Additional community questions

Mitcham to Syndal water mains renewal project

**What are Melbourne Water Corporations (MWC) plans in reducing the number of trees to be cut down?**

A thorough process was undertaken to minimise tree removal, including;

• adjusting the new water main location to avoid trees where possible.

• design efficiencies that minimise the project's footprint, and

• use of construction methodologies aimed at minimising impacts to tree roots.

We have worked closely with arborists and local councils to avoid tree removal wherever possible. Unfortunately, some trees will still need to be removed despite all attempts to retain them.

**What process are MWC using to accurately determine how many wildlife and birds are going to be affected?**

A flora and fauna assessment has been completed for the work area. This assessment aims to determine ecological values within the Project area, the potential legislative implications of these values if present, and provide recommendations for further assessment and next steps required to progress the project.

We have determined the construction footprint of the pipeline with a focus on the principles; Avoid, Minimise, and Offset to achieve no net loss to biodiversity.

No referral is required under the Environment Protection and Biodiversity Conservation (EPBC) or Environmental Effects (EES) Acts.

A qualified wildlife handler (ecologist and zoologist) will be on-site during any tree removal to:

* complete a wildlife pre-clearance check before construction
* check the site for fauna and marking trees likely to have habitat.
* catch and relocate fauna (without causing it distress). If this isn't possible, the contractors will move to the next tree and return to try again later.
* relocate nests or nesting boxes.

It is preferable to relocate fauna within the same site. If this is not possible, the wildlife handler will advise on a relocation strategy.

**What is MWC's timeline for the key activities and milestones of the project e.g. road closure, relocating wildlife, trimming and removal of trees, digging up the road, resurfacing etc?**

The project team will utilise two work crews to speed up work to minimise the impact on the community. The original timing is shown below however this may require reassessment depending on the impacts from planning permit delays. The project is structured to maximise works in winter during the low water demand periods. The community will be kept up to date with any changes.

• Crew one will start on Percy Street in late April and follow Simpson Street and Mitcham Road, moving to Lucknow Street in late September. Works continue along Lucknow Street until reaching Mitcham Reservoir in late November 2022.

• Crew 2 will start at Mitcham Reservoir in late May and travel towards Rooks Road, entering the pipe track in late June and continuing to Springvale/Canterbury Road.

• Following pipeline construction, the project will return to Lucknow Street to complete connections at Mitcham Road and Mitcham Reservoir. Works at Mitcham reservoir will take place between November/December 2022, May/June 2023 and August/September 2022.

As the project progresses, any pruning or tree removal will occur in stages approximately two weeks ahead of the construction program. A qualified arborist and wildlife handler will be in attendance during these times. If required, the wildlife handler will provide a relocation strategy for wildlife or birds.

**Can the timeline and rescheduling of key activities and milestones be shared with all the residents and updates provided as the project progresses or encounters roadblocks or delays?**

Melbourne Water will maintain contact with residents through door knocks, notification letters, phone calls, and site signage to ensure you are informed of upcoming works.

To keep you up to date with what we are doing, how the works are progressing and when we will be in your area, we will also provide web updates at: M22@melbournewater.com.au.

**What communication or complaint channels and process have MWC put in place for residents to raise any significant issues due to road closure or driveway accessibility?**

For more information about the project or to raise concerns, contact the Mitcham to Syndal Water Mains Renewal project team on:

* M22@melbournewater.com.au
* 1800 319 555
* www.melbournewater.com.au/m22
* TTY and Interpreter Services are also available:
* TTY 133 677
* Interpreter 131 450

**Are the Council going to plant trees in the same spot as those removed?**

Melbourne Water will be offsetting tree removal and replanting trees as close as possible to the impacted area. Some trees may not be able to be replanted in the same location as the roots may impact the new pipe and cause corrosion and damage to the new pipe. If replanting cannot occur in that location, nearby alternative locations for replanting will be agreed upon with Council.

**Will the lush green and autumnal tree scape of Lucknow Street be lost in the plans to offset tree removal and replanting?**

Melbourne Water values the lush green and autumnal treescape of Lucknow Street, Percy Street and Simpson Street.

We are committed to replanting at least as many trees as are being removed. Council representatives, land managers and the community will be consulted regarding species selection and landscape design to maintain the treescape.

Further drop-in information sessions are planned to gain community feedback on reinstatement plans in late 2022 and early 2023.

**Has there been any collaboration with Council to provide an information session for residents to discuss the plan, type, and timeline to replant trees?**

The project team is working closely with Whitehorse City Council and the City of Monash to inform the community about the project impacts, including replanting trees.

A project introduction bulletin was distributed to approximately 18,000 households along the pipetrack between Mitcham and Syndal in July 2021. The newsletter explained the need for the project, the methodology being used, project benefits and impacts, including the need for tree removal and trimming. A copy is available on the project web page: [M22@melbournewater.com.au](mailto:M22@melbournewater.com.au).

Group information sessions have been restricted over the pandemic; however, an outdoor drop-in information session was held on Saturday 12 March and a second session is planned for Saturday 2 April.

The project team has provided information on the project, listened to and responded to concerns with residents and businesses via telephone, email and individual face to face meetings outdoors. This has included communication with;

* property owners along the alignment, via door knocking
* local businesses
* local environmental groups
* property owners where trees are flagged for removal or trimming
* schools and pre-schools along the pipetrack
* other stakeholders, including the Department of Transport, Yarra Trams, City Power and Yarra Valley Water.

The Mitcham to Syndal water main renewal is a large project that will be ongoing for the next two years. Reinstatement works will occur after the final works in the area are complete in late 2023. Further drop-in information sessions are planned to gain community feedback on reinstatement plans in late 2022 and early 2023.

**If there is a height limitation on tree replacement due to the power lines, have MWC communicated with power companies to address this and discussed options such as line bundling?**

The project team has informed City Power of the Mitcham to Syndal water main renewal project however the requirement for separation of power and water services makes bundling of these services unlikely. It would also increase the project footprint and result in additional tree removals.

**What is the 'specific methodology' MWC have used for determining tree removals?**

Qualified arborists have assessed trees near the project area based upon Tree Protection Zones (TPZ) and Structural Root Zones (SRZ). The standard for a 'major encroachment' to a tree's SRZ and TPZ is more than 10% in Australia. Trees with more than 10% encroachment are identified for removal due to structural stability and/or the amount of canopy needing removal for the tree to remain viable.

This is typical when trees are planted within a grassed area. In reality, street tree roots will typically propagate towards permeable areas such as the road verge where water is more available.

The project has correctly identified the trees with more than a 10% encroachment in the planning permit. Working with Council and an arborist, we have conducted additional surveying and pot-holing to demonstrate that many more trees remain viable.

The project will have an arborist on-site during construction to assess this further and advise if additional trees will be safe to retain.

**Can boring or other root sensitive construction be used instead of trenching in the areas of significant trees?**

Melbourne Water and Council are aligned in retaining trees wherever possible. After submitting the Planning Permit, root-sensitive non-destructive digging (NDD) was used to investigate how much street tree roots propagate under the road pavement.

Based on investigation work, we have worked with the Whitehorse City Council arborist to develop and agree on a construction methodology that best protects street tree root systems.

Both the size of the pipe and the location of other pipelines and services on Lucknow Street prohibit the use of a tunnel boring machine. Even if this was viable, a tunnel boring machine in this location would cause more trees to be removed.

**Why are some of the trees determined by the arborist to have 'potential to be saved' but are not being shown to be retained?**

Trees with more than 10% encroachment to their Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) must be identified for removal in the planning permit. The tree's structural stability and health are considered to determine if it will remain viable.

Working closely with Council and an arborist, we have conducted additional surveying and pot-holing.

It was found that the roots tended to propagate towards grassed areas where water was more readily available. This information means the tree retention will be much greater than what is shown in the conservative planning permit application.

Many street trees identified in the planning permit will be safe to retain. However, the arborist maps shows the worst case scenario based on a 10% encroachment on SRZ’s. In response to community feedback Melbourne Water created simplified drawings to help resident understand the true and reduced impact of the construction works.

**Why can't MWC be exact about which trees will go before the planning permit is issued?**

Melbourne Waters permit application advises all potential tree removals for the project based upon the Australian Standard of encroaching a trees' tree protection zone' or Structural Root Zone by 10% or more.

Further detailed investigations have allowed us to challenge the standard based upon root systems, health of the tree and its amenity.

In some cases, root impacts underground will not be fully understood without more invasive digging. We are working to maximise the number of trees retained and will have an arborist on-site during construction to advise if additional trees can be safely retained.

**What exactly is going to be planted and where? Can MWC please prepare a detailed landscaping plan so we can understand what to expect our street will look like afterwards?**

We are committed to replanting at least as many trees as are being removed. If the site is limited, a nearby alternate location will be identified to provide the reinstatement.

Council representatives, land managers and the community will be consulted regarding species selection and landscape design to maintain the treescape.

Further drop-in information sessions are planned to gain community feedback on reinstatement plans in late 2022 and early 2023.

**Why does the Flora and Fauna assessment only look at native tree removals? What will be the impact from the loss of the other trees? This report makes assumptions based on using a sub-optimal time for observing most flora, and recommending construction occur outside your proposed timetable. Is this why MWC are having another one prepared?**

The flora and fauna assessment provides an overview of the ecological value in the area and highlights areas to be further investigated. Based on the flora and fauna assessments, series of investigations are being carried out, in consultation with an ecologist, before any pruning or removal of trees.

**What is a pressure reducing station? Will there be any noise or vibration from it during its use?**

A pressure reducing station (PRS) reduces upstream pressure to match a required downstream pressure output. This is achieved by installation of underground infrastructure which includes pressure reducing valves, as well as the hydraulic design of the piping, which reduces upstream pressure by throttling the valves to restrict flow and therefore reduce the pressure on the downstream side to the required parameters. The purpose of this is so that the downstream network is not exposed to the higher pressure of the upstream network, therefore reducing the risk of pipelines bursting under high pressure that they are not designed for.

PRS is a general term and does not necessarily require buildings or large structures. In the case of M22/M46 project – the existing PRS is housed in a large concrete underground pit which is visible from Lucknow St. The design for the new PRS involves smaller pipework and pressure reducing valves which are all buried. The design considers the overall construction and permanent impact, in that it combines the footprint of the reservoir slip-line works (further info below) and the PRS construction into one area, rather than have two independent areas as per current arrangement.

The new PRS will involve the construction of a small retaining wall at the current fenceline of Mitcham Reservoir on Lucknow St. This design reduces the impact on the embankment of Mitcham Reservoir as it reduces the amount of ground disturbance required in the embankment and therefore minimises tree loss. Installing these pipes through the road in this area is not possible as it would clash with the existing outlet pipes and also require undermining these critical mains which are in poor condition whilst they are live and exposing the area to flooding from Mitcham Reservoir.

Noise and Vibration from the PRS is considered negligible, as the pipes and valves will be buried, similar to infrastructure already installed in the area.

**What is a reservoir outlet and launch pit? Will there be any noise or vibration from it during its use?**

The reservoir outlet pipes are 3 no. DN900 (900mm bore) reinforced concrete (RC) mains which serve as feeder pipes from Mitcham Reservoir to the M22 and M46 mains downstream and are critical for the region's water supply. These mains require renewal, which will involve isolating Mitcham Reservoir and the mains to complete the works. This process can not be undertaken until the new bypass and PRS are completed, commissioned and feeding the downstream network, ensuring continuous security of water supply to Melbourne during the works.

The methodology to renew the outlet pipes that has been chosen is to slip-line (insert smaller pipes) the existing DN900 RC outlets with DN600 MSCL (mild steel concrete lined) pipes. This methodology was chosen to reduce the impact on the Mitcham Reservoir embankment.

An excavation (shaft) will be constructed down onto the ends of the outlet pipes, which connect into the M22 & M46 mains in the road on Lucknow St. The shaft itself will be approximately 3m deep and have a footprint of 6m x 6m. Construction of the shaft will be by using excavators, similar to the trenching works for the rest of the pipeline. As the geological profile is predominantly stiff clay and sandstone, there is no expectation that there will be excessive noise or vibration generated from rock breaking. The noise & vibration for the construction of this shaft will be the same level as all other pipelay works. Engineered structural shields will be employed to support the shaft during the works.

Once the shaft is constructed, the existing outlet pipes will be cut and lengths of MSCL pipe lowered into the shaft, from where they will be winched up through the existing pipe. A welder will work within the shaft to weld together the pipe lengths as they are winched through. The footprint of the shaft is bound by an existing fibre optic cable running through the North verge.

**Can we please have a more detailed construction schedule? Is it possible to indicate a length of time for each section/location?**

Refer to the schedule above. The project has issued a construction update with timings for works on Lucknow Street and other project areas. The community will be kept up to date with any changes.

**How does this proposal align with Melbourne Water's commitment to Enhancing Liveability? And the Urban Cooling Strategy?**

As Melbourne grows, the community will continue to receive safe, secure, affordable, world-class drinking water. As a large land and waterway manager, we also have an opportunity to increase community wellbeing by improving access to nature and recreational facilities.

We’re uniquely positioned to contribute to Melbourne’s treasured liveability through our assets, knowledge, connections and project delivery. The pipetrack can be used to connect spaces and enrich the area for local communities.

We are working closely with the Department of Transport, Whitehorse City Council, and the City of Monash to provide connectivity of shared user paths and enhanced community spaces along the pipetrack. Community consultation and feedback will be sought in late 2022, and early 2023 on options for the pipetrack ahead of reinstatement works at the end of the project in around August 2023.

Choosing suitable types of plants will reduce vegetation management issues in the future. Roots of trees and shrubs can block or damage water mains, and because of this, Urban Cool is difficult to achieve close to water mains. Opportunities for urban cooling are being considered, but enhanced community spaces will be our priority.

**Has the project team closed off the risk of any other conflicts with other works planned concurrently in the street by Council, Yarra Valley Water and the Power companies, which could potential have an effect on the trees, delay, derail project timelines or cause further disruption to residents?**

We have informed other services in the area of the Mitcham to Syndal water main renewal project and are aware of works being completed by Yarra Valley Water in the same area. We are working closely with Yarra Valley Water to schedule works to minimise disruption to residents.

Work is being coordinated and care is being taken to ensure that water services are not disrupted.

Council is also being regularly updated on upcoming works.

**At the completion of project deliverables are MWC going to totally resurface Lucknow Street and re-soil and seed nature strips affected by the preparatory works and pipe replacement activities?**

The project will reinstate and any areas impacted by our project with like for like materials. Lucknow Street will be resurfaced following our works from kerb to kerb until the project enters the Melbourne Water easement and pipetrack.

Nature strips and pipetrack will be top soiled and re-seeded.

**Is there a list of project outcomes and the benefits to residents that can be provided to all residents?**

This project aims to ensure safe and reliable water now and into the future for our customers and the wider community.

Water mains typically last at least 80-100 years. When they leak multiple times in a short period of time, it indicates that a pipe has come to the end of its life and needs to be replaced. The M22 and M46 water mains are between 90 and 100 years old. Leaks have been detected in 8 sections over the last 12 months, indicating that they are nearing the end of their service life and must be replaced.

In addition, we are working closely with the Department of Transport, Whitehorse City Council and the City of Monash to upgrade shared user paths and enhanced community spaces along the pipetrack.

Community consultation and feedback will be sort in late 2022, and early 2023 on options for the pipetrack ahead of reinstatement works at the end of the project in around August 2023.

**Why did MWC wait until the pipeline was at a critical point (100 years ) for replacement and not planned 10 to 20 years earlier when the trees were less mature and residential growth and environmental impact was not at a maximum?**

The Essential Service Commission requires MWC to have prudent and efficient expenditure based on the remaining life of the water main. This includes maximising the service life of the infrastructure rather than upgrading infrastructure at shorter intervals.

We have been monitoring the condition of the pipes and conducting engineering investigations to assess corrosion. Works have been timed to maximise the use of the existing infrastructure while balancing community impacts and ensuring the lowest cost of water to customers.

**Is there a documented community engagement and consultation strategy available for review?**

For privacy reasons, the communication and engagement plan is not a publically available document however we welcome feedback on how you prefer to be engaged. If you would like additional drop-in information sessions or more information, please reach out to the project team.

**Did MWC undertake a risk assessment on the project deliverables and the impact on community, environment, and reputation?**

We have undertaken a significant amount of work to understand the impacts of this project.

Water mains connect existing assets such as Mitcham, Notting Hill and Surrey Hill water reservoirs and supply water to water retailers networks. These pre-determined connection points dictate the alignment for new water mains.

Most of the Mitcham to Syndal water main renewal work will be located on operational land set aside for this type of work. This land is owned by Melbourne Water and its purpose is to accommodate water supply pipes. This minimises the impact on both the community and the environment. Where water mains are not within the pipetrack careful consideration has been given to minimise impacts.