

From: [REDACTED]
To: [DPIEW Regional Water Strategies Mailbox](#)
Subject: I unfortunately couldn't attend the meeting held in Lake Cargelligo on Tuesday 17th October but I would have said that my concerns were:-
Date: Monday, 6 November 2023 7:34:46 AM
Attachments: [Millions of years ago.docx](#)

The Department of Planning & Waters team

Lachlan Regional Water Strategy

Hi Team,

I unfortunately couldn't attend the meeting held in Lake Cargelligo on Tuesday 17th October but I would have said that my concerns were:-

And can this be used as a submission please?

"That whenever possible water that is flowing down the Lachlan River in our area that be when possible be diverted through the three lakes (Sheet of Water; Curlew & Cargelligo) & back into the Lachlan River via Lake Creek rather than allowed to flow down the natural watercourse of the Lachlan River. There are many signs along the banks of Lake Cargelligo warning of algae in the water, is it true if the



water doesn't become stagnant it has less chance of developing algae? Therefore, a good reason to keep water moving through the lakes system. Also, naturally for the environmental, social cultural, and economic rights. Also, the bird life and bird watchers are an integral part of the area now and should be promoted by the availability of water.

Re by buy backs of water licences by Governments this may have been caused by granting too many licences :- I recall a telephone conversation with a high official in NSW Water or whatever it was called back in the 1980's and at around that time it was rumoured that new water licences were being obtained easily, perhaps for political reasons? We were discussing " sleeper licences" in the Lachlan River and the allocation of more licences to take up the use of the sleeper water. I asked him how much was the Lachlan River OVER ALLOCATED – naturally he said he couldn't answer that question but he hinted that I mention some numbers to which I said something like 20 (meaning over allocated by 20%) and he said higher so I think I said 33 and he said lower. So, the over allocation figure was somewhere between 20 and 33%, for the exercise say 25%?

The practice of using 125% for 100% s may have been OK until the farmers with the sleeper licences realized that they could trade their water and get the income , and then with the over allocation realization that 125% doesn't go into 100% as well 100 goes into 100.

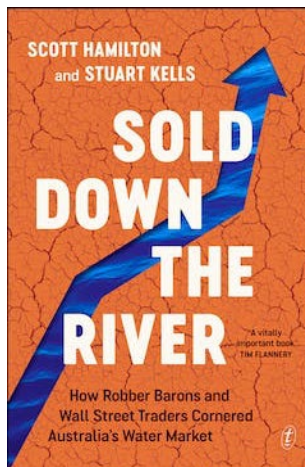
Unfortunately, the separation of the water licence from the land to which it was originally attached has created a water market allowing investors with huge resources such as superannuation schemes and wealthy individuals to enter. This may be correct or incorrect with no public water ownership details available, – the lack of transparency is something that the Member for Murrumbidgee [REDACTED] has tried unsuccessfully to get through parliament on more than one occasion. Why shouldn't this information be readily available? Or are there water ownership details available to the public via FOI?

At one of our Cargelligo Wetlands & Lakes Council meetings five or six years ago a guest speaker who was attached to Water NSW(or whatever it was called at the time) and after finishing discussing the issues he had come to discuss ; he was bragging that he held water licences whilst not owning land and seemed very pleased to be a water trader. Maybe he is a smart operator? In the movie the Big Short – I remember watching the movie The Big Short and vividly remember at the finish one word WATER

The 2015 film adaptat on of M chael Lewis's bestselling [The Big Short](#) ends with a chilling line.

Investment genius Michael Burry had predicted the 2007 US housing market collapse and the ensuing financial crisis but, the movie said, was now "focusing all of his trading on one commodity — WATER".

Some quotes below quote from the book released Aug 31st 2021, "Sold Down the River" by Scott Hamilton & Scott Kells



"Many older farmers struggle even to use a smartphone," one farmer told us in research for our book [Sold Down the River](#), to be published this week. "They simply can't use the water trading platforms."

But others can, to their huge advantage. "Being a water broker is a lot like buying and selling shares or any other financial asset," one investor said last year.

The report has shifted the debate about water in the Murray-Darling Basin. Regulators, politicians, officials and researchers all realise that something has gone horribly wrong.

In particular, water market intermediaries such as brokers and exchange platforms currently operate in a mostly unregulated environment, resulting in a lack of clarity regarding the role brokers play, and permitting undisclosed conflicts of interest to arise.

Trading behaviours that can undermine the integrity of markets, such as market manipulation, are not prohibited, insider trading prohibitions are insufficient, and information gaps make these types of detrimental conduct difficult to detect.

Like a plane crash, the market failed because crucial systems and backups broke down simultaneously.

Here are the top four fractures in the multi-point failure:

- Essential design steps weren't taken. The designers spent little time on ensuring proper market conduct and integrity. There are multiple exchanges and at no particular moment is there a clear picture of the market value of water rights, even within the same valley. Large irrigators appear to be taking water over which they don't have rights and selling it out of the markets to farmers of walnuts and other thirsty crops, leaving [dying rivers](#) in their wake.
- To ensure the water market was "liquid", the designers removed restrictions on who could own and trade water rights. Then they took the extraordinary step of exempting traders from regulation that would normally apply to financial markets and markets for commodities. External traders used tactics no one anticipated including market manipulation and high-speed trading.
- The [Commonwealth Water Act](#) gave responsibility for overseeing the markets to the Australian Competition and Consumer Commission, whose expertise is competition, rather than the Australian Securities and Investments Commission, whose expertise is in finance. A [2014 regulation](#) expressly exempted basic tradable water rights from the definition of "derivative" under the ASIC Act.
- There is little precision in the water policy debate. Terms such as "hoarding", "efficiency", "speculation" and "investment" are used without consistency or clarity. People in and around the Murray-Darling Basin have been talking over each other for years, allowing reports that should have been caught early to persist.

Added to these are a series of counter-intuitive tax advantages and subsidies that drive water rights away from the best land toward arid lands far down-river. Link to book "Sold Down the River" below

<https://theconversation.com/robber-barons-and-high-speed-traders-dominate-australias-water-market-166422>.

[In conclusion as at the start for the benefit of all please kept water running through the Cargelligo Lakes system rather than bypassing when possible.](#)

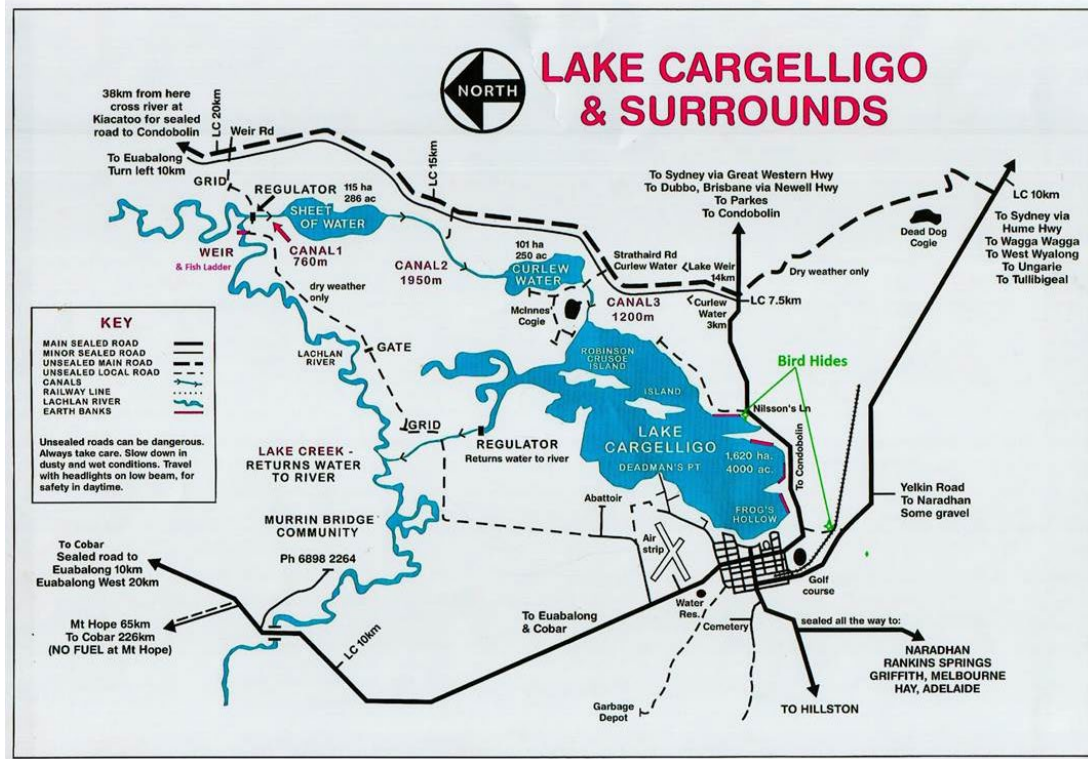
[Also clarification of dates of works on the Lake Cargelligo Water System original construction. Water NSW Facebook page says 1906 & newspaper reports 1901.](#)

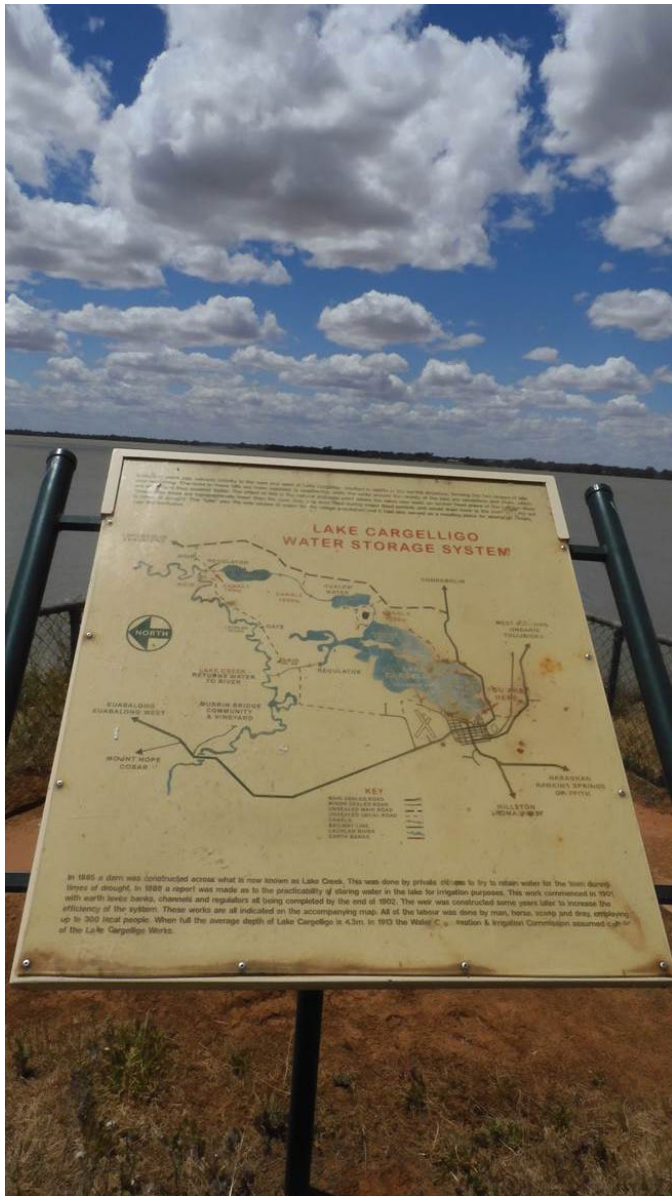
Some History & maybe incorrect information on your website :-

Millions of years ago, volcanic activity to the east and west of Lake Cargelligo resulted in uplifts in the earth's structure, forming two ranges of hills now remaining. The rocks in these hills are more resistant to weathering, while the rocks around the vicinity of the lake are sandstone and shale which are softer and thus weather faster. The effects of this are the natural drainage point where the lakes exist, on former floodplains of the Lachlan River.

Though the lakes are topographically lower than the river, they only are ever filled during major flood periods and would drain back into the river then dry out in times of drought. The "lake" was the only source of water for the village populations and it served as a meeting place for the Aborigines for over the centuries.

In 1885 a dam was constructed across what is now known as Lake Creek. This was done by private citizens to try to retain water for the town during times of drought. In 1888 a report was made as to the practicability of storing water in the lake for irrigation purposes. The work commenced in 1901 with earth levee banks, channels and regulators all being completed by the end of 1902. The weir was constructed some years later to increase the efficiency of the system. The works are all indicated on the accompanying map. All the labour was done by man, horse, scoop and dray, employing up to 300 local people. When full the average depth of Lake Cargelligo is 4.3m. In 1913 the Water Conservation & Irrigation Commission assumed control of the Lake Cargelligo works.





CONDOSOLIN ARCUS 25.10.23.

www.condobolinargus.com.au

REGIONAL NEWS

Lake Cargelligo

WaterNSW Improving Dam safety

WaterNSW, the state's bulk water supplier and system operator, is upgrading the three embankment dams of Lake Cargelligo to improve dam safety.

Lake Cargelligo is an off-river storage system in the Lachlan Valley. The three embankments are standardised earth fill embankments that provide storage for irrigation, recreation, and domestic water supply.

The embankments were originally constructed in 1906. In 1927, all three dams were raised to a total final height of approximately 3.5m with a base width of 5m. Historic floods damaged the embankments, and a rainfall flooding event in 2016 further impacted the condition of the embankments.

Temporary works were completed which proved successful in managing risk during the incident, however, these important upgrades will ensure the town of Lake Cargelligo continues to benefit from the long-term functionality of the embankment structures.

The lake was reduced to about 50% capacity between May and September to safely carry out the work.

Two weeks ago, the drawdown ended to enable levels to increase for the summer months. The work will continue around the change in levels, including ongoing trench digging and earthworks to upgrade the structures.

Source: WaterNSW Facebook page and www.WaterNSW.com.au

•ABOVE: Lake Cargelligo construction location. Image Credit: www.WaterNSW.com.au.
 •LEFT AND ABOVE LEFT: Recent construction at the Lake Cargelligo embankment upgrade. Image Credits: WaterNSW Facebook page.

Year 6 transitioning into year 7



From Royal Australian Historical Society – Journal and Proceedings

Vol. XXIX 1943 Part IV by B T Dowd

"The noble lake before me gave a character to the scenery highly picturesque and pleasing" wrote John Oxley Surveyor General of NSW and explorer **July 25, 1817**. It was during the eastward journey, while tracing part of the Lachlan that he had not explored on his journey, that Oxley discover the lake. Extract from his journal under the date of July 25, 1817, thus described the discovery:- " I went in company with Byrne on horseback to view the country southward. After going about 2 miles and a quarter south of the tent, we were most agreeably surprised with the sign of a fine lake: we rode down its shores, which on this side were hard & sandy beaches. On the south side were bolder red clay cliffs.

April 13th 1836 surveyor General of NSW Major Mitchell wrote we found the "noble lake" as it appeared when discovered by Oxley

20 the June 1902 from The Lachlander (*see photocopies of articles below*) work started early 1901, at Lake Cargelligo on the canal system from the Lachlan River through Sheet of water , through Curlew (plan to go through McInnes Lake) , into Lake Cargelligo, through to Lake Creek outlet back into the Lachlan & the building of dykes (embankments) on the southern & eastern side .

The report written in June **1902** mentioning that project started early **1901** – so a completion time frame of less than a year and a half.

The current upgrade of embankments / dykes started mid **2022** still going November 2023 & will continue in **2024**. At a reported cost of **\$30 million** The **1902** reports stated expenditure at 30,000 POUND which equates to **\$5.168 million** in December 2022.

From the completion in 1902 until the willow trees were removed over a hundred of later, the banks seem to have withstood the floods over the century. Maybe the removal of the willow trees from the embankments caused the deterioration can be debated?

Lachlander Articles below scroll down

Water Conservation.

Booberoi & Cudgellico Schemes. Oyer £30,000 Expended.

By Our Special Reporter.

(Continued from last issue.)

FEW outside those who have inspected the works can have any idea of the magnitude and importance of the water conservation and irrigation

scheme undertaken by the Government in and around Lake Cudgellico and now nearing completion. Lake Cudgellico can now lay just claims to being one of the beauty spots of the State, but in the past has been handicapped by the hand of man not assisting that of nature in rendering its beauty and utility more attractive and beneficial to all. It is beautifully situated and surrounded by rich pastoral and agricultural lands, but, though a lake covering upwards of 4,000 acres with a depth extending up to 18 feet and filled by surplus waters from the Lachlan river, yet, through swamps and creeks absorbing or draining the principal portion of its storage supply in dry weather, it has been robbed of that permanency which otherwise would make it a valuable natural reservoir and public resort. All round the lake are large basins or coogees capable of holding vast quantities of water, some of which, strange to say, through being protected by high banks which excluded flood water, have never contained any water. With a view to putting these natural reservoirs to the use nature intended for local and national use, the Government decided to connect by canals with the river, and, by stopping the points where - the bulk of the main lake water has hitherto escaped, to conserve a supply for national purposes. The work indicated was started early in 1901, under the superintendence of Mr. H. Fleming, M'Innes' basin to the main lake, and the deepening of the lake creek to provide an exit back to the river whenever it was desirable to let water go down the channel. The whole of this scheme was carried out with the exception of connecting M'Innes' basin, as owing to Mr. M'Innes refusing to sell his land a channel was cut round the same. The first channel leaves the Lachlan at a spot about nine miles below Euabalong and is spanned with a bridge to allow traf- fic to pass unimpeded by it. Beneath the bridge is a concrete regulator 14 feet deep by 14 feet 8 inches wide. Four wooden gates work in this regulator to control the water enter- ing the channel. This cutting extends 830 yards, running out into a large shallow lake or lagoon known as the sheet of water, a depression covering 286 acres and capable of storing 45 millions cubic feet of water. No less than 28,000 cubic yards of earth were removed from this cutting, which has an average depth of 14 feet, 11 feet wide at the bottom with a 1 in 1 slope. A gutter continues through the sheet of water to the southern bank where No. 2 cutting commences, connecting it with the Curlew, a depression 18 feet deep covering 250 acres and capable of storing 150 million cubic feet of water. This cutting is a splendid piece of work, extending 2,130 yards and spanned with a bridge where intercepted with the main road. From the Curlew (which by the way is one of the several coogees around

UHcLu Bdo Ucccl LifyVtUL uUlhlillLU. cIXy) water) No. 3 cutting commences and, after encircling M'Innes' basin, connects with the main lake after a course of 1,313 yards. This channel, from which 47,000 cubic yards of dirt was shifted and is 14 feet 6 inches deep at the terminating point, is also spanned by a bridge erected to serve private interests. Between the Curlew and main lake a dam has been put in across the mouth of an old swamp to prevent water escaping and spreading over a large area of good land. Pipes have, however, been placed in the dyke to enable settlers to irrigate their land from that quarter should they desire to do so. A similar thing has been done at another point on the eastern side of the lake, where a large quantity of water has hitherto escaped to form swamps. At the southern end of the lake a lame dam has been

erected extending nearly half a mile, to prevent surplus water finding its way to Lake Maria and other large but shallow depressions, thus conserving everything within limits, reclaiming many thousand acres of erstwhile marshy land, and enabling irrigation farms to be started on the simplest and most effective lines. The main lake so deepened by these dykes spreads over 4000 acres of land and, when full, will have an average depth of about 12 feet and a storage capacity of 1185 million cubic feet. The water it contains is beautiful and fresh, and

settled as it will be in the Curlew before reaching its destination should always be sparkling clear. From the lake runs a billabong known as Lake Creek, which in former years served as a medium to convey flood waters to the lake and to drain them off afterwards. This has been widened and deepened and an iron regulator placed in the stream to prevent storage water escaping unless as desired. The gates work automatically, letting in all water running towards the lake but shutting close the moment

it begins to subside. The bridge over this creek has also been renovated and enlarged. It is estimated that as a result of the works it will be possible to run a summer stream down the Lachlan for a period of two months in the driest of weather without in any way interfering with a good permanent reserve such as is required for local and irrigation purposes. At times over 300 men were employed on the work, the wages and local expenses alone costing £21,500, or, with that of materials sent from Sydney added, perhaps

£4000 more. The work is now rapidly drawing to a close under the charge of Mr. Assistant Engineer Beaver and Mr. Inspector Brookes, a most creditable job being made of the works all through. The only thing that may militate against the efficacy of the scheme is the absence of a weir at the mouth of No. 1 channel in the river, but that is a matter that the Government can be trusted to have seen to as soon as funds are available.

From the Condobolin Lachlander June 20, 1902

WATER CONSERVATION
BOOBEROI AND CUDGELLIGO SCHEMES.
OYER £30,000 EXPENDED. = \$ 5,168m
BY OUR SPECIAL REPORTER. DEC 2022

Few outside those who have inspected the works can have any idea of the magnitude and importance of the water conservation and irrigation scheme undertaken by the government, in and around Lake Cudgellico, and now nearing completion. Lake Cudgellico can now lay just claims to being one of the beauty spots of the State, but in the past has been handicapped by the hand of man not assisting that of nature in rendering its beauty and utility more attractive and beneficial to all. It is beautifully situated and surrounded by rich pastoral and agricultural lands, with a lake covering upwards of 4,000 acres with a depth extending to 18 feet and filled by surplus waters from the Lachlan River, yet through swamps and creeks absorbing or draining the principal portion of its storage supply in dry weather, it has been robbed of that permanency which otherwise would make it a valuable natural reservoir and public resort.

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The work indicated was started early in 1901, under the superintendence of Mr. H. Fleming. The intention being to cut a canal from the Lachlan to the Sheet of Water, from there to the Curlew, thence via M'Innes' basin to the main lake, and deepening of the Lake Creek to provide an exit back to the river, whenever it was desirable to let water go down the channel. The whole of this scheme was carried out, with the exception of connecting M'Innes' basin, as owing to Mr. M'Innes refusing to sell his land, a channel was cut around the same.

The first channel leaves the Lachlan at a spot about nine miles below Euabalong and is spanned with a bridge to allow traffic to pass unimpeded by it. Beneath the bridge is a concrete regulator, 14 feet deep by 14 feet 8 inches wide. Four wooden gates work in this regulator to control the water entering the channel. This cutting extends 830 yards, running out into a large shallow lake or lagoon, known as The Sheet of Water, a depression covering 286 acres and capable of storing 45 million cubic feet of water. No less than 28,000 cubic yards of earth were removed from this cutting, which has an average depth of 14 feet and it is 11 feet wide at the bottom, with a 1 in 1 slope. A gutter continues through The Sheet of Water to the southern bank, where number 2 cutting commences, connecting it with The Curlew, a depression 18 feet deep, covering 250 acres and capable of storing 150 million cubic feet of water. This cutting is a splendid piece of work, extending 2,130 yards and spanned with a bridge where intercepted with the main road. From The Curlew (which by the way is one of the several coogees that has never contained any water), No. 3 cutting commences and after circling M'Innes' basin connects with the main lake after a course of 1,313 yards. This channel, from which 47,000 cubic yards of dirt was shifted and is 14 feet 6 inches deep at the terminating point, is also spanned by a bridge, erected to serve private interests. Between The Curlew and the main lake a dam has been put in across the mouth of an old swamp to prevent water escaping and spreading over a large area of good land. Pipes have however been placed in the dyke to enable settlers to irrigate their land from that quarter should they desire to do so. A similar thing has been done at another point on the eastern side of the lake, where a large quantity of water has hitherto escaped to form swamps. At the southern end of the lake a large dam has been erected, extending nearly half a mile, to prevent surplus water finding its way to

The Editor

The Condobolin Argus

Maybe a date in an article under "WaterNSW improving dam safety" in The Condobolin Argus 25th October 2023 could be investigated – the article quotes WaterNSw Facebook stating "the embankments were originally constructed 1906". Whereas reports in The Lachlander 1902, says early 1901. The article was written June 1902 indicating the works being completed in less than a year and a half. Also on a sign overlooked the lake which reads "All the labour was done by man, horse, scoop and dray, employing up to 300 local people."

The Lachlander report written in June 1902 mentioning that project started early 1901 –

The current upgrade of embankments / dykes started mid 2022 still going November 2023 & will continue in 2024. At a reported cost of \$30 million The 1902 reports stated expenditure at 30,000 POUND which equates to \$5.168 million in December 2022. Included in the 30,000 pounds was approximately 4000 metres of canals from the Lachlan River as well as the embankments.

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have with withstood the floods for over the century. Maybe the removal of the willow trees from the embankments caused the deterioration can be debated?

A bit of history of the lake at Lake Cargelligo

“The noble lake before me gave a character to the scenery highly picturesque and pleasing” wrote John Oxley Surveyor General of NSW and explorer **July 25, 1817**. It was during the eastward journey, while tracing part of the Lachlan that he had not explored on his journey, that Oxley discover the lake. Extract forms his journal under the date of July 25,1817, thus described the discovery:- “ I went in company with Byrne on horseback to view the country southward. After going about 2 miles and a quarter south of the tent, we were most agreeably surprised with the sign of a fine lake: we rode down its shores, which on this side were hard & sandy beaches. On the south side were bolder red clay cliffs.....”

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Please keep running water through Lake Cargelligo system

Yours faithfully

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