



I N L A N D  
R I V E R S  
N E T W O R K

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PO Box 528, PYRMONT NSW 2009  
**ph** 0428 817 282  
**email** inlandriversnetwork@gmail.com  
**web** inlandriversnetwork.org  
**ABN** 34 373 750 383

Office of the Independent Planning Commission NSW  
Level 3, 201 Elizabeth Street  
SYDNEY NSW 2000

Attention: Mr Stephen O'Connor  
Chair of IPC Panel

**Submission to Public Hearing Narrabri Gas Project (SSD-6456)**

Dear Mr O'Connor,

The Inland Rivers Network ("IRN") is a coalition of environment groups and individuals who have been advocating for the conservation of rivers, wetlands and groundwater in inland NSW since 1991.

Member groups include the Australian Conservation Foundation; the Nature Conservation Council of NSW; the National Parks Association of NSW; Friends of the Earth; Central West Environment Council; Healthy Rivers Dubbo; the Coast and Wetlands Society and the Wilderness Society, Sydney.

IRN welcomes the opportunity to provide comment to the Narrabri Gas Project (NGP) IPC Public Hearing process.

Since its formation IRN has contributed to the many and varied documents associated with the use and management of inland waters. This has included those covering the Namoi catchment area.

The Department of Planning's Assessment Report recognises that potential impacts on water resources in the Namoi catchment is a key risk associated with the NGP. It further states that despite the substantial body of work undertaken both generally about coal seam gas extraction and specifically about the NGP there are "still some unknowns about the hydrogeology of the project area".

There is a presumption in the environmental planning and assessment process outlined in the Assessment Report that water sources impacted by the project have active groundwater management which is rigorous and adequate. IRN does not support this presumption.

In our many submissions to NSW WSP numerous flaws and inadequacies have been identified. In many cases these concerns have also been identified if the WSPs have undergone independent review as required under NSW water laws.

We do not consider the four WSPs from which SANTOS will access its required water licences fit for purpose in managing the real and potential risks associated with the NGP. We do not consider them consistent with the requirements of the NSW Water Act and its primary object to apply the principles of ecologically sustainable development.

Whilst the need for SANTOS to secure licences is stated in the Assessment Report, there is no critique of the status and adequacy of the four underlying WSP which facilitate these necessary licences.

Whilst the Assessment Report relies on models indicating predicted drawdown compliant with the Aquifer Interference Policy, and reference to the Sustainable Diversion Limits of the respective WSPs, there is no consideration as to whether in fact the SDL is set at a sustainable level and consistent with the objects of the Murray Darling Basin Plan.<sup>1</sup>

The Assessment Report has failed to take proper and adequate account of whether the linkages to plans and policies in the proposed consent conditions can effectively manage the real and potential risks to Namoi waters.

Reliance on uncritiqued and weak plans in the consent conditions will not meet the public interest in quick identification of emerging adverse impacts on water sources. For this reason and coupled with the recognised hydrogeological knowledge gaps IRN feels the precautionary principle should be applied and the project rejected.

IRN has identified a number of serious risks to all waters within the Namoi catchment in documents it has previously forwarded to government and/or other agencies. These are summarised in Appendix A.

Appendix B provides a brief summary of our understanding of the status of the four relevant WSPs to the NGP and the independent review process undertaken of these plans.

### **SPECIFIC ISSUE REGARDS LICENCES REQUIRED UNDER NSW WSP**

Whilst the Assessment Report lacks specific details, it seems the first and predicted largest water licence SANTOS will require is from the Gunnedah-Oxley water resource which is one of the four component water resource areas of the NSW Porous Rock WSP 2020. The Assessment Report is dismissive and cursory of the use of the saline water representing 1.8% of the SDL for this water source.

Other licences are not thought to be required for many years and represent less of the SDL for these water resource units.

The Assessment Report states that there is adequate depth in the market to accommodate the additional water take required by SANTOS from the GAB water resource. It seems a compromised arrangement is proposed so that SANTOS

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<sup>1</sup> A summary of these concerns was provided to the Interim Inspector General of Murray Darling Basin Water Resources in our letter dated 30 June 2020.

demonstrates it has licences in place for the maximum predicted water take prior to commencement of each of the four phases of the project rather than for the full project.

The Department's rationale being that a requirement to demonstrate security of supply arrangements for the full project be in place before water take occurs may act as a supply constraint in the water market.

It must be noted that IRN does not consider that the NSW Porous Rock WSP 2011 has been properly audited and reviewed under NSW water laws. This is required prior replacement of all WSP. The NSW Porous Rock WSP 2020 has been forwarded to the Murray Darling Basin Authority for accreditation.

It was not audited or reviewed by the NRC though it has undergone an audit by independent consultants engaged by the NSW Water Minister which identified a number of failures which will be discussed later.

In its review of the GAB WSP 2008 the NRC identified the market risk in the lack of transparency regards "sleeper licences" within the recharge groundwater sources. This creates a situation of "over-entitlement" and if a significant number of licences were to be taken up there would be a reduction in allocation against all users' entitlements. The NRC considered there were better ways to manage this "over-entitlement" risk than through allocations.

It recommended improved transparency in the WSP so that current water users better understood the market risks from activation of the "sleeper licences". Further, it did not consider the current five year average extraction rate adequate to mitigate risks to the sustainability of recharge groundwater sources if a quick take up of "sleeper licences" occurred.

The GAB WSP 2020 has continued use of the five year trigger. Government has argued its preference for a state wide LTAAEL compliance trigger of five years as sufficient to allow for seasonal fluctuations but short enough to manage any growth in use.

Though unrelated to the NGP, it is also arguable whether the increased extraction permitted in recharge water sources government introduced into the GAB WSP 2020, is a perverse approach to risk management of supply constraints in the water market.

As stated above the NSW Porous Rock WSP 2011 has not had independent review by the NRC. The 2020 plan includes the five year SDL compliance trigger though the SDL has been reduced for the Gunnedah-Oxley water resource in the replaced plan in line with MDBP requirements.

The information in the Assessment Report is based on the SDL for the WSP 2011. If the predicted requirements for the SANTOS licence are assessed based on the new plan it represents almost 3% of the new SDL. The Department needs to consider this increased proportion in any market assessment especially since the GAB extends into Queensland and may involve inter state water trades for SANTOS to secure its licence.

IRN, in its submission to the NSW Porous Rock WRP considered that the LTAAEL/SDL was too high even though a significant volume of water was considered "unassigned water" available for periodic controlled allocation. It could be

assumed the main purpose of such release is for the purpose of enabling increased interception by mining and coal-seam gas development. It is unclear how the reduced SDL takes account of unassigned water volume.

As mentioned above the NSW Porous Rock WSP was independently audited by independent consultants, Alluvium. A number of failings were identified in the audit report including lack of documentation regards monitoring of performance indicators with limited evidence of targeted monitoring and no evidence reporting of performance indicators. The likelihood of the WSP not meeting its intended objectives was considered high especially as there was a lack of information about rates of noncompliance.

#### CONCLUSION:

Whilst there is a wide range of community concerns regards the NGP, our submission has focussed solely on the inadequacy and weakness with the WSP which the consent conditions would rely on if the NGP is approved.

The Assessment Report has not identified these weaknesses as potential risk to water sources affected by the proposal. We feel this represents a serious flaw in the environmental planning and assessment process undertaken by the Department to consider this project which has quite rightly attracted a large amount of public interest and concern.

We urge that the IPC takes account of the flawed linkages between planning and water laws in NSW both of which are required to take account of the principles of ESD. The NGP will slip through the "middle" of any controls and plans provided by the two pieces of legislation. This will be to the serious detriment of other Pilliga water users and the ground water dependent ecosystems dependent on these waters throughout the Namoi catchment.

We urge the Narrabri Gas Project be rejected outright.

Yours sincerely



Anne Reeves  
Hon Secretary

## **APPENDIX A:** Current risks within the Namoi catchment identified by IRN

Overall, IRN considers there are significant risks to key environmental assets and ecological function across all zones (Surface, Alluvium, GAB and Porous Rock) of the Namoi catchment area. There is a well demonstrated connectivity of all water sources within the GAB which poses additional risks to some water resources. It is highly likely the NGP will exacerbate these risks in the short and long term.

Key aquatic ecological assets in the Namoi Surface waters include high fish diversity and river reaches that provide vital habitat for native water-dependent species by supporting their dispersal, migration and movement; lower Namoi anabranch and floodplain billabong wetlands downstream of Narrabri; in-stream pools and low flow channel refuges that support local and migratory species and riparian and in-channel vegetation.

Risks to ecological values on the regulated river system arose from the level take of water, including of underestimated floodplain waters, and regulation of flows. In some locations turbidity, nutrients, pH and dissolved oxygen results are outside of target ranges. Thermal pollution and blue-green algae blooms poses risks to water quality.

Under median and dry climate change scenarios there is identified risk to these key ecological assets.

The Namoi Alluvium supports high and very high value Ground Water Dependent Ecosystems including a high number of threatened flora and fauna species and high habitat diversity for a range of species, especially of birds and mammals.

There is a recognised high risk to structural integrity, groundwater extraction inducing connection with poor quality aquifers causing local drawdown impacting GDEs and instream ecological values, local drawdown reducing access by consumptive users.

The proposed changes to the WSP permit greater extraction during dry years, favouring irrigators and likely to further exacerbate these risks. The well recognised permanent drawdown of alluvium waters caused by past over-extraction likely to further decline given the very weak rules introduced into the replaced WSP.

Over 1,000 artesian springs supported for thousands of years by the Great Artesian Basin have dried up due to over development with European occupation and changed landuse patterns.

IRN raised a number of concerns in its submission to the GAB WSP 2020 including the proposed increases in long term average annual extraction limits on the Southern and Eastern recharge areas, the latter where there had been extraction levels that had exceeded the LTAAEL for three of the previous five years.

The connectivity of surface and groundwater is an important aspect of the parts of NSW Murray-Darling Basin Porous Rock Water Resources within the Namoi catchment. The Gunnedah-Oxley Basin is buried beneath other SDL resource units consisting of alluvial sediments, basalt, and the Great Artesian Basin sediments and extends north cross border.

The Porous Rock water resources support a significant number of high and very high value GDEs including wetlands listed under Ramsar and the Directory of Important

Wetlands in Australia, karst, springs, endangered ecological communities, threatened species, Basin target vegetation, extensive riparian vegetation corridors and in some areas, base flows.

Ecological values include groundwater dependent woodland forests and wetlands including black box, lignum, river red gum, yellow box and coolibah and non woody wetlands.

The Pilliga Sandstone Aquifer has also been found recently to contain rare species of Stygofauna. The presence of stygofauna and other GDE's within the Pilliga should be nominated as High Conservation Value GDE's and High Priority GDE's under NSW Office of Water GDE valuation process and given the appropriate protections and management regimes of this grading. The sites that registered stygofauna were assessed as having high ecological value due to importance of the fauna and the high water quality and consistent water levels within the aquifer.

They are also classified as of High Ecological Value (HEV) as the area is covered by the Lowland Darling Aquatic Endangered Ecological Community (EEC) listed under the Fisheries Management Act 1994.

IRN has stated concerns with the high risk of groundwater use causing local drawdown to GDEs and instream ecological values and the risk of increased poor water quality from continuation of the existing over extraction occurring. IRN rejected statements of low risk from climate change impacts and mining interception on ecological values.

It was considered that the LTAAEL was too high even though a significant volume of water was considered "unassigned water" available for periodic controlled allocation. Presumably, the main purpose of such release is for the purpose of enabling increased interception by mining and coal-seam gas development.

Release of more water access will not address the recognised risks already evident with current levels of extraction in the Gunnedah-Oxley water resource unit. It will result in a net reduction in the protection of planned environmental water. Weaker rules were felt to increase drawdown and reduce protection for high priority GDEs.

**APPENDIX B:** Status of WSP and history of the review/audit process as required under the NSW Water Act 2000.

The Assessment Report for the Namoi Gas Project states that water used by the project will be managed by four WSP at times and various phases of the NGP:

- Upper and Lower Namoi Regulated River Water Sources;
- Upper and Lower Namoi groundwater Sources;
- NSW Great Artesian Basin Groundwater Sources and
- Murray Darling Basin Porous Rock Groundwater Sources.

It is noted that none of the four WSP are dated in the Assessment Report.

This is actually a serious oversight by the Assessment Report. The four WSP in force currently in NSW are:

- Upper and Lower Namoi Regulated River Water Sources 2016;
- Upper and Lower Namoi groundwater Sources 2019;
- NSW Great Artesian Basin Groundwater Sources 2008 and
- Murray Darling Basin Porous Rock Groundwater Sources 2011.

However, the proposed replaced/amended draft WSPs have not had final sign off as part of the accreditation process of the MDBP. These are:

- Upper and Lower Namoi Regulated River Water Sources 2020
- NSW Namoi Alluvial Groundwater Sources 2019;
- NSW Murray Darling Basin Porous Rock Groundwater Sources 2020.

The NSW Great Artesian Basin Groundwater Sources 2008 is showing as in force on the legislation website even though the Department of Primary Industries website states that the NSW Great Artesian Basin Groundwater Sources 2020 is in force.

The process of replacing NSW WSP requires a 43A statutory review by the Natural Resources Commission. The GAB WSP underwent its required review but review of the other three has been haphazard in the opinion of IRN. It is unclear whether any of the NRC review recommendations for the Upper and Lower Namoi Regulated and Groundwater WSPs have been adopted by government.

The Porous Rock Groundwater WSP 2011 has not yet had an NRC review even though it is proposed for replacement in the draft NSW Porous groundwater WRP. The Peel Valley Regulated, Unregulated, Alluvial and Fractured Rock WSP, which has rules which affect downstream water sources has had an NRC Review but this is not yet publicly available as the Minister has not released it.

Audits under S44 of the NSW Water Act were undertaken by an independent consultancy of some of the four relevant WSP. Failings were identified but it is unclear whether government has made improvements in the replaced WSPs.