most advantageous to the City.

EXECUTIVE SUMMARY

The City invited tenders under RFT02/24 Sediment Removal in the Lower Vasse River (the RFT) for the removal of nutrient-rich sediment in the Lower Vasse River:

- Stage 3: Strelly Street to Reserve 41204, Isaacs Street (Separable Portion 1)
- Stage 4: Reserve 41204, Isaacs Street to Fairlawn Road (Separable Portion 2)
- Sediment treatment: treatment and transport of removed sediment (Separable Portion 3)

The City requested responses based on dredging and ex situ dewatering, and alternatives such as in situ dewatering and direct excavation. Prices were requested for Separable Portion 1 (stage 3) and

Separable Portion 2 (stage 4), however RFT documentation stated that stage 3 and stage 4 may be undertaken concurrently or over a multi-year timeframe, and that sediment removal could be undertaken using the existing approved methodology or a respondent's proposed alternative methodology, subject to the City being able to obtain the relevant approvals.

This report recommends that the Council endorse the outcome of the evaluation panel's assessment and accept the tender submission from Busselton Civil Pty Ltd for separable portions 1, 2 and 3 as the most advantageous to the City.

STRATEGIC CONTEXT

Sediment removal in the Lower Vasse River (LVR) supports the City's commitment as the Interim Asset Manager for the Lower Vasse River and aligns with the Lower Vasse River Waterway Management Plan.

BACKGROUND

The Waterways Management Committee (WMC) was provided at its October 2024 meeting with a general update on City waterway management programs (7.1 Waterway Management Update). Further to this update, the below information is provided to give context and reasoning regarding the officer recommendation and specifically the proposed sediment removal methodology change.

The Lower Vasse River experiences issues seen globally in urban waterways, and a sustained and collaborative effort is required to slowly address these issues over time. The Lower Vasse River (LVR) flows through the centre of Busselton, with this section being greatly modified and an estimated 90 per cent of catchment flow diverted to Geographe Bay (and historically impounded by a weir structure downstream). The river is highly eutrophic (where ecological function is impacted by high nutrient concentrations), with cyanobacterial blooms occurring each year during the warmer months. Isolation of flow, poor water quality, and location have led to the need for specific management of this waterbody.

The LVR receives extremely high nutrient loads from rural and urban catchments, groundwater, and potentially also from river sediments. Each source has potential to individually deliver sufficient nutrients to trigger annual summer microalgal blooms. Targeting all sources of nutrients is important to make substantial and lasting improvements to water quality in the river. The Department of Water and Environmental Regulation (DWER), GeoCatch, the Department of Primary Industries and Regional Development (DPIRD), and other partners have been actively implementing nutrient reduction initiatives throughout the catchment, working with both farmers and urban residents to reduce nutrient runoff.

The landscape across the Geographe Bay catchment is however saturated in nutrients and will likely continue to release nutrients to waterways for the next few decades, even if significant reductions are achieved across the catchment. Acknowledging community desires to improve water quality in a shorter timeframe, the City, in partnership with other stakeholders, is complementing the work on

nutrient reduction from catchment sources with in-situ remediation, the current focus of this being sediment removal.

Sediment Removal Program

A layer of nutrient-rich, fine organic sediment has accumulated throughout the lower reach of the river with an average depth of 450mm. This sediment provides a significant potential internal source of nutrients that could contribute to algal growth. Conditions such as low dissolved oxygen and resuspension of sediments caused by physical disturbance can release nutrients into the water column in summer, contributing to algal blooms. These soft organic sediments provide a poor substrate for beneficial aquatic plants, and poor habitat for benthic invertebrates. Sediment removal in the LVR is aimed at removing nutrient rich organic sediments that have accumulated in the river. The program is divided into six stages, with the area extending from the Butter Factory Museum to the Busselton Bypass (Fig.1). The program is a key recommendation from the Lower Vasse River Waterway Management Plan (City of Busselton, 2019).

Sediment removal in natural waterways poses a risk to the natural environment and needs to be managed carefully. Approvals were granted under the *Environmental Protection and Biodiversity Conservation* (EPBC) Act 1999, *Biodiversity Conservation* Act 2016, and *Aboriginal Heritage* Act 1972 with numerous conditions associated with water quality monitoring, management of Carter's freshwater mussels and management and treatment of Acid Sulfate Soils.

The first two stages of the project used a micro-dredge to remove sediments, and sediment slurry was pumped into porous geotextile bags, which retained the fine sediments while expelling water back to the river. This method was selected as it mitigated the risk of exposure to air, and associated acidification of acid sulphate soils. The high moisture content (85.5%) and the composition of sediments (71.4% fine silts and clay) also favoured the use of geotextile bags for dewatering sediments. A sand pad with bunds was constructed to house the five (5) 30m x 8.6m bags.

The geotextile bags were left to dewater for approximately six months, after which sediments were transported offsite and treated for Acid Sulfate Soils (ASS) by incorporating lime and sand. Despite some of the high risks associated with the works, and the stringent approval conditions, stages 1 and 2 were compliant with all required approvals, and water quality was monitored throughout works.

The program has been successful in removing a significant sediment load, approximately 630t and 700t dry weight respectively from the first two stages. The program has also removed the following nutrient loads (calculated based on total dewatered dredge volumes and converted to weight (Table 1).

Table 1: Total nutrient content of removed sediment

Project Stage	Nutrient	Min (t)	Max (t)	Avg. (t)
Stage 1 1,638t	Total nitrogen	10.2	15.8	11.8
	Total phosphorus	1.9	3.2	2.7
Stage 2 1,484t	Total nitrogen	4.5	12.5	9.0
	Total phosphorus	0.4	2.5	1.2

Figure 1: Staged sediment removal program in the Lower Vasse River

Following the completion of the first two stages, the City has received feedback from community and stakeholders regarding the outcomes of the sediment removal, in particular, concerns regarding perceived low percent of sediment removed and measured high concentration of nutrients in return water. While the program has been successful in removing considerable sediment and nutrient loads, after analysis of water quality data, DWER has indicated that a considerable concentration of macro-nutrients re-entered the river via dewater. High nutrient concentration in dewater was a risk that was identified during program inception. In an attempt to mitigate this risk, in stage 1, Phoslock®, a phosphorus-binding clay, was applied to return water prior to re-entry to the river. Phoslock® has successfully been used worldwide to reduce bioavailable phosphorus in aquatic environments. Unfortunately, due to the complex chemical composition of the sediment, Phoslock® was not effective in sufficiently treating the return water.

In stage 2, DWER collaborated with the City and led a trial that filtered dewater through an off-river treatment system containing Poseidon Pellets, beads that are designed to bind bioavailable phosphorus. A triple filtration system using this product was successful in treating a volume of dewater during the trial. However, to scale-up this method to treat all dewater was found to be prohibitively expensive and additionally the concentration of dissolved aluminium in water after treatment was found to be unacceptably high. DWER Aquatic Science Branch has recommended that for future stages any sediment dewater (as distinct from river water dewater) is contained, disposed of offsite, and none is returned to the river.

Assessment of the value of the sediment removal program will ultimately be determined by whether the removal of sediments leads to long-term improvements in water quality, aesthetics and benthic habitat. The City is reliant on DWER's ongoing water quality monitoring program to measure the impacts. A preliminary analysis by DWER of water quality monitoring results for 2023 and 2024 show that there is no statistically significant difference between the amount of cyanobacteria (measured as cyanobacterial biovolume) in comparable dredged or not-dredged areas. These results assessed areas that were dredged 1 or 2 years ago and suggest that over this timeframe dredging has not led to a reduction in algal blooms. It will however take at least a few years, after each stage, before meaningful conclusions can be made due to the expected lag time associated with water quality improvements.

The City has completed the first two stages of sediment removal in the Lower Vasse River, at an expense to the City of approximately $1.1M (plus additional significant staff resources). The City was successful in securing $350,000 in funding from Revitalising Geographe Waterways 2 towards Stage 1, and $407,964 from State NRM towards stage 3. The table below outlines the estimated future costs for following stages based on the micro dredge methodology used in stages 1 and 2.

Table 2: Estimated expenses for staged sediment removal in the Lower Vasse River

Estimated costs of Lower Vasse River sediment removal (based on micro dredge methodology)	
Stage 1	$924,039
Stage 2	$765,837
Stage 3	$844,700
Stage 4	$1,107,510
Stage 5	$1,579,540
Stage 6	$1,455,753
Total	**$6,677,381**

The first two stages have demonstrated that removing sediments from the river, while it can be done, is a complex and expensive process. In May 2023, the Council reiterated its commitment (C2305/093) to the staged removal of nutrient-rich sediments between the Busselton Bypass and the Busselton Butter Factory Museum as the City's short-term priority focus (stage 3), subject to procurement, funding and regulatory approval; and committed to the review of its effectiveness at improving water quality, before committing to further stages of sediment removal beyond stage 3.

It is important to continuously review the benefits of sediment removal and how it compares with other waterway enhancement techniques. The officer recommendation associated with Council resolution C2305/093, recommended an assessment of the impacts of sediment removal on cyanobacterial blooms in the river is undertaken in 2025/2026 as a longer stretch of river would have been completed and data from three years of water quality monitoring would be available, and that a decision could then be made regarding stages 4, 5 and 6.

Alternative Sediment Removal Methods

As previously stated, environmental monitoring and reporting from Stages 1 and 2 demonstrated effective management of disturbances to water quality during sediment removal works, where no 'stop work' was required. The original sediment removal methodology (of micro-dredge and Geotextile bags) has also proven to be effective in mitigating acid sulphate soil (ASS) risks, and in removing a substantial load of sediment and nutrients from the river. However, the volume of nutrients returned to the river via return water is considered to be an unacceptable outcome. That, coupled with concerns over whether the current method removes an adequate portion of sediment from the riverbed, has led the City to investigate and prioritise alternative methods for Stage 3, namely, in situ dewatering and direct excavation.

In April 2024, following drought conditions experienced over the 2023/2024 spring summer period, the City conducted a sediment excavation and pliability trial. This showed that while the surface crust of the exposed sediment appeared dry, that sediments remained saturated. However, sediments were spadable, and able to be transported off-site and treated for ASS. The City has therefore endeavoured to find a more suitable alternative by undertaking a sediment removal procurement process that requested tenders for both the current method and alternatives such as in situ dewatering coupled with direct excavation.

Investigating an alternative method has introduced complexity and necessitated rescheduling of sediment removal to occur in summer/autumn, as well as amendment of approvals and

management plans and works procedures. If details of proposals cannot be resolved satisfactorily or if regulatory approvals cannot be secured, the need may arise to return to the market for re-tender, or for proposal amendment.

The City is currently procuring project management services and a geotechnical assessment for the stretch of the LVR between Strelly Street and Fairlawn Road (stages 3 and 4, Fig. 2). The geotechnical assessment will help to refine the excavation methodology and minimise risk. The City has appointed an environmental consultant for the stage 3 works, including amendment of current approvals, and initial discussions with regulators. The environmental contractor will also liaise with the City and DWER Aquatic Science Branch (ASB) to refine the in situ dewatering and excavation method to mitigate environmental and ASS risks. Compared to previous stages, stage 3 provides additional constraints due to close proximity of residences, amount of vegetation fringing the river, morphology of the river, and the need to manage Carter's Freshwater mussels.

Figure 2: Sediment Removal in the Lower Vasse River, stages 3 and 4

OFFICER COMMENT

On 5 April 2024, tenders were invited via VendorPanel and advertised in the West Australian and Busselton Dunsborough Mail newspapers and on the City of Busselton website. A total of 134 potential respondents viewed the proposed request for tender which closed at 2.00pm (AWST) on Wednesday 22 May 2024. The City received three compliant tender submissions from:

- APEX Eco Management International T/a APEX Envirocare;
- Busselton Civil Pty Ltd; and
- Pinnacle Hire WA Pty Ltd.

Assessment Process

In accordance with the City's procurement practices and procedures, tender assessments were carried out by a tender evaluation panel comprising City officers with relevant skills and experience.

The tender assessment process included:

- Assessing tenders received against relevant compliance criteria. The compliance criteria were not point scored. Each submission was assessed on a Yes / No basis as to whether each criterion was satisfactorily met.
- Assessing tenders against the following qualitative criteria (weighted as indicated in the table below).

Criteria		Weighting
(a)	Relevant Experience	30%
(b)	Local Content	5%
(c)	Key Personnel Skills and Experience	15%
(d)	Tenderer's Resources	15%
(e)	Demonstrated Understanding	25%
(f)	Occupational Health and Safety	10%

The qualitative criteria were scored depending on the extent to which the respondent was able to appropriately satisfy each criterion and the tenders scored and ranked to determine the most advantageous outcome to the City. That is, although price was a consideration, the tender containing the lowest price will not necessarily be accepted by the City and nor will the tender rank the highest on the qualitative criteria.

The Non-Weighted Cost Criteria method was used for the assessment of this tender. The Evaluation Panel made a series of value judgements based on a range of considerations, including:

- the technical aspects of the Requirements requested for alternative methodologies to be put forward as part of the tenderer's submission
- the solution(s) offered by each tender.
- the capability of tenderers to successfully deliver the Requirements.
- the pricing/costing submitted by each tenderer was considered along with related factors (e.g. effectiveness of method, opportunities for project improvements and efficiencies for future stages, project/contract management costs, best value for money outcome, efficiencies etc.) for purpose of determining affordability of the solution(s) offered.

After the tenders have been ranked, the Evaluation Panel made a value judgement as to the cost affordability, qualitative ranking and risk of all conforming tenders submitted, in order to determine the tender which is most advantageous to the City.

Summary of Assessment Outcomes

The evaluation panel assessed the tenders which resulted in Busselton Civil Pty Ltd being ranked first in relation to the qualitative criteria and first overall. APEX Eco Management International ranked second on qualitative and second overall and proposed to use the existing approved methodology. Pinnacle Hire WA Pty Ltd ranked third overall and their submission lacked detail compared to the other tender submissions.

Busselton Civil Pty Ltd's tender submission was thorough and demonstrated:

- Extensive experience with civil construction including dewatering, inlet constructions and constructions in marine environments. The contractor is experienced with treating and removal of contaminated soil, however did not provide evidence of working within natural waterways.
- Extensive experience in Civil and Marine projects with an average of 15 years + experience.
- Resumes were provided for all key personnel listing experience and projects undertaken.
- Extensive list of civil resources including contingency measures in place to source additional or varied plant and equipment.
- Understanding of the requirements of this project. It has submitted an alternative solution to employ in situ dewatering and direct excavation, incorporating transport and treatment of excavated sediment.
- ISO9001, ISO 14001 and ISO 45001 accredited and in addition supplied an example plan.

Busselton Civil Pty Ltd proposed to use an alternative methodology involving in situ dewatering and direct excavation. As a result, the City has sought clarification from BCP Contractors Pty Ltd about matters including dewatering and the form of contract, with result being a recommendation for a rate-based contract with the contractor to trial the method proposed with some dewatering downstream and holding points to identify whether the methodology should be used based on the variable conditions of the river at the time of inspection. Further information about the methodology and approach is provided below.

In Situ Dewatering and Direct Excavation Methodology

The direct excavation proposal will undertake the works in a 'dry' riverbed over summer and autumn, employing in situ dewatering for inundated areas. Dewatered sediment will be excavated with a 13-tonne excavator and loaded into 9 tonne mini dumper trucks. To enable movement along the riverbed the contractor proposes to construct longitudinal paths and transverse bunds using limestone or marine sandbags. Excavated sediment will be delivered to a bunded and lined limestone pad adjacent to the river and transported off site daily to the Dunsborough Waste Facility where it will be treated with sand and lime for ASS directly in the landfill cell.

This method is more of a trial strategy, with extensive research and development, than a defined procedure, and as such will need to be adaptable. The direct excavation methodology has many unknown factors, and the City proposes to work collaboratively with the contractor to enable a more agile and adaptive approach to navigating uncertainties and issues that may be encountered. Progression of the direct excavation method will also be dependent on amendment and approval of regulatory requirements.

Rates-based procurement will enable more agile works procedures but creates an environment with less defined project costs and potentially increased financial risk. Additionally, adaptations to the method, the requirement to secure lease on a laydown/access area, approvals and project documentation and requirements may lead to project delays, particularly if ongoing method adjustments are required. The City will work to the current stage 3 budget and contract award will include contract break clauses that the City can employ if unable to resolve issues or unable to proceed with works for any reason.

The new in situ dewatering and direct excavation sediment removal method for stage 3 is largely investigative and, given the innovative nature of the works comes with inherent increased risk to the City. It incorporates numerous unknowns, many of which are outside of the control of the City and contractor, such as, river water levels, rain events, environmental and cultural approvals etc. These unknown parameters introduce significant risk to project success, are unable to be mitigated in advance and will be managed as they are encountered and under a collaborative partnership using a research and development strategy. Sediment removal for environmental outcomes is generally very rare in natural waterways, and the City is unaware of examples using in situ dewatering and direct excavation for the purpose of water quality improvements.

Further discussion of the risks associated with the officer recommendation to select the alternate method, is outlined in the Risk Section of this report. Despite the risks however, it is recommended that the alternative method is used, to determine whether it is more effective than the methods used in stages 1 and 2.

Statutory Environment

In accordance with section 3.57 of the Act, a local government is required to invite tenders before it enters into a contract of a prescribed kind under which another person is to supply goods and service. Part 4 of the Local Government (Functions and General) Regulations 1996:

- requires that tenders be publicly invited for such contracts where the estimated cost of providing the required goods and/or service exceeds $250,000; and
- under Regulations 11, 14, 18, 20 and 21A, provides the statutory framework for inviting and assessing tenders and awarding contracts pursuant to this process.

With regard to the RFT, City officers have complied with abovementioned legislative requirements.

As the contract value is likely to exceed $500,000, and in accordance with section 5.43(b) of the Act and Council delegation DA 1-07, Council endorsement of the successful tenderer is required.

Approvals using the dredge and geotextile methodology were granted under the *Environmental Protection and Biodiversity Conservation (EPBC) Act 1999*, *Biodiversity Conservation (BC) Act 2016*, and *Aboriginal Heritage Act 1972* with conditions associated with water quality monitoring, management of Carter's Freshwater Mussels and treatment of Acid Sulfate Soils. For the stage 3 works amendments/new approvals are required for the above approvals as well as additional approvals under the *Rights in Water and Irrigation (RIWI) Act 1914*, and the *Environmental Protection (EP) Act 1986*.

Relevant Plans and Policies

The City's purchasing policies, regional price preference, work health and safety, technical standards and specifications were all relevant to the RFT and have been adhered to in the process of requesting and evaluating tenders.

The officer recommendation aligns to the following adopted plan or policy:

Plan:
Lower Vasse River Waterway Management Plan

Policy:
Environment

Financial Implications

A budget of $531,561.00 has been allocated and funded from the *Lower Vasse River Restoration Project* [12848]. Additionally, grant funding of $407,964.00 has been awarded from the State NRM Community Stewardship Grants program.

Total budgeted for Stage 3 (whole of Stage 3 program) is $938,025. This budget is for total project costs, which includes, in addition to the Sediment Removal RFT, procurement of environmental services, project management services, technical services, and leasing of laydown area, geotechnical evaluation etc.

The contract proposed to be entered into is rates-based, and as such the total value of the Requirements over the full contract term is unable to be estimated. The total value however will be no more than the available budget.

External Stakeholder Consultation

Ongoing collaboration within the structure of the Vasse Taskforce and associated partnerships.

Risk Assessment

An assessment of the potential implications of implementing the officer recommendation has been undertaken using the City's risk management framework, with risks assessed considering any controls already in place. There are financial and operational risks associated of a medium level.

Throughout spring and summer 2023/2024 the Southwest experienced drought conditions, where the Busselton region received the lowest total rainfall (November 2023 – April 2024) in all of Australia. These conditions were a component in instigating proposals for direct excavation. These conditions are unlikely to be repeated in 2025, and wetter conditions may be problematic for the excavation methodology.

The contractor can deliver limited in situ dewatering, it should be noted however that the fine and pluming characteristic of the sediment, having a high silt and organics content, may introduce difficulties to any in situ dewatering efforts, reducing the effectiveness and efficiency of dewatering. This may result in sediment that is not classed as spadeable and may then be determined to be a liquid waste, and require alternative management and approvals, or may simply not be able to be

removed. Additionally, survey work has shown the sediment to be highly variable throughout the river, this will further add complexity to dewatering efforts.

The method also requires undefined low water levels, with limitations to the volume of water that can be successfully dewatered by the contractor. If these conditions are not seen, or if approvals are not granted, the project may be delayed or terminated, and alternative methods may need to be investigated, and the cost-benefit of sediment removal reevaluated. Alternative methods would be subject adhering to the City's procurement requirements and would require new requests for tender.

Subject to environmental approval conditions, works will also need to be monitored closely to mitigate environmental risks, such as ASS. Daily pH testing will enable monitoring of ASS risk, this may result in temporary 'stop work' requirements while issues are resolved. If potential issues regarding ASS etc cannot be adequately resolved the program may need to be abandoned. In this instance future works may look to reinvestigate the original dredge and ex situ dewatering method, and to re-evaluate the cost-benefit of sediment removal. A 'sediment tank' may optionally be employed to reduce the turbidity of river dewater, and the risk to receiving environments.

The Lower Vasse River and the receiving, Ramsar-listed, Vasse-Wonnerup System are highly sensitive environments with significant ecological value, are susceptible to impacts, and protected under myriad environmental and cultural state and federal legislation. If all relevant approvals are not able to be obtained the works will not be able to proceed. Additionally, the stage 3 works is located in a heavily constrained area, with significant riparian vegetation and private properties bordering the river. Native vegetation regulation approvals will be required, as well as land secured under a lease for laydown and access purposes. If either of these requirements and not met, or if other approvals and requirements are able to be met the works will not proceed.

As noted above, rates-based procurement will enable more agile works procedures but creates an environment with less defined project costs and potentially increased financial risk. The City will work to the current budget however.

Options

As an alternative to the proposed recommendation the Council could:

1. Decline to accept any tender and retender with a more detailed dewatering and excavation methodology resulting in significant delays to the contract award, delivery of the project and potential withdrawal of State Government funding.

2. Award different separable portions to alternate tenderers. This would result in potentially, increased budget requirements, reversion to the original methodology, and would not be the most advantageous to the City.

3. Decline to accept any tender and discontinue the sediment removal program.

CONCLUSION

The sediment represents a significant ongoing nutrient load, which could potentially contribute to annual algal blooms in the river. The sediments, and algal blooms, also negatively impact aesthetics and are an ongoing concern for community members living along the river.

The City is currently committed to sediment removal in the river and Officers believe that, while in situ dewatering and direct excavation will initially add significant complication and potentially project delays, that it represents the best available solution, and may in time (once the new method has been established) be more financially viable, time efficient and remove a greater proportion of both sediment and nutrient loads from the river.

Regardless of the above, the City will need to continue to assess the cost-benefit of sediment removal as a water quality improvement treatment.

It is recommended that the Council accept the tender submission from Busselton Civil Pty Ltd t/a BCP Group.

TIMELINE FOR IMPLEMENTATION OF OFFICER RECOMMENDATION

Should Council adopt the officer recommendation, it is anticipated that sediment removal will commence summer/autumn 2025 (subject to all required regulatory approvals, environmental conditions and water levels, and land acquisition). If conditions are outside of the limitations of the new in situ dewatering and direct excavation method, the program may need to be delayed until the following summer/autumn.

7 CONFIDENTIAL MATTERS

Nil

8 NEXT MEETING DATE

The next meeting of the Waterways Management Committee will be held on Wednesday 23 July 2025.

9 CLOSURE

The meeting closed at 9.57am.

The minutes of the Waterways Management Committee meeting held 11 December 2024 were confirmed as a true and correct record on:

Date:

Presiding Member: