

Lower Limestone Coast WAP Stakeholder Advisory Group Minutes

Meeting No. 8, 13 July 2023, 10:30 am – 3:00 pm
UniSA Building - Room LC1-32B, Mount Gambier

Objectives

- Refresh on GDE legislation and policy.
- Groundwater Dependent Ecosystems.
- Groundwater dependent wetlands of the Lower Limestone Coast.
- Wetland restoration (not covered, deferred to Meeting 9).
- Social perspectives on resource condition and environmental implications (not covered deferred to Meeting 9).

Attendees:

Attendees: James Prescott, Melissa Herpich, Belinda Williamson, Claire Harding, Claire Davies, Darren Shelden, Kerry DeGaris, Michelle Irvine, Peter Balnaves, Terry Buckley, Alan Rossouw, Graeme Hamilton (online), Kylie Boston

LC Landscape Board Staff: Steve Bourne (Chair), Sue Botting, Liz Perkins, Ryan Judd

DEW Staff: Cameron Wood

Apologies: Penny Schulz (Chair), Pete Bissell (Chair), Nick Hillier, Wayne Hancock, John Hunt.

Welcome and agenda

The Chair welcomed everyone and thanked advisory group members and staff for their attendance.

Minutes

Kylie Boston added to apologies for Meeting 7, was excluded in first draft.

Minutes from Meeting 7 were confirmed as true and correct. Moved by: Belinda Williams. Seconded by: Terry Buckley. All were in favour.

Question around the availability of documents once the engagement platform is no longer available. Engagement platform will be available for the life of the review and amendment. Some documents will move back to the LC Landscape Board website permanently as a record of the review. We will determine a mechanism to package up appropriate documents for Group members on conclusion of the review.

There were discussions around the recommendations from Meeting 7. Some recommendations are quite specific, and the actions are clear. Other recommendations are quite broad and could take considerable time to undertake. May be a need to review these recommendations towards the end of the evaluation to better refine amendment and amendment timeframes.

Action outcomes to note

- LC Landscape Board Staff to provide information on results from water values survey

Refresh on GDE legislation and policy

Sue Botting provided a refresh on GDE legislation and policy.

Key Points:

- Water dependent ecosystems in the *Landscape South Australia Act 2019* (the Act).
- Objects and Principles of the Act.
- Protection principles in the current Lower Limestone Coast Water Allocation Plan.
- Approaches in other places in Australia around GDEs.
 - Gingin in WA
 - Far North PWA in SA
 - NSW Groundwater Strategy
 - General acknowledgement that greater protections are needed for GDEs.

Discussion:

- Members discussed the Science Review finding around allocation 90% of recharge being high or that only allocating 10% for the environment is a low allocation for the environment
 - High allocation for irrigation in comparison to other water allocation plans, particularly those areas that have groundwater dependent ecosystems.
- New Trees on Farm initiative was discussed around threat to groundwater resources and the lack of controls around Trees on Farm.
- Forestry industry acknowledged the need for controls around increase in forestry or any industry and the forestry industry discussed the need to be responsible
- How many high or very high value wetlands are in the plan? Table 9 in the current plan has 267. This is a small number in comparison to the number of groundwater dependent ecosystem in the region. Many GDEs haven't been studied or don't have any data around them but may still have high or very high values. These could be lost or impacted and we don't know it. Should also consider the collective value of a GDE complex not just the individual value of a wetland.
- Is there a standard description/definition of what a GDEs is across states? There is consistent understanding across Australia as to what a GDE is. Under the Border (Groundwaters) Agreement there is a difference between SA and Vic licencing of forestry and that only extraction from bores can have management actions applied to protect GDEs.
- Who has authority over water in the drainage network? If someone wants to extract from a drain, authorisation comes from the South Eastern Water Conservation and Drainage Board (SEWCDB). If a drain was impacting a wetland how would that be handled? SEWCDB and LC Landscape Board would work together. Victorian example provided around forestry impacting availability of surface water and what authority would have responsibility for that.
- Water in drains is considered surface water but is sometimes groundwater. Examples where water is taken from the drains where a groundwater allocation wouldn't be possible. The legislation treats any water above ground as surface water even if it is groundwater discharging at the surface.
- Drainage and Wetland Strategy is providing a framework for SEWCDB and the LC Landscape Board to work together.
- It was suggested that the confined aquifer could be considered as a buffer additional to the 10%, of vertical recharge allowance for environmental outcomes.
- Some members of the Group discussed whether drainage licences should be reviewed.

SAG DECISION

The Stakeholder Advisory Group recommends that where drain water is demonstrated to be groundwater, an application to extract drainage water should be subject to the same principles and requirements as groundwater extraction is under the LLC water allocation plan (e.g. hydro test).

Groundwater Dependent Ecosystems

Cameron Wood provided hydrological background on Groundwater Dependent Ecosystems (GDEs).

Key Points:

- What are GDEs? Diverse and complex.
- GDE types.
- Methods for assessing groundwater dependence.
- What datasets are available in the Limestone Coast.
- Trends in groundwater dependence.

Discussion:

- Not many wetlands monitored for surface water in comparison to observational wells.
- Discussion around the importance of freshwater discharge to the marine environment and the availability of freshwater via access through the marine environment. Importance may not just be the freshwater but also the nutrients it carries. A lot unknown in this area.
- What data is available for recent years – satellite data is available ongoing, even if on ground data not being collected there is satellite data available that collects water observations.

Groundwater dependent wetlands of the Lower Limestone Coast

Claire Harding provided an overview of groundwater dependent wetlands of the Lower Limestone Coast.

Key Points:

- The context of where we've come from in terms of water in landscape – changes in the landscape.
- Protected areas – National Parks and Wildlife Services, Ramsar.
- Trends in GDEs.
- What declines in groundwater means for a GDE .
- Case studies
 - Bool and Hacks Lagoon
 - Deadmans swamp
 - Lake Hawdon South
 - Piccaninnie Ponds
 - Ewens Ponds.

Discussion:

- Impact of the millennium drought on the region, a significant shift in the baseline.
- Carbon potential in wetlands (teal carbon).
- Landsat data – taken every 16 days unless cloud cover prevents data collection – different ways of looking at data, can average or take maximum or look at series through time.

- Bool lagoon case study
 - A complex system fed by groundwater, Mosquito Creek and rainfall
 - Declines linked to groundwater declines – loss of baseflow
 - Some discussion from members around legal/liability responsibilities around not meeting ecological character/conditions of a Ramsar site
- Could break the Lower Limestone Coast up geographically into 3 bands from east to west in terms of the GDE assets – a northern, central and southern area and perhaps each of these areas requires different thinking or protection mechanisms.
- Plan has potentially maintained some of the declines that occurred through the Millennium drought, they haven't worsened. It had been expected that when rainfall returned after the drought groundwater levels would also respond and return water to GDEs but since the rain returned this hasn't really been the case (e.g. Deadman's Swamp).
- Group members queried how much groundwater would be needed to recover around Deadmans Swamp and Greenrise and for them to hold water again. Would it would be possible to pump water into Greenrise to maintain it or have it recover? Greenrise has had clay base removed which is preventing it from holding water.
- Could be areas where efforts are focused around important assets in terms of management actions rather than a broad-brush approach. Have different approaches in different places depending on what you're trying to achieve. The broad brush approach of reductions hasn't necessarily achieved outcomes for GDEs.
- Over allocated, under used – makes the levers you can pull difficult – you cut what isn't being used, not what is having the impact. Could a levy be introduced to buy back unused allocation. Other places have taken water back from unused licences. Could also have the negative impact of making people use it so they don't lose it.
- Comparative example provided around vacant land being rated at a higher rate.
- Security levels would be interesting to explore – similar to Murray River situation.
- Lake Hawdon South
 - Drainage helping to support the ecosystem, bringing in all that water
 - An example of where condition is being maintained
 - Has the drainage water had a negative impact – not known. Do the thrombolites require a dry period – it is assumed they do.
- Piccaninnie Ponds
 - Has pumping into the Ponds been considered? No consideration to do that yet
 - Has the algae come back? Not yet, quite clear on the surface but expected to return (especially due to phosphorus levels) and removal will be required soon
 - Group queried if nutrient monitoring is undertaken. The current plan is silent around nutrients and there isn't a monitoring network for nutrients, it is a more complex and involved monitoring.
- Nitrogen in groundwater
 - What does high nitrogen levels do to stock? Not known. Some anecdotal evidence that some landholders are looking into this and there could be issues but nothing concrete.
 - Should nutrient sampling be considered? Discussions around doing some dedicated work around this. Nutrient sampling can be time consuming and costly
 - Nitrogen levels have been high for quite some time it is the decreased flows of water that cause the nitrogen levels to be a problem, keep the flows sufficient and nitrogen levels seem to be manageable
 - Some work done around nitrogen levels in Little Blue that could be relevant

- In an area that rainfall decline hasn't occurred in, if rainfall does decline could become a lot worse.
- What does the Plan need? Relevant ecological thresholds. Need to maintain groundwater levels and discharge, of most importance.
- The coastal springs face the additional challenge of being down gradients so it's not just extraction next to the environmental asset it's the cumulative impacts up the line as well.
- Can the presentation be publicly available? Presentation will be available on the stakeholder site. LC Landscape Board staff to review what information is available that Group members can use when talking back with their representative groups.
- There is a real need for the broader community to understand what has happened in terms of groundwater dependent ecosystems and what is happening with the resource.
- Is there modelling that can look at what we can do for Piccaninnie Ponds? National Water Grid Authority work will look at Bool Lagoon and a south coast example and may provide some answers to this.
- Interest in what current rainfall conditions might mean for groundwater conditions. Long terms trends are still concerning.
- The whole water user community needs to come together to compensate and protect the environmental assets that we still can. There shouldn't necessarily be rewards (don't have to worry about GDEs anymore) for contributing to loss GDE declines, but ultimately there is a need for money to fund some mechanisms to maintain and protect GDEs.
- Mallee example – confined aquifer declining due to use and this is a policy decision, levy that is collected to support those impacted to deepen bores.

Open Discussion

- Surface water users that are impacting groundwater should also be licenced.
- Step change around 2006 – should 2006 water levels be the base levels in all weirs?
- Members of the group wanted the water allocation plan to include drainage as an intercepting activity – the plan needs to acknowledge the impact of drains better than it does now.
- Some group members expressed an interest in results from community values survey.

SAG DECISION

The Stakeholder Advisory Group recommends the LC Landscape Board investigate adaptive management in amendment of the Plan that includes ecological thresholds relevant to GDEs.

The Stakeholder Advisory Group recommends the LC Landscape Board review the GDE protection principles in amendment of the current Plan.

Other Business

Close of meeting

Meeting closed at 3:20 pm.

The Chair thanked the stakeholders and staff for attending.

Lower Limestone Coast WAP Stakeholder Advisory Group Action Table

Action	LLC WAP Stakeholder Advisory Group Actions	Status	Meeting 8 Update
1.1	Provide an overview of the Science Review process, outcomes and the work that has occurred since then at Meeting 2.	Ongoing	Summary of current status of work addressing recommendations presented. Further updates will be provided as needed.
1.2	LC Landscape Board Staff to provide relevant papers on the project portal for Stakeholder Advisory Group members to access	Ongoing	Papers provided. Ongoing operating procedure for the Group.
2.2	Session in future meeting on Groundwater Dependent Ecosystems to assist with stakeholder clarity.	Ongoing	Occurred in Meeting 8
2.4	Provide summary report that takes recommendations from the Plan and places them against actions that have been undertaken.		
2.7	Request for 10 year timescale (of the plan) resource condition trends for sharing more broadly with interested stakeholders	Ongoing	
2.8	Presentation on results from water values survey	Ongoing	

Action Table – Closed Items

Action	LLC WAP Stakeholder Advisory Group Actions	Status
2.6	Arrange a presentation from industry representatives around how useful they have found the different licencing components and how they have used them in their businesses.	Complete
2.1	Provision of presentation, provision of reports from presentation	Complete
2.3	Paddock Tree report to be provided on the project portal.	Complete
2.5	Arrange a presentation from DEW Water Licencing on licencing components and their experiences and perspectives as the body that administers them.	Complete
1.3	Ground rules to be drafted and provided back to group	Complete
1.4	LC Landscape Board Staff prepare recommendation for the LC Landscape Board Governing Body on behalf of the Stakeholder Advisory Group. Recommendation to be considered by the LC Landscape Board Governing Body at its 28 October 2022 Meeting.	Complete
1.5	Convey stakeholder concerns around the Australian Rare Earths Limited development to the LC Landscape Board Governing Body.	Complete

Lower Limestone Coast WAP Stakeholder Advisory Group Decision Register

Issue	Meeting	Decision
Drainage water extraction	Meeting 8	The Stakeholder Advisory Group recommends that where drain water is demonstrated to be groundwater, an application to extract drainage water should be subject to the same principles and requirements as groundwater extraction is under the LLC water allocation plan (e.g. hydro test).
GDE Protection principles	Meeting 8	The Stakeholder Advisory Group recommends the LC Landscape Board review the GDE protection principles in amendment of the current Plan.
GDE Ecological thresholds	Meeting 8	The Stakeholder Advisory Group recommends the LC Landscape Board investigate adaptive management in amendment of the Plan that includes ecological thresholds relevant to GDEs.
Water market	Meeting 7	The Stakeholder Advisory Groups recommends that the LC Landscape Board, through amendment of the Lower Limestone Coast Water Allocation Plan: 8. Include mechanisms that ensure movement of water onto a land parcel requires land owner permission.
Trades and transfers	Meeting 7	The Stakeholder Advisory Groups recommends that the LC Landscape Board, through amendment of the Lower Limestone Coast Water Allocation Plan: 6. Develop a single set of objectives for managing the resource that applies to the entire Plan, rather than separate objectives for each section. 7. Allow conversion and transfer of a forestry licence to a water (taking) licence.
Confined aquifer	Meeting 7	The Stakeholder Advisory Groups recommends that the LC Landscape Board, through amendment of the Lower Limestone Coast Water Allocation Plan: 3. Retain Objective 8.1 a) specified in the current Plan which is to: "cautiously manage the confined aquifer so that it may continue to be available for the social, economic and environmental needs of current and future generations." 4. Review current allocation in the confined aquifer and assess the risks in relation to that level of allocation. 5. Consider mechanisms to adaptively manage the confined aquifer resource.

Target management levels	Meeting 7	The Stakeholder Advisory Groups recommends that the LC Landscape Board, through amendment of the Lower Limestone Coast Water Allocation Plan: 1. Review the use of total available recharge as the basis for sustainable water management. 2. Consider mechanisms to adaptively manage the resource.
Farm forestry	Meeting 5	The Stakeholder Advisory Group recommends that the Limestone Coast Landscape Board undertakes a review of the farm forestry principles and its risks and benefits.
Forestry principles	Meeting 5	The Stakeholder Advisory Group recommends that the Limestone Coast Landscape Board undertakes a review of the assumptions that underpin the deemed rate. Review should consider available lines of evidence to inform the deemed rate.
Licencing components principles	Meeting 4	The Stakeholder Advisory Group recommends that the Limestone Coast Landscape Board undertakes a comprehensive review of the principles for licencing components to determine if amendment is required. Review should look at whether the principles could be simplified but must also consider risks to the environment or primary producers that changes could introduce. Review should also consider opportunities such as environmental allocations.
Volumetric conversion and bridging volume principles	Meeting 2	Recommend that the LC Landscape Board remove the volumetric conversion and bridging volume principles from the water allocation plan under amendment.
Representativeness of Group	Meeting 1	Group agreement that a nomination should be sought from hardwood plantation forestry for representation on the Stakeholder Advisory Group.