Lower Limestone Coast Water Allocation Plan Amendment Process

March 2025 consultation report

In March 2025 the Limestone Coast (LC) Landscape Board held a second round of broader community consultation. Sessions were open to anyone interested in the process and were held in Kingston, Naracoorte, Mount Gambier, Millicent and online. Each session presented the same information.

This report brings together what was heard at all sessions under key themes. The report isn't designed to detail every question asked but presents the key themes raised by attendees.

Key themes discussed by attendees of the sessions were:

Dry times 2
Amendment process 3
Balancing environment and demand from consumptive uses 4
South East artificial drainage network 5
Groundwater resource condition 6
Acceptable impact 7
Groundwater modelling for the Lower Limestone Coast 8
Adaptive management 9
Border Zone (Designated Area) 10
Climate variability and climate change 10

What was presented in the sessions

The presentation is publicly available with some notes provided.

March 2025 presentation [PDF, 2.4 MB]

Process update

A brief update on progress of the amendment process was provided.

Brief resource condition update

At the time of the sessions some autumn 2025 monitoring data was available and all data for spring 2024 was available. Given dry conditions it was an opportunity to see different responses in the aquifer to dry times, in different locations and under different land uses.

Acceptable impact

The concept of acceptable impact was presented again to provide further information on how this will be worked through with stakeholders. The approach that will be taken was presented including a starting point for defining and addressing historical over allocation.

Ongoing declining trends at current climate, current use and use at full allocation are considered evidence of historical over allocation. Pathways to achieve stabilisation of ongoing declines will need to be identified. This includes considering the depth to groundwater at which groundwater levels are stabilised at and the impact of these different depths.

A preliminary look at which management areas might have historical over allocation was provided.

Resource condition limits and triggers and adaptive management

The concept of adaptive management was presented. Adaptive management is important to make the revised Plan responsive to a future climate in which variability is expected to exceed historical records. It also considers the long-term climate trends.

Examples of resource conditions that would be used for limits and triggers were provided. The trigger in the current Plan was also discussed.

Groundwater modelling

A high-level overview of groundwater modelling was provided. This included the data used in the groundwater models, where groundwater models are useful in water allocation planning processes, how they work and calibration.

South East Artificial Drainage Network

A brief overview of the south east artificial drainage network was provided including some history and the different purposes of the network. How drains function was presented along with how surface and groundwater interactions are changing. Data was provided on flows, where these flows are and how flows are declining through time.

Key themes raised by attendees

Dry times

Concerns were raised that the current dry times may result in the LC Landscape Board overreaching in the amendment process. Attendees were reminded that the review process, which led to amendment, occurred prior to the dry times. Amending the Plan has always been about the long-term sustainability of the resource, through climate variability and long-term climate trends. The amendment process is not in response to dry times.

Amendment process

Some queried what was wrong with the current Plan, what happened that it got it wrong. The current Plan used the best available knowledge and science at the time. The approach to the Plan was reasonable given the data available. We now know there are different approaches to groundwater management and have more science available to inform the settings of the Plan.

Regarding engagement on the water allocation plan it was queried who qualified as a stakeholder. Water licence holders are a critical stakeholder but as the Plan intends to revise the sustainable limits of the resource all people in the Lower Limestone Coast are included in engagement.

Attendees queried what information is publicly available for the process and from the Stakeholder Advisory Group. Agendas and minutes are made public and extensive information is provided on the project page. The outcomes report from the review process which led to amendment is also available.

It was queried whether stock and domestic users were part of the consultation. The LC Landscape Board is using a range of methods to try and reach people who may be interested in the process, including stock and domestic users (who are not water licence holders). The LC Landscape Board recognises there is still more to be done to help people understand the importance of engaging in the process.

An attendee commented that many people don't understand the significance of the issues here. There are examples from overseas, like California, where the wrong decisions have been made, and they now have real problems. These may be good examples to present to community to help them understand what happens when the right decisions aren't made.

It was asked how much say the LC Landscape Board has in determining limits given there are policies at state and federal levels. The LC Landscape Board must align with legislation and consider alignment with relevant polices. But typically, policies at this level at not prescriptive to define resource condition limits because they apply to diverse groundwater and surface water regions. This is what we are looking to determine through the amendment process.

Attendees raised whether there would be buy-backs for water licences like on the Murray. Has the LC Landscape Board considered using economic models like those used on the Murray to inform buy-backs. Buy-backs on the Murray are driven by Federal Government funding and policy. There has not been buy-backs for a purely state based water resource in South Australia before. To the extent that the LC Landscape Board can understand, at this stage buy-backs are not being considered.

Various scenarios of economic impacts from reductions or restrictions to allocations were raised including devaluing of land, that licences can have loans attached to them, decreases in productivity and no further agricultural development. The LC Landscape Board recognises

any changes will have significant impacts. This is an important way stakeholders can inform the process by ensuring the LC Landscape Board understands these impacts in full.

An attendee raised the importance of science used in the process being peer reviewed as well as decisions like resource condition limits and triggers. Science used in the amendment process is peer reviewed and stakeholders have input into resource condition limits and triggers.

It was queried how the LC Landscape Board sees new or additional industries coming into the region and how they would receive allocation. Under the current Plan or a revised Plan they would need to obtain a water licence through the water market. The activity of the water market was queried. There is a water market, it is mostly a permanent trade market. The LC Landscape Board is doing some work around what the market is currently which will be available later.

A point was raised that licensees are unlikely to agree across the prescribed wells area. How will the different views be considered. The LC Landscape Board recognises it will not achieve agreement. What the LC Landscape Board is seeking to understand is the different views and perspectives, consider how they align to legislation and policy and also consider what is reasonable. This is all to find a balance in an area with competing and complex demands for water. The LC Landscape Board is the decision maker in terms of what is written into the Plan. The Minister is the ultimate decision maker as they adopt the Plan.

It was requested that for decision points there should be some clarity for stakeholders on how decisions will be made and the rationale before getting into analysis.

Balancing environment and demand from consumptive uses

Concerns were raised as to whether all wetlands would be protected or saved. Irrigators may prefer to see wetlands lost than be subject to management actions to protect them. The LC Landscape Board recognises that some wetlands have been lost in the region through time. However, while some irrigators may prefer to see wetlands lost, there are legislated requirements to consider the environment. The LC Landscape Board will consider where it is feasible to provide environmental water requirements for wetlands. It is also recognised that not every management area has wetlands or other groundwater dependent ecosystems.

It was queried that under the Plan now there is an allocation for the environment. Some people in the region believe this allocation will be significantly increased as an outcome of the amendment process. It was explained that the current approach of allocating a percentage of recharge to the environment is not the method the revised Plan will use. This method has been demonstrated to not protect the resource or the environment from decline. Instead, the allocation of water to consumptive uses will be determined by understanding the impacts we are willing to accept or not accept. This will allow the setting of resource condition limits.

It was commented that Eight Mile Creek and Ewens Ponds were not included in the presentation. Discharge at Eight Mile Creek is at record lows and Ewens Ponds is under significant stress. It was raised that there is a risk that if water continues to be taken from Eight Mile Creek area, seawater could intrude.

South East artificial drainage network

Attendees queried the impact of drains on groundwater levels. Drains were mostly constructed in the region prior to when groundwater monitoring became widespread in the region, which was from around the 1970s. It is therefore not possible to see the impact of drains on groundwater levels through groundwater monitoring. As groundwater levels decline below the base of drains, groundwater no longer discharges into them. While this may be the case it was commented that drains will prevent recovery of groundwater levels greater than the base of the drains.

It was pointed out that drains are managed under a different authority and legislation, and would it be better if these were managed under the same authority and legislation. Attendees queried how the LC Landscape Board and South Eastern Water Conservation and Drainage Board interact. The two boards work closely together on relevant matters and are currently partnered on multiple projects.

It was queried whether the groundwater models can be used to understand the impact of drains. The groundwater models developed for the amendment process include the drains.

It was discussed that there is no harm in holding as much water back in the landscape that we can for the environment and local recharge/soil moisture. It could be a small part of the solution but not the whole solution. The LC Landscape Board agrees. Where it is possible to undertake projects and not flood productive areas there can be significant benefits. The LC Landscape Board is actively pursuing projects like this where it can.

Some attendees believe the drain opportunity is still significant and not sufficiently considered. Other attendees indicated that the South Eastern Water Conservation and Drainage Board do not have sufficient funds to manage the network and may not ever. Drains could be decommissioned to reduce resourcing costs. Some consider the LC Landscape Board is being too dismissive about what could be achieved with the drains. The LC Landscape Board recognises that there may be small scale, placed based opportunities across the network that can achieve positive outcomes. But it is not a prescribed wells scale opportunity.

Queries were raised around the management of the weirs across the network. Management of weirs is the responsibility of the South Eastern Water Conservation and Drainage Board, and they are best placed to answer those questions. Some properties still rely on the drainage network to be able to farm year-round and not have production impacted by seasonal flooding.

Some attendees remarked that they had seen changes in groundwater levels over the last 50 years, they had seen changes in groundwater expressing in drains and at the surface and drains being disconnected from groundwater.

A query was raised whether water could be taken/captured from Eight Mile Creek before it goes to sea. Eight Mile Creek was a natural creek (has been deepened and straightened) and supports threatened species. Consideration would need to be given to the potential negative environmental impacts of taking water from the creek. Currently the LC Landscape Board doesn't consider that there is a viable pathway to do this.

Groundwater resource condition

Attendees queried whether changes in recharge or groundwater extraction have a bigger impact on groundwater levels. Both changes in recharge (via recharge interception) and groundwater extraction have an impact. Impact will vary greatly across the prescribed wells area and depend on what land use is more dominant. Where recharge interception is dominant it will be a bigger impact. Where groundwater extraction is dominant it will be the bigger impact.

Some attendees spoke to groundwater still expressing in some places in the prescribed wells area, not every area is impacted the same. It was acknowledged that resource condition varies across the prescribed wells area, and this will be taken in to consideration in the amendment process.

A query was raised as to whether groundwater monitoring only occurs around Mount Gambier or across the whole region. Groundwater observation wells occur across the prescribed wells area.

It was raised that an attendee had heard there were uncapped bores out in the ocean and what was being done about these. The LC Landscape Board is not aware of an uncapped bore field out to ocean but will make some enquiries.

Some attendees had noted the establishment of new bores around the Eight Mile Creek area. These are additional groundwater level monitoring bores. It was raised that some observation wells go back earlier than 1970s. Some monitoring did start much earlier but only in a few places, particularly around Mount Gambier due to public water supply.

It was queried how important recharge via runaway holes is. In some areas recharge via runaway holes is considered to be quite important. In these areas runaway holes have been included in the groundwater models. Recharge via runaway holes is being impacted by changes in rainfall patterns. Flow to runaway holes was considered altered by expansion of blue gums in Victoria. An example of Bool Lagoon was provided where some attendees viewed the impacts from Victoria greater than the impacts from South Australia.

There were some queries about how forestry is included in the Plan and how they received their allocations. It was also queried whether over allocation is only in forestry areas. When

forestry came into the Plan, as a water licence holder, they received allocations to cover the extent of existing plantation forestry. Over allocation is not restricted to areas with forestry, it also occurs in areas without forestry.

Acceptable impact

Attendees queried why a new approach to allocation was being considered. New knowledge shows that allocating a percentage of recharge does not necessarily protect resource condition or the environment from decline. Advances in groundwater modelling have also occurred that allow a different approach. Acceptable impact and resource condition limits and triggers is a change occurring in water allocation plans across South Australia and in many other places.

An attendee queried whether allocation will be based on a percentage of hectares. This is not the intent. Allocations will remain a volume.

It was queried that if someone is not using their water licence, will they lose that part of their licence. It was asked whether at the end of this process supplementary allocations and carry-over would be taken. The LC Landscape Board is not targeting unused water in this process. Carry-over has not yet been discussed. Supplementary allocations are currently proposed to become like tradeable allocations under a water (taking) licence.

It was pointed out that if we are currently not using all allocation and its fine, is there actually a problem. The LC Landscape Board queries the interpretation of fine. In some places groundwater levels continue to decline and environmental water requirements are not being met. Part of this amendment process is determining what is fine or acceptable in terms of impact and what is not.

It was asked that given some areas had staged reductions, had this had any positive impact. In some areas such as Coles and Short there has been some increase in groundwater levels but not recovery to previous levels. This is likely a result of reductions to forestry allocations at clear fell.

It was raised that because some areas are not using all of their water you could take a percent and it would have no impact on use. What is the point of reductions if it's not impacting use.

A query was raised around the initial spatial scale for looking at acceptable impact. The spatial scale under consideration at this stage is management area level. This is the starting point as water licence holders are most familiar with this scale and it is meaningful to them. The LC Landscape Board recognises it will need to look at other spatial scales across the process and consider what makes most sense at the end.

It was commented that soil is extremely dry at moment, soil moisture is low, it was queried if this would impact recharge. Soil moisture will impact recharge. It will change how much water makes it back into the system once rainfall occurs.

If there are ongoing declining trends in groundwater levels how will stabilisation be achieved and will this be looked at from the spatial scale of management area. The intent is to start at management area level. The two key ways to stabilise groundwater levels is reductions and restrictions to allocations.

There are a lot of management areas in the border zone that show an ongoing decline with current climate and current use. A query was raised as to how much of this impact is from Victoria. South Australia tends to be the more significant water user. Impact from Victoria may be able to be looked at through the groundwater modelling.

Some attendees didn't see setting responses or management actions in association with a trigger in advance as possible. Triggers and limits are a policy change being implemented into water allocation plans across South Australia as they are being revised. There are multiple water allocations plan in South Australia that do this.

Some disagreed that there was over allocation and if anything, the resource is underutilised.

It was raised that the aquifer isn't a bucket, we are drawing out of a culvert. The water isn't stored in the aquifer, the water is flowing out to sea through the aquifer and perhaps there is too much focus on the impact of irrigation. The Karst Springs project is an example that there are other solutions. The LC Landscape Board recognises that many other projects may be important for water security in the Lower Limestone Coast. But so is the appropriateness of policy settings. The amendment process is focused on the policy settings, but the LC Landscape Board is working on other projects, like the Karst Springs project, to support water security.

Some noted that 50% of allocation is being used, if another 50% is used this would have a huge impact on the water resource condition. It was queried whether the LC Landscape Board would consider the impact of full allocation. The LC Landscape Board will be considering the impact of use at full allocation.

It was queried whether the LC Landscape Board has considered that in some areas recovery of groundwater levels may not be possible. The LC Landscape Board recognises that recovery may only be feasible in limited places.

It was queried whether it is known what the impacts will be on water quality if water levels are lowered. Water quality will need to be a consideration of declines in groundwater levels. Water quality could decrease as groundwater levels decrease and salinity also needs to be considered as an impact. The aquifer will not be the same quality all the way through, nor will it yield the same. The best way to protect water quality is to maintain groundwater levels. Allowing declines in groundwater levels introduces the risk of change in water quality and yield. Water quality will certainly be a consideration.

Groundwater modelling for the Lower Limestone Coast

It was asked where groundwater models don't calibrate closely with actual data, how is this handled, why does it occur and what happens then. Ultimately, we don't know everything about the aquifer and data assumptions are made. These are outlined in the model reports. This uncertainty will be considered as we set limits. Models give projections but they are not a crystal ball, this is always considered in the setting of resource condition limits.

It was asked what data goes into the model, is observation well data used in the models. Observation well data is used along with a range of other datasets on aquifer properties, land use, soil type, geology and much more.

It was asked whether the groundwater models can be updated with new knowledge and science. Groundwater models can be updated with new data and knowledge.

When current climate is referred to in the groundwater modelling what period is this referring to. It means 10 years of climate up until 2022. This 10-year period is repeated across the model run.

It was raised whether there is a need to limit the growth of towns given their demand for water. There are a lot of new subdivisions demanding water, these could be limited to allow for farming. In some places water available to bores is becoming noticeably drier. It is not the role of the LC Landscape Board to determine town growth, but the revised Plan will consider growth projections in the policy settings.

Adaptive management

The spatial level for triggers was queried, whether this will only be management area level. Initially triggers will be looked at a management area level but this doesn't prevent coming back to this later to consider what makes sense. Impact on neighbouring resources needs to be a consideration and will also be looked at.

A query was raised as to whether restrictions would be the same for large irrigators and small irrigators. Larger irrigators will be able to buy more water and keep operating as they were, whereas the small irrigators won't be able to do this. The LC Landscape Board acknowledges that any kind of restriction will impact individuals, businesses and industries differently. But there is no intent to scale restrictions to size of operations.

The current Plan has a trigger outlined, the query was raised what actions were associated with the trigger. There are no actions against the trigger. The trigger is being exceeded in some places, but no action can be taken under the current Plan.

The timeframe around when an action results from a trigger or limit was raised as important. The LC Landscape Board recognises this, and a trigger may need to be hit over consecutive years before an action actually results. This is something that still needs to be worked through. This is an area that stakeholders will be able to provide important input into.

It was raised that further triggers were supposed to be investigated after adoption of the Plan. The LC Landscape Board is not aware of this occurring.

The difference in how reductions are implemented for different industries was raised. Irrigators take them immediately (or as per a pre-determined schedule) whereas forestry only take them on clear fell. Many industries are as invested as forestry around water access. Other crops, such as apples are permanent crops and industries like dairy invest millions in infrastructure. This should be considered. It is an issue of fairness between forestry and agriculture in adaptive management as forested areas receive no recharge for 20+ years. If groundwater levels drop forestry isn't impacted until they clear fell.

Border Zone (Designated Area)

Impacts from water use and recharge interception in Victoria were raised as a concern. Expansion of forestry was specifically raised. It was queried whether the South Australian policy can impact what happens in Victoria and how impacts are discussed between the states. South Australia does tend to be the bigger water user except around Zone 6A and 6B where Victorian is also high. South Australian policy can't manage Victoria, just as Victorian policy can't manage South Australia. An agreement exists between Victoria and South Australia called the Border Groundwater Agreement. The agreement is designed to manage impacts between the states.

A question was raised as around the Border Groundwater Agreement and how this affects considerations by the LC Landscape Board and the Border Groundwater committee. The Border Groundwater Agreement is the superior legislation, the LC Landscape Board will align to the requirements of this agreement.

Climate variability and climate change

A query was raised around how accurate are climate projections. No modelling or projection is a crystal ball. But climate modelling is underpinned by extensive data and knowledge. The LC Landscape Board uses NARCliM climate projections when scenarios are run that consider climate change. NARCliM (NSW and Australian Regional Climate Modelling) brings together globally recognised science and multidisciplinary expertise to deliver regional climate projections for south-eastern Australia. NARCliM data have been used in research, planning and decision-making relating to local-scale climate change for more than a decade.