

Lower Limestone Coast Water Allocation Plan

Amendment process

Setting resource condition limits

Structure of revised Plan

Explanation slide

In June 2026, consultations to support the amendment process for the Lower Limestone Coast Water Allocation Plan were held in Mount Gambier, Kingston, Naracoorte, Millicent and online. Explanation slides, such as this one, were not part of the original presentation. They have been added to provide context that would have otherwise been provided when this was presented.

Two key topics were presented:

- Setting resource condition limits.
- Structure of the revised Plan.

Work to propose resource condition limits is still in progress. This presentation provided a high-level overview of where progress is up to and what is being considered. More work is happening on this, with updates to be provided in the future.

Work has progressed around the structure of the revised Plan and these key concepts are open for feedback until the end of July 2026. These are concepts that were introduced early in the process and have evolved based on early feedback and further investigations. These concepts will form key parts of the structure of the revised Plan and other policy elements will build on top of them.

When registering for the forums, attendees could pose questions they were seeking answers to. Some of these questions were directly addressed by the content but other questions were collated at the end and discussed. Responses to questions will be provided in a document separate from this presentation.

Process update

- Stakeholder Advisory Group is supporting the process
  - In depth consideration of changes
  - Provide recommendations to the LC Landscape Board Governing Body
- Broader consultation
  - provides reasonable opportunity for those interested to contribute
- Develop policy revisions or new policy elements
  - Test with stakeholders, make change, test again
- Water allocation plan continues to operate as it has

2022-23
Evaluation of current Plan

March 2024
Amendment process started

August 2024
First broader consultation

March 2025
Second broader consultation

May-June 2026
Third broader consultation

Early 2027
Informal consultation

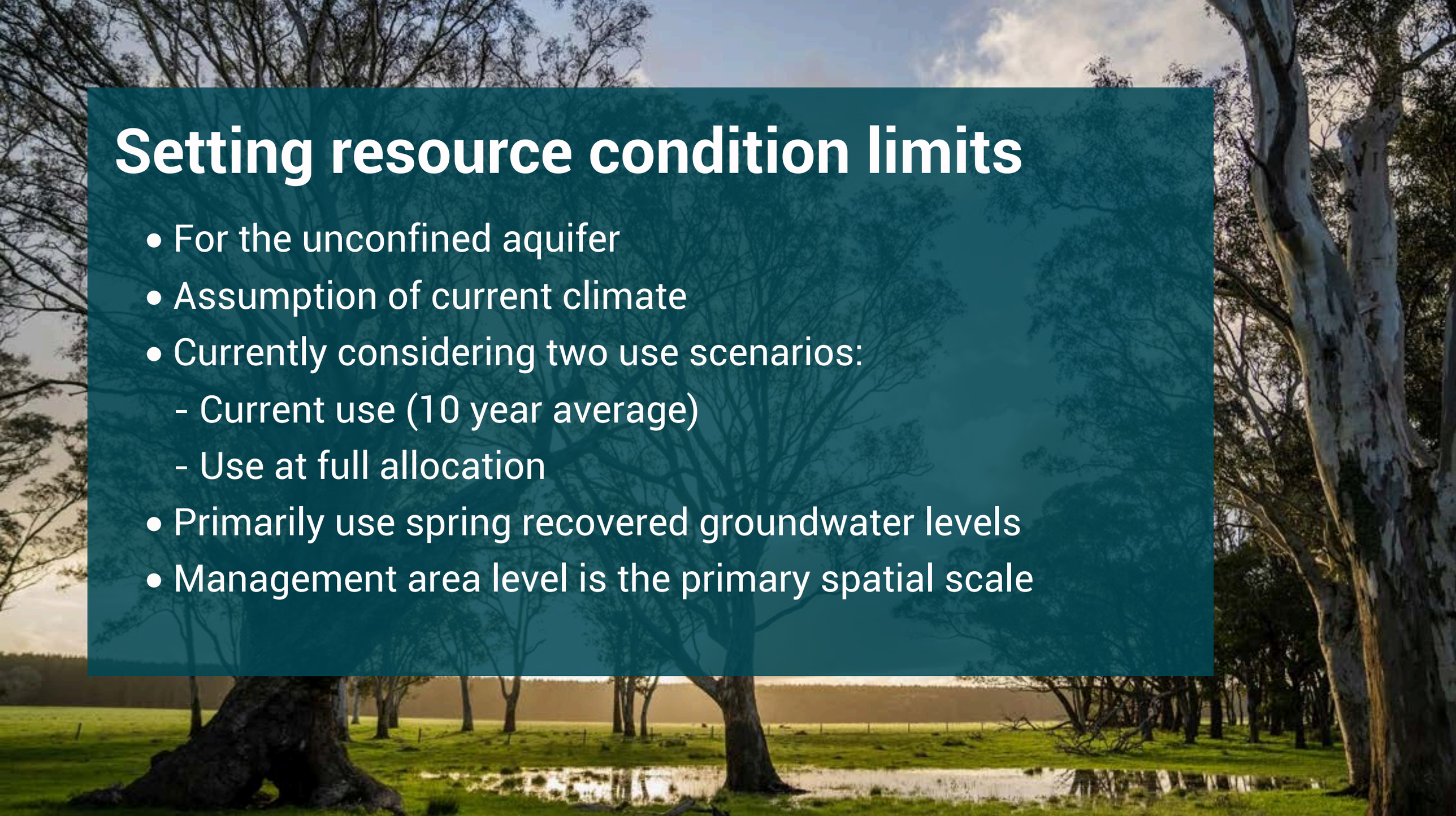
Mid 2027
Formal consultation

December 2027
Final draft

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Setting resource condition limits

- Changes in use and climate will create change in resource condition
- Want the Plan to be responsive to these changes and protect resource condition within in acceptable impact limits, while the Plan is in operation
  - In built adaptation
  - Clarity, transparency



Setting resource condition limits

- For the unconfined aquifer
- Assumption of current climate
- Currently considering two use scenarios:
  - Current use (10 year average)
  - Use at full allocation
- Primarily use spring recovered groundwater levels
- Management area level is the primary spatial scale

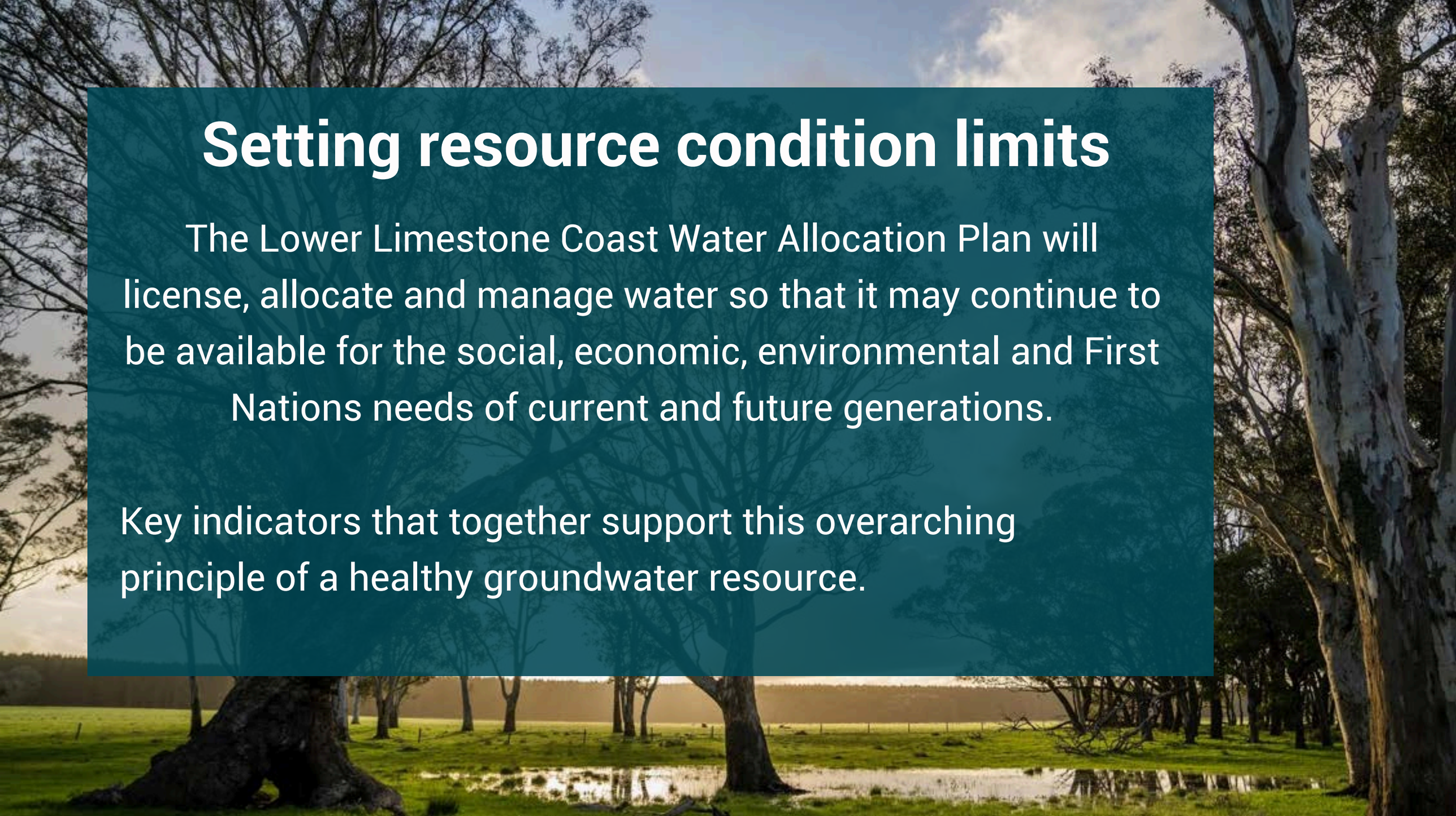
Explanation slide

Setting resource condition limits is a new policy proposal. The Lower Limestone Coast Water Allocation Plan does not currently have resource condition limits. This presentation focused on setting resource condition limits for the unconfined aquifer. Resource condition limits are also being considered for the confined aquifer but will be quite different given the differences between the aquifers.

Resource condition limits for the unconfined aquifer will primarily be groundwater levels. These will be limits, not targets. The revised Plan will seek to manage groundwater levels above these limits. If groundwater levels decline to these limits, we accept the impacts of that. But we don't accept impacts from groundwater levels declining below the resource condition limits.

Key indicators to inform setting resource condition limits are at different levels of development. Methodologies underpinning the key indicators will be used to inform resource condition limits and triggers.

An indication of outcomes from some approaches was provided but was not available for others. Work will continue on these indicators.



Setting resource condition limits

The Lower Limestone Coast Water Allocation Plan will license, allocate and manage water so that it may continue to be available for the social, economic, environmental and First Nations needs of current and future generations.

Key indicators that together support this overarching principle of a healthy groundwater resource.

Setting of resource condition limits

Protect water security and aquifer integrity through the ongoing availability of the water resource for current and future generations

Key indicator:

- Prevent ongoing decline in groundwater levels

Protect critical human water needs, making communities places where people can live, work and invest with confidence.

Key indicator:

- Protect public water supply

Setting of resource condition limits

Healthy environment that supports biodiversity, tourism and social values

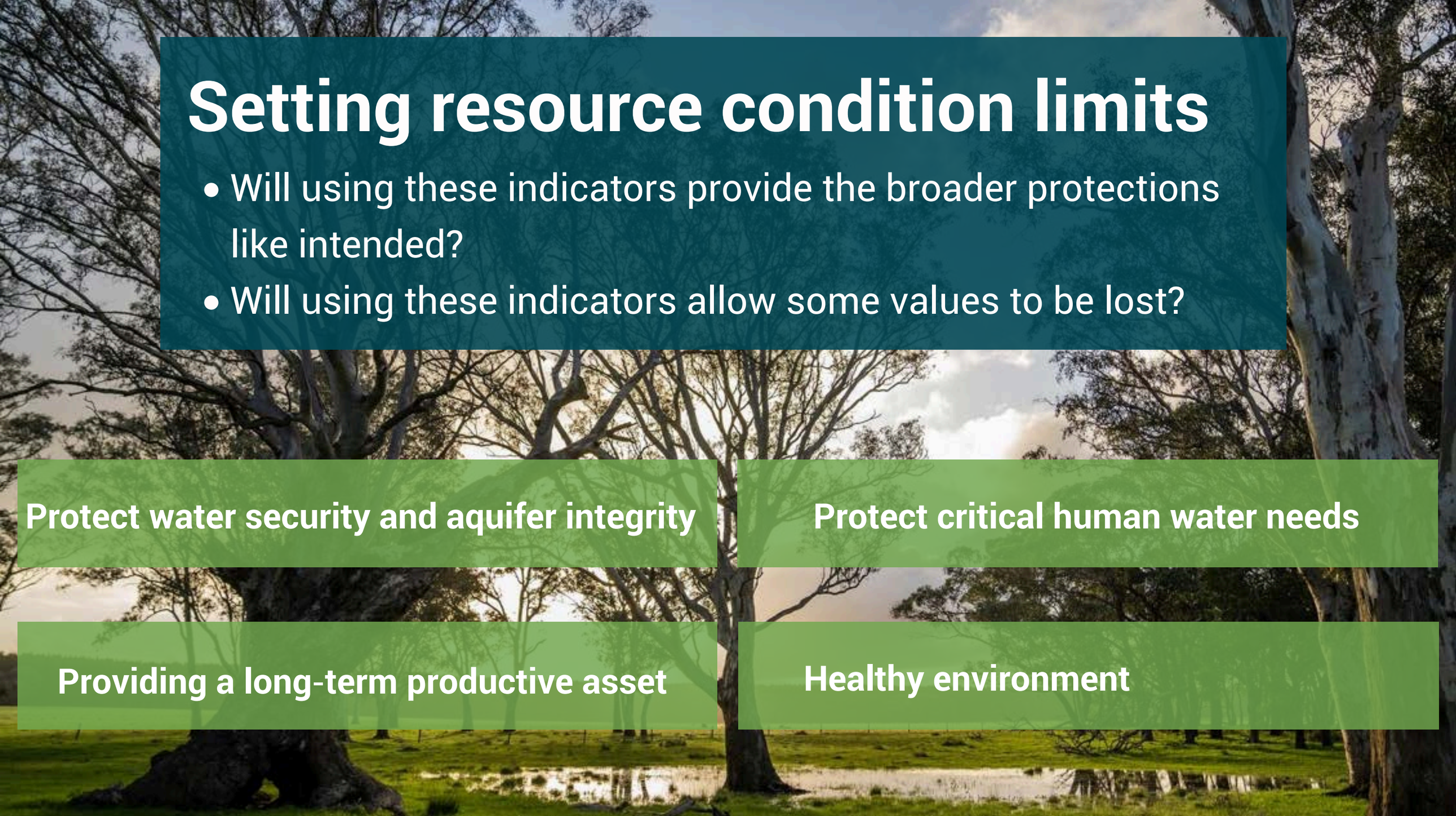
Key indicator:

- Groundwater dependent wetlands

Protecting the unconfined aquifer as a long-term productive asset. Groundwater levels directly influence yield reliability, pumping costs and water quality. This limit ensures a healthy aquifer to support profitable farming, stable costs, and long-term water security across the whole region

Key indicator:

- Stock and domestic access



Setting resource condition limits

- Will using these indicators provide the broader protections like intended?
- Will using these indicators allow some values to be lost?

Protect water security and aquifer integrity

Protect critical human water needs

Providing a long-term productive asset

Healthy environment

Protect water security and aquifer integrity

- **Indicator**:
  - Preventing ongoing decline
- **Aim**:
  - Identify where ongoing declines are occurring or will occur under different use scenarios
- **Approach**:
  - Ongoing decline defined as when groundwater levels do not stabilise prior to 2050, in the next 24 years
  - Use a statistical test on each hydrograph from the groundwater models to determine:
    - if there is a trend (e.g. declining or increasing)
    - the slope of the trend (e.g. rate of change, how fast or slow)

Ongoing decline

- Groundwater models project groundwater levels out 24 more years, to 2050



- Other methodologies used to determine whether new level is within acceptable impact limits

Ongoing decline approach

- Aggregate results up per management area
- Categorise each management area:
  - **Stable**: Groundwater levels remain stable under the use scenario
  - **Localised issues**: Groundwater level trends vary across the management area, no broadly consistent trend
  - **Possible emerging issues**: These hydrographs tend to be characterised by a large decline followed by an increase in groundwater levels. The significance of this variation may be masking an ongoing decline. Tends to localised
  - **Slow decline and then stabilisation**
  - **Decline and then stabilisation**
  - **Ongoing decline**

Explanation slide

The following slides present how the different management areas are categorised based on the ongoing decline approach, depending on the use scenario.

Management area categorisation often varies between the different use scenarios, a reflection of the gap between how much water is being used and how much water is allocated per management area.

Current use, current climate			
STABLE			
Blanche Central	Glenroy	Mayurra	Ross
Bowaka	Joyce	Minecrow	Smith
Bray	Kennion	Monbulla	Spence
Coles	Lacepede	Mount Muirhead	Stewarts
Compton	Lake George	Murrabinna	Symon
Conmurra	Landseer	Ormerod	Townsend
Duffield	Lochaber	Peacock	Waterhouse
Fox	Marcollat	Rivoli Bay	Woolumbool
Use at allocation, current climate			
STABLE			
Duffield	Landseer	Murrabinna	Rivoli Bay
Lacepede	Minecrow	Peacock	Smith

Current use, current climate	
POSSIBLE EMERGING ISSUES	LOCALISED ISSUES
Bool	Hindmarsh
Hacks	Mount Benson
Killanoola	
Moyhall	
Short	
Struan	
Use at allocation, current climate	
LOCALISED ISSUES	
Bool	

Current use, current climate			
SLOW DECLINE, STABILISE			**DECLINE, STABILISE**
Benara	Hynam West	Young	Comaum
Donovans	Kongorong	Zone 2A	Joanna
Glenburnie	MacDonnell	Zone 3A	Riddoch
Grey	Moorak		
Use at allocation, current climate			
SLOW DECLINE, STABILISE	**DECLINE, STABILISE**		
Lochaber	Bowaka	Joyce	Ross
Ormerod	Coles	Kennion	Spence
	Compton	Killanoola	Stewarts
	Conmurra	Lake George	Struan
	Fox	Marcollat	Symon
	Glenroy	Mayurra	Townsend
	Hacks	Mount Muirhead	Waterhouse
	Hynam West	Moyhall	Woolumbool

Current use, current climate		
ON-GOING DECLINE		
Bangham	Hynam East	Zone 5A
Beeamma	Myora	
Frances	Western Flat	
Use at allocation, current climate		
ON-GOING DECLINE		
Bangham	Grey	Myora
Beeamma	Hindmarsh	Riddoch
Benara	Hynam East	Short
Blanche Central	Joanna	Western Flat
Bray	Kongorong	Young
Comaum	MacDonnell	Zone 2A
Donovans	Monbulla	Zone 3A
Frances	Moorak	Zone 5A
Glenburnie	Mount Benson	

Protect critical human water needs

- **Indicator**:
  - Public water supply
- **Aim**:
  - Protect quality and quantity for public water supply
- **Approach**:
  - In unconfined management areas where public water supply is drawn seek to stabilise groundwater levels at current level

Protecting the unconfined aquifer as a long-term productive asset

- **Indicator**:
  - Stock and domestic access
- **Aim**:
  - Manage the vulnerability of stock and domestic bores to declines in groundwater levels within acceptable impacts
- **Approach**:
  - Use the stock and domestic bore dataset from Waterconnect
  - Use groundwater levels and groundwater models to determine vulnerability to declines in groundwater levels
    - assess at 1995, current and future (2050)
  - Assign an impact rating

Stock and domestic approach

Categorise each stock and domestic bore:

Water column depth available to bore	Vulnerability category
0 – 4 m	Vulnerable
> 4 m	Low vulnerability

Categorise each management area:

Impact rating	% of stock and domestic bores with 0 – 4 m of water column depth
High	50% - 100%
Moderate	20% - <50%
Low	0% - <20%

Explanation slide

The following slides present how the different management areas are categorised based on the stock and domestic access approach, depending on the use scenario.

Management area categorisation often varies between the different use scenarios, a reflection of the gap between how much water is being used and how much water is allocated per management area.

Stock and domestic approach

Current vulnerability					
Low					
BANGHAM	CONMURRA	HYNAM WEST	LOCHABER	MURRABINNA	STEWARTS
BEEAMMA	DONOVANS	JOANNA	MACDONNELL	MYORA	STRUAN
BENARA	DUFFIELD	JOYCE	MARCOLLAT	ORMEROD	SYMON
BLANCHE CENTRAL	FOX	KENNION	MAYURRA	PEACOCK	TOWNSEND
BOOL	GLENBURNIE	KILLANOOLA	MINECROW	RIDDOCH	WATERHOUSE
BOWAKA	GLENROY	KONGORONG	MOORAK	RIVOLI BAY	WESTERN FLAT
BRAY	HACKS	LACEPEDE	MOUNT BENSON	ROSS	WOOLUMBOOL
COMAUM	HINDMARSH	LAKE GEORGE	MOUNT MUIRHEAD	SMITH	YOUNG
COMPTON	HYNAM EAST	LANDSEER	MOYHALL	SPENCE	ZONE 2A
Moderate					
COLES	MONBULLA	ZONE 3A			
GREY	SHORT	ZONE 5A			
High					
FRANCES					

Stock and domestic approach

Vulnerability under current climate and current use in 2050					
Low					
BEEAMMA	DONOVANS	JOANNA	MARCOLLAT	ORMEROD	SYMON
BENARA	DUFFIELD	JOYCE	MAYURRA	PEACOCK	WATERHOUSE
BLANCHE CENTRAL	FOX	KENNION	MINECROW	RIDDOCH	WESTERN FLAT
BOOL	GLENBURNIE	KONGORONG	MOORAK	RIVOLI BAY	YOUNG
BOWAKA	GLENROY	LACEPEDE	MOUNT BENSON	ROSS	ZONE 2A
BRAY	HACKS	LAKE GEORGE	MOUNT MUIRHEAD	SMITH	
COMAUM	HINDMARSH	LANDSEER	MOYHALL	SPENCE	
COMPTON	HYNAM EAST	LOCHABER	MURRABINNA	STEWARTS	
CONMURRA	HYNAM WEST	MACDONNELL	MYORA	STRUAN	
Moderate					
BANGHAM	GREY	MONBULLA	TOWNSEND	ZONE 3A	
COLES	KILLANOOLA	SHORT	WOOLUMBOOL	ZONE 5A	
High					
FRANCES					

Stock and domestic approach

Vulnerability under current climate and use at allocation in 2050					
Low					
BENARA	DONOVANS	KONGORONG	MACDONNELL	MURRABINNA	STEWARTS
BLANCHE CENTRAL	DUFFIELD	LACEPEDE	MARCOLLAT	ORMEROD	WATERHOUSE
BOOL	GLENBURNIE	LAKE GEORGE	MAYURRA	RIDDOCH	WESTERN FLAT
COMPTON	HINDMARSH	LANDSEER	MINECROW	ROSS	YOUNG
CONMURRA	HYNAM WEST	LOCHABER			
Moderate					
BANGHAM	COMAUM	JOANNA	MOORAK	PEACOCK	SYMON
BEEAMMA	FOX	JOYCE	MOUNT BENSON	RIVOLI BAY	ZONE 2A
BRAY	HACKS	KENNION	MOUNT MUIRHEAD	SPENCE	
COLES	HYNAM EAST	KILLANOOLA	MOYHALL	STRUAN	
High					
BOWAKA	GLENROY	MONBULLA	SHORT	TOWNSEND	ZONE 3A
FRANCES	GREY	MYORA	SMITH	WOOLUMBOOL	ZONE 5A



Healthy environment

- **Indicator**:
  - Groundwater dependent wetlands
- **Aims**:
  - Protect the remaining groundwater dependent wetland extent
  - Investigate strategic locations where an increase in groundwater levels could recover some wetlands:
    - Would need to be strategic
    - Need to demonstrate that management actions would work
    - Quantify the trade-offs to achieve recovery
  - Quantify, acknowledge and communicate the loss of wetlands that has occurred through time

Healthy environment approach

- Categorisation of individual wetlands:
  - **Permanent**: Water is always present in the wetland throughout seasonal variations in groundwater levels
  - **Seasonal**: Water is typically present in the wetland seasonally, aligned with winter rainfall and the spring recovered groundwater level. Seasonal wetlands contribute to recharge
  - **Intermittent**: Water will be present in some years, typically higher rainfall years that result in higher spring recovered groundwater levels. Intermittent wetlands contribute to recharge
  - **Disconnected**: Groundwater levels are far enough below the wetland that they no longer interact. The wetland is still groundwater dependent but can no longer access groundwater. This categorisation occurs where groundwater levels are greater than 3 m below the wetland bed

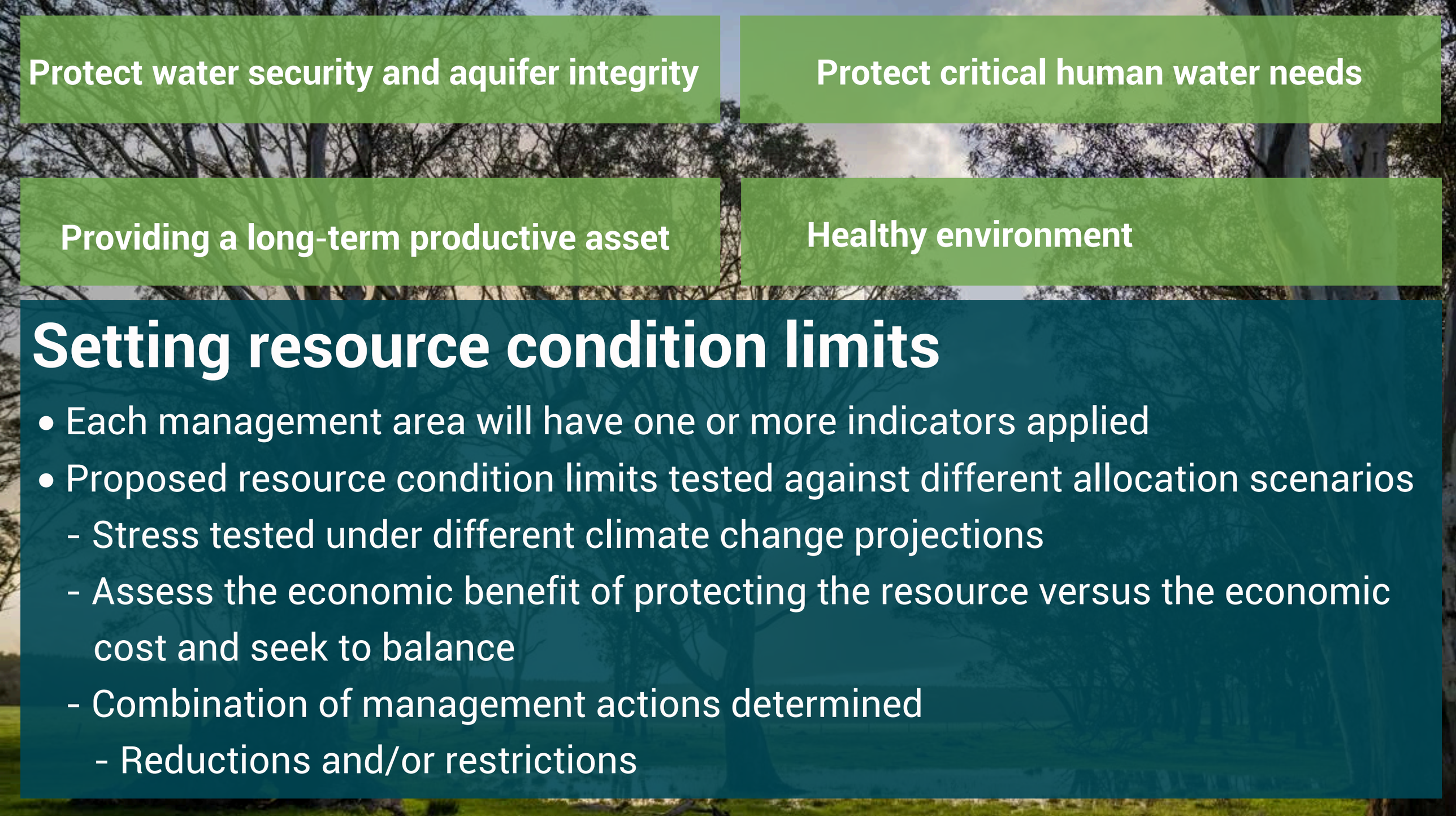
Healthy environment approach

- Key mechanism for protecting groundwater dependent wetlands is to maintain groundwater levels at depths where wetlands can still access it. This forms the basis for the approach
- Determine what wetlands remain connected now:
  - Consider both spring and autumn groundwater levels
    - Both required to understand the relationship between the wetlands and groundwater and appropriately protect them
- Categorisation of wetlands will occur at the following time periods:
  - Historical: 1990 - 94
  - At the start of the Plan: 2010 - 14
  - Current: 2020 - 24



Healthy environment approach

- Allows an assessment of how wetland connectivity has changed through time
- Informs the quantification of wetland loss
- **Where a wetland is intermittent, seasonal or permanent during the 2020-24 time period we will seek to protect these wetlands**
- A high priority will be placed on permanent wetlands given how small this extent is now
- Ramsar sites and unique wetland types may required additional methodologies for appropriate protections



Protect water security and aquifer integrity

Protect critical human water needs

Providing a long-term productive asset

Healthy environment

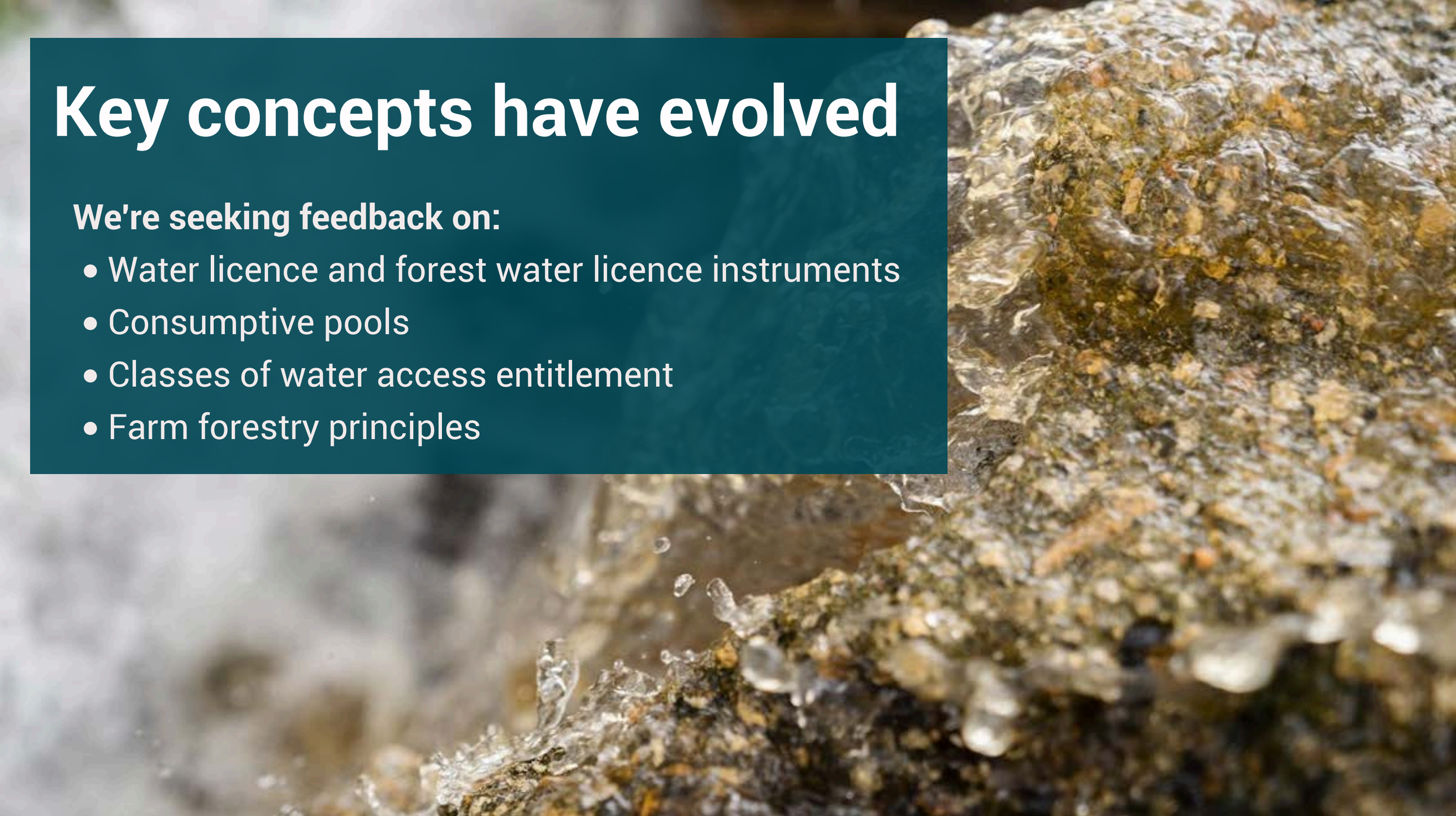
Setting resource condition limits

- Each management area will have one or more indicators applied
- Proposed resource condition limits tested against different allocation scenarios
  - Stress tested under different climate change projections
  - Assess the economic benefit of protecting the resource versus the economic cost and seek to balance
  - Combination of management actions determined
    - Reductions and/or restrictions

Key concepts have evolved

We're seeking feedback on:

- Water licence and forest water licence instruments
- Consumptive pools
- Classes of water access entitlement
- Farm forestry principles



Explanation slide

Revision of the farm forestry principles is in early development and was not presented. Details on the initial proposal to revise the farm forestry principles is available on the project page and feedback open until the end of July 2026.

More work will then occur to revise these principles based on feedback.

Structuring the revised Plan

Water licence and forest water licence instruments

- Settings driven and constrained by legislation and national policy
  - Issues and opportunities you see from the change?



Explanation slide

Water licences and forest water licences are defined as different instruments under the *Landscape South Australia Act 2019*.

A water licence means a licence granted by the Minister under section 121 of the Act. A forest water licence means a licence granted by the Minister under Part 8 Division 6 of the Act.

The structural differences of the instruments under the legislation results in differences in how they relate to other water allocation plan structures in the legislation, such as consumptive pools.

Water licence

Current water licence

Water licence

- A right to take water from the resource.
- Wells and land on which water may be taken and used.
- Management area.
- Licence conditions.
- Purpose of use.
- Allocation

Proposed water licence

Water access entitlement

Right to a share of a consumptive pool:

- Consumptive pool.
- Management Zone.
- Class of water access entitlement.
- Wells and land on which water may be taken and used.
- Licence conditions.

Water allocation

Annual volume of water

Partial unbundling

Forest water licence

Current and revised forest water licence

- A right to take water from the resource.
- Land parcels to which the licence relates.
- Management area/zone.
- Licence conditions.

Remains the same

Structuring the revised Plan

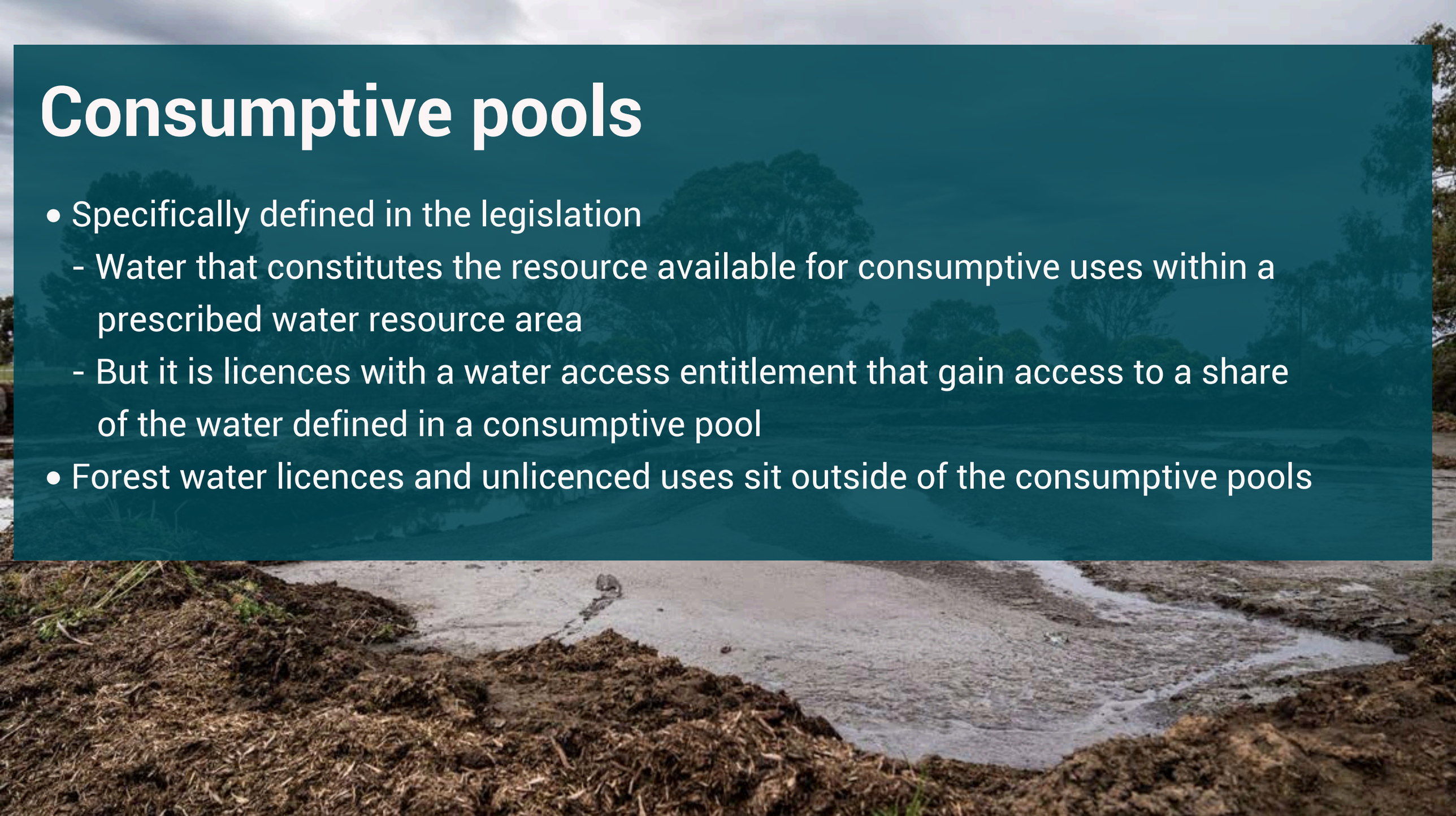
Consumptive pools

- Changes driven and constrained by legislation
  - Importance of trade between water licences and forest water licences?
  - Are fewer consumptive pools preferred?



Consumptive pools

- Specifically defined in the legislation
  - Water that constitutes the resource available for consumptive uses within a prescribed water resource area
  - But it is licences with a water access entitlement that gain access to a share of the water defined in a consumptive pool
- Forest water licences and unlicenced uses sit outside of the consumptive pools

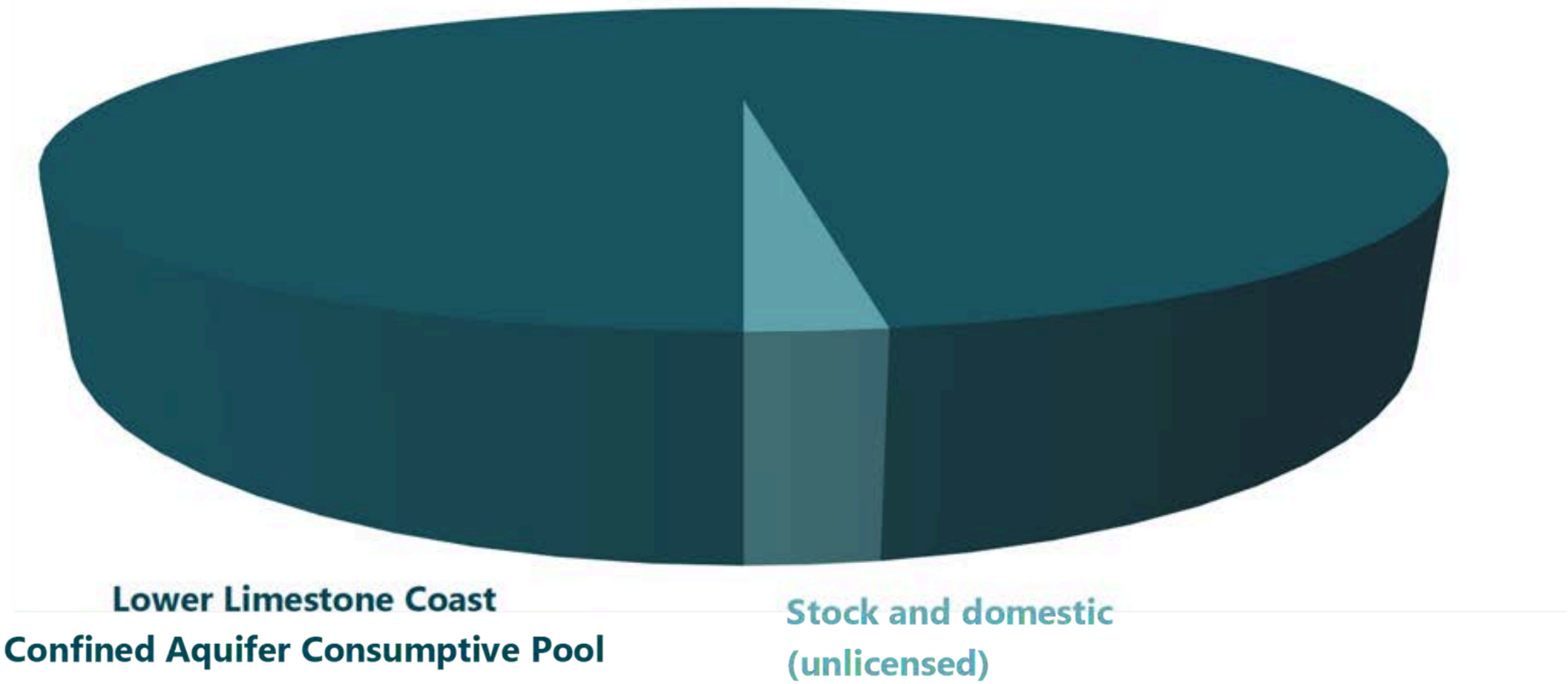


Explanation slide

The following pie charts reflect indicative proportions per consumptive uses that the Plan covers. It includes indicative proportions for the proposed consumptive pools.

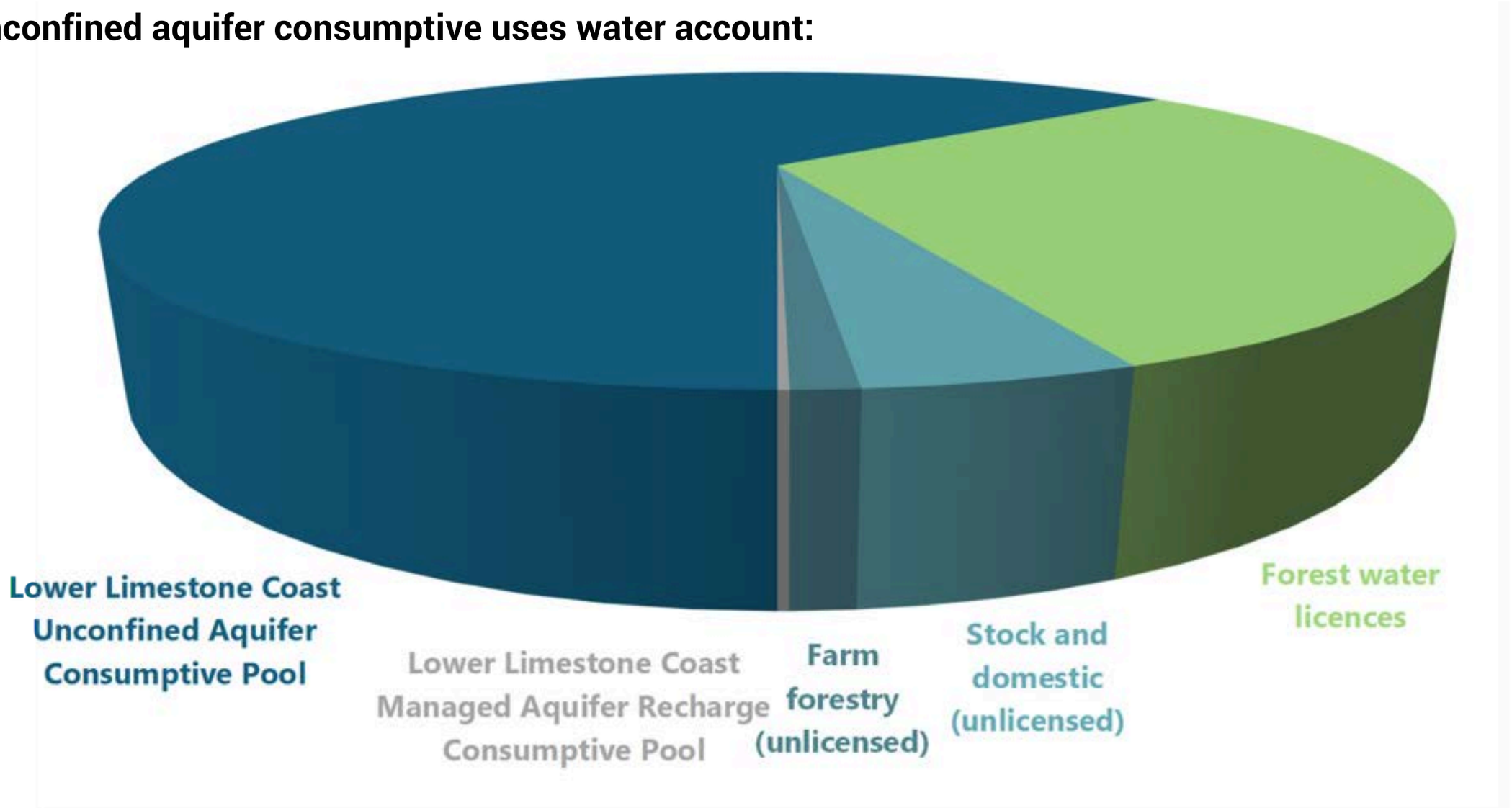
Consumptive pools: Confined aquifer

Confined aquifer consumptive uses water account:



Consumptive pools: Unconfined aquifer

Unconfined aquifer consumptive uses water account:



Structuring the revised Plan

Water access entitlements

- More opportunity for changes with less legislative constraints
  - Current purpose of use break up into classes - issues or opportunities to simplify further?
  - Proposed security levels per classes?
  - Whether specific opportunities for the Supplementary Environmental Water Class can be identified

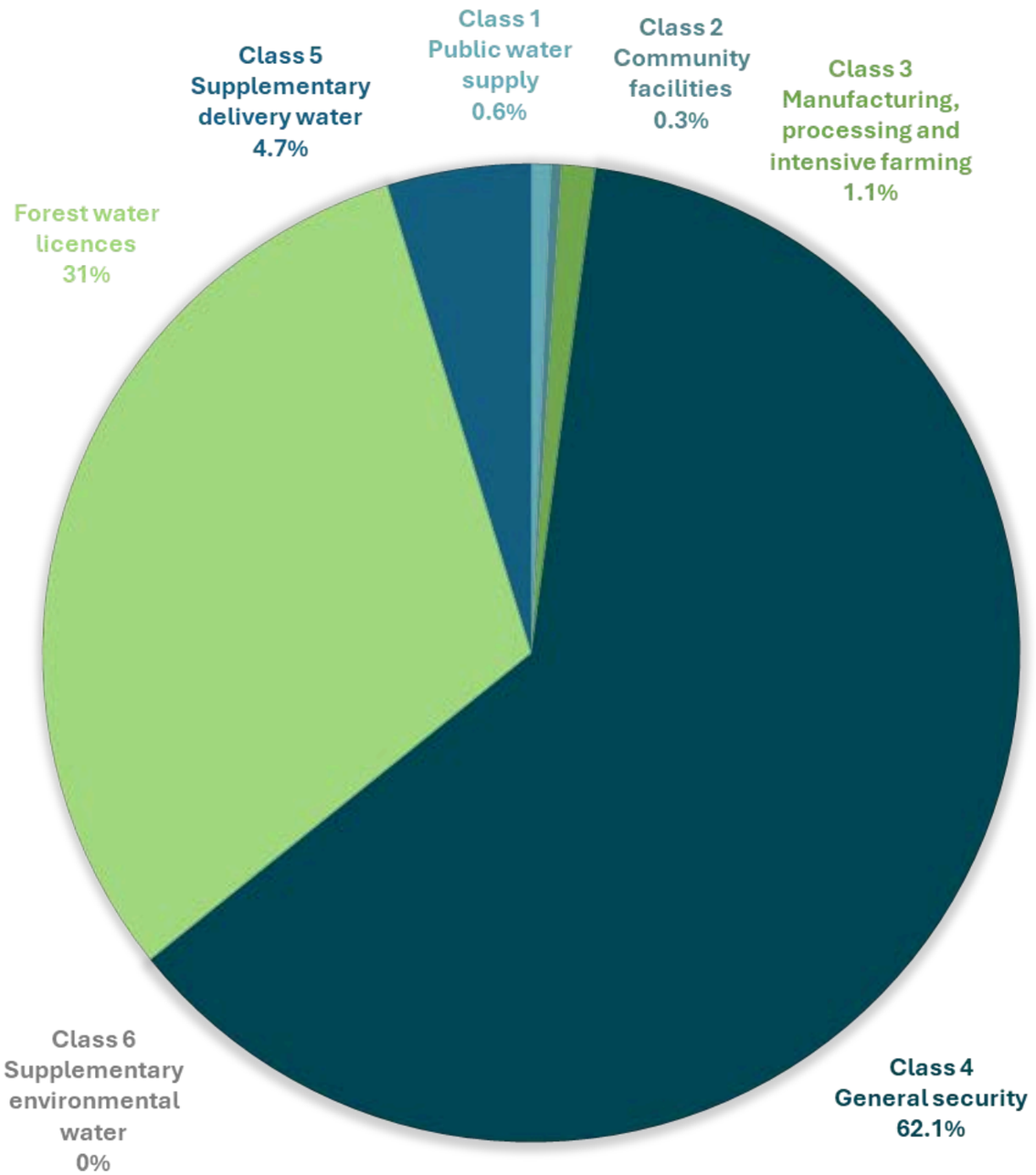
Class of water access entitlement	For the purpose of	Security level	Key conditions
1 Public water supply	Public drinking water systems provided by water industry entities. No new Class 1 water available. Applies only to existing public water supply licences.	Highest security	No reductions or allocation restrictions.
2 Community facilities	Water for community wellbeing (parks, sport, recreation, health and education). No new Class 2 water available. Transfer is restricted to within the class.	Moderate security	No entitlement reductions, but allocation restrictions may apply.
3 Manufacturing, processing and intensive farming	Industrial production and intensive animal production. No new Class 3 water available. Transfer is restricted to within the class.	Moderate security	No entitlement reductions, but allocation restrictions may apply.
4 General security	Most uses under the Plan, including irrigation. No new water available, but volumes may change through transfers.	General security	Entitlements and allocations may be reduced or restricted.

Class of water access entitlement	For the purpose of	Security level	Key conditions
5 Supplementary delivery water	Flood delivery supplement. No new Class 5 water available. Class 5 may transfer to Class 4 on a proportional basis.	General security	Entitlements and allocations may be reduced or restricted.
6 Supplementary environmental water	Strategic water for additional environmental outcomes. No entitlement reductions or allocation restrictions. Governance arrangements to be developed (e.g. environmental water holder).	High security	No existing entitlements or allocation at Plan adoption.
Forest water licences	Commercial forestry: a forest plantation where the forest vegetation is grown or maintained so that it can be harvested or used for commercial purposes. Allocations may be reduced or restricted. No new water available, but volumes may change through transfers. The proposed farm forestry principles exempt certain sizes of farm forestry from needing a forest water licence.	General security	Forest water licences do not have a water access entitlement and so are not given a class. They are structured separately to the Lower Limestone Coast Unconfined Aquifer Consumptive Pool.

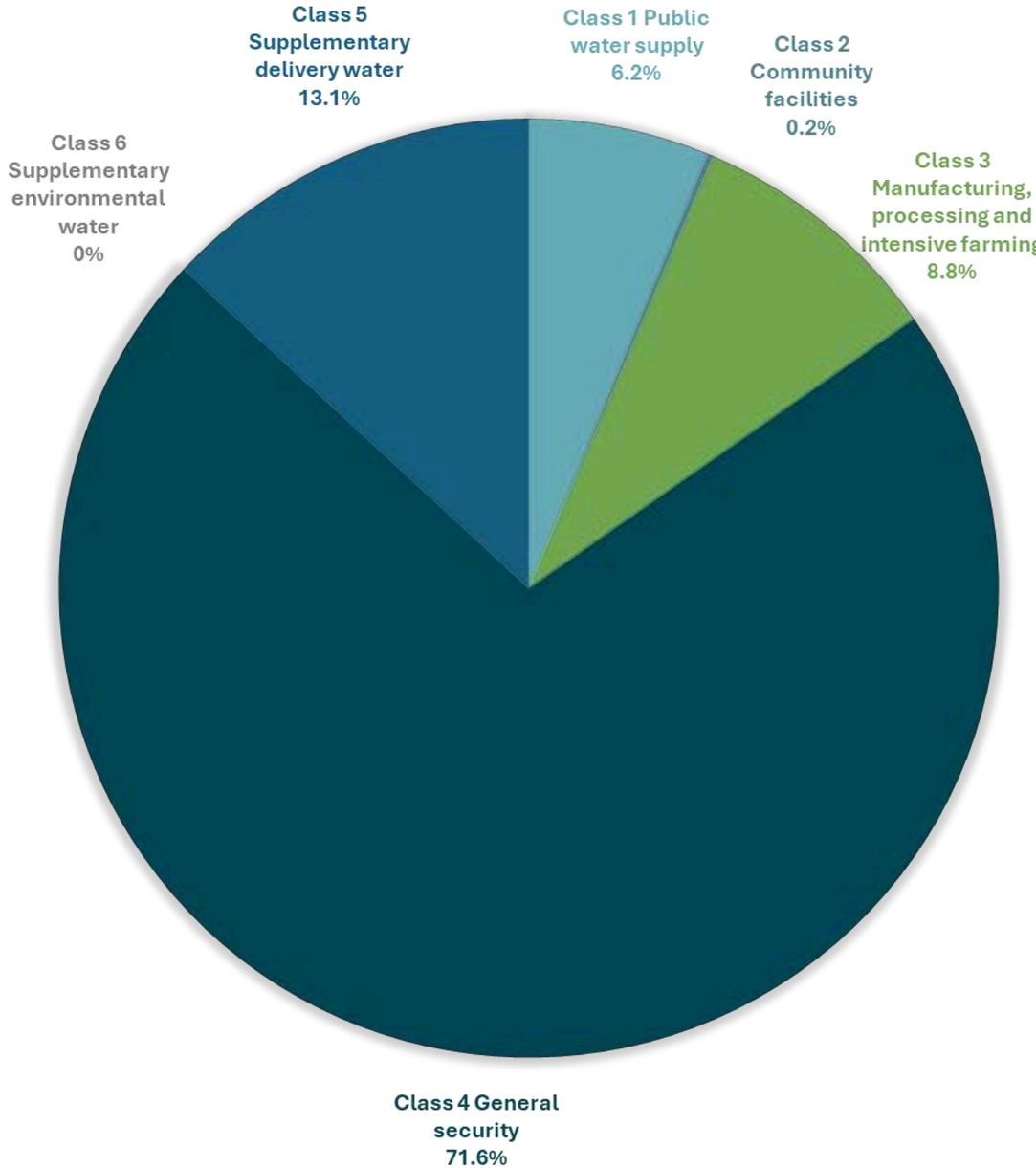
Explanation slide

The following pie charts reflect indicative proportions per proposed class of water access entitlement.

UNCONFINED AQUIFER



CONFINED AQUIFER



Explanation slide

The following table provides an indication of how current purposes of use or components would transition to the proposed classes of water access entitlement.

Class of water access entitlement	Security level	Current purposes of use and components
1 Public water supply	Highest security	Public water supply.
2 Community facilities	Moderate security	Some water licences with a current purpose of use of recreational will transition to class 2. Some water licences with a current purpose of use of recreational may not meet the definition outlined for the revised Plan and will transition to class 4.
3 Manufacturing, processing and intensive farming	Moderate security	Some water licences with a current purpose of use of industrial will transition to class 3. Some water licences with a current purpose of use of industrial may not meet the definition outlined for the revised Plan and will transition to class 4. Pulp and paper mill operations. Intensive animal keeping. Aquaculture.

Class of water access entitlement	Security level	Current purposes of use and components
4 General security	General security	Irrigation. Industrial dairy. Delivery Supplement – Spray. Delivery Supplement – Aquaculture. Specialised Production Requirements – Frost protection. Specialised Production Requirements - Fruit trees. Specialised Production Requirements - Max prod pasture: Flood. Specialised Production Requirements - Max prod pasture: Spray. Specialised Production Requirements - Olive trees. Specialised Production Requirements – Sub-clover, seed/onion/potato. Mining. Environmental. Some water licences with a current purpose of use of industrial. Some water licences with a current purpose of use of recreational. Holding licences.
5 Supplementary delivery water	General security	Delivery supplement for flood irrigation in the confined and unconfined aquifer.
6 Supplementary environmental water	High security	No existing purposes of use or components of use will transition.
Forest water licences	General security	Forest water licences.

LANDSCAPE SOUTH AUSTRALIA LIMESTONE COAST

Liz Perkins, Manager Planning and Engagement

llcwap@sa.gov.au

0457 567 862