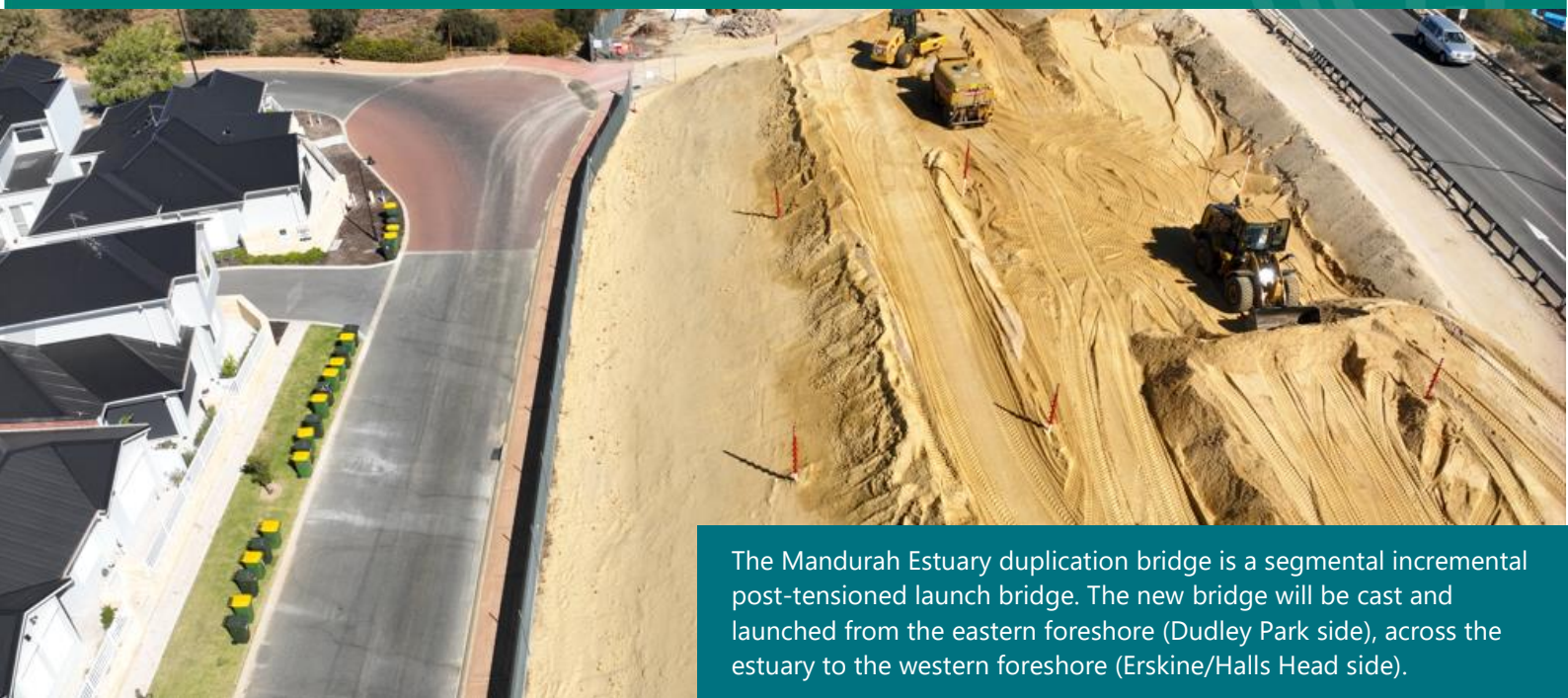


# Mandurah Estuary Bridge Duplication



The Mandurah Estuary duplication bridge is a segmental incremental post-tensioned launch bridge. The new bridge will be cast and launched from the eastern foreshore (Dudley Park side), across the estuary to the western foreshore (Erskine/Halls Head side).

## FAQ – Casting yard

### Q. What is a casting yard?

A. A casting yard is the space utilised to construct the bridge segments before they are “launched” or pushed across the estuary. The casting yard area includes the casting bed where the team will form and pour concrete for 15 individual bridge segments. These segments are then launched from the casting yard over the estuary until the bridge reaches the abutment on the opposite foreshore.

### Q. Where will the casting yard be located?

A. The casting yard will be located in the southeast corner of the bridge in between Mandurah Road and Waterlily Drive.

### Q. Why wasn’t the casting yard built on the other side of the estuary?

A. The eastern side of the estuary has more favourable geotechnical conditions than the western side for the casting and launching process.

This means the soil is more compacted and consolidated, which requires less preparation work to be undertaken.

### Q. Why did you decide to build a bridge which needed a casting yard to be constructed?

A. There were multiple factors considered for constructing this bridge including its length, installation over water and geometric constraints. Due to these factors and the requirement to build an

improved replication of the existing bridge, it was agreed that the best method for construction was an incrementally launched bridge which required a casting yard to be built. The current bridge was also incrementally launched from the eastern foreshore.

**Q. Did you build a casting yard when you constructed the Mandurah Traffic Bridge in 2018?**

A. Yes, the Mandurah Traffic Bridge was also an incremental launch bridge. The casting yard for that launch was located on the western foreshore and the bridge was launched from the west to the east.

Click [here](#) to watch a timelapse video of the bridge construction.

**Q. What is the process for building a casting yard?**

A. Once the preloading fill (sand) has been removed, the material is excavated to a lower level and a series of concrete foundations are poured for the casting bed. We then construct crane pads and install temporary formwork. The laydown and prefabrication areas are then completed. The formwork will be used for the construction of the bridge segments, which will be incrementally launched across the estuary.

**Q. When is the casting yard being constructed?**

A. Works have already commenced on building the casting yard. In early 2024, fill was placed on the site to start the preloading. In June 2024, the concrete slab will be constructed that will form the base of the casting bed and all its associated platforms.

**Q. How long will the casting yard be in operation?**

A. The area will be used as a casting yard until mid to late 2025.

**Q. What will happen to the casting yard once the bridge is built?**

A: The casting yard will be decommissioned, and the area built up to road level to form part of the new westbound section of Mandurah Road, tying into the new bridge. This will include the construction of remaining retaining and noise walls.

**Q. Will the casting yard operate out of hours (between 7pm and 7am) or on Sundays?**

A. Yes. There are certain activities, such as concrete pours, which need to start in the early hours of the morning, so they can comply with structural conformance requirements. Where possible, the majority of works will be conducted during normal working hours. Although we don't plan to undertake works on a Sunday, at times, it may be required.

Advanced notice will always be given to nearby residents for out of hours work.

**Q. What will the impacts be to nearby residents during its construction?**

A. Nearby residents are likely to experience additional noise, truck movements, additional light, and vibrations from the casting yard. The project team will work with the community to mitigate these impacts where possible.

More information about managing these impacts is available in the relevant fact sheets. These can be found [here](#)

**Q. Will the casting yard be harmful to the environment, including the estuary, fauna and flora?**

A. No, the casting yard will not impact the environment. Our environment team is dedicated to ensuring the environment is not harmed. Our approach combines on-site monitoring and management procedures for events such as spills and leaks and the re-homing of animals such as snakes.

**Q. Will you need to do any further clearing to build the casting yard?**

A. No. This area has already been cleared.

**Q. Will work in the casting yard impact traffic on Mandurah Road?**

A. There will be minimal traffic impacts, as the majority of works are being undertaken next to Mandurah Road, not on the existing road. If we need to complete work that may impact traffic, this work will be undertaken during off-peak traffic times.

**Q. How will trucks and vehicles access and egress from this site?**

A. The majority of trucks and vehicles will enter the casting yard from Mandurah Road through an access gate located in the westbound direction. Egress from site will be back onto Mandurah Road westbound wherever possible or via Waterlily Drive. Where possible, we will work to minimise truck movements onto Waterlily Drive.