

## **Culverts future proof access to one of Australia's most significant national parks**

Precast concrete culverts are playing an important role in providing permanent access to one of Australia's most stunning national parks.

Destroyed in the February 2017 floods, the Culham Inlet causeway enabled access to Western Australia's Fitzgerald River National Park. As well as being an essential piece of infrastructure for the local communities of Ravensthorpe and Hopetoun, access to the Park is vital to local tourism and for the control of Dieback infection of local species.

Located in south-western Western Australia, the largely untouched Fitzgerald River National Park is one of the most botanically significant national parks in Australia. As the only home for many of the state's flora species, the Park also boasts diversity, growing almost 20 per cent of the species that can be found in the state.

Precast manufacturer Humes Australia

Civil Contractor & Engineer
BCP Busselton

**Client**Shire of Ravensthorpe

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After the causeway was destroyed in early 2017, access was blocked for some six months until a temporary structure was constructed.

According to National Precast CEO Sarah Bachmann, the new causeway replaces the temporary structure and will be able to withstand future floods, thereby future proofing access to the Park. With a \$5.8 million cost funded by federal and state disaster relief funding, the project includes precast concrete culverts that will not only stand the test of time, but will also enable a speedy construction time of only 20 to 22 weeks.

108 large box culverts were designed and manufactured by National Precast member Humes. With a C1 Exposure classification, the culverts measured a huge 2400x1800x1200 and were manufactured in the precaster's Welshpool Factory.

The company's National Sales and Marketing Manager, Paul Adams, says the large box culverts form the foundations of the new causeway, which, once complete will provide safe and secure access to the stunning Fitzgerald River National Park.







Designed to handle greater water flows, Mr Adams says the causeway is similar in design to the original structure.

"The design of the new causeway incorporates two banks of culverts instead of the previous one, and there'll be a spillway in between," he comments.

"It has been designed to slow water flow and prevent further flood damage in the future."

Ravensthorpe Shire chief executive officer Ian Fitzgerald says community response to the project has been very positive.

"We all understand how important access into the Fitzgerald River National Park Biosphere is, so we need to make sure we have a good solid, permanent structure that will see us have that access for many years to come."

"People are obviously very keen to see the new causeway and to see a new permanent structure in place," he said.

## The role of infrastructure in protecting species

Dieback – otherwise known as Phytophthora Cinnamomi - is an introduced fungal disease prevalent in south-western Western Australia. Now a serious environmental issue, the disease causes root rot and in most cases leads to the death of the plant. Infrastructure networks into and within the state's vast, largely untouched natural areas, are critical in enabling management of the disease and protection of botanical species.



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