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Australian Government

BUILDING AUSTRALIA



Mandurah Estuary Bridge Duplication Project Construction Update

This update contains important information about upcoming works near you that are anticipated to occur in June but are subject to change.

Piling commences

The first stage of constructing the Mandurah Estuary Duplicate Bridge involves piling works that provides the foundation for the bridge, located at each of the seven piers and the two abutments. The bridge supports will be located adjacent to the existing supports of the current bridge, with the first pier and abutment constructed on the eastern foreshore.

Commencing week beginning Monday 10 June, those living close to the project and surrounding area can expect loud noise and vibrations due to these works, which will be intermittently ongoing until mid-November 2024. The Piling works in June will be performed on the abutment and pier located on the eastern foreshore, all using a land-based piling rig.

The marine piers consist of six large steel piles that require barge mounted piling rigs to drive steel tubes into the estuary bed, whereas the land-based supports will comprise of precast concrete piles which will be driven into the ground.

To drive the piles into the ground, the project team uses hammering and vibratory piling techniques. During these works, there will be noise generated from the hammering activity plus some vibration that may also be felt during these piling works. The degree of disturbance will vary depending on ground and weather (wind) conditions.

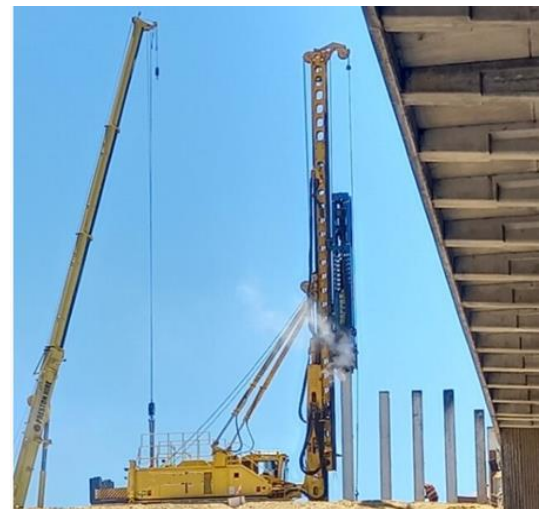
When piling in the estuary, Marine Mammal Observers (MMO's) will be in position to monitor dolphin activity and where necessary follow the appropriate controls to ensure all dolphins and other marine wildlife are not impacted during these activities. Heritage monitors will also be engaged for any disturbance works in heritage sites, including in the estuary.

The project team will minimise the impacts of noise and vibration as much as possible. We will manage the works program with careful planning, e.g. such as only piling during day shift, using the quietest equipment available and monitoring noise and vibration at all times.

People may see and smell smoke during the precast piling works. This is normal and to be expected during this type of piling process, refer image above.

Casting bed site access

Earthworks are currently underway to establish the casting yard and bridge construction area adjacent to Waterlily Drive located in the Southeast quadrant. Additional site parking for workers, along with laydown and casting bed areas will soon be established in this area.



Smoke may be visible during piling works

Earthworks, including the ongoing removal of surcharge fill (yellow sand), and any remaining vegetation clearing will occur to enable the final design for this quadrant. The casting bed will be set up with the pouring of a concrete foundation, pedestals and the construction of crane pads plus the installation of temporary formwork.

Road users are advised that additional site traffic will be accessing the casting bed area via Mandurah Road and egressing out via Waterlily Drive. We will investigate and use alternative routes where possible and, in some instances, vehicles may exit back out onto Mandurah Road. Oversize project deliveries will be stored in the bridge construction area shown below.

Workers will also be accessing the project area from the light vehicle (LV) carpark off Mandurah Road using the footpath along Waterlily Drive. These vehicles will always exit from the carpark back out onto west-bound carriageway of Mandurah Road.

We have put together a fact sheet on casting bed works, which can be accessed at the following address:
www.mainroads.wa.gov.au/mebd under "publications."



Retaining walls (southwest first, then northeast)

Construction of limestone retaining walls will also get underway from mid-June. Works will initially start in the southwest quadrant (adjacent to Seahawk Drive) and northeast quadrant (Waterside Drive). Retaining walls adjacent to Leisure Way (northwest) will be constructed late July. Limestone block deliveries will commence later this month. As part of the construction process, we need to lower the groundwater level to facilitate the construction of the walls.

The water extracted from the ground is held in a circular shaped limestone holding basin. Once the water is extracted from the ground and is pumped into the basin, it can react with the air and have a brown appearance and light odour. This is normal and expected during the de-watering process when managing ground water. The limestone acts as a natural treatment which essentially captures sediment before the water then reinfiltrates back into the ground.

Egret Point embankment works

The embankment area at Egret Point Road has now been built (preloaded surcharge) and will be left to 'settle' for a minimum of three months. During this time, we are continuously monitoring ground and settling movement to ensure the geotechnical conditions are suitable to commence bridge construction works. During this period, a dust suppressant will be applied to the material (yellow sand) to mitigate any air-borne dust issues for nearby residents.

What can I expect this month?

- Noise and vibrations from piling activities.
- Increase in material deliveries arriving on site, active plant and machinery moving around on all sections of the project site.
- Project vehicles may need to use local roads to access the works area.

Waterside Drive

- Storage of backfill material for post construction of limestone retaining walls.
- Dust suppression application to reduce the impact of dust on neighbouring residents.

- The cycle path accessing Mandurah Road will close from Tuesday 3 June for the remainder of the project as we progress construction works.

Waterlily Drive

- Piling works
- Continued construction of reclamation working pads on the eastern estuary foreshore.
- Ongoing removal of topsoil and vegetation clearing
- Vibrations, noise and dust from casting bed excavation and establishment of casting yard.

Seahawk Drive

- Fill continues to be imported, creating the embankment at Egret Point Road / Seahawk Drive.
- Works commencing on the limestone retaining walls.
- Bus users are reminded that the area behind the bus stop heading west is an active construction area and access is not permitted through the construction zone. Please use the existing path to access the bus stop from Egret Road not via Seahawk through the site fencing.

Leisure Way/Egret Point Road area

- Fill (sand) continues to be imported, creating the embankment at Egret Point Road / Seahawk Drive.
- Clearing works to create a future drainage basin.
- Works commencing on the limestone retaining walls.

Services works

Western Power will continue works along Waterside Drive and Egret Point Road in the project area as well as separate investigations into lighting issues along Mandurah Road and footpaths. These works are unrelated to the project and likely to be ongoing during June and onwards.

Halls Head Central Pop-Up display

We will be displaying up-to date-plans, artwork and revegetation concepts at a 'pop-up' display at Halls Head Central on Thursday 4 July from 2pm-6pm.

Further information will be available shortly and we look forward to meeting with the wider Mandurah community and providing an overall project update.

Out of Hours upcoming works

We will have to do early morning concrete pours in June and early July to prepare the casting bed. This work will be carried out on the Waterlily Drive quadrant. The June dates are 24-28 June and 1-5 July. There will be impacts for those living close by including noise, and traffic increases on the local road network.

Unfortunately, this work needs to be carried out early morning as it provides optimal conditions for ensuring a high-quality finish and integrity of the concrete and to meet Australian standards. A notice will be sent by mail to impacted residents ahead of these dates once the times are confirmed.

Further information

Jointly funded by the Australian and Western Australian Governments, the \$136 million Mandurah Estuary Bridge Duplication project is delivering a second, two-lane bridge on the south side of the existing structure to provide additional traffic lanes. A new four-metre-wide shared path will also be built to help the local community better access recreational activities. A new accessible fishing platform will also be provided on the eastern foreshore.

To stay up to date with the latest project information, please visit www.mainroads.wa.gov.au/mebd and subscribe for project updates. You can also join our Facebook Group, [Mandurah Estuary Bridge Duplication Community Group | Facebook](#).