Inquiry into the Recent Variations in Water Level in Thirlmere Lakes

Submission by Wollondilly Shire Council

20 January 2012

“If the loss of water from Thirlmere Lakes is natural and part of a cycle then we should all feel privileged to be here at this time in history to see it. - If the loss is man-made and permanent then we should be ashamed”

Mayor, Wollondilly Shire Council, 2010

Executive Summary

Water has disappeared from the five lakes in World Heritage listed Thirlmere Lakes National Park despite recent heavy rains. The Community of Wollondilly want to know why and are asking whether it is related to the long wall mining nearby, a natural event or a combination of both. They want to understand the future of the Lakes and want to avoid any environmental damage from long wall mining (LWM) in the future.

Wollondilly Council is invested with the responsibility to serve its community on matters which the community deem as relevant but within the Council’s scope of influence under various legislation and delegation. It is obligated to manage local environmental health and long term sustainability on behalf of its community and to manage the lands under its control sustainably. The concerns raised by the community to Council regarding the water losses in Thirlmere Lakes have highlighted the community’s expectation of Council to protect the local environment.

The Community has already experienced damage from long wall mining in the form of damage to housing, bridges, roads and other infrastructure, and this is acknowledged by the mining industry through the Mine Subsidence Board. But it has also experienced the less predictable damage to the environment such as the cracking of the Cataract and Georges Rivers and now possibly Thirlmere Lakes and Myrtle Creek in Tahmoor. It is therefore understandable that the community is extremely concerned when one of its historic, environmental and social assets is at risk and that the asset itself now may be lost.

Council holds little influence in the management of the water losses at the Lakes other than that of a community and environmental advocate. It is not the effected property owner; it is not the approval agency for the long wall mining or bore approvals in the area nor is it the delegated regulator of such activities.

Council’s previous actions and this Submission are therefore based on the community’s expectations of Council to hold to account the property owner, the approver and the regulator responsible for understanding and managing the water losses.
Recent investigations by The Office of Water and Pell Consulting have given some insights into the water losses but are not in complete agreement as to the cause. This ambiguity by “experts” has not satisfied the community’s concerns but heightened them.

This submission shows that the community has felt it warranted to undertake the number of actions through Council in order to understand the water loss, including 5 resolutions, all of which were passed unanimously and are found on page 5 of this submission.

This submission makes 4 recommendations. These are:

1. That the Inquiry conduct the investigation valuing community verbal evidence as equally relevant as scientific evidence and that this be facilitated through a public meeting
2. That the Inquiry include a conclusion as to the short, medium and long term prognosis for Lakes’ water levels and its biodiversity
3. That the inquiry include a conclusion which will inform our community on the cause of the water loss including specifically the role of long wall mining and the potential impacts of long wall mining on other nearby waterways and potential safeguards which should be applied to protect them.
4. That the Inquiry make recommendations for regular contact by the Office of Environment and Heritage (OEH) with Council regarding the situation at the Lakes and other relevant issues beyond the life of the Inquiry.

Inquiry Terms of Reference

In this Submission Wollondilly Shire Council will be addressing the following points from the Inquiry into the Recent Variations in Water Level in Thirlmere Lakes – Terms of Reference:

- Point 4- Recommendations for management actions to address the factors identified as likely to have a direct or indirect effect on lake levels and/or on the natural and cultural values of Thirlmere Lakes National Park.
- Point 5- Recommendations for future studies to better understand the hydrology of the Thirlmere Lakes and provide better information for future management.
- Point 6- Any other matters the Inquiry Committee considers relevant to the reasons for or responses to water levels in Thirlmere Lakes.

Wollondilly in Context

Wollondilly Shire covers approximately 2500 square kilometres, around 65% of that land as National Park or Water Catchment Special Areas including areas within the Greater Blue Mountains World Heritage Area. It has a population of around 45,000 people. It supplies a great deal of the Sydney’s fresh produce including fruit, vegetables, dairy, poultry and beef. It also produces many horticultural products including turf, nursery stock and mushrooms. It provides the drinking water for almost 1.5 million people through its waterways and is home to 86 Threatened species and 8 Threatened Ecological Communities and acts as an important complex of wildlife corridors.
There are valuable coal and coal seam gas reserves within the Wollondilly Shires geology and the Shire is subject to many mining and extractive operations.

Wollondilly Shire Council is proactive in the protection of Sydney’s water assets, participating and contributing to various consultative mechanisms of the Sydney Catchment Authority, Hawkesbury Nepean Catchment Management Authority and the Office of the Hawkesbury Nepean to ensure the Wollondilly community and its environment are represented in decision making regarding these water assets.

The intricate web of watercourses within the Wollondilly Shire includes two of the largest recreational waterways in Sydney, the Georges and Nepean Rivers. These watercourses and other smaller ones, often linked to aquifers, are an inherent aspect and attraction of the Shires landscape for both residents and tourists.

Long Wall Mining in Wollondilly

The community has expressed concerns to Council that the water loss in Thirlmere Lakes is attributable to LWM. Recent studies by Office of Water and Pell Consulting suggest that, if nothing else, it is probably a significant contributor. Wollondilly Shires community has generally benefited from coal mining for decades and will for at least the next 30 years given the Bulli Seam Project approval, but it has also suffered social and environmental impacts from mining.

Over recent years though, the science and informed opinion is pointing to the more concerning and poorly researched aspects of long wall mining including aquifer interference, aquifer contamination and geological instability. None of which were strongly considered in the past.

It is of extreme concern to the community of Wollondilly and the Council that long wall coal mining occurred within 700 metres of the Lakes and there is now a possibility that this mining interfered with aquifers which are part of the Lakes hydrology and geology.

The Thirlmere Lakes are a part of the Greater Blue Mountains World Heritage Area

Council’s Role as an Advocate for the Community and the Environment

Local Government is best positioned to gauge the community’s aspirations and concerns. This is certainly the case with Thirlmere Lakes.

In 2010 the Community of Wollondilly Shire endorsed its Community Strategic Plan 2030 (CSP 2030). This Plan addresses the five areas of Environment, Community, Governance, Economy and Infrastructure and reflects the community hopes (Outcomes) for the Shire for the next 30 years. Of particular interest for this submission is the Communities desired Outcomes for the environment, these are:
• A community that is surrounded by a built and natural environment that is valued and preserved
• A community that has opportunity to engage with and actively care about their natural environment

Other particularly relevant Community desired Outcomes from the CSP 2030 include:
• A community that is supported through appropriate, sustainable land use
• A resilient community that has access to a range of activities, services and facilities.
• A community that is supported through engagement, collaboration and partnerships across government agencies and private business
• A transparent, effective and sustainable Council.

Council must ensure that these outcomes are the aim of its activities and as such this submission is compatible with achieving those outcomes.

Councils, through their community consultations, represent the community interests. The development of The Community Strategic Plan 2030, Councils Planning Instruments, Controls, Policies, Guidelines and strategies such as the Wollondilly Biodiversity Strategy, Growth Management Strategy and the Wollondilly Economic Development Plan represent the community expectation of desired and appropriate development and environmental management. Council’s actions must also support these strategies.

Concerns raised by the Community

The Wollondilly community has raised concerns with Council regarding the water losses at Thirlmere Lakes. These have been expressed by Council community consultative groups and through representations to Councillors and Senior Council Officers and have come from, not only environmental groups but also tourism operators, recreation groups, community groups and concerned individuals. The community concerns include:

• Loss of biodiversity
• Loss of tourism attraction and associated community benefits
• Loss of water supply in local area
• Loss of cultural values
• Loss of heritage and social values
• Loss of accountability for those responsible

These concerns have not only been expressed to Council but also through other means such as numerous letters to the editors of local papers, radio commentaries, television interviews and representations to authorities.

The Wollondilly Healthy Catchments Committee, Council’s primary community consultative mechanism on environmental issues, has considered the water losses as a standing agenda item since early 2010 signifying its concerns about the issue. Residents in Thirlmere have also expressed their concerns through signage and placards.

The representations to Council have resulted in a number of Council actions which are evidence of Council’s resolve to find answers on behalf of the community.
Councils Actions to Date on behalf of the community

Council has passed 5 resolutions, as a result of Notices of Motion, relating to Thirlmere Lakes, all of which were passed unanimously, These were:

1. That Wollondilly Council convene a public forum in regards to the loss of water at Thirlmere lakes with environmental experts, national parks, elected representatives and the community invited to the forum.

2. That Wollondilly Shire Council write to the respective Ministers for the NSW Department of Climate Change, NSW Department of Mineral Resources, the Commonwealth Department of Sustainability, Environment, Water, Population and Communities and the Greater Blue Mountains World Heritage Area Advisory Committee calling for an inquiry into why Thirlmere Lakes, which is part of the Blue Mountains World Heritage Area, has such historically low water levels, despite recent heavy rains.

3. That Council write to the Minister for Water requesting preliminary information followed by a meeting with the Local Member for Wollondilly and Minister for Water, The Honourable Phillip Costa and appropriate representatives of the Office of Water regarding the Terms of Reference and the investigation into the relationships between local aquifers and Thirlmere Lakes.

4. That the Wollondilly Healthy Catchments Committee expresses its concerns regarding the recent loss of water from Thirlmere Lakes and requests that Council develop a strategy to raise the issue with the community and the responsible Government Departments.

5. That Council:

   1) Write to the State Member for Wollondilly and the NSW Minister for Environment regarding the communities concerns relating to the loss of water in Thirlmere Lakes and to ask for commitment from the new government to undertake an Interdepartmental Inquiry into the water loss and to fulfill the election promise made by the member for Wollondilly to hold a public forum on the issue immediately, and

   2) Write to the Federal Minister of the Environment, The Greater Blue Mountains World Heritage Area Advisory Committee, The Greater Blue Mountains World Heritage Area Management Committee and the World Heritage Committee (United Nations Education, Science and Cultural Organisation) expressing its concerns regarding the water loss in Thirlmere Lakes and requesting they respond and inform Council of any actions they are taking to manage or understand the water loss.

These resolutions had outcomes which included:

- Correspondence to the following Ministers for the NSW Department of Climate Change, NSW Department of Mineral Resources, the Commonwealth Department of Sustainability, Environment, Water, Population and Communities and the Greater Blue Mountains World Heritage Area Advisory Committee calling for an inquiry into why Thirlmere Lakes, which is part of the Blue Mountains World Heritage Area
Recent, related issues where Council has been called on to represent the community regarding its concerns about environmental impacts of mining include:

- Submission on the Illawarra Coal Bulli Seam Proposal
- Submission on the Metropolitan Water Sharing Plan (aquifer interference)
- Submission to the Upper House Inquiry into Coal Seam Gas

**Councils Position**

1. **The Lakes are regarded by the community as their personal space and a local treasure.**

Thirlmere Lakes are an important asset to the Wollondilly Community for heritage, economic and lifestyle reasons.

- The Lakes are the traditional lands of the D’harawal and Gundanganarra Aboriginal peoples and hold heritage and spiritual significance to those peoples, in part because of the water in the Lakes. The site contains numerous significant sites and artefacts.

- The Lakes are an important part of the Wollondilly community’s heritage. In the early 1900s the water pumped from the Lakes helped establish southern railway links for Sydney, and provided irrigation and drinking water to the community. They have been recalled in many local historic documents and once the waters were regarded as having health benefits.

- Until a decade ago the Lakes were water skied and most of the local community have visited for picnics, bushwalking, swimming, cycling, canoeing and camping. The Lakes are regarded by the community as their personal space and a local treasure.
• The Lakes provide an attraction to tourists to the area. These tourists spend their money locally and many are drawn to the Lakes by their friends and families recollections of the place, others are drawn by its scientific and ecological characteristics. The Lakes have been, until recently, one of the few natural, clean swimming environments in Sydney. Villages such as Thirlmere and Picton rely on the type of tourism the Lakes encourage as a key part of their economy and economic development.

• Neither the community nor Council is able to independently undertake the research or science to understand the impacts of Long Wall Mining on the environment. Generally both rely on expert analysis and opinion to inform them. The community though holds its own bank of knowledge and opinion which is largely based on observation over time rather than through analysis and modelling. Council depends strongly on this knowledge bank for its own decisions and plans.

• Council considers that the anecdotal evidence based on culture, history, memories and local knowledge is crucial in understanding “impact” rather than just the “consequence” of an issue and that the community has a significant role in providing valid and useful information, even if not scientifically based, which assists the understanding of the water loss.

• Council considers that a public meeting should be convened to take verbal submissions and another held to explain the findings.

Council Recommendation 1

That the Inquiry conduct the investigation valuing community verbal evidence as equally relevant as scientific evidence and that this be facilitated through a public meeting

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2. The Community want and need to know why the Lakes have lost water and whether that loss is temporary or permanent.

• The Wollondilly community and visitors have inundated Council with enquiries regarding the loss of water and many are assuming reasons for this loss (mainly long wall mining), expecting Council to have answers and solutions.

• The Councils chief community consultative mechanism for water health and biodiversity issues, the Wollondilly Healthy Catchments Committee has raised its concerns to Council over the past 24 months and has prompted Council resolutions on the issue.

• The community also expects that Council and the State and Federal governments protect the environment, their livelihoods and their lifestyles of which Thirlmere Lakes form an important role.

• The community have indicated that they want to know whether this “change” to the Lakes is only temporary or whether it is permanent, requiring them to reassess their personal or business situations.


Council Recommendation 2

- That the Inquiry include a conclusion as to the short, medium and long term prognosis for lakes water levels and its biodiversity

3. Wollondilly Shire Council nor our community want to be asking the same questions in another decade about another area potentially effected by Long Wall Mining activity.

- The role of Wollondilly Council throughout the history of mining presence in the shire has been primarily one of a community advocate and observer as it has had virtually no approval or regulatory delegation. Councils are, by way of planning legislation, given virtually no powers in relation to mining activities.

- Wollondilly Shire Council advocates for more robust investigation and research into the potential impacts on ecosystems, agricultural lands, human health, waste production and disposal and, in particular, the potential degradation of ground water systems of LWM activities. Council also advocates for a more robust approval and legislation and enforced environmental protection and compliance relating to LWM activity.

- Over the past 5 years environmental and scientific groups have called for a 1 km buffer zone between long wall mining and environmental features (such as lakes and rivers) because of the damage experienced and potential for further damage to those types of natural features.

- We believe that Wollondilly Shire’s environment has already experienced permanent damage from mining and extractive industry activity due to the poor understanding of the relationships and interactions between the methods of these industries and the natural environment. This is still evident with the cracking of the Cataract and Georges Rivers, the water loss in local creeks as well as the cracking of local rock formations.

Council Recommendation 3

That the inquiry include a conclusion which will inform our community on the cause of the water loss including specifically the role of long wall mining and the potential impacts of long wall mining on other nearby waterways and potential safeguards which should be applied to protect them.

4. Apart from the environment, the Wollondilly Community are the biggest stakeholders.

- Given the relevant science and opinion, this Council cannot assume that damage to aquifers and geology of Wollondilly has not occurred due to LWM activity already being undertaken in the Shire. Therefore Council has a responsibility to the community under the Precautionary Principle to ensure that, within its powers, no further environmental damage occurs.

- The Community, through Council, does not accept that the water loss is a natural occurrence without scientifically authenticated proof that it is not caused by mining.
Neither the Community, nor Council, have the resources to identify the reasons for the water loss.

- The community, through Council, is indicating that it feels that the onus of proof is on the mine operator or Office of Environment and Heritage and that the responsibilities lie with them and mine regulators to determine whether there is a connection between long wall mining and the water loss.

- The creeks surrounding the Lakes act as the veins that maintain Wollondilly as a haven for wildlife and provide the links between the Great Dividing Range and Greater Blue Mountains World Heritage Area to the Illawarra Escarpment. They act as habitat for the 86 Threatened species occurring in the Shire and the quality and quantity of water has direct influences downstream to habitats in the Sydney Basin. The Community, Council and the State Government invest substantial resources in the protection of these habitats and corridors and this investment of time, money and commitment should not be compromised by poor LWM activity in the future nor by a failure to find the reason(s) for water loss.

**Council Recommendation 4**

*That the Inquiry make recommendations for regular contact by the Office of Environment and Heritage (OEH) with Council regarding the situation at the Lakes and other relevant issues beyond the life of the Inquiry.*

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**Lake Werri Berri one of the Thirlmere Lakes**

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