Snowy Monaro Regional Council
81 Commissioner Street
Cooma NSW 2630

Approval number: 15259

Notice of determination

Section 60 approval for construction of the Bombala Water Treatment Plant.

I am writing to inform you that on the 12th of July 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 Bombala Water Treatment Plant, 138 Cathcart Road Bombala.

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).

The approval operates from 12th of July 2023.

Scope of approval

The approved treatment works include:

As detailed in Bombala Design Report Revision 3 (19/5/23) and in drawings:

- New water treatment plant and equipment site layout (Drawing No. 1115-006 Rev. i).
- DAFF plant plan view general arrangement (Drawing No. 1115-020 Rev. 5).
- Raw water P.S. and destratification P&ID diagram (Drawing No. 1115-P-001 Rev. G).
- Flocculation and DAF treatment trains 1&2 P&ID diagram (Drawing No. 1115-P-002 Rev. J).
- Membrane units P&ID diagram (Drawing No. 1115-003A Rev. J).
- GAC filter systems P&ID diagram (Drawing No. 1115-P-004 Rev. H).
- Existing CW and treated water storage P&ID diagram (Drawing No. 1115-P-005 Rev. K).
- Compressed air P&ID diagram (Drawing No. 1115-P-006 Rev H).
- Existing sludge lagoon P&ID diagram (Drawing No. 1115-P-007 Rev. G).
- Ammonia dosing P&ID diagram (Drawing No. 1115-P-008 Rev. C).
- Chlorine dosing P&ID diagram (Drawing No. 1115-P-009 Rev. E).
- Alum dosing P&ID diagram (Drawing No. 1115-P-010 Rev. G).
- Potassium permanganate dosing P&ID diagram (Drawing No. 1115-P-011 Rev. D).
- Caustic dosing P&ID diagram (Drawing No. 1115-P-012 Rev. H).
- Sodium fluoride saturator P&ID diagram (Drawing No. 1115-P-013 Rev. C).

The work shall comprise of a water treatment plant with a net production capacity of 1.5 ML/d to be produced over 22 hours with a max flow rate of 24L/s.

The scope of work shall comprise of the following components:

- A destratification system building to house the new dam aeration equipment and raw water pump switchboard.
- The Coolumbooka Dam destratification system includes an air compressor, air filters and receiver to be housed in a destratification system building. The air release pipe is to be located at the Dam deep zone.
- Raw water duty/standby pumps located at the existing dry well.
- Connection of existing raw water pipe to new mixed oxidation/raw water balancing tank.
- Mixed oxidation/raw water balance tank.
- Pre-oxidation including pH adjustment, dosing of potassium permanganate and pre-caustic.
- Coagulant dosing.
- Coagulation by mechanical mixing in rapid mix tank then slow mechanical mixing in flocculation tanks.
- Dissolved air floatation (DAF) including a floated sludge removal system.
- Ultrafiltration (UF/MF) balance tank, duty/standby MF/UF feed pumps and duty/standby self-cleaning strainers.
- Two (2) trains of UF/MF with air scour/water backwash and clean in place (CIP) systems. (Each filter train fitted with a dedicated on-line turbidity monitoring unit)
- Two (2) granular activated carbon (GAC) pressure filters with associated GAC air scour and unchlorinated water backwash systems.
- Ultraviolet (UV) light disinfection including duty plus standby UV reactors, UV intensity (UVI) and transmissivity (UVT) sensors. (UV unit to deliver a sufficient dose to provide 1 log reduction value for viruses)
- Primary Chlorination, dosed prior to existing clear water tank (CWT).
- Treated water stabilisation using caustic soda dosing.
- Use of existing clear water storage and treated water pump station.
- Chloramination including trim chlorine plus ammonia dosing to existing treated water pump discharge main.
- Connection of new treated water pipe to existing clear water storage (CWS).
- A new treatment plant building with office, amenities, laboratory, mechanical room, and chemical storages/dosing for ammonia, chlorine and fluoride.
- Separate chemical enclosure for storage and dosing of coagulant and caustic.
- Granular activated carbon (GAC) backwash supply tank and pump station.
- Connection of DAF sludge and GAC wash water to existing pipe for discharge into existing sludge lagoons.
- New chemical delivery bund, spill tank and low wall and valves/pipework to spill tank/stormwater.
- Connection to existing site stormwater system (cut off drain onsite).
- Upgrade of existing HV transformer and associated works.
- All sample systems, analysers, instruments, and flowmeters shown on Process Flow Diagram.
- Repair equipment for failed integrity membranes to be provided on the site

The Plant will meet the following log removal (LRV) performance targets:

Process	LRV (Protozoa)	LRV (Virus)	LRV (bacteria)
Coagulation/flocculation/DAF	0.5	1	1
microfiltration	4	0	4
Chlorine - Ct 15mg.min/L	0	4	4
UV – 58mj/cm2	4	1	4
TOTAL	8.5	6	13

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