

Wetlands in Nerang Cowal and Bogandillon Swamp

A series of questions and answers taken on notice following the stakeholder discussion on Nerang Cowal and Bogandillon Swamp.

Questions and answers

Are you able to provide how many times that northern area is full since 2016?

Surface Water Science assessed the inundation status of both Bogandillon Swamp and Nerang Cowal. For analytic purposes, they also separated Bogandillon Swamp into north and south as the southern area is wetter than the northern area. This information is from a visual assessment of monthly mosaics from Planet satellite images.

For Bogandillon Swamp (south), periods of inundation (standing water lying across the landscape) since 2016 occurred between:

- October 2016 and January 2018 (16 months)
- August 2021 and February 2024 (31 months).

For Bogandillon Swamp (north), periods of inundation since 2016 occurred between:

- October 2016 and December 2016 (3 months)
- January 2022 and January 2023 (13 months).

For Nerang Cowal, periods of inundation since 2016 occurred between:

- October 2016 and January 2018 (16 months)
- January 2022 and May 2024 (29 months).

For more information, please see Appendix A.

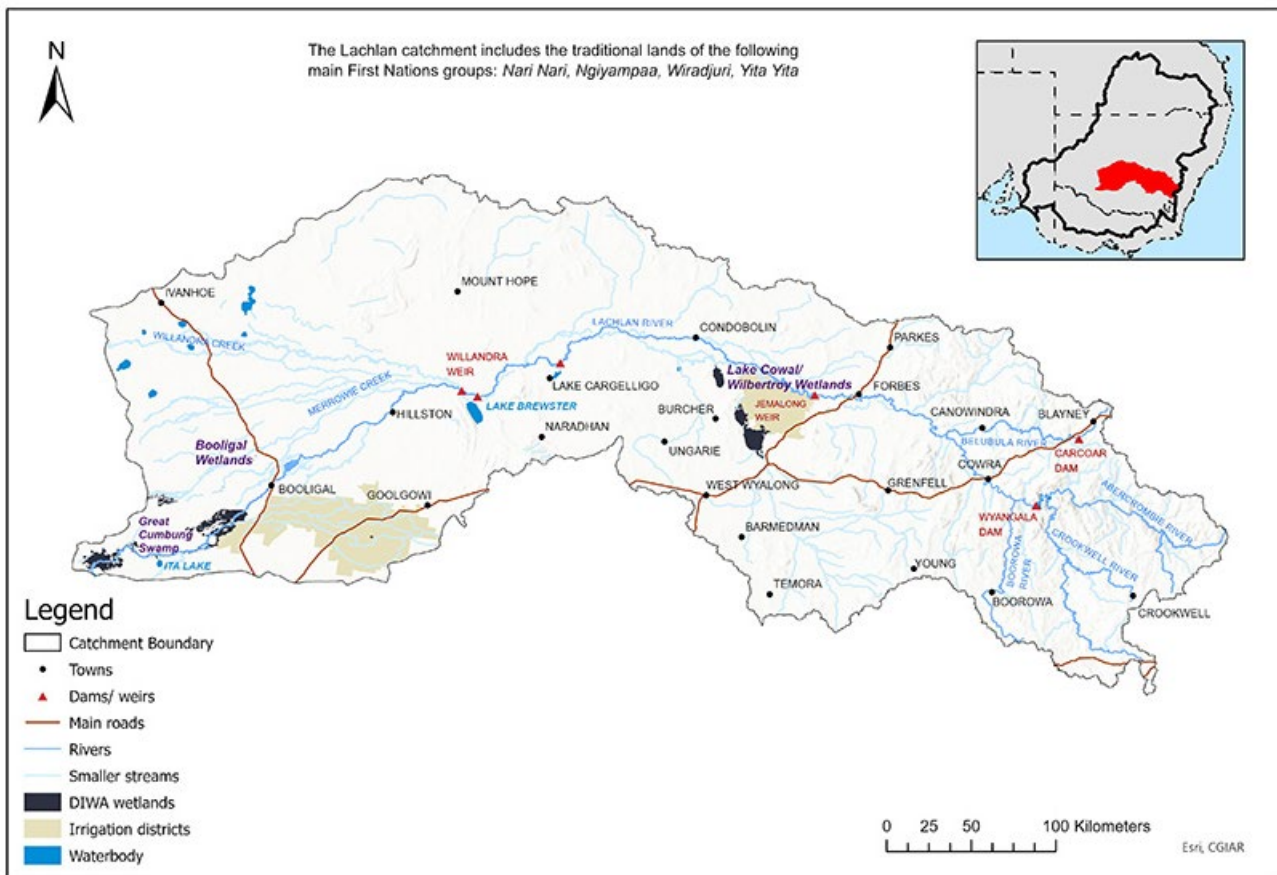
What criteria was used to nominate Lake Cowal as a wetland into the 2012 water sharing plan?

The Background Document for the *Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012* (the 2012 plan) area describes 9 nationally important wetlands from the Directory of Important Wetlands in Australia (DIWA), of which the Lake Cowal/Wilbertroy wetlands is one.

More information can be found within the Background Document at:

https://publications.water.nsw.gov.au/watergroupjspui/bitstream/100/1517/1/Background_Document_Lachlan_Unreg_And_Alluvial.pdf.

The background document references the Commonwealth Environmental Water Office's 'Lachlan catchment' information, which includes the below map of the Lachlan River showing the extent of the Lake Cowal/Wilbertray Wetlands DIWA listing.



Map of the Lachlan River

Why weren't Bogandillon Swamp and Nerang Cowal considered alongside Lake Cowal in the 2012 water sharing plan?

The Lachlan Background Document recognises the whole Lake Cowal/Wilbertray wetland system as an area of high environmental value.

Trade rules in the 2012 plan restricted new water supply works and trade into Lake Cowal as a specific waterbody, however, did not restrict trade into Bogandillon Swamp and Nerang Cowal. This may reflect the greater permanence of water in Lake Cowal and its cultural heritage values.

Why has the criteria to include these two areas changed for the 2025 water sharing plan?

The new prescribed wetlands and rules are part of the introduction of a new statewide approach to identify and protect specific wetlands. This approach responds to the Natural Resources Commission (NRC) recommendation to improve protection of significant wetlands when replacing the current inland unregulated water sharing plans.

That is, they are being included in the WSP now for a new purpose and criteria, not because of a change in criteria used in the 2012 plan. What is the criteria dataset used prior to 2016?

The Lachlan Background Document notes the 2012 plan area has significant aquatic ecological value, including 9 wetlands with particular values for water bird and migratory bird habitat, listed in the DIWA.

The DIWA wetlands are administered by the Commonwealth Department of Climate Change, Energy, the Environment & Water.

More information, including the criteria used to identify wetlands as a nationally important, can be found at: <https://www.dcceew.gov.au/water/wetlands/australian-wetlands-database/directory-important-wetlands>.

Can you provide the habitat surveys that you have completed on farms to validate these areas as important habitat?

During the meeting with stakeholders, Conservation Programs, Heritage & Regulations (CPHR) Group confirmed they supported the listing of Bogandillon Swamp and Nerang Cowal as WSP prescribed wetlands as they provide valuable wetland habitat through productive wetting and drying sequences.

Fauna that particularly benefit from these wetlands include, migratory waders and shorebirds, some of which are listed on international bird agreements. There is quite a large amount of shallow habitat and excellent mud flats lignum. Birds that utilise the wetlands are brolgas, whiskered terns and painted snipes.

More information can be found at:

- Department of Water Resources (1991) Draft Water Management Plan for the Wilbertroy/Cowal Wetlands, unpublished report for Department of Water Resources, NSW, Lachlan Region by P.J. Hatton, Regional Environmental Officer.

- Kingsford, R. T., J. L. Porter, K. J. Brandis, and S. Ryall. 2020. Aerial surveys of waterbirds in Australia. Scientific Reports 7. Australian Waterbird Surveys
- McGinness, H. M., Lloyd-Jones, L. R., Robinson, F., Langston, A., O'Neill, L., Rapley, S., Jackson, M. V., Hodgson, J., Piper, M., Davies, M., Martin, J., Kingsford, R., Brandis, K., Doerr, V., & Nally, R. M. (2024). Satellite telemetry reveals complex mixed movement strategies in ibis and spoonbills of Australia: implications for water and wetland management. Movement Ecology, 12. <https://doi.org/https://doi.org/10.1186/s40462-024-00515-4>
- https://www.movebank.org/cms/webapp?gwt_fragment=page=search_map.

When were Nerang Cowal and Bogandillon Swamp added to the Lake Cowal [DIWA] listing?

CPHR believe they were part of the listing in 2004, but certainly prior to any digital records that have been located to date.

What other areas that are not included would have been just as persistent going forward?

The current minister-approved criteria for WSP prescribed wetlands includes all DIWA wetlands that meet a persistence (not permanence) criteria.

The process to analyse water persistence for WSP prescribed wetlands can be found on page 7 of the [Identifying wetlands for inclusion in water sharing plans fact sheet](#).

We are planning an upgrade to our reticulated watering system. How will this bureaucracy affect our ability to upgrade and modernise?

The proposed water supply work rules for areas mapped as WSP prescribed wetlands do not apply to works that meet the definition of a replacement work. If your reticulation works have an existing approval and meet the below definition – or do not require an approval – then these new wetland rules will not affect them.

...replacement water supply work means a water supply work that –

- replaces an existing water supply work authorised by a water supply work approval (the replaced water supply work), and*
- is constructed and used to extract water from the same water source as the replaced water supply work, and*
- is, in the Minister's opinion, the same size or smaller than the replaced water supply work, and*
- is located within 20m of the replaced water supply work, or*

- e) *is not located within 20m of the replaced water supply work and, in the Minister's opinion, is not likely to —*
- i. *result in a greater adverse impact than the replaced water supply work on the water source or public health and safety, or*
 - ii. *adversely affect the ability of another person to take water using an existing water supply work.*

Water access for licensed use is subject to the access rules under the appropriate water sharing plan and the licence conditions. In the Lachlan catchment, water sourced from the unregulated system is currently subject to the access rules within the 2012 plan and will be subject to the rules in the finalised Water Sharing Plan for the Lachlan Unregulated River Water Sources 2025 when it comes into force. Similarly, water sourced from the regulated system is subject to the access rules within the *Water Sharing Plan for the Lachlan Regulated River Water Source 2016* (the Lachlan regulated plan).

However, water supply works, whether they are for supplying unregulated or regulated water, are subject to the water supply work rules in the relevant unregulated plan area. Water supply work rules are included in the unregulated plans because they cover the catchment area where the water supply works are located, while regulated plans do not specify rules for construction and use of water supply works. The new prescribed wetlands rules do not affect existing works, rather the intention is to limit works within WSP prescribed wetlands at its current level of development.

Please note that farm dams were excluded from the most recent layer of WSP prescribed wetlands mapping boundaries as the intent is not to prevent works on a farm dam that already exists.

What is a water supply work?

The WM Act Dictionary defines a water supply work as:

- (a) *without limiting paragraphs (b)–(g), a work (such as a water pump or water bore) for the purpose of taking water from a water source, or*
- (b) *a work (such as a tank or dam) for the purpose of capturing or storing water, or*
- (c) *a work (such as a water pipe or irrigation channel) for the purpose of conveying water to the point at which it is to be used, or*
- (d) *any work (such as a bank or levee) that has, or could have, the effect of diverting water flowing to or from a water source, or*
- (e) *any work (such as a weir) that has, or could have, the effect of impounding water in a water source,*

including a reticulated system of such works, and includes all associated pipes, sluices, valves, metering equipment and other equipment, but does not include —

(f) any work (other than a water supply work under the control or management of the Sydney Water Corporation, the Hunter Water Corporation or a local water utility) that receives water from a water supply work under the control or management of the Sydney Water Corporation, the Hunter Water Corporation or a local water utility, or

(g) any work declared by the regulations not to be a water supply work.

We used to have access to Jemalong water via a stock and domestic licence that has been let go. Do these rules mean I'll never have access to it again?

Water access licences issued for the take of regulated water (include regulated water delivered through Jemalong Irrigation District, are administered under the *Water Sharing Plan for the Lachlan Regulated River Water Source 2016*, the Water Management Act 2000 and its Regulations.

These wetlands rules relate to water supply works and trade (of unregulated water) and do not affect *licencing* matters under the regulated plan.

Why has there been a lack of response to my wetlands submission?

It is not standard practice to respond to submissions made during public exhibition. However, the department listened to feedback in submissions and issued revised maps in March 2025 for further public review. It has since announced we will individually contact people that have raised concerns about specific wetlands proposed as WSP prescribed wetlands Nov 2024 – March 2025 before 1 July 2025 to clarify how those wetlands are classified and the rules that are proposed in the draft plan that may apply.

Will someone from the department inspect my land personally, given that it is being proposed as a wetland area?

Unfortunately, the department does not have the resources to undertake comprehensive ground truthing of each proposed WSP prescribed wetland across the inland unregulated water sharing plans being replaced in 2025.

There is concern that the dataset used to define the boundaries of Nerang Cowal spans the 2016 and 2022 floods.

The department has used persistent DIWA wetlands as criteria for inclusion as WSP prescribed wetlands.

The areas of DIWA wetlands shown on draft WSP prescribed wetland maps were identified by analysing the broader DIWA wetland extent (footprint) to exclude floodplain woodland-type wetlands and to refine the boundary down to persistent areas of inundation.

The process to analyse water persistence for WSP prescribed wetlands can be found on page 7 of the [Identifying wetlands for inclusion in water sharing plans fact sheet](#).

The presentation shared at the Nerang Cowal and Bogandillon Swamp stakeholder meeting in April 2025 includes a monthly timeseries of imagery used to determine the areas of persistence for Nerang Cowal.

The reason for using water persistence as a consideration in the prescribed wetland criteria is that it supports ecological refuge and functions for a period – in this case, for 3 months or more.

Will the department consider future extensions of wetland boundaries in response to other works, such as the Lake Cowal gold mine bunding extension?

The department understands your concerns about potential impacts of a proposed bunding extension in Lake Cowal on the extent of flooding in Nerang Cowal. While the draft plan would allow for amendment of the WSP Prescribed Wetland Map, there are no current plans to amend the boundary of Nerang Cowal shown on the WSP prescribed wetlands map in response to changes in the gold mine infrastructure. Any future change to wetland boundaries would undergo a period of consultation.

Why was the Surface Water Science representative unaware of regulated waterworks present in the mapped area of wetlands?

The Surface Water Science representative present in the meeting underwent desktop assessment of ecological factors, rather than a review of Lachlan regulated plan features.

Can you guarantee that no other government departments will impose additional layers of restrictions in the future

Unfortunately, the department cannot give guarantees on any projects of other government departments. However, we understand this concern and are introducing measures to restrict the use of the WSP prescribed wetlands maps to water sharing plan purposes only. This includes making it clear in plans themselves and in the metadata of the datasets when made publicly available on the SEED portal that these WSP prescribed wetlands and maps are to be used for water sharing plan purposes only.

Am I allowed to bring regulated water into the wetlands area from another of my properties and transfer it out in the same way I currently do?

Yes. The intent and application of these rules is not to affect current operations, nor is it to manage use of regulated water.

With the assertion that persistence is a key criteria for defining a wetland, if that were the case, wouldn't Lake Cowal be more worthy of protection than Nerang Cowal? If that was the case, then why would the gold mine go ahead?

Lake Cowal, Nerang Cowal and Bogandillon Swamp have already been defined as wetlands. The WSP prescribed wetland rules and consideration of persistence do not define what is or isn't a wetland. At a state level, the NSW Wetland Policy defines what a wetland is – see <https://www.environment.nsw.gov.au/publications/nsw-wetlands-policy>.

Additionally, the *significance* of certain wetlands at a national level has previously been assessed by the Commonwealth Government through their Directory of Important Wetlands of Australia.

The department is considering persistence as a key criteria to determine *which* wetland areas to improve protection of by applying new water sharing plan rules to them.

Lake Cowal and Nerang Cowal are both part of the Lake Cowal/Wilbertroy wetland system, as is Bogandillon Swamp.

Lake Cowal already has rules under the 2012 plan that prohibit new works and trade into the lake. Nerang Cowal and Bogandillon Swamp are now being considered for similar rules being included as part of the new statewide approach to improving wetland protections, as they are part of the DIWA listing. The persistence of these 2 wetlands were shown during the presentation.

The gold mine project at Lake Cowal has progressed under NSW planning legislation (the *Environmental Planning and Assessment Act 1979* not the *Water Management Act 2000*) as a State Significant Development. The department's Water Group does not administer the planning legislation.

There is still considerable concern over the minimal harm test and what will be required by stakeholders when an application is made for replacement works.

The department understands concerns around what stakeholder obligations might be in the future.

The 'no more than minimal harm' test remains in development but is expected to be available by the end of Dec 2025. The test will likely involve an internal triage process of applications, similar to that

which occurs for groundwater work (bore) applications, however any need for additional information requirements from applicants is still to be determined.

Will the answers from the meeting be provided to all stakeholders, or only those who attended this meeting?

The department will make this Q&A available on the wetlands adjustment page of our website.

Appendix A: Inundation of Bogandillon Swamp and Nerang Cowal, Jan 2016 to Dec 2024

Inundation status

DRY - Dry, cropped, cropped and maybe watered

WET - Wet or moist but probably no standing water

INUNDATED - Standing water lying across the landscape

Year	Bogandillon Swamp South	Bogandillon Swamp North	Nerang Cowal
Jan-16	Dry	Dry	Dry
Feb-16	Dry	Dry	Dry
Mar-16	Dry	Dry	Dry
Apr-16	Dry	Dry	Dry
May-16	Dry	Dry	Dry
Jun-16	Dry	Dry	Dry
Jul-16	Dry	Dry	Dry
Aug-16	Dry	Dry	Dry
Sep-16	Dry	Dry	Dry
Oct-16	Inundated	Inundated	Inundated
Nov-16	Inundated	Inundated	Inundated
Dec-16	Inundated	Inundated	Inundated
Jan-17	Inundated	Wet	Inundated
Feb-17	Inundated	Dry	Inundated
Mar-17	Inundated	Dry	Inundated
Apr-17	Inundated	Dry	Inundated
May-17	Inundated	Dry	Inundated

Year	Bogandillion Swamp South	Bogandillion Swamp North	Nerang Cowal
Jun-17	Inundated	Dry	Inundated
Jul-17	Inundated	Dry	Inundated
Aug-17	Inundated	Dry	Inundated
Sep-17	Inundated	Dry	Inundated
Oct-17	Inundated	Dry	Inundated
Nov-17	Inundated	Dry	Inundated
Dec-17	Inundated	Dry	Inundated
Jan-18	Inundated	Dry	Inundated
Feb-18	Dry	Dry	Wet
Mar-18	Dry	Dry	Dry
Apr-18	Dry	Dry	Dry
May-18	Wet	Dry	Dry
Jun-18	Wet	Dry	Dry
Jul-18	Dry	Dry	Dry
Aug-18	Dry	Dry	Dry
Sep-18	Dry	Dry	Dry
Oct-18	Dry	Dry	Dry
Nov-18	Dry	Dry	Dry
Dec-18	Dry	Dry	Dry
Jan-19	Dry	Dry	Dry
Feb-19	Dry	Dry	Dry
Mar-19	Dry	Dry	Dry
Apr-19	Dry	Dry	Dry
May-19	Dry	Dry	Dry
Jun-19	Dry	Dry	Dry
Jul-19	Dry	Dry	Dry
Aug-19	Dry	Dry	Dry
Sep-19	Dry	Dry	Dry
Oct-19	Dry	Dry	Dry
Nov-19	Dry	Dry	Dry
Dec-19	Dry	Dry	Dry
Jan-20	Dry	Dry	Dry
Feb-20	Dry	Dry	Dry

Year	Bogandillion Swamp South	Bogandillion Swamp North	Nerang Cowal
Mar-20	Dry	Dry	Dry
Apr-20	Dry	Dry	Dry
May-20	Dry	Dry	Dry
Jun-20	Dry	Dry	Dry
Jul-20	Dry	Dry	Dry
Aug-20	Dry	Dry	Dry
Sep-20	Dry	Dry	Dry
Oct-20	Dry	Dry	Dry
Nov-20	Dry	Dry	Dry
Dec-20	Dry	Dry	Dry
Jan-21	Dry	Dry	Dry
Feb-21	Dry	Dry	Dry
Mar-21	Dry	Dry	Dry
Apr-21	Dry	Dry	Dry
May-21	Wet	Dry	Dry
Jun-21	Wet	Dry	Dry
Jul-21	Wet	Dry	Dry
Aug-21	Inundated	Dry	Dry
Sep-21	Inundated	Dry	Dry
Oct-21	Inundated	Dry	Dry
Nov-21	Inundated	Wet	Dry
Dec-21	Inundated	Wet	Wet
Jan-22	Inundated	Inundated	Inundated
Feb-22	Inundated	Inundated	Inundated
Mar-22	Inundated	Inundated	Inundated
Apr-22	Inundated	Inundated	Inundated
May-22	Inundated	Inundated	Inundated
Jun-22	Inundated	Inundated	Inundated
Jul-22	Inundated	Inundated	Inundated
Aug-22	Inundated	Inundated	Inundated
Sep-22	Inundated	Inundated	Inundated
Oct-22	Inundated	Inundated	Inundated
Nov-22	Inundated	Inundated	Inundated

Year	Bogandillion Swamp South	Bogandillion Swamp North	Nerang Cowal
Dec-22	Inundated	Inundated	Inundated
Jan-23	Inundated	Inundated	Inundated
Feb-23	Inundated	Wet	Inundated
Mar-23	Inundated	Wet	Inundated
Apr-23	Inundated	Wet	Inundated
May-23	Inundated	Wet	Inundated
Jun-23	Inundated	Wet	Inundated
Jul-23	Inundated	Wet	Inundated
Aug-23	Inundated	Wet	Inundated
Sep-23	Inundated	Wet	Inundated
Oct-23	Inundated	Dry	Inundated
Nov-23	Inundated	Dry	Inundated
Dec-23	Inundated	Dry	Inundated
Jan-24	Inundated	Dry	Inundated
Feb-24	Inundated	Dry	Inundated
Mar-24	Wet	Dry	Inundated
Apr-24	Wet	Dry	Inundated
May-24	Wet	Dry	Inundated
Jun-24	Wet	Dry	Wet
Jul-24	Wet	Dry	Wet
Aug-24	Wet	Dry	Wet
Sep-24	Dry	Dry	Wet
Oct-24	Dry	Dry	Dry
Nov-24	Dry	Dry	Dry
Dec-24	Dry	Dry	Dry