

Melbourne Water – Waterways and Drainage Operational Expenditure Uplift – 2021–2026

About

This document is a summary report of our performance on the six programs that received an uplift in operational expenditure in Melbourne Water’s 2021 Price Determination.

The performance of each program over the 2021-22 and 2022-23 period is shown as a traffic light rating (green = on-track, red = off-track, yellow = slightly off-track) for each measure and overall program. We have also provided comments on the overall program and measures.

In future years, this report on Waterways and Drainage Operational Expenditure Uplift will accompany Melbourne Water’s report on the six customer outcomes.

Summary table


| Program | 21-22 & 22-23 | 23-24 | 24-25 | 25-26 |
|--|--------------------|-------|-------|-------|
| Community involvement in waterways | Slightly off-track | | | |
| Flood mitigation | On-track | | | |
| Flood preparedness | On-track | | | |
| Natural wetlands | Off-track | | | |
| New Stormwater Quality Treatment Systems | On-track | | | |
| Large scale stormwater harvesting | Slightly off-track | | | |

Traffic light rating: Green = on-track, Red = off-track, Yellow = slightly off-track

Community involvement in waterways

Broad-scale education and engagement programs to involve the community in their local waterway, to support them to take a bigger role in waterway management, and to connect to environmental and cultural values.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|---|------|----------|-------|-------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2 |
| | | Actual | 0.21 | 0.18 | | | | |
| Community events | No. | Expected | 5 | 5 | 5 | 5 | 5 | 25 |
| | | Actual | 2 | 14 | | | | |
| Web based interactive digital media | No. | Expected | 2 | 2 | 2 | 2 | 2 | 10 |
| | | Actual | 6 | 1 | | | | |
| Targeted education campaigns including social media | No. | Expected | 5 | 5 | 5 | 5 | 5 | 25 |
| | | Actual | 0 | 0 | | | | |
| Waterway informational signage and infographics | No. | Expected | 1 | 1 | 1 | 1 | 1 | 5 |
| | | Actual | 0 | 0 | | | | |

Overall performance for the regulatory period so far:  **Slightly off-track**

Business comment

This program is currently slightly off-track.

This program has delivered:

- Sixteen hands-on community events, such as tree planting, engaging Cultural & Linguistically Diverse community members and one engaging the LGBTQI+ community.
- Two one-year partner sponsorships, which evolved into two 3-year partnership agreements that will drive continued uplift in community involvement over the next three years.

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- New web-based interactive digital media content supporting virtual tours of wetland areas at the Werribee Treatment Plant and development of an interactive Werribee River Guide.
- Incentives funding for two projects that will deliver waterway informational signage in later years.
- Research by BehaviourWorks Australia into key behaviours that the community is more likely to take up and that can be most beneficial to waterway health. This will guide project investment decisions in coming years.

To date, Melbourne Water social media campaigns have prioritised the need to communicate broadly across community on flood preparedness, rather than targeted education campaigns.

In the coming years, the program will increase community participation in waterway health by:

- maximising the use of the incentives framework as an efficient way to enable our key partners and community groups to deliver community involvement projects.
- implementing programs (including educational campaigns and digital resources as relevant) that align with our BehaviourWorks Australia research findings on the most effective behaviours to target for improving waterway health.
- scoping interactive / digital projects that will further engage and educate the community on the value of waterways, including Traditional Owner values and informed by water literacy insights.

Traffic light rating: **Green** = on-track, **Red** = off-track, **Yellow** = slightly off-track

Flood mitigation

Strategic planning and collaborative implementation with our partners.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|---|--------|----------|----------|----------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 3.5 |
| | | Actual | 1.14 | 0.69 | | | | |
| Innovative solutions tested and adopted | Output | Progress | On-track | On-track | | | | |
| Investigations supported by delivery innovation | Output | Progress | On-track | On-track | | | | |

Overall performance for the regulatory period so far:  **On-track**

Business comment

The development of policies and delivery of investigations to address the complexities of flood mitigation in a highly urbanised environment is of high priority for Melbourne Water. Both expenditure and the progress of outputs and outcomes are on-track.

Under this program we have:

- Developed a policy to define investment by Melbourne Water in flood mitigation solutions at a property scale.
- Undertaken a literature review to identify innovative approaches to reduce flood risk that will inform the development of a business case aimed at testing the solutions.
- Completed an investigation that examined the feasibility of permeable pavement as a flood mitigation solution and identified the factors affecting site selection.

A screening and evaluation method was developed to identify potential roadblocks to delivering innovative solutions and reduce the risk of investing in solutions that may not be feasible to achieving the intended benefits in practice. The development and trialling of the evaluation method in the first two years of the price period will inform the further application and refinement of the method in the remaining period.

The focus for 2023/24 is to partner with a council to test and pilot permeable paving in a suitable location. The checklist/tool for permeable paving investment consideration will also be shared with other councils across the region for their use and included in future capacity building sessions. Completion of an update to depth damage functions used for estimating flood damage cost and a refinement of the flood mitigation prioritisation process and tool is underway.

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Flood preparedness

Preparing for and mitigating the impacts of flooding.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|--|------|----------|--------|-------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.5 |
| | | Actual | 0.38 | 0.18 | | | | |
| Expansion of education and awareness program (CEDRR) <i>*These are re-engagement of previous years properties</i> <i>**No breakdown of data for individual years</i> | No. | Expected | 2000 | 2000* | 2000 | 2000* | 500 | 4500 |
| | | Actual | 6703** | | | | | |
| Targeted social media <i>*(+x) numbers indicate re-engagement of previous year's catchments</i> | No. | Expected | 3 | 2(+3) | 3(+5) | 2(+8) | (+10) | 10 |
| | | Actual | 2 | 2 | | | | |
| Improved flash flood warning capability | No. | Expected | 0 | 3 | 3 | 2 | 2 | 10 |
| | | Actual | 1 | 2 | | | | |

Overall performance for the regulatory period so far:  **On-track**

Business comment

The program has had a strong start in meeting our obligations and community expectations around flood education and preparedness. Despite a temporary pause on some social media activities in response to the Maribyrnong flooding, both expenditure and the progress of outputs and outcomes is on-track.

The CEDRR program commenced in year one of the price determination with the establishment of a plan for the delivery of social media activities to flood prone communities. Implementation of the program in year two involved educating the community on how to practically mitigate household flood risk such as moving household appliances, preparing homes for power outage if flooded, landscape drainage change, gutter work, and changing home insurance provider to possess more comprehensive cover in case of flood. This resulted in 6,703 reach engagements, with 1,376 being effective, leading to both increased flood awareness and measurable behaviour change.

Several targeted social media campaigns have been undertaken within the current determination period to educate communities of our complex drainage system, how we plan for the impacts of stormwater and their flood risk. These campaigns have involved over 100 social media posts showcasing nine videos and links to Melbourne Water's website and have been successfully measured by the number of people, impressions and link

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clicks to flood information. The targeted campaign in the Maribyrnong catchment related to knowing your flood risk resulted in 958 clicks to the Victoria State Emergency Services (Vic SES) website; 120k impressions and reached around 11k people.

Drainage system alerts in existing non-riverine hotspots were developed in partnership with council in years one and two of the price determination. Implementation of the alerts has been paused until roles and responsibilities and governance arrangements have been worked through as part of the broader flood role and responsibility review being undertaken at a state level.

The program is well established and on track to deliver flood preparedness services to the community. Priorities for the coming year are:


- Continuing to deliver the CEDRR program and flood risk awareness campaign.
- Engagement with Vic SES on enhanced processes for sharing information to support flash flood warnings.
- Continuing to work with the Bureau of Meteorology and Vic SES to establish new flood warning arrangements; initial monitoring will support evolving into an ongoing monitoring system that enables flash flood warning in high flood risk locations.

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Natural wetlands

Improving in-stream habitats including creeks, rivers, wetlands and estuaries, and the different elements that contribute to healthy waterways.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|----------------------------|------|----------|-------|-------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.5 |
| | | Actual | 0.03 | 0.01 | | | | |
| Priority sites maintained | No. | Expected | 20 | 20 | 20 | 20 | 20 | 20 |
| | | Actual | 4 | 7 | | | | |
| Area maintained | Ha | Expected | 60 | 60 | 60 | 60 | 60 | 300 |
| | | Actual | 5 | 9 | | | | |

Overall performance for the regulatory period so far:  **Off-track**

Business comment

This program is currently off-track due to work required to document current wetland condition in preparation for undertaking each wetland's specific maintenance regime. The cumulative spend by the end of 2022-23 is 93% below the Price Determination.

The program's planned works include maintaining native vegetation extent and quality through revegetation, fencing, and controlling pest plants and animals. In year 1, maintenance works were undertaken at 4 wetlands, across an area of 5Ha (total). This increased in year 2 to maintenance works at 7 wetlands, across an area of 9Ha (total).

We strive to continue the shift to a more planned approach during this price determination by prioritising and re-allocating resources to document current wetland condition and work program for the remaining 13 wetlands. With increased prioritisation of documentation of wetland condition, we expect activity in this stream to return to "on track" within the price period.

Traffic light rating: Green = on-track, Red = off-track, Yellow = slightly off-track

New Stormwater Quality Treatment Systems

Treating stormwater through constructed wetlands and water sensitive urban design.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|--|------|----------|-------|-------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 1.2 |
| | | Actual | 0 | 0 | | | | |
| Cumulative additional Stormwater Quality Treatment Systems handed over | No. | Expected | 9 | 18 | 27 | 36 | 45 | 45 |
| | | Actual | 0 | 0 | | | | |

Overall performance for the regulatory period so far:  **On-track**

Business comment

Over the first two years of the price determination, there has been no spend against this program due to no assets being handed over from developers for Melbourne Water to maintain. However, the program is currently on-track relative to the number of assets accepted from developers.

Delays in the construction and practical completion of wetlands delivered by the development industry and for Melbourne Water to ultimately maintain is out of our control. The number of assets provided in the business case was an estimate based on previous experience and there is variation in the number handed over on a year-to-year basis. We are aware that there is a likely increase in assets in year three based on backlog of handover. Three new wetlands have been handed over in July 2023 and are now being assessed for maintenance works.

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Large scale stormwater harvesting

Managing increasing stormwater impacts from urbanisation to maintain the water cycle needed to protect waterway health.

| Indicator | Unit | | 21-22 | 22-23 | 23-24 | 24-25 | 25-26 | Total five years |
|----------------------------|------|----------|-------|-------|-------|-------|-------|------------------|
| Spend on annual allocation | \$M | Expected | 0.77 | 1.5 | 2.3 | 3.1 | 3.8 | 11.5 |
| | | Actual | 1.7 | 0.76 | | | | |

Overall performance for the regulatory period so far:



Slightly off-track

Business comment

The program is currently slightly off-track due to challenges in implementing a new approach to stormwater management to deliver Healthy Waterways Strategy flow reduction targets. These challenges relate to the need to deliver tailored solutions based on local conditions, variable demand and land availability.

While the annual spend in the first two years has not matched the expected annual allocations, the total spend is on track at this point of the pricing period (i.e. 21% spent of the \$11.5m uplift budget).

Over the past two years of this program we have:

- Completed investigations in 10 priority stormwater areas, in addition to a region-wide assessment.
- Commenced an assessment of the feasibility in delivering the recommendations outlined in the investigations.
- Recruited two additional Full Time Employees (FTEs) to support the delivery of the capital program.
- Initiated two capital Business Need Identifiers – Melton Sub-scheme and Monbulk Smart Water Network.
- Completed multiple research projects that inform policy and improve understanding of effectiveness, including updated industry guidelines and evaluation of offset pricing.
- Provided incentives partnership funding with Water Research Australia to explore chemical and pathogens in urban stormwater.

The focus for 2023-24 will be to initiate future investigations for stormwater harvesting and infiltration in additional stormwater priority areas and review drainage scheme processes to identify opportunities for integrating assets at the development outset.