

Department of Planning and Environment

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# Gwydir Valley Floodplain Management Plan: proposed amendments

What we heard report

November 2022



# Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Gwydir Valley Floodplain Management Plan: proposed amendments

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## More information

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## Introduction

Under the *Water Management Act 2000* floodplain management plans are the primary legal framework for coordinating the development of flood works on a whole-of-valley basis. The plans are valid for 10 years from their commencement date. The NSW Government may amend floodplain management plans within that 10-year period under certain circumstances, including if the changes are in the public interest.

The NSW Department of Planning and Environment has drafted an amended *Floodplain Management Plan for the Gwydir Valley Floodplain 2016* (the Gwydir Valley Floodplain Management Plan) and has consulted with stakeholders on the proposed changes.

The proposed changes address some recommendations from recent reviews of the plan and its implementation and provide consistency with more recently developed floodplain management plans. They include changes to the Management Zone Map, additional rules and administrative changes.

Information about the proposed amendments can be found on the department's [website](#). This report summarises the key issues raised in submissions received during public exhibition of the proposed amendments.

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## Public consultation

Public consultation was undertaken in relation to proposed amendments to the Gwydir Valley Floodplain Management Plan from 26 September 2022 to 31 October 2022. Due to significant widespread flooding in the Gwydir valley, the consultation period was extended until 7 November 2022. The consultation included the provision of explanatory material, a public webinar, individual landholder appointments and a formal submission period.

The public consultation provided valuable feedback from stakeholders that have informed the proposed changes to the Gwydir Valley Floodplain Management Plan.

To ensure broad and equitable engagement we invited the following stakeholders to participate in the public consultation activities:

- individual landholders affected by the proposed changes to the Management Zones Map
- First Nations and Aboriginal people
- dryland farmers
- irrigators
- water user groups
- environmental groups
- special interest groups
- the general public.

We did this through targeted emails and letters, direct invitations through the department's contact database and website information.

A public webinar was held on 6 October 2022 and was attended by 37 people. Department of Planning and Environment staff presented information about the proposed amendments to the Gwydir Valley Floodplain Management Plan. Staff also explained how to make a submission and invited participants to book an individual appointment, if needed, to discuss the proposed changes in more detail.

Appointments with landholders affected by the proposed changes to the Management Zones Map and other stakeholders were held online and by phone throughout the public consultation period. A total of 16 appointments were held with 24 individuals.

Targeted consultation with First Nations and Aboriginal people was held earlier in the year and included an online workshop on 18 March 2022 and follow-up in person meetings in Collarenebri on 6 April, Mungindi on 7 April and Moree on 7 April 2022.

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## Outcomes of public consultation

A total of 23 submissions were received. Submissions will be published on the department's website in line with the [privacy policy](#).

This report highlights the key issues that were raised in submissions received during public consultation and department responses. The comments mainly relate to the Gwydir Valley Floodplain Management Plan or other programs currently underway including the [Gwydir Reconnecting River Country Program](#).

For the purpose of this report the issues raised in each submission were divided into two broad categories: comments on the proposed amendments and other comments. Comments on the proposed amendments will inform the final proposed amendments for the Gwydir Valley Floodplain Management Plan.

## Outcomes of targeted engagement with First Nations communities

The most evident theme arising from engagement with Gomeroi and Kamilaroi people earlier in 2022 was the need for greater understanding and integration of cultural perspectives in floodplain policy, planning and management. First Nations communities felt that current policy, planning and management, including floodplain management plans did not properly acknowledge cultural values, assets and uses. As a result, the objectives and outcomes of current policies and management do not appropriately account for the importance of cultural values, assets and uses to First Nations people and culture in fulfilling cultural obligations to Country as custodians of the land.

There were several recommendations regarding a better integration of cultural perspectives into future floodplain water management. One suggestion was the greater inclusion of cultural in policy development and setting cultural outcomes and objectives in collaboration with First Nations communities, separate from environmental outcomes, within planning and policy frameworks. Another recommendation was for a respect and integration of cultural science, such as holistic understanding of floodplain connections, through consultation with First Nations communities

during early planning and policy development stages. Participants in the Gwydir workshops outlined that government agencies and NBAN should continue to return for On Country engagement and take the burden of travel off First Nations communities.

Further information about engagement with First Nations communities on floodplain management and floodplain harvesting issues in the Gwydir and Border Rivers valleys is published on the department's [website](#)<sup>1</sup>

## Comments on the proposed amendments

### Requests to refine the proposed management zone changes

Table 1. Management zone refinements supported by an existing flood work approval

Feedback received	Response
<p>Submissions generally supported the refinements to Management Zone B and Management Zone C to reflect the alignment of works in a flood work approval (including converted 'Part 8' controlled work approvals). Six submissions requested additional refinements be made to the Management Zones Map to support an existing flood work approval.</p>	<p>The department will refine the Management Zones Map further to reflect the alignment of works in a relevant flood work approval. This process will ensure consistency with the method for the delineation of the Management Zones Map.</p> <p>The refinements will be reflected in the Management Zones Map.</p>
<p>One stakeholder did not support a proposed property-specific change from Management Zone C to Management Zone B to reflect the relevant flood work approval with height limitations applied to some works.</p>	<p>The department proposes to defer the proposed change and a more detailed review of the flood work approval will be undertaken.</p> <p>These refinements will be reflected in the Management Zones Map.</p>
<p>Clarification was requested on whether an existing approved supply channel was considered in the management zone designation.</p>	<p>Small-scale and linear features, such as supply channels or house pads have historically not been mapped due to the difficulty in identifying the features in the low-resolution maps which are generally used for valley-wide floodplain management plans. Supply channels, which are covered by an existing approval should not be disadvantaged by being included in Management Zones A or B.</p>

<sup>1</sup> Report: Cultural Considerations of Floodplain Harvesting for the Gwydir Valley and Border Rivers

Table 2. Ecological and/or hydraulic refinements to Management Zone A

Feedback received	Response
<p>Two submissions did not support the proposed ecological and/or hydraulic refinements to Management Zone A. They did not feel that there was enough justification for the proposed change and that there was not enough time to consider the changes given the stress of the current flooding event.</p>	<p>The department proposes to defer the proposed changes and a more detailed review and further consultation will be undertaken with the affected landholders.</p> <p>These refinements will be reflected in the Management Zones Map.</p> <p>Where the areas of proposed change are currently mapped to Management Zone B, the existing comprehensive assessment criteria will address any risks to the environment and other floodplain users through the application process.</p>

Table 3. Management zones in the Lower Gingham Watercourse area

Feedback received	Response
<p>Four submissions did not support the proposed change (or lack of) to the management zones in the Lower Gingham Watercourse area as they felt the land use has changed over the last 20 years and the management zones did not reflect this change. It was suggested that it may be logical to align the review of the management zones with the <a href="#">Gwydir Reconnecting Watercourse Country Program</a>.</p>	<p>A detailed review of the management zones in this area was originally planned to occur when the plan is remade in 2026-27.</p> <p>However, in response to the feedback received, the department’s Water and Environment and Heritage groups will work together over the next 2 years to review the management zones. As a result, an additional amendment to the Management Zones Map may be considered prior to remake in 2026-27.</p> <p>The impact of these changes will be limited to Management Zone D within the Lower Gingham Watercourse (shown in green on the current <a href="#">Management Zones Map</a>).</p>

Table 4. Inclusion of significant wetlands and lagoons to Management Zone D1

Feedback received	Response
<p>Six submissions did not support the proposed inclusion of several individual lagoons or wetlands that have been identified as being ecologically or culturally significant (or both). The lack of support was a result of a belief that the supporting evidence was not strong enough to justify the change and the associated rules for Management Zone D1 (special protection) too restrictive.</p> <p>Similarly, one submission noted that the extent of Management Zone D1 for Mallowa Creek covered cleared and cultivated land, which did not seem logical to include in Management Zone D1.</p> <p>Earlier targeted consultation with First Nations indicated general support for the inclusion of significant wetlands and lagoons to Management Zone D1. The whole landscape is important to First Nations communities and as such they request that the floodplain boundary is also reviewed to include other important areas that would benefit from protection.</p>	<p>The department will defer the proposed changes for 11 of the identified areas (individual lagoons or wetlands) of Management Zone D1 and a more detailed review and further consultation will be undertaken with the affected landholders and local Aboriginal community knowledge holders. In the meantime, these areas are largely within Management Zone A and will continue to be subject to the restrictions that apply to new or amended flood work applications in this zone.</p> <p>The department will advise WaterNSW of this issue to ensure that landholders are encouraged to undertake their due diligence responsibilities in accordance with the relevant biodiversity and cultural heritage legislation.</p> <p>The department will progress the proposed changes for 26 of the identified areas (individual lagoons or wetlands) of Management Zone D1.</p> <p>The department will refine the extent of Management Zone D1 in some areas of Mallowa Creek which are cropped/cleared. Some cleared areas have been included in Management Zone D1 as this land is critical to ensure that future natural flows and environmental water deliveries are protected to downstream wetlands and the Moomin Creek. These areas and the majority of the proposed Management Zone D1 extent are contained within the ecological flow corridor which is currently mapped to Management Zone A.</p> <p>These refinements will be reflected in the Management Zones Map.</p> <p>The requested review of the floodplain boundary has been noted in the department’s amendment register and will be considered as part of the remake process in 2026-27.</p> <p>Further information about engagement with First Nations communities on floodplain management and floodplain harvesting issues in the Gwydir and Border Rivers valleys is published on the department’s <a href="#">website</a>.</p>



Feedback received	Response
<p>Three submissions broadly supported the inclusion of the significant wetlands and lagoons to Management Zone D1 as they provide improved protections for important places of ecological or cultural significance (or both). However, they felt that the extent of Management Zone D1 should be expanded to include additional important flood-dependent assets in the upper and central Gingham Watercourse, the Lower Gwydir River and areas in or around the Big Leather Channel. They also felt that the mapped area of Management Zone D1 in Mallowa Creek should be expanded.</p>	<p>The department will consider these additional areas for inclusion in Management Zone D1 when the plan is remade in 2026-27. It is anticipated that new information collected as part of the <a href="#">Gwydir Reconnecting Watercourse Country Program</a> will guide any possible changes to the zones in this part of the floodplain.</p> <p>The requested change will be noted in the department's amendment register.</p>

## Feedback on the proposed changes to the rules and assessment criteria

Table 5. Rules and assessment criteria for flood work applications in Management Zone D1

Feedback received	Response
<p>Six submissions do not support the <b>rules for Management Zone D1</b> as they consider them to be too restrictive. This feedback is related to the identification and extent of Management Zone D1 as previously described.</p> <p>Three submissions supported the rules for Management Zone D1. However, it was requested that the implementation guidelines include rigorous assessment and genuine engagement with local First Nations communities.</p>	<p>The department will defer the proposed changes to the Management Zones Map for 11 of the identified areas of Management Zone D1 and a more detailed review and further consultation will be undertaken with the affected landholders and local Aboriginal community knowledge holders.</p> <p>The department will proceed with the inclusion of the rules for flood work applications in Management Zone D1 as they will apply to other identified places of ecological or Aboriginal cultural significance (or both).</p> <p>The department will work with WaterNSW to ensure that the rules for Management Zone D1 are implemented appropriately.</p>

Table 6. Rules for flood work applications in Management Zone A

Feedback received	Response
<p>Two submissions did not support the change to the rules for supply channels in Management Zone A. They felt that the rules will allow for the approval of above ground supply channels that are likely to impact on important flood flow paths in this zone.</p>	<p>The rules for supply channels in Management Zone A cover two scenarios:</p> <ul style="list-style-type: none"> <li>• Flood work applications for <u>new supply channels</u> – the change to the rule wording does not change the intent. New supply channels are still required to be below the natural surface level and where required, structures put in place to enable timely floodwater passage and/or drainage on the floodplain.</li> <li>• <u>Existing supply channels</u> that were constructed prior to the commencement of the plan in August 2016 – the change to the rule provides a pathway for the approval of existing flood works that did not necessarily require an approval under the previous provisions of the <i>Water Act 1912</i>. Together with the assessment criteria, the change will provide increased flexibility to landholders to bring unapproved works into compliance.</li> </ul>
<p>Two submissions did not support the addition of the 50 cm height threshold for primary access roads in Management Zone A. They felt that the change will impact on important flood flow paths and will need a full analysis of the ecological impact before the proposed change can be considered.</p>	<p>The current rules for access road in Management Zone A allow for floodplain access, assume there is a minimal impact on flood behaviour when the height of access roads is limited to 15 centimetres above the natural surface level and include specifications for causeways and borrow pits.</p> <p>The additional 50-centimetre threshold acknowledges that the demand for primary access roads during times of flood is of higher priority than the demand for general access roads. Fifty centimetres is an appropriate compromise between providing reliable access and providing for the adequate passage of floodwater and local drainage during small to medium floods.</p>

Table 7. Assessment criteria in Management Zones B and C

Feedback received	Response
<p>Two submissions did not support changes to the assessment criteria to allow for the management of localised increases in flood flow velocity in Management Zones B and C. They felt that the intent of the change is not clear and that the issue requires further investigation of potential impacts on the environment.</p>	<p>The suite of local hydraulic impacts assessment criteria was developed to ensure that flood work applications do not significantly change key hydraulic parameters in the local area and in some instances, on the landholding under application. To best assess impacts on local flood behaviour, each relevant flood work application must be assessed on a case-by-case basis.</p> <p>Feedback from landholders in the other northern Murray-Darling Basin floodplain valleys was that there should be more flexibility to allow them to manage increases in flow velocity at a property scale. This assessment criterion does not operate in isolation. Where applied with the other local hydraulic criteria, the whole assessment will reduce the likelihood that flood works will impact on flood behaviour.</p>
<p>Two submissions did not support the addition of the assessment criteria in Management Zones B and C in relation to impacts on high value infrastructure. They felt that it is not clear how the change will impact on flood flow paths.</p>	<p>The assessment criteria does not allow for more flexibility for applicants. Rather, it requires flood work applications to consider impacts on high value infrastructure where the plan does not currently require this. Consequently, the suite of assessment criteria may be considered more restrictive with the addition of this sub-clause. When applied together, this suite of comprehensive hydraulic assessment criteria will ensure that impacts on flood behaviour are considered.</p> <p>High value infrastructure is seen as important in terms of requiring a high level of protection. For clarity, the following definition will be provided in the dictionary:</p> <p><b>High value infrastructure</b> includes but is not limited to houses/dwellings, infrastructure protection works, town levees, stockyards, sheds and pump sites; it does not include farm levee banks, irrigation development and fences.</p>

## Feedback on other proposed changes

Table 8. Feedback on other proposed changes

Feedback received	Response
Two submissions generally supported the updated objectives, strategies and performance indicators.	Noted.
Two submissions generally supported the updated schedules but noted that the plan should provide for automatic update of the schedule should any new flood-dependent species be observed within the Gwydir Valley Floodplain or if their conservation status changes.	Noted. The requested change relating to automatic updates to the schedules will be noted in the department’s amendment register and considered as part of remake in 2026-27.

## Other comments

### General feedback related to the timing of consultation

Stakeholders were stressed or anxious about significant widespread flooding during the consultation period (September to November 2022). Many stakeholders felt that they would have benefited from further consultation and/or time to consider the proposed changes.

### Managing native vegetation growth in floodways

One submission raised a regulatory issue between the way native vegetation regrowth is managed and the interaction with the intent of the floodplain management plan to facilitate the orderly passage of floodwaters through the floodplain. They have observed that during a flood, the shrub layer captures grass and stubble debris which significantly reduces the capacity of a floodway. They have queried whether the review of the floodplain management plan can address this issue.

**Response:** This issue is outside the scope of the proposed amendments the Gwydir Valley Floodplain Management Plan. However, the department will note the issue in the amendment register for future investigation with the relevant agencies that are involved in the management of native vegetation.

### All unapproved works should be removed or modified prior to floodplain harvesting licences being issued

One submission requested that all unapproved works or ‘hotspots’ should be removed or modified prior to floodplain harvesting licenses being issued.

Earlier targeted engagement with First Nations and Aboriginal people also indicated that areas of cultural significance should be considered as part of the ‘hotspots’ program.

**Response:** This is outside the scope of the provisions in the Gwydir Valley Floodplain Management Plan. The Improving Floodplain Connections Program, currently being undertaken by the department, will accelerate the process of bringing unapproved or non-compliant flood works in more than 100 priority areas in the northern Murray–Darling Basin into compliance by mid-2024. Further information about this program is available on the department’s [website](#).

## Final amendments

We have prepared the final set of proposed amendments based on provisions already adopted in more recently developed floodplain management plans, the feedback from targeted consultation and submissions received.

Table 9 lists the final set of proposed amendments to the Gwydir Valley Floodplain Management Plan, along with their justification.

Table 9. Final proposed amendments to the Gwydir Valley Floodplain Management Plan

Clause	Plan as made August 2016	Proposed amendment 2022
5	Management Zone D (Special Protection) only includes Lower Gingham Watercourse area	Add new Management Zone D1 to include 26 new areas of ecological or Aboriginal cultural significance (or both). Add Schedule 2 to list the areas of ecological or Aboriginal cultural significance (or both)
5 (2)	Management Zones Map (FMP002_Version 1)	Changes to the Management Zones Map (replace with FMP002_Version 2): <ul style="list-style-type: none"> <li>Local hydraulic and ecological refinements to Management Zone A</li> <li>Refinements to Management Zone B and Management Zone C to reflect flood work approvals</li> <li>Designation of Management Zone D1 (other areas of ecological or cultural significance, or both)</li> <li>Delineation of additional areas of ecological or cultural significance, or both to Management Zone D1</li> </ul> See Figure 1 for final areas of change. Similarly, where there is a proposed hydraulic refinement to Management Zone A, the Floodway Network Map (FMP004_Version 1) will be updated and published as FMP004_Version 2.
10, 11 and 12	Objectives. Strategies and Performance Indicators as per the current Plan	Refine the Objectives, Strategies and Performance Indicators of the Plan to match those in the floodplain management plans for the Border Rivers, Lower Namoi and Macquarie valley floodplains.

Clause	Plan as made August 2016	Proposed amendment 2022
38	New clause	<p>Add ecological enhancement works, Aboriginal cultural value enhancement works and heritage site enhancement works to the list of permissible work types in <b>Management Zones A and D</b></p> <p>Add specific requirements for ecological enhancement works, Aboriginal cultural value enhancement works and heritage site enhancement works in <b>Management Zones A and D</b></p>
38	'Supply channels below the natural surface level' are a type of permissible flood work in Management Zone A	<p>Move 'below the natural surface level' in 38(1)(b) to the specific requirements for supply channels in <b>Management Zone A</b>.</p> <p>There is <u>no change</u> to the intent of the rule.</p>
38(2)	The maximum height for an access road in Management Zone A is 15 cm	Include an additional height threshold of maximum 50cm for a <u>primary access road</u> in <b>Management Zone A</b> , where primary access road is defined in the Dictionary. Other existing requirements for access roads in this clause will also apply.
38(3)(a)	Supply channels in Management Zone A must be constructed to adequately prevent the diversion of floodwater	<p>Add 'from natural flow paths' to the specifications for supply channels in <b>Management Zone A</b> as follows:</p> <p><i>...constructed to adequately prevent the diversion of floodwater from <u>natural flow paths</u>, and...</i></p>
39(1)(b)(ii)	'Supply channels below the natural surface level' are a type of <u>existing</u> flood work that is permissible in Management Zone A	Delete 'below the natural surface level' in the list of permissible existing flood works in <b>Management Zone A</b> . Both above and below-ground supply channels that were constructed prior to the commencement of the plan will be able to be considered for approval by application.

Clause	Plan as made August 2016	Proposed amendment 2022
46A, 46B, 46C	New subclauses	<p>Add rules and assessment criteria for flood works in <b>Management Zone D1</b>:</p> <ul style="list-style-type: none"> <li>• permissible types of new or amended works: ecological enhancement works, Aboriginal cultural value enhancement works, heritage site enhancement works only</li> <li>• permissible types of <u>existing</u> (minor) flood works – access roads, supply channels, infrastructure protection works and stock refuges</li> <li>• allow for the modification of existing approved flood works, provided that the modification will reduce the impact of the work on flow patterns</li> <li>• mandatory assessment criteria will apply, including flood connectivity, local drainage, ground disturbance and cumulative impact considerations</li> </ul>
Assessment criteria in all management zones	Maintain flood connectivity to ecological and/or cultural assets	<p>Separate the assessment criteria for ecological and Aboriginal cultural values in all management zones.</p> <p>There is <u>no change</u> to the intent of the assessment criteria.</p>
42(5) and 43(5)	New subclauses	<p>Additional hydraulic assessment criteria in <b>Management Zones B and C</b>:</p> <ul style="list-style-type: none"> <li>• increases greater than 50% are in isolated areas on the landholding and the landholder mitigates the impact of the flood wave so that the average impact across the landholding does not exceed 50%, and</li> <li>• increases in flow velocity do not exceed 50% at the boundary of the landholding.</li> </ul>
42(5)	New subclause	<p>Additional hydraulic assessment criteria in <b>Management Zones B</b>:</p> <p>The flood work must not (in the Minister’s opinion) increase flood levels resulting in impacts on high value infrastructure when compared to flood levels under pre-development conditions and existing development conditions for a range of flood scenarios, including at a minimum, a scenario for the <i>2012 design flood</i>.</p>

Clause	Plan as made August 2016	Proposed amendment 2022
43(5)	New subclause	<p>Additional hydraulic assessment criteria in <b>Management Zones C</b>:</p> <p>The flood work must not (in the Minister’s opinion) increase flood levels resulting in impacts on high value infrastructure when compared to flood levels under pre-development conditions and existing development conditions for a range of flood scenarios, including at a minimum, a scenario <i>for one or more flood scenarios</i>.</p>
Schedule 1	List of ecological assets and ecological values	Additional ecological values
Dictionary	New term	<b>primary access road</b> is a road providing access from a public road to a permanently occupied fixed dwelling via a direct route
Dictionary	New term	<b>flood wave</b> means a rise in flows associated with flooding, culminating in a peak and followed by a recession to lower flows.
Dictionary	New term	<b>high value infrastructure</b> includes but is not limited to houses/dwellings, infrastructure protection works, town levees, stockyards, sheds and pump sites; it does not include farm levee banks, irrigation development and fences.
Dictionary	New term	<p><b>wetland</b> refers to areas of land that are wet by surface water or groundwater, or both, for long enough periods that the plants and animals in them have adapted to, and depend on, moist conditions for at least part of their lifecycle; they include areas that are inundated cyclically, intermittently or permanently with fresh, brackish or saline water, which is generally still or slow moving except in distributary channels.</p> <p>Note. Examples of wetlands include lakes, lagoons, rivers, floodplains, swamps, billabongs and marshes.</p>

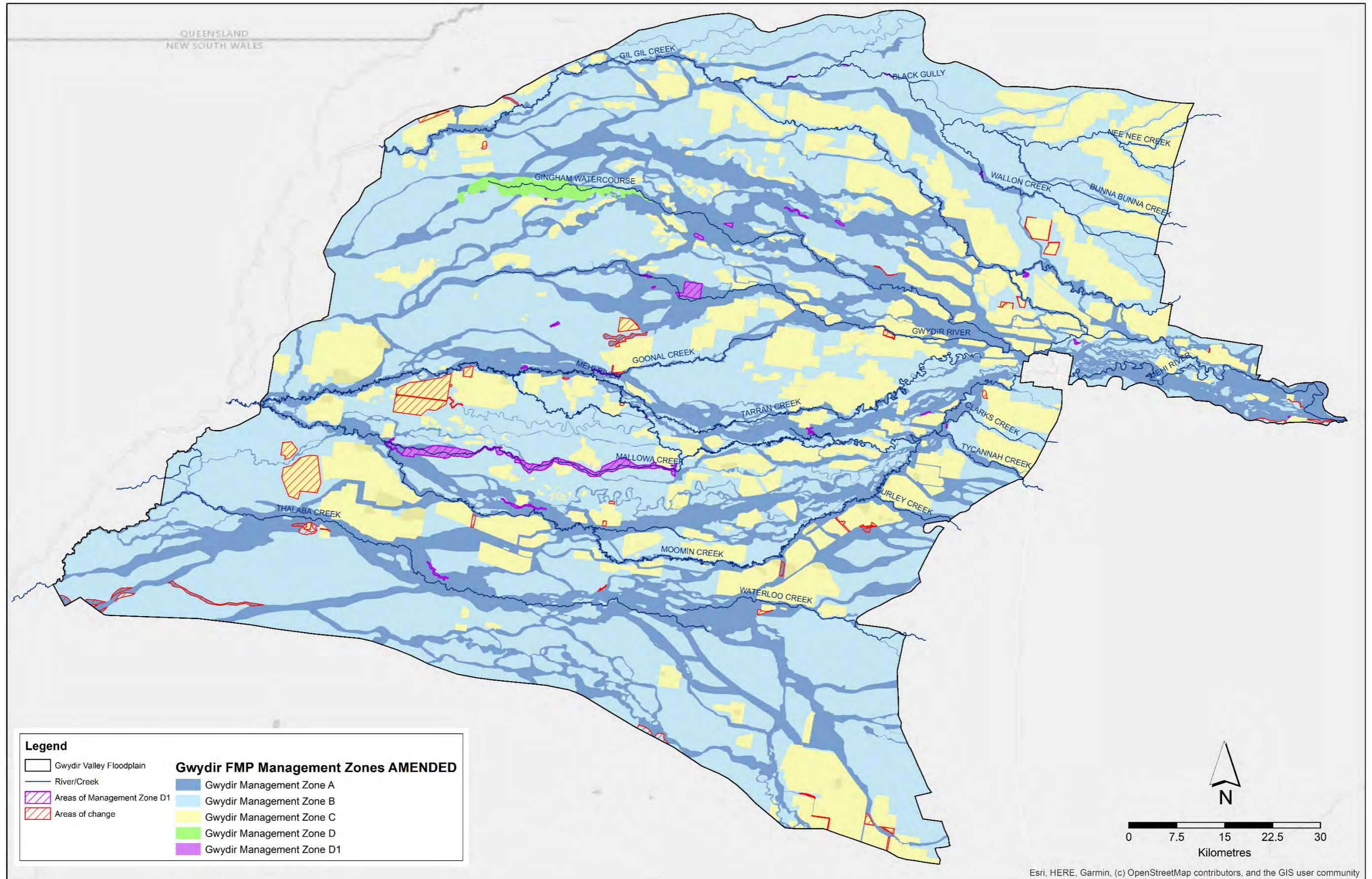


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## Next steps

The department will prepare amendments to the *Floodplain Management Plan for the Gwydir Valley Floodplain 2016* and associated maps to make the changes described in Table 9. An amendment order for the floodplain management plan will be made and submitted to the NSW Minister for Lands and Water. Amendments will require approval by the NSW Minister for Lands and Water and concurrence from the NSW Minister for the Environment.

Figure 1. Areas of change on the Management Zones Map



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community