NSW Groundwater Strategy - Stakeholder survey

Thank you for taking the time to provide your feedback on the draft NSW Groundwater Strategy.

Groundwater is water found underground in rock formations called aquifers and is an important resource for NSW. For more information about groundwater, visit the department's website.

The draft strategy sets a long-term vision and direction for groundwater management in NSW.

This survey aims to gather your opinion about the draft strategy. Your comments will help us identify community views and key areas of interest and help us to develop the final strategy.

This survey will close on **Sunday 14 August 2022 at 11.59pm (AEST)**.

The survey is structured according to the draft strategy's main chapters:

- Introduction and general overview of groundwater resources and management in NSW.
- Strategic Priority 1 – Protect groundwater resources and the ecosystems that depend on them in the strategy.
- Strategic Priority 2 – Build community and industry resilience through sustainable groundwater use (this part of the survey also includes an opportunity for Aboriginal people to provide cultural-specific feedback).
- Strategic Priority 3 – Improve groundwater management decisions with better information.

Confidentiality preferences - Publishing your submission

Please indicate if you give permission for your submission to be published on the department's website, and whether you give permission to be identified as the author of the submission or wish to remain anonymous.

☐ I give permission for the department to publish my name with my submission on the department's website.

☐ I do not give permission for the department to publish my name with my submission on the department's website. In selecting this option, I understand that my submission will be published anonymously.

☐ I do not give permission to publish my submission at all.

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Sharing your submission within the department

Please indicate if you give permission for your name and email to be included when sharing survey response data internally within the department.

- ☐ I give permission for my name and email to be shared within the department.
- ☐ I do not give permission for my name and email to be shared within the department. In selecting this option, I understand that my submission will be shared anonymously.

Your submission

If you would like to provide additional feedback in an attached document, please add it to this submission when you return the survey.

Please note, if you wish to remain anonymous, please do not include personal information in your attachment.

If you would prefer to email your feedback or if you have any enquiries, please email the department at nsw.groundwaterstrategy@dpie.nsw.gov.au.

Data privacy

The Department of Planning and Environment is subject to the *Privacy and Personal Information Protection Act 1998* in managing your personal information. In the interests of transparency, the department's website intends to publish all feedback received on its website. You can choose to have your feedback published anonymously or not published at all. Please review our privacy statement for further information.

Introduction and overview of groundwater resources and management in NSW

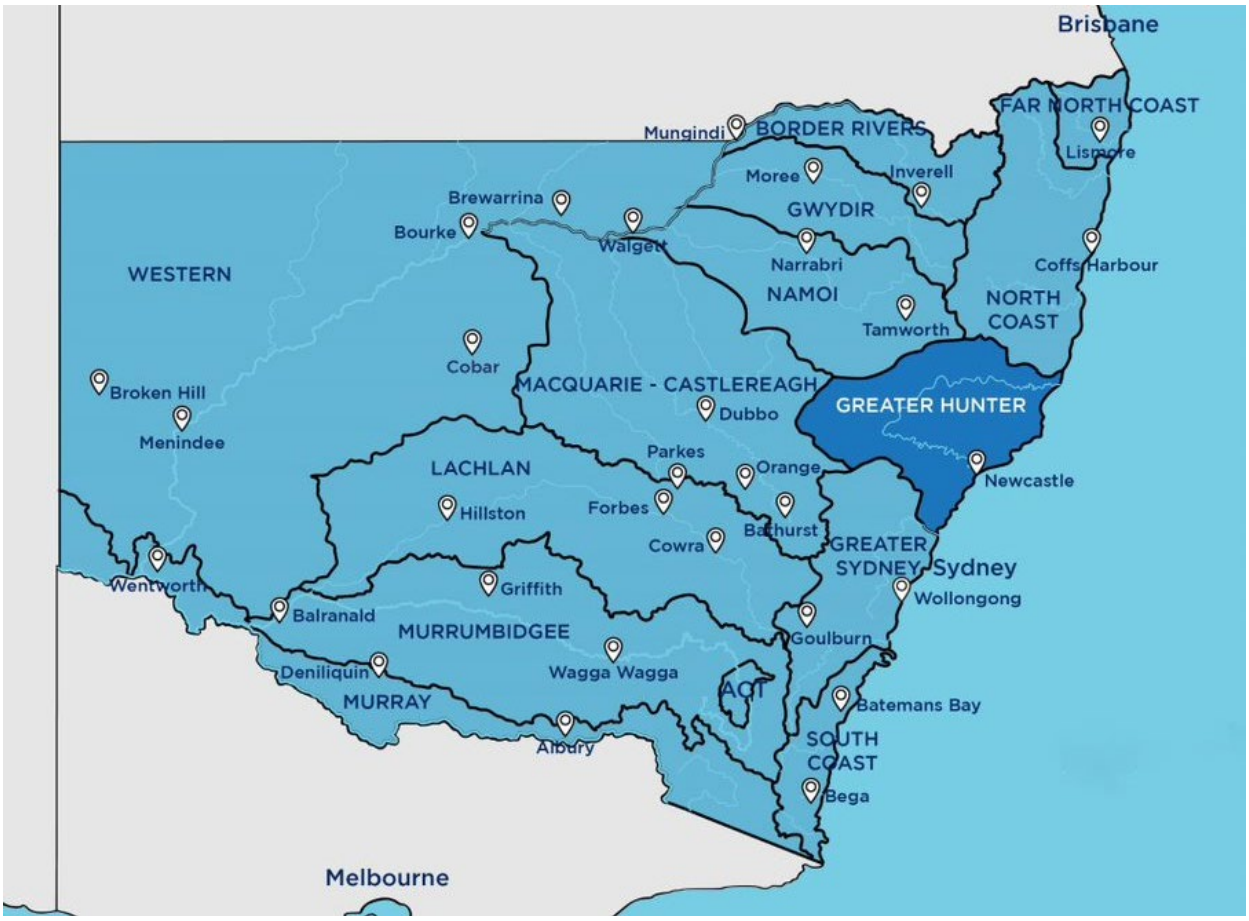
Groundwater is water found below the ground in rock formations called aquifers. Groundwater is also used for a multitude of purposes in NSW such as agriculture, town water supply, and also to sustain important ecosystems.

Thinking about your relationship to groundwater, which of the following user groups or parts of the community best describes you? (please select only one)

- General public
- Local Council / Local water utility
- NSW Government department
- Australian Government department
- Domestic and stock
- Agriculture
- Industry
- Manufacturing
- Research / academia
- Environmental group
- Other (please specify) [redacted]

In NSW, there are almost 80 groundwater sources west of the Great Dividing Range and over 450 sources on the coast.

Based on the 13 NSW regions outlined in the map below, in which region are you located?



Choose your region

- ☐ Border Rivers
- ☐ Far North Coast
- ☐ Greater Hunter
- ☐ Greater Sydney
- ☐ Gwydir
- ☐ Lachlan
- ■ Macquarie-Castlereagh
- ☐ Murray
- ☐ Murrumbidgee
- ☐ Namoi
- ☐ North Coast
- ☐ South Coast
- ☐ Western

Groundwater is an important resource for NSW. It is used for town water supply, agriculture in the Namoi for example, or industry in the Hunter Valley.

How important is it for you to access groundwater as a resource?

- ☐ Not at all important
- ☐ Of minor importance
- ☐ Neutral
- ☐ Important
- ■ Very important

To what extent do you agree with the following statements? (please select one response per row)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Groundwater is important for basic human needs (drinking, cooking)	☐	☐	☐	☐	☑
Groundwater is important for stock watering	☐	☐	☐	☐	☑
Groundwater is important for Aboriginal communities and Country	☐	☐	☑	☐	☐
Groundwater is important for agriculture	☐	☐	☐	☐	☑
Groundwater is important for the environment	☐	☐	☐	☑	☐
Groundwater is important for industrial businesses (including mining)	☐	☐	☐	☐	☑
Groundwater is important for manufacturing (water bottling, food processing and others)	☐	☐	☐	☐	☑

Groundwater in NSW currently provides close to 10% of water used for town supply, and over 70% for agriculture, as well as supporting a range of ecosystems. In the context of a growing population and climate change, please answer the following questions.

Please indicate what you think NSW's groundwater needs will look like over the next 20-40 years.

- ☐ The same
- ☐ Less than current needs
- ■ More than current needs
- ☐ Not sure

Which part/s of the community do you think will have the greatest change in their groundwater needs in the future?
Select all that apply.

- ■ Households
- ■ Agriculture
- ■ Industry
- ■ Manufacturing
- ■ Towns and cities
- ☐ Aboriginal communities and Country
- ☐ Ecosystems dependent on groundwater
- ☐ Not sure
- ☐ I don't believe there will be any change

Do you think you should change the way you will use groundwater in the future?

- ☐ Yes, I've already begun to change my groundwater usage habits
- ☐ Yes, I've started doing research and am in the process of making changes
- ☐ I've thought about it, but have done nothing more
- ■ No, it hasn't even crossed my mind
- ☐ I don't use groundwater

How well do you know the NSW groundwater management framework, rules and legislation?

- ☐ Not at all
- ☐ Not well at all
- ☐ Unsure
- ☐ Well
- ■ Very well

The Draft NSW Groundwater Strategy identifies 4 key issues affecting change in groundwater management in NSW.

Please rank these issues from most important to least important, where 1 = Most important and 4 = Least important.

4_____ Our climate is changing, and groundwater recharge and demands will be affected by this

1_____ The risks to groundwater from development and land use change are increasing

3_____ Community notions of sustainability and fair access to groundwater have evolved over time

2_____ Our understanding of groundwater, its behaviour and use is improving

DPIE Water are now very cautious in regulating groundwater to the stage now I believe they are impeding access to Groundwater by being over cautious including in some cases Irrigation access is being treated higher then Town Water Access by treating them equal access to groundwater through the groundwater trading mechanism and the price of water to purchase the same for towns as for Irrigators and alike.

Please tell us of any other challenges that are affecting groundwater management in NSW.

In the following sections of this survey, you will be asked questions based on each of the draft NSW Groundwater Strategy priorities. You can read the draft strategy on our website.

Strategic Priority 1 – Protect groundwater resources and the ecosystems that depend on them

Strategic Priority 1 aims to sustain our groundwater resources for current and future uses and protect our important ecosystems that depend on groundwater.

In priority 1 of the draft strategy, 4 key challenges affecting groundwater resources and the ecosystems that depend on them are identified.

Please rank these challenges in order of importance, where 1 = Most important and 4 = Least important.

1_____ Our policy framework for sustainable groundwater management needs to be updated to be more responsive to emerging challenges such as climate change

4_____ Ecosystems that depend on groundwater face increased threats such as intensive groundwater extraction and pollution

3_____ There is a lack of integration between groundwater, surface water and land management

2_____ Threats to groundwater quality are growing and need to be addressed

Please tell us any other challenges you think will affect the protection of groundwater resources and the ecosystems that depend on them.

How important for you is the protection of groundwater resources and the ecosystems that depend on them?

- ☐ Not at all important
- ☐ Of minor importance
- ■ Neutral
- ☐ Important
- ☐ Very important

The department has put forward a range of draft actions to increase the protection of groundwater resources and the ecosystems that depend on them. The following questions will review each of the draft actions and their sub-actions.

Action 1.1 - Refresh and expand our approach to sustainable groundwater management by reviewing and updating our groundwater policy and planning framework.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ■ Agree
- ☐ Strongly agree

Action 1.2 - Better integrate groundwater management with other land and water management processes.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ■ Neutral
- ☐ Agree
- ☐ Strongly agree

How important to you are each of the following sub-actions required under Action 1.2?

	Not at all important	Of minor importance	Neutral	Important	Very important
Refresh and expand our approach to sustainable groundwater management	☐	☐	☐	☐	☑
Manage groundwater and surface water together	☐	☑	☐	☐	☐
Integrate groundwater considerations into land use planning decisions	☐	☑	☐	☐	☐
Improve management of large developments impacting groundwater	☐	☐	☐	☑	☐
Strengthen cross-border groundwater management	☐	☐	☐	☐	☐

Action 1.3 - Improve management and protection of groundwater dependent ecosystems and baseflows to streams.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ■ Neutral
- ☐ Agree
- ☐ Strongly agree

How important to you are each of the following sub-actions required under Action 1.3?

	Not at all important	Of minor importance	Neutral	Important	Very important
Review and update our approach to protecting groundwater dependent ecosystems	☐	☐	☑	☐	☐
Deliver a program to improve our understanding of groundwater dependent ecosystems	☐	☐	☑	☐	☐

Action 1.4 - Review and update approaches to sustainable groundwater extraction.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☒ Strongly agree

How important to you are each of the following sub-actions required under Action 1.4?

	Not at all important	Of minor importance	Neutral	Important	Very important
Review groundwater source extraction limits using new knowledge	☐	☐	☐	☐	☑
Better manage impacts of extraction at a local level	☐	☐	☐	☐	☑
Improve clarity around management of groundwater sources with a low long-term entitlement share value	☐	☐	☐	☐	☑

Action 1.5 - Protect groundwater quality within natural limits.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ■ Agree
- ☐ Strongly agree

How important to you are each of the following sub-actions required under Action 1.5?

	Not at all important	Of minor importance	Neutral	Important	Very important
Review and update our approach to managing groundwater quality	☐	☐	☐	☑	☐
Deliver a program to better understand groundwater quality and risks	☐	☐	☐	☑	☐

Please tell us any other suggested actions you think we should consider in Strategic Priority 1.

Strategic Priority 2 – Build community and industry resilience through sustainable groundwater use

Strategic Priority 2 aims to improve water security through the sustainable use of groundwater by urban populations, water dependent cultural, spiritual and economic aspirations of Aboriginal people, and support opportunities for other groundwater dependent development.

The strategy identifies 3 key challenges affecting the resilience of communities and industries using groundwater.

Please rank these challenges in order of importance, where 1 = Most important and 3 = Least important.

_____ Increasing demand for groundwater undermines town water supply

_____ New and expanding industries need to consider groundwater opportunities and constraints

_____ Aboriginal rights to and uses of groundwater are not adequately recognised

Please tell us any other challenge you think will affect community and industry resilience in using groundwater.

The Aquifer Interference Policy needs review. The arbitary 40 % total available drawdwon allowed needs explanation why 40% and also it uses generally the 1970's as a baseline a time when groundwater was very high. Hence many areas are reaching the 40% not just becuase of Groundwater pumping but just from natural drop in watertable from a wet period vs a dry period.

How important is it for you that communities and industries using groundwater resources have a reliable and secure supply?

- ☐ Not at all important
- ☐ Of minor importance
- ☐ Neutral
- ☐ Important
- ■ Very important

The department has put forward a range of draft actions to increase the resilience of communities and industries using groundwater. The following questions will review each of the draft actions and their sub-actions.

Action 2.1 - Support towns and cities using groundwater to improve their urban planning.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ▣ Strongly agree

Action 2.2 - Support economic growth using groundwater.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ▣ Strongly agree

How important to you are each of the following sub-actions required under Action 2.2?

	Not at all important	Of minor importance	Neutral	Important	Very important
Provide better information on groundwater opportunities and constraints to communities and industries	☐	☐	☐	☐	☑
Enable the increase of sustainable groundwater use in targeted areas	☐	☐	☐	☐	☑
Foster innovative groundwater solutions, including Managed Aquifer Recharge (also called 'water banking', to support communities and industries)	☐	☐	☐	☐	☑

Action 2.3 - Support Aboriginal rights, values and uses of groundwater.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ■ Neutral
- ☐ Agree
- ☐ Strongly agree

How important to you are each of the following sub-actions required under Action 2.3?

	Not at all important	Of minor importance	Neutral	Important	Very important
Increase access to groundwater for Aboriginal people	☐	☐	☑	☐	☐
Protect groundwater-dependent places of significance to Aboriginal communities	☐	☐	☑	☐	☐
Better integrate Aboriginal knowledge into groundwater management	☐	☐	☑	☐	☐

The following questions focus on groundwater challenges and opportunities for Aboriginal people in NSW.

Please only answer questions 43 to 51 if you identify as Aboriginal or Torres Strait Islander. If you do not identify as Aboriginal or Torres Strait Islander, please go to question 52.

A key objective of the NSW Government is to improve groundwater management outcomes for Aboriginal people across the state. We want to ensure that Aboriginal people and their wisdom and knowledge have a greater influence in groundwater planning and management.

You have indicated that you are of Aboriginal or Torres Strait Islander descent. To help us to better plan for and manage groundwater to support Aboriginal rights, interests and access, please answer these additional questions.

Do you identify as Aboriginal and/or Torres Strait Islander?

- ☐ Aboriginal
- ☐ Torres Strait Islander
- ☐ Both Aboriginal and Torres Strait Islander
- ■ Neither
- ☐ Prefer not to say

Please tell us what groundwater health and secure groundwater supply means for you, your family, your clan, your Nation.

Please tell us about the changes you have seen in groundwater management in your cultural landscape.

Please indicate which of these cultural opportunities you have seen in action in the way groundwater is managed in NSW.
Select all that apply.

- ☐ Cultural wellbeing and healing
- ☐ Cultural significance of higher flows to waterways
- ☐ Protection and restoration of cultural sites of significance
- ☐ Restoring healthy Country
- ☐ Cultural ecotourism
- ☐ Other (please specify) _____

Please provide any other comments about cultural opportunities or challenges in groundwater management in NSW.

The GW Strategy needs to provide more clarity of what you are talking about for cultural opportunities.

At present it seems to be a nice thought with little or no concrete advice what cultural opportunites are for groundwater. Once we are educated can answer the questions more condfidently.

The strategy strives to provide more cultural and economic opportunities for Aboriginal people in relation to groundwater.

What are the most important opportunities for you?
Select all that apply.

☐ Fairer access to traditional land and resources

☐ Better contemporary economic opportunities in culture and recreation

☐ Increased access to employment and commercial opportunities on projects

☐ Improving awareness of Aboriginal people's knowledge and contribution to how groundwater is managed in NSW in the next 20-40 years

☐ Other (please specify) _____

Please provide any other comments about benefits of cultural and economic opportunities and how we realise those benefits in groundwater management and planning in NSW.

This concludes the questions specific to your cultural heritage. If you would like to provide additional material to support your position, please email them along with this document.

Please tell us any other suggested actions you think we should consider in Strategic Priority 2.

Strategic Priority 3 – Improve groundwater management decisions with better information

Strategic Priority 3 aims to support better groundwater management and investment decisions with improved innovation and knowledge.

The strategy identifies 3 key challenges affecting the use of information to manage groundwater resources sustainably.

Please rank these challenges in order of importance, where 1 = Most important and 3 = Least important.

3_____ Being underground and difficult to investigate, information about groundwater is lacking
2_____ There are gaps in our scientific knowledge and research capabilities
1_____ Our groundwater monitoring network is ageing and has limited coverage

Please tell us any other challenge you think is affecting the use of information and data to manage groundwater resources.

The most serious challengs is NSW Water not resourcing the installation of Form A from licence drillers having it readily accessible to the community and up to date.

How important is it for you to have access to more information and data about groundwater management and use?

- ☐ Not at all important
- ☐ Of minor importance
- ☐ Neutral
- ☐ Important
- ■ Very important

How interested are you in finding out more about how groundwater is managed and used?

- ☐ Not at all interested
- ☐ Of minor interest
- ☐ Neutral
- ■ Interested
- ☐ Very interested

What ways could the department use to communicate with you and others in your community about groundwater management?

Please tell us what type of information and data about groundwater resources you would like available on our departmental website?

Modernise Real time ground water database and to be a live link with Minview 2 which sets the standards for public resources management database.

The department has put forward a range of draft actions to improve the use of data and information to make groundwater management decisions. The following questions will review each of the draft actions and their sub-actions.

Action 3.1 - Develop a groundwater knowledge plan to improve how we use groundwater information to make decisions.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ■ Strongly agree

Action 3.2 - Better share and integrate groundwater information.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ■ Agree
- ☐ Strongly agree

How important to you are each of the following sub-actions required under Action 3.2?

	Not at all important	Of minor importance	Neutral	Important	Very important
Expand the range of knowledge and insights products including information systems, platforms and interfaces for storing, managing, accessing and interrogating groundwater data	☐	☐	☐	☐	☑
Improve and diversify how we communicate information on groundwater resources and their management	☐	☐	☐	☑	☐
Support strategic planning and decision-making by councils and groundwater users with improved access to information on groundwater and its management	☐	☐	☐	☐	☑
Develop a unified framework to consolidate and analyse all groundwater data across all relevant agencies and groundwater users and impacting activities	☐	☐	☐	☐	☑
Support data and database integration across agencies to address data gaps and improve customer service delivery	☐	☐	☐	☐	☑

Action 3.3 - Improve our understanding of groundwater resources.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☒ Strongly agree

How important to you are each of the following sub-actions required under Action 3.3?

	Not at all important	Of minor importance	Neutral	Important	Very important
Expand our multi-disciplinary understanding of groundwater	☐	☐	☐	☐	☑
Improve our groundwater models where required	☐	☐	☐	☑	☑
Increase our capacity and capability to apply leading groundwater science	☐	☐	☑	☐	☑

Action 3.4 - Expand our groundwater data collection.

To what extent do you agree with this draft action?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☒ Strongly agree

How important to you are each of the following sub-actions required under Action 3.4?

	Not at all important	Of minor importance	Neutral	Important	Very important
Improve our groundwater monitoring infrastructure	☐	☐	☐	☐	☑
Improve our groundwater monitoring programs	☐	☐	☐	☐	☑

Please tell us any other suggested actions you think we should consider in Strategic Priority 3.

Support industry be being more efficient with Form A and providing the data to real time water data including the monitoring of Department Bores.
Many areas have no real time water data where excessive drawdown occuring including Dubbo, Upper Macquaire, Upper Lachlan for example

If you have any further feedback, please provide any final comments or upload additional material here.

The Strategy needs to change the rules where Town water Supply requires additonal groundwater and avoid situations where Irrigation and Stock and Domesitic takes precedene over Town Water Bore Licences

About you

We appreciate your time in responding to this survey. Before you submit your survey response, we would appreciate your feedback to help us more broadly understand our audience. This enables us to communicate more clearly and to customise messages to the community. Please choose 'Prefer not to say', if you would rather not answer a question.

The information you provide will only be used for the purposes of this survey, to assist us in preparing the final NSW Groundwater Strategy and in the development of new groundwater policies and plans for NSW.

Personal information

Please note, your personal information will only be shared if you granted permission for this to occur.

[redacted]

How did you hear about this survey? Select all that apply.

☐ Community group

☐ Department's website

☐ Email or e-newsletter from the department

■ Newspaper

☐ NSW Government announcement

☐ Radio

☐ Social media - Facebook

☐ Social media - Instagram

☐ Social media - LinkedIn

☐ Television

☐ Word of mouth

☐ Work in the Water industry

☐ Other (please specify) _____

☐ Prefer not to say

What age bracket do you fit into?

- ☐ Under 18 years
- ☐ 18 - 24 years
- ☐ 25 - 34 years
- ☐ 35 - 44 years
- ☐ 45 - 54 years
- ■ 55 - 64 years
- ☐ 65 - 74 years
- ☐ 75 + years
- ☐ Prefer not to say

How do you describe your gender?

- ☐ Female
- ■ Male
- ☐ Non-binary
- ☐ Other
- ☐ Prefer not to say

Do you speak a language other than English at home?

- ☐ Yes (please specify) _____
- ■ No
- ☐ Prefer not to say

Do you identify as a person with a disability?

- ☐ Yes
- ■ No
- ☐ Prefer not to say

Enter your postcode:

Thank you for completing this survey. Please email to nsw.groundwaterstrategy@dpie.nsw.gov.au

NSW Groundwater Draft Strategy Additional Comments

A solution for Solving Groundwater requirements for Town Water Requirements

As the owner of Water Resources Drilling. I play a role in locating Groundwater for Town Water Supplies through my Groundwater Consulting, and Drilling parts of our business. Some of the towns in recent years we have effectively drought proofed or improved their access to Groundwater include: Tenterfield, Moree, Forster/Tuncurry, Geurie Wellington and Cowra.

What I have noted there is still groundwater to be found and utilised for Town Water use but due to perceived over commitment of groundwater across NSW there is a very conservative approach to groundwater Management in New South Wales by DPIE Water and the associated government organisations Water NSW and Natural Resource Access Regulator.

No doubt in certain areas there is over commitment but the government policies are in some cases based on knowledge going back twenty years ago where it was unknown how much water could be accessed Sustainably. The key issue is Sustainable what is it?

Three areas DPIE Water NSW Groundwater Strategy needs to address are:

1. **Groundwater Administration Fundamentals need to be fixed first**

- Resourcing the Form A's that drillers supply and making them publicly available in the real time water database. The emphasis is Real Time in Groundwater it is in many cases 7 to 10 years out of date in supplying work summary reports. The groundwater monitoring data in some cases is more then 12 months old. How can this be a **REAL TIME WATER DATABASE for groundwater.**
- The bores are telemetered need a review and to cover areas where groundwater is more dynamic due to groundwater pumping. Areas that are missing are Upper Macquarie, Upper Lachlan some of the coastal areas. Why so many bores in the Castlereagh are monitored when there is no groundwater pumping in this aquifer and the Coal Seam Gas Bores nothing is happening so why not just read these six monthly manually and redeploy the equipment to where it would be useful.
- It took nearly 12 months for my and other Drillers licences to be issued by Water NSW which to me shows a lack of respect and or commitment to the licenced drillers of NSW.
- The Bore Licencing application need to be merged between Water NSW and DPIE Water the time taking for town water and government application through DPIE Water previously NRAR is unacceptable can take up to 6 months to get an answer for an application even after the drought has broken. By having all staff in the one unit will provide obvious cost savings and efficiencies which are not occurring at present.
- The Licence Water Drillers of NSW need to be consulted by DPIE Water when making changes to groundwater administration. The Drillers and Groundwater

consultants are the front line of groundwater management in NSW. Why does the Department ignore our expertise and knowledge rather then make changes without consulting us.

- A good example was the Ill fated change in policy on 250 metres distance rule in Septic tanks for bores which the Department has not explained itself how this works in any public document justifying the rule.

2. Aquifer Interference Policy Needs Review.

The Department need to be able to justify one part of this where for Confined Aquifers only 40% of Total Available Drawdown is allowed and only 10% in unconfined aquifers based on Pre development

The problem with this method is most of the monitoring bores in the main groundwater irrigation areas were drilled in the early 1970's. It is common knowledge amongst studies of climate change that the 1950's to 1970's were an extremely wet period. Hence groundwater levels are going to be higher then normal.

If the Department looks back at some of the bores that were monitored in the 1960's in many inland valleys the water level was a few metres lower then in the 1970's as a rule.

The Department in its analysis on the 40% Total Available Drawdown need to take more into account how close these bores are to other Production bores which often skews the actual regional drawdown in the aquifer more excessively then is occurring in reality.

What it the scientific rational for the 40% available drawdown the Department needs to justify rather then just so we can be conservative.

3 Groundwater Access Precints for Town Water Supply (GAP TWS)

The only way the government can resolve the problems of accessing Groundwater for Town Water Supplies Drinking water is to prioritise certain areas for accessing to groundwater over other users.

I propose that the government in legislation setup a system where a council or water authority can apply for a Groundwater Access Precint for Town Water Supply. (GAP TWS).

In this area the water authority need to justify.

-The additional water is required for town water supply access for drinking water domestic use and local industry within the town (not mining)

- They are given priority to have a larger but controlled impact on water users through either the interference rules and or allowed to draw the waterlevels greater then 40% of total available drawdown.

- Where they impact significantly on Stock and Domestic water users State Government and the Water Authority, they share the cost 50% each to either make good the users supply or they deepen their bores.

- In the case of impact on irrigators they either are allowed to only access groundwater in very dry years. For example, Cowra Shire has been granted emergency access for groundwater three years in ten only as part of the condition of their bore licence.

- These precints can also be used to allow for the nomination of a zone where Managed Aquifer Recharge of Aquifer Storage and Recovery could be utilised to help alleviate the impacts of the additional groundwater used for town water.

- Where Aquifers are not used for normal town water supplies or domestic use these precints could be used to nominate an area where a town could inject treated effluent into an aquifer and then after natural attenuation the water is extracted out again for town water use

4. Government Programs to Assist Town Water Authorities to Find Groundwater

The NSW Government regularly provide the Mineral Industry funds for mineral Exploration the latest being a 15 million dollar NSW Frontiers Exploration Program. This program assists Mineral companies for finding minerals.

A similar project needs to occur for groundwater. All the easy groundwater aquifers have been found with the assistance of the government monitoring bore program from the 1960's to 2010's. In recent years the only work the government has done was in Coal Seam Gas Area many of which are not going ahead and all of these demonstrated how little the main aquifer in NSW are connected to these deep aquifers in most cases.

Before the next drought how about the government have a Groundwater Exploration Program for towns to find water. I am currently involved in a number of projects but funded with limited funds by councils water authorities.

Examples of these are Moree, Dubbo Mid Coast Council, Hunter Water, Uralla Shire, Tenterfield Shire to name a few.

I understand some of these are funded by the Safer and Secure Water Program but it would work better if the government had a similar program like the Mines Department in looking for priority groundwater through Hydrogeology, Geophysics and Drilling programs and the government could contribute in partnership with industry helping capacity building of industry and the government itself.

For your consideration

[redacted]