



Water management factsheet

Coffs Harbour bypass

February 2024



Transport for NSW acknowledges the Gumbaynggirr people as the Traditional Custodians of the lands on which we work and pays respect to Elders past and present.

The Australian and NSW Governments are funding the \$2.2 billion, 14-kilometre Coffs Harbour bypass project. The bypass will boost the regional economy and improve connectivity, road transport efficiency and safety for all local and interstate motorists.



Temporary drainage and sediment basin near Gatelys Road Tunnel

Managing water resources and protecting waterways and aquatic ecosystems are important priorities for the Coffs Harbour bypass. Since major construction started, preventing water pollution has been a key focus for the team because we know soil, chemicals and other forms of pollution can be harmful to surface waters, including the Solitary Islands Marine Park and neighbouring wildlife. Significant planning goes into collecting and re-using water for construction as well as building bridges and working near waterways.



Significant planning goes into collecting and re-using water for construction

How we manage water onsite

There will be temporary and permanent sediment basins along the alignment to manage water on the construction site and the road once it is open to traffic. For the bypass, there will be about 43 temporary basins built (final numbers depend on construction sequencing), including five of the first high-efficiency sediment basins licensed by the NSW Environmental Protection Authority (EPA). Additionally, there will be temporary water treatment plants set up to manage water from construction of the three tunnels.

For the operational phase, there will be more than 25 permanent basins connecting to the drainage system to collect run off from the new road.



How we use water during construction

During construction, we require water for a number of reasons, including cleaning equipment, material conditioning, suppressing dust, batch plant operations, landscaping and for our site offices.

To minimise our impact on the surrounding environment and community as much as possible, we use tank water, water from sediment basins, and water from our treatment plants, as well as groundwater, water from dams and the City of Coffs Harbour recycled water network. Water for drinking and handwashing comes from the City of Coffs Harbour supply network. We also use this water from time to time for construction activities if there is no alternative water source available.

How we manage water quality

Managing erosion and sediment during construction is key to minimising waterway pollution and maintaining natural flowpaths. For this reason, we consider erosion in all aspects of the construction and operation of the road and we aim to design drainage to follow existing natural patterns where possible. Some of the measures we have in place include:

- Installing temporary sediment basins to capture site water for re-use
- Avoiding any changes to natural water availability and flows, including creeks, waterways, and groundwater sources
- Realigning waterways to maintain existing water flow patterns and landscape conditions
- Planning embankments to allow water to flow evenly and avoid pooling, which helps to prevent water from collecting in large stagnant areas and reduces the risk of flooding during heavy rainfall
- Using treated water to reduce dust by spraying exposed ground near heavy machinery
- Progressive revegetation (seeding) on exposed areas
- Using geofabric covers, soil binding polymers, mulch bunds, sediment fencing and organic fibre mesh to manage dust and runoff
- Addressing existing or potential contamination through a system of control measures, further investigations, and remediation procedures
- Capturing groundwater from tunnelling and treating it in temporary water treatment plants for non-potable water use during construction.



Managing erosion and sediment during construction is key to minimising water pollution



Water cart in use for dust suppression

First high-efficiency sediment basins licensed by NSW's Environmental Protection Authority

- High-efficiency sediment (HES) basins work on a continuous flow basis rather than a traditional batch process.
- Treatment and discharge occur throughout a rainfall event rather than at the end of an event.
- Dosing is automated reducing operational costs.
- The continuous flow approach offers many advantages; the main one being that a much greater volume of runoff can be treated for a given basin size, compared to traditional batch basins.
- HES basins do not need to be emptied like traditional basins and remain full following a rainfall event with stored water used for construction purposes.



HES basin near Mackays Road



Our work near waterways

The project crosses six waterways, including Pine Brush Creek, Jordans Creek, Coffs Creek, and Boambee Creek. Construction within or adjacent to these waterways requires detailed planning and we work closely with the Department of Fisheries to ensure best practice. We have controls in place to separate the construction zone and treat runoff before it enters the natural environment. This might include placing sediment fencing or positioning a silt curtain around a bridge as some examples.

Creek realignments and/or adjustments are designed to match pre-existing conditions and respond to regulatory requirements for fish habitats. Revegetation and adequate scour protection are provided so there are no impacts on bed and bank stability, erosion, sedimentation or riparian vegetation.

Additionally, the project is working closely with Local Land Services to provide a significant number of rootballs and timber pins which will be used in waterways to stabilise beds and banks and provide extra habitat for aquatic species.

How we monitor water quality

We undertake regular monitoring to ensure the management controls listed above are working, and that we are complying with the project's Environment Protection License (EPL) and Minister's Conditions of Approval (MCoA).

The water quality monitoring program is in place during all stages of the project and will continue for three years after construction. Our

Construction Environmental Management Plan and sub plans require regular inspections and maintenance of all temporary and permanent soil, erosion, and water quality safeguards such as spill containment equipment throughout construction.

Approved construction hours

Water management activities will generally be carried out during approved construction hours. Our approved construction hours are:

- Monday to Friday between 7am and 6pm
- Saturday between 8am and 1pm.

For more information

For more information about our construction activities, visit pacifichighway.nsw.gov.au/coffsharbourbypass, and read our factsheets and newsletters. Available factsheets include:

- Temporary concrete batch plant
- Vegetation removal and landscape and habitat restoration
- Bulk earthwork
- Controlled blasting
- Bored piling for bridges
- Traffic safety
- Construction noise and vibration
- Construction dust and air quality
- Safety in construction
- Good neighbour
- Panama disease management
- New plant species
- Asbestos management.

For any enquiries or complaints, please contact the project team:



Project information and 24-hour enquiries and complaints response line
1800 550 621



community@CHBteam.com.au



pacifichighway.nsw.gov.au/coffsharbourbypass



PO Box 565, Toormina
NSW 2452



View our **community information van** timetable



For the latest traffic updates:

Call 132 701, visit live.traffic.com or download the app Live Traffic NSW



Interpreter service

For languages other than English call **131 450**

www.transport.nsw.gov.au/privacy-statement#Your_Privacy



To subscribe to the email distribution list, please contact community@CHBteam.com.au