

## **LOWER VASSE RIVER MANAGEMENT ADVISORY GROUP COMMUNIQUE (POST MEETING OF 14 FEBRUARY 2022)**

### **1.0 Introduction**

The City's Lower Vasse River Management Advisory Group (LVRMAG) met on Monday 14 February 2022. A range of matters of interest to the community were addressed at the meeting, including:

- an update on the planned commencement of sediment removal works in the Lower Vasse River in coming months;
- an update on the management of the Vasse Estuary Storm Surge Barrier;
- a briefing on the recent intrusion of salt water from the Vasse Estuary into the Lower Vasse River, and plans to manage that issue;
- a briefing on plans to remove sediment either side of the Vasse Diversion Drain Penstock;
- an update on progress to fill the vacant community member position on the LVRMAG; and
- discussions about the water quality monitoring regime, and Mexican waterlily management.

Brief summaries of key points related to each of these matters are provided below.

### **2.0 Sediment removal**

The stage 1 sediment removal contract was awarded to Apex Envirocare, and it is expected that works will commence in March or April 2022. The stage 1 area is from the Butter Factory to the Causeway Bridge.

There are a number of reasons why sediment removal is planned to be undertaken in stages, including the fact that the availability of suitable contractors is limited – and even if sufficient funds had been available and all environmental approvals secured, it would not have been possible to do a larger sediment removal project this financial year. That is because only one potential contractor submitted a tender, and that contractor had pre-existing commitments which meant they were not able to do any further sediment removal work for the City this financial year. Because of spawning and brooding periods for Carter's freshwater mussels in July/August and October/November respectively, environmental regulators have required that sediment removal not occur during those months.

The City has, however, secured environmental approvals for sediment removal in the section of the River from the Butter Factory all the way to the Busselton Bypass, including Federal Government approval under the Federal Environmental Protection and Biodiversity Act 1999. In parallel with implementation of stage 1, planning for further stages is progressing.

### **3.0 Vasse Estuary Storm Surge Barrier management**

The Vasse Estuary Storm Surge Barrier at Wonnerup is critical infrastructure for protecting the Busselton townsite from coastal flooding risk. There are also a range of other, often competing, issues that need to be considered when making decisions about the management of the Surge Barrier –

- Maintaining water at levels low enough to provide suitable feeding areas for migratory waterbirds, noting that the Vasse Estuary is a key part of the internationally-recognised and important migratory waterbird habitat in the broader Vasse-Wonnerup Wetlands System;

- Mitigating the risk of saltwater intrusion into the Lower Vasse River, which contains habitat for the critically endangered Carter's freshwater mussel, which has a very low tolerance for salinity – noting that saltwater intrusion last summer resulted in a significant Mussel die-off;
- Maintaining water quality in the Vasse Estuary Channel to mitigate risks of fish kill events in the Channel; and
- Reducing the exposure to the air of sediments that have accreted in the portion of the Channel near Estuary View Drive in Wonnerup, and which creates significant odour problems for nearby residents in summer.

Management decisions for the Surge Barrier are a matter for the Vasse Wonnerup Wetlands Partnership. The Partnership is led by the Department of Water and Environmental Regulation. Other members are the Department of Biodiversity, Conservation and Attractions, Department of Primary Industries and Regional Development, Water Corporation and City of Busselton. The Department of Biodiversity, Conservation and Attractions also has a key regulatory role.

The Partnership has recently had to obtain approval from the Department of Biodiversity, Conservation and Attractions for a management approach which would see summer water levels on average at a slightly higher level than was common prior to 2014, but slightly lower than in more recent summers. That change reflected concerns that the higher levels in previous years had negatively impacted waterbird habitat and, due to the erosion of a natural barrier separating the estuary from the Lower Vasse River, had contributed to the salt water intrusion into the Lower Vasse River last summer.

There have been more significant odour issues for Estuary View Drive residents this summer, relative to recent summers. For the last two years the water levels have been increased slightly at the end of summer to cover sediments at Estuary Drive to improve odour issues. With the change in management approach the ability to increase water levels is now restricted. The Department of Water and Environmental Regulation is planning a sediment removal project this winter, which would reduce the height of the sediment to mitigate the risk of it being exposed to the air, and thereby reducing odour impacts on nearby residents.

#### **4.0 Salt water intrusion into the Lower Vasse River**

The salt water intrusion into the Lower Vasse River last summer resulted from relatively high water levels in the Vasse Estuary, coupled with the erosion of some natural barriers that have historically separated the River and Estuary during summer. Despite the slightly lower levels maintained in the Vasse Estuary Channel this summer, strong and persistent easterly winds in late January and early February resulted in an increase in water levels at the western end of the Estuary, adjacent to the River, by up to 20 centimetres. That resulted in the River and Estuary being reconnected, and the movement of saline water into the River.

Because of the installation of additional real-time monitoring infrastructure over the last year, the issue was identified relatively early, although not early enough to prevent some salt water reaching the River. At this stage it is hoped that there will not be significant impacts on Carter's freshwater mussels. With the guidance and support of the Vasse Wonnerup Wetlands Partnership, the City of Busselton and Water Corporation have constructed a temporary sand bund to separate the Estuary and the River, and mitigate the risk of further salt water intrusion this year. The potential need for a similar temporary strategy next summer and/or a more permanent mitigation strategy in the future will also be considered by the City and other stakeholders during the course of 2022 and beyond.

## **5.0 Closing of Vasse Diversion Drain penstock and sediment removal**

Over the next couple of months, Water Corporation will be undertaking some work in the main channel of the Lower Vasse River in its upper end, just downstream of the new penstocks. This will involve the removal of sediment in the main channel of the River, from the base structure at the outlet of the penstocks for approximately 200m downstream. The accumulation of sediment in this section of the river means that the culverts do not operate at 100% efficiency, and it makes flow measurement difficult due to back-flooding at lower flow rates. In order to undertake these works, the penstocks will be closed from next week, so that heavy machinery can access this section of the river. Once the clearing of the sediment in the main-channel is complete, the culverts will be opened again at full capacity.

## **6.0 Community member vacancy**

Advertising to seek expressions-of-interest to fill the vacant community member position commenced 13 January and closed 18 February. Consideration of any expressions-of-interest received will occur in coming weeks.

## **7.0 Water quality monitoring and Mexican waterlily management**

The Department of Water and Environmental Regulations undertakes fortnightly phytoplankton monitoring in the Lower Vasse River at the pedestrian bridge on Peel Terrace, downstream from the Strelly Street bridge and at the Busselton Bypass bridge. A community member of the LVRMAG raised the issue that there had been a recent deterioration of water quality upstream from the Strelly Street bridge, and it was requested that the Department of Water and Environmental Regulations review whether the Strelly Street monitoring site should be relocated.

There was also some discussion about Mexican waterlily management. The City has undertaken strategic control of Mexican waterlily in the river in most recent years. This allows for the maintenance of areas of open water, while minimising adverse impacts and to some degree mitigating algal blooms in these areas. The use of chemicals to control the lilies is preferred over mechanical harvesting by machinery due to the high rates of regrowth following removal with mechanical harvesting. Extensive monitoring undertaken in 2018/19 demonstrated no decrease in oxygen levels as a result of the spraying which could have presented a risk to aquatic organism.

Concerns were recently raised by members of the community that the use of chemicals to spray the Mexican waterlily could have resulted in the death of Carter's Freshwater Mussels last year. The Mexican waterlilies were not sprayed in 2021, due to an early start to winter rains and resulting die-off of the plants, ongoing monitoring will continue to ensure there are no detrimental impacts to aquatic fauna.

## **8.0 Access to further information**

Group members and members of the public can also find information relating to the River and its management on the City and Revitalising Geographe Waterways websites, via the following links –

- Wetlands and Waterways » City of Busselton
- Lower Vasse River - RGW ([dwer.wa.gov.au](http://dwer.wa.gov.au))

These links may also be useful -

- Sediment removal FAQs available at [lower-vasse-river-sediment-removal-faqs \(busselton.wa.gov.au\)](https://www.busselton.wa.gov.au/lower-vasse-river-sediment-removal-faqs)
- Living Streams [FAQs](#) | [Waterway Management](#) | [Your Say Busselton](#)
- LVR FAQs available at [FAQs-Lower Vasses River-RGW \(dwer.wa.gov.au\)](https://www.dwer.wa.gov.au/faqs-lower-vasses-river-rgw)

Members of the community can also contact the City if they have questions about the management of the River.