

Kempsey Shire Council
22 Tozer Street
West Kempsey NSW 2440

Approval number: 14493

Notice of determination

Section 60 approval for construction of Willawarrin Water Treatment Plant and Associated infrastructure.

I am writing to inform you that on the 6th April 2023, the Director Water Utilities, as delegate of the Minister for Lands and Water, in accordance with section 60 of the Local Government Act, has granted approval for the construction of the Willawarrin Water Treatment Plant and associated infrastructure.

The approval is subject to the following conditions:

- Consistency with design - a local water utility can only construct drinking water treatment works that are consistent with those approved. Some degree of variation is acceptable to ensure that the practical realities associated with design and construction are accounted for.
- Consistency with standards - Local water utilities must always adhere to any relevant legal, regulatory, industry or technical standards in completing the works (including environmental planning requirements where relevant).
- A Trade Waste Application will need to be submitted for the sediment waste and wastewater streams proposed to be transported offsite for disposal.
- A risk assessment involving NSW Health to be completed post commissioning of the treatment system.

The approval operates from 6th April 2023.

Scope of approval

The approved treatment works include:

- Water treatment plant capacity of 0.27 ML/d capable of achieving to following water quality parameters:
 - Meets or exceeds health and aesthetic parameters described in "Table 5-3: Treated Water Quality Targets" of Technical Specification for New Willawarrin WTP
 - the Australian Drinking Water Guidelines
 - Continuously achieves a minimum pathogen log reduction of 5 log removal of protozoa, 6 log removal of bacteria, and 6 log removal of virus
- Ultrafiltration (UF) membrane filtration system, incorporating direct and indirect membrane integrity testing systems,
- UV disinfection system, validated to continuously achieve minimum 4 log removal of protozoa, 4 log removal of bacteria, and 1 log removal of virus

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- Clear water tank sized to achieve minimum 4.0-log removal of bacteria and 4.0-log removal of viruses, with minimum Ct of 15 mg.min/L and minimum 30 minutes contact time
 - The following flow paced chemical dosing systems that enable/achieve the following water quality outcomes (and do not adversely affect other treatment objectives):
 - pH adjustment for coagulation
 - Iron and manganese oxidation
 - Coagulation prior to membrane filtration
 - pH/alkalinity adjustment for treated water
 - Disinfection
 - Coagulation of wastewater for thickening
 - Ancillary WTP machinery and plant including pumps
 - Electrical, instrumentation and control systems allowing for fully automatic operation, SCADA based control system and telemetry connections.
 - Batch thickeners and sludge drying beds for residuals handling.
 - Plant buildings incorporating a control room, electrical switch room, laboratory, machinery room, chemical dosing rooms, amenities including showers and toilets, and lunchroom.
 - The following works are proposed to be carried out in conjunction with the WTP construction and included in the project.
 - Connection of WTP ablutions to the existing Showgrounds sewerage treatment facility.
 - New raw water main from the existing reservoir to the proposed new WTP.
 - New treated water main from the proposed WTP to the reservoir.
 - New distribution main from the 0.14 ML reservoir to the connection point adjacent to showground.
 - Refurbishment of existing 0.14 ML water reservoir including cleaning, coating, SCADA and WHS upgrades.

Reviews/ appeals

The department will monitor the conditions attached to your approval.

Your contact officer for this approval is Duncan Harrison who can be contacted via email at duncan.harrison@dpie.nsw.gov.au.

Sincerely,



Jane Shepherd

Director Local Water Utilities
Water Operations