

# Barwon Downs licence renewal project

*Community and stakeholder  
workshop #3*



# Community workshop participants' acknowledgement

*We would like to thank all the participants who were involved in the 2017 Barwon Downs licence renewal community and stakeholder workshops for both your time, and your considered and thoughtful contributions.*

## Traditional owner acknowledgement

*Barwon Water acknowledges the traditional custodians of the land on which we live today. We pay our respect to their Elders past, present and future. We recognise and respect their culture, beliefs and ongoing connection to the land over thousands of years.*

*We would also like to give a special thanks to 'Kuuyang Maar' for helping guide us to see the land, water and environment around us through the eyes of a Kuuyang Maar person.*

# Table of contents

- *Relevant facts and data*
- *Barwon Water's spheres of control*
- *Barwon Water's proposed actions (principles)*
  - *A precautionary approach to managing the borefield*
  - *Developing and implementing a remediation plan for Boundary Creek*
  - *Establishing an adaptive monitoring program*
- *Community outcomes*
- *Barwon Water's proposed actions*
- *Barwon Downs Community Reference Group reflections*

# Relevant facts and data

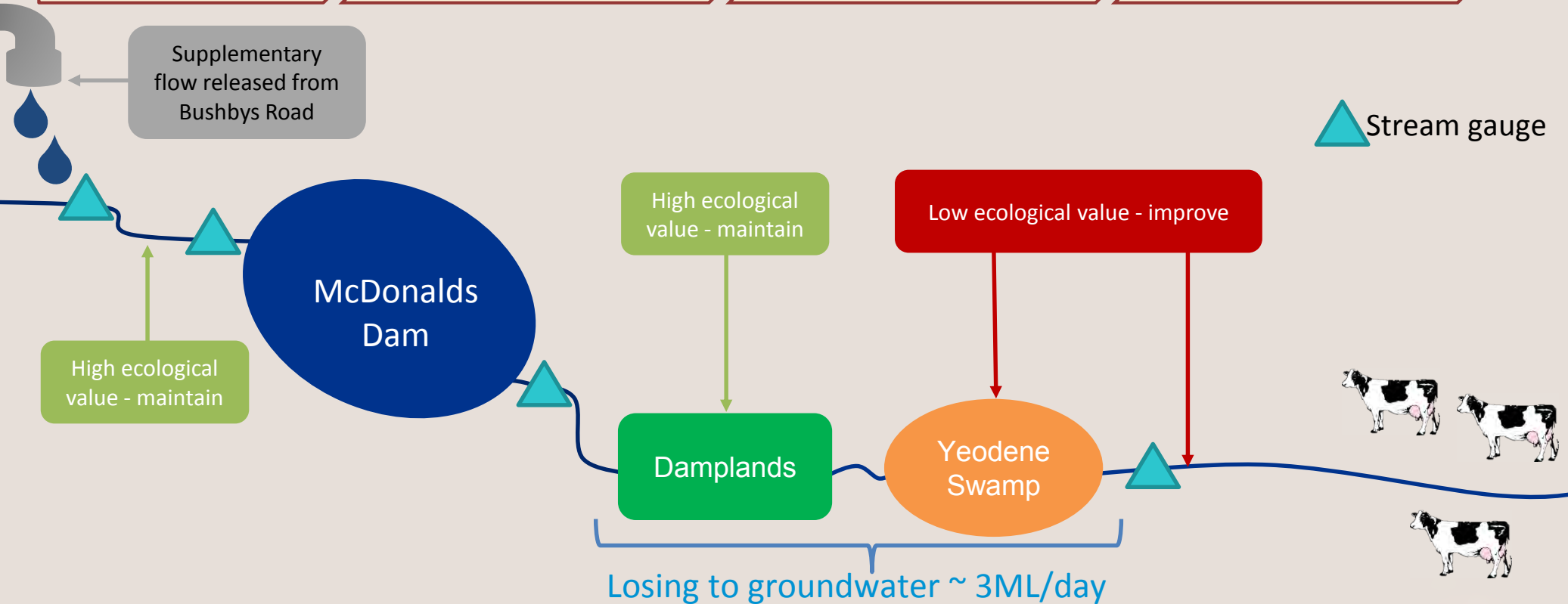
Technical studies have confirmed that Barwon Water's pumping over the past 30 years is responsible for two thirds of the reduction of base flow into Boundary Creek with the dry climate accounting for the remaining third.

Pumping has increased the frequency and duration of no flow periods in lower reaches of Boundary Creek.

No flow in the Creek has caused:

- The swamp to dry out
- Acid sulphate soils being activated
- The release of acidic water and heavy metals downstream of the swamp

Technical studies have confirmed a direct link between groundwater pumping and poor water quality (pH<4) in the lower reach of Boundary Creek, downstream of the swamp.



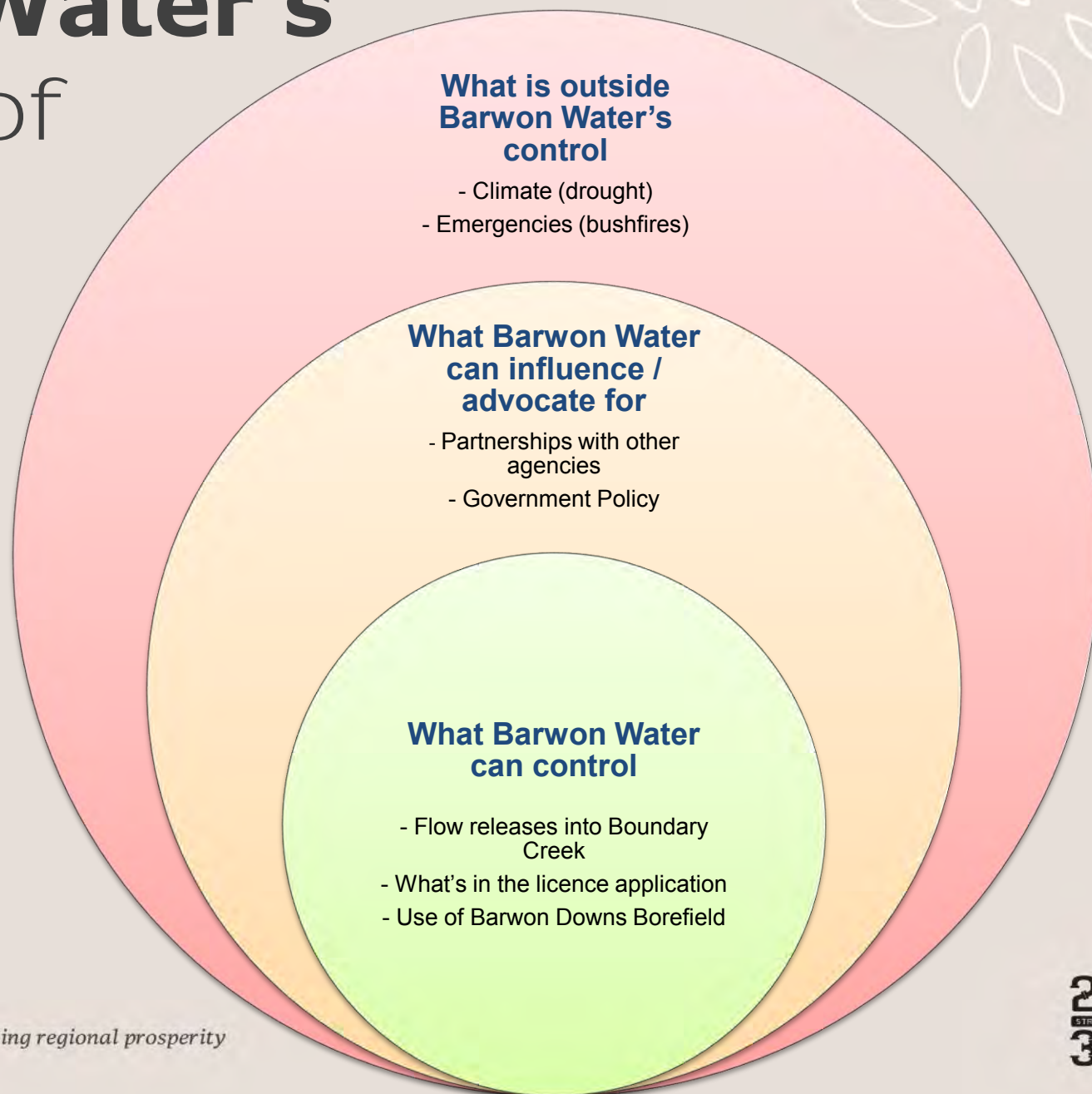
Barwon Water releases a supplementary flow of 2 ML/day when triggered by licence conditions.

Monitoring has confirmed that not all of passing flows are being released from the dam which is having an impact downstream, particularly in summer.

Acidic water and cease to flow events have occurred frequently downstream of the swamp since 1999.

Farmers downstream rely on Boundary Creek for stock water supply especially over the summer period.

# Barwon Water's spheres of control



Developing and implementing  
a remediation plan for  
Boundary Creek

Building knowledge and trust  
in the science with the  
community

# Barwon Water proposed actions

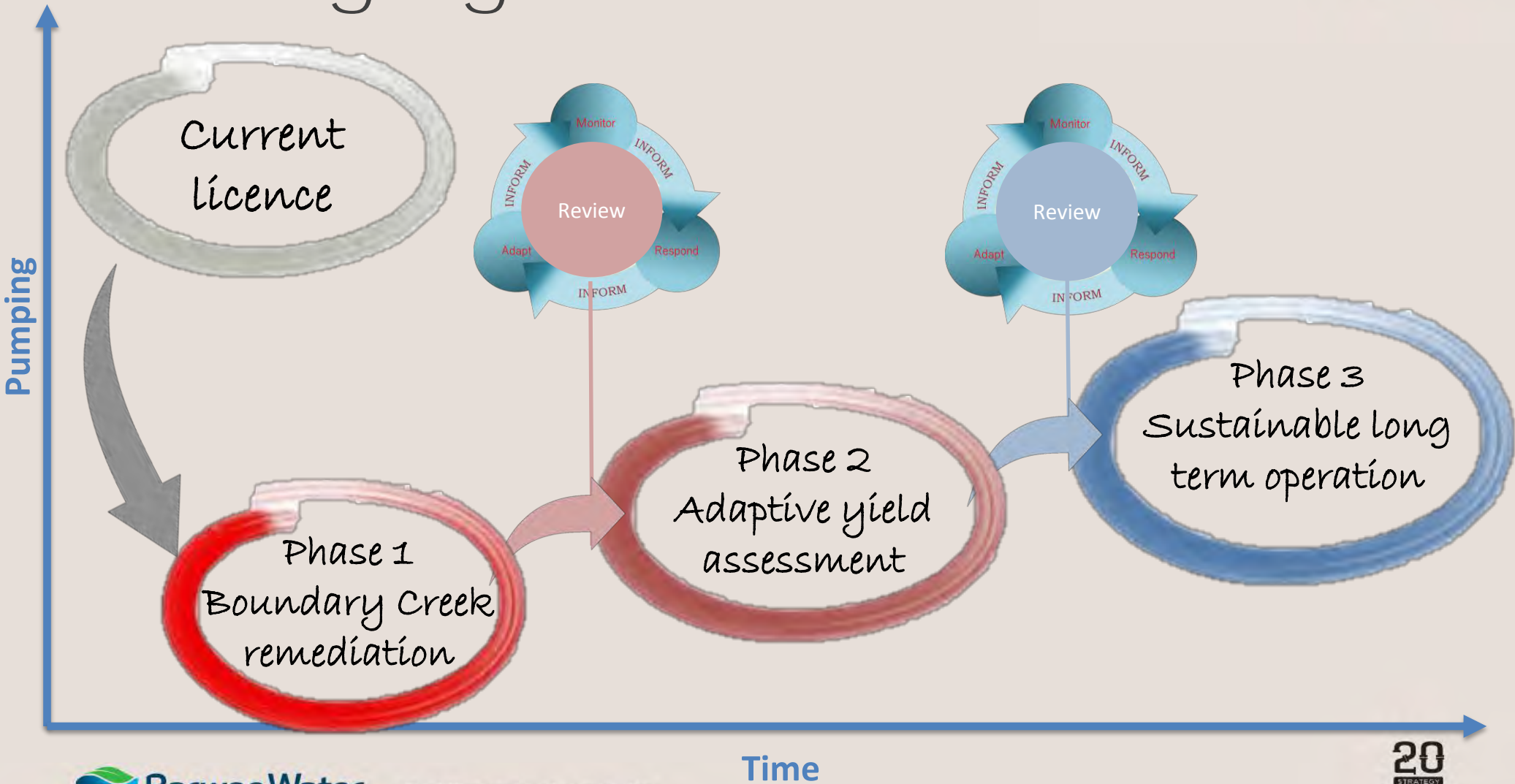
Establishing  
an adaptive  
monitoring  
program

A precautionary  
approach to  
managing the  
borefield

Interactive engagement  
with the community

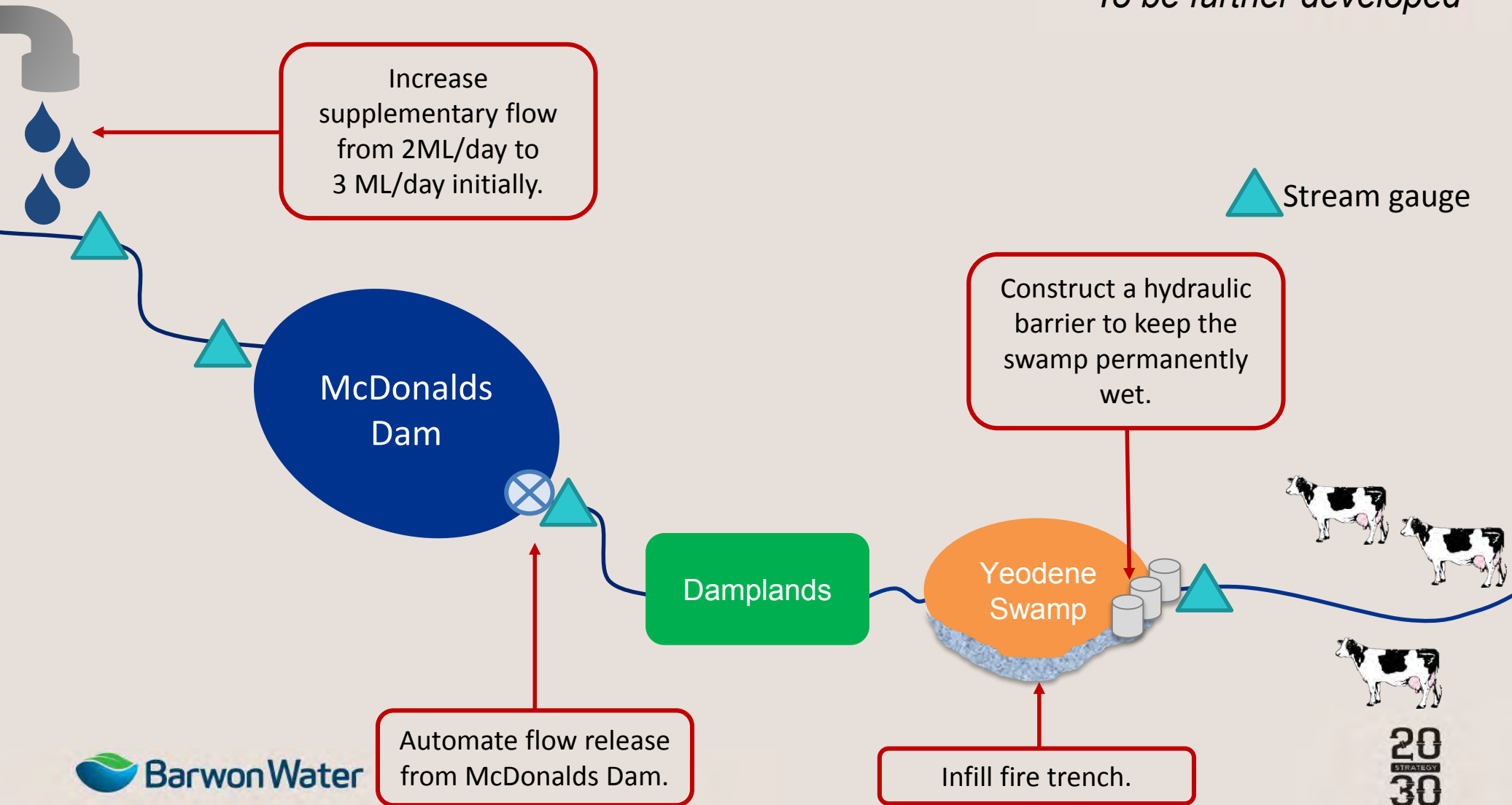


# A precautionary approach to managing the borefield



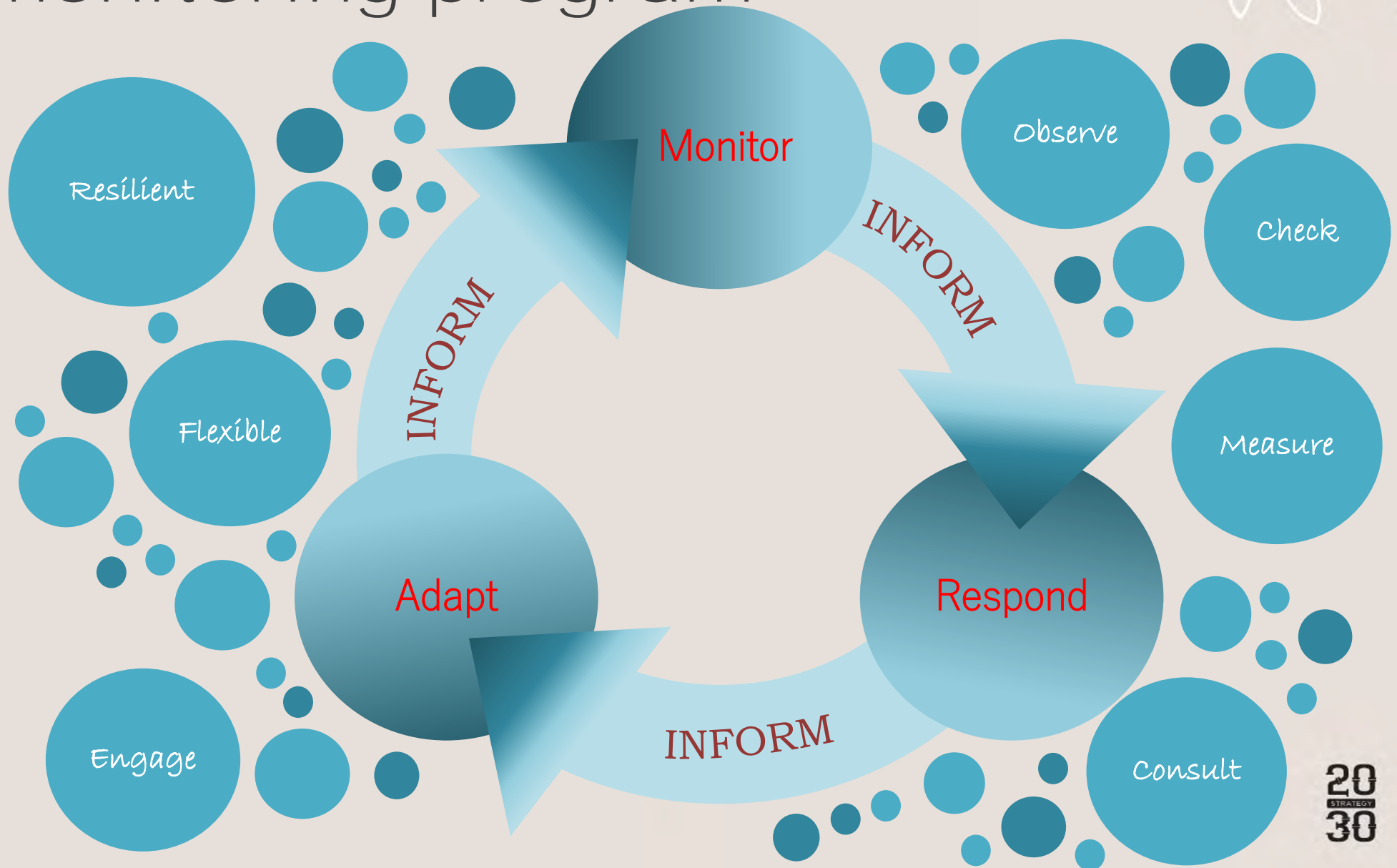
# Developing and implementing a remediation plan for Boundary Creek

*To be further developed*





# Establishing an adaptive monitoring program



# Community outcomes

# Community outcome 1:

## Trust and community consultation

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Restoration of local community trust</b>	<ol style="list-style-type: none"><li>1. Barwon Water needs to LISTEN, as a baseline, to the community.  (e.g. To ask people 'to consider what level of environmental damage they are prepared to accept' suggests a real lack of understanding or attention to what the community have said already. The baseline of trust will be restoration of the system, not further, incremental damage).</li><li>2. Independent review of all reports to date, especially at data level (mistrust of SKM/Jacobs). Community trust will be blown out of the water if Barwon Water licence renewal relies significantly on SKM/Jacobs reports over the last 30 years.. This cannot be emphasised enough.</li><li>2. Community feeling listened to - evaluate (ie the community not feeling they have they have been used/co-opted to support Barwon Water's application for licence renewal). "It will take as long to restore community trust as it will to recharge the aquifer"</li><li>3. Not treating the community as fools - we have local knowledge and expertise.</li><li>4. Report to the community at least every second year on performance against licence conditions.</li></ol>

# Community outcome 2: Flora and Fauna and Environment Protection

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<p><b>Big swamp flooded again, reduced acid flows</b></p> <p><b>Waterways healthy enough to sustain platypus and other aquatic life</b></p> <p><b>Clearly defined environmental flows for all related waterways</b></p> <p><b>Set extraction at conservative levels (volumes, timing) based on best available science. Complement with monitoring and trigger levels (environmental indicators) to protect environmental assets across the zone of influence.</b></p>	<ol style="list-style-type: none"><li>1. Shared information with interested community on a regular basis. Identify key stakeholders and build trust over time.</li><li>2. Any environmental change being independent of pumping. No impact from future pumping - linked to monitoring program.</li><li>3. A management plan (developed and implemented) for Boundary Creek that is accepted by the community.</li><li>4. No measurable negative impacts on the Barwon River from Boundary Creek.</li><li>5. Protect other tributaries of the upper Barwon to maintain important habitat for flora and fauna.</li><li>6. Monitoring for potential impacts on the Gellibrand River.</li></ol>

# Community outcome 3: Sulphate Protection, Rehabilitation of Boundary Creek, Big Swamp, Barwon River

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<p><b>Boundary creek/big swamp must be rehabilitated, keeping in mind the huge pool of acid water below the surface. Bringing that up would create further acid water pollution flowing to Barwon River. Potentially very expensive solution if done correctly.</b></p> <p><b>Aquifer needs to recover, then Boundry Creek/Big Swamp can recover.</b></p> <p><b>Environmental flows for the whole river system, particularly summer and autumn to be formally defined by Govt authority and maintained and monitored, keeping in mind the aquatic populations.</b></p>	<ol style="list-style-type: none"><li>1. Trigger points - constant monitoring of water gauging, eg if trigger points are reached - water released from West Barwon reservoir.</li></ol> <p>Regular monitoring and reporting, including raw data of fauna, flora and aquatic life</p> <ol style="list-style-type: none"><li>2. Boundary creek - regular flows, a healthy aquatic population, higher pH levels. Monitoring of aquatic species with regular reporting.</li><li>3. Use results to guide future repairs to waterways</li></ol>

# Community outcome 4: Aquifer recharged

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Aquifer recharged to pre-pumping level</b>	<ol style="list-style-type: none"><li>1. Monitoring bores show levels are not declining over time, streams do not stop flowing, river flows meet the needs of the aquatic environment</li><li>2. Vegetation recovery over time, indicated by pioneer species recovery</li><li>3. Restoration of river and stream environmental conditions, including restoration of instream flora and fauna and riparian vegetation and stock and domestic supplies for local farmers not affected by acid sulphate water..</li></ol>



# Community outcome 5: CCMA partnership

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Partner with CCMA for environmental flow delivery to the Barwon River.</b>	<ol style="list-style-type: none"><li>1. All aspects of water usage should be respected - including cultural flows, environmental flows, the protection of sites. There are underwater protected sites that need to be protected from drying out, erosion, and livestock.</li><li>2. Barwon River has been a mess for many years. Improvement would mean increased flows in the Barwon River tributaries and and river through to the estuary at Barwon Heads. CCMA need to take their responsibility seriously and partner with other organisations to ensure that freshwater flows reach the estuary and that freshwater is managed properly. Currently 98% of river flow is used to transport salt from agricultural areas.</li><li>3. CCMA need to understand that summer flows rely on groundwater flows from full overflowing aquifers, and they need to push hard for the preservation of summer flows, thereby eliminating the serious impacts caused by over-extraction by Barwon Water.</li><li>4. Should be much better mapping of potential acid sulphate soils - CCMA should push for regulatory triggers that prevent oxidation of AAS soils- EPA needs to be brought into this and become a partner supervising Big Swamp pollution</li></ol>

# Community outcome 6: Adaptive licence

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Adaptive Licence - Environmental Sustainability</b>	<ol style="list-style-type: none"><li>1. Complete prevention of negative environmental effects by a licence that is flexible enough to pre-empt such effects.</li><li>2. Licence to be reviewed dynamically (at least annually) using very conservative trigger points. Review process must be rigorous and independent. Timing of review should pre summer, Climate change modelling must be included in the review.</li><li>3. Extractive Volume should be based on worst case science then incremented utilizing upward titration methodology. The early science recommended 1500 ML/yr and this should be the max starting point, and Level 4 restrictions (last resort) should be applied before any groundwater pumping takes place as part of the process. Last resort meaning nothing else is available</li></ol>

# Community outcome 7: Monitoring / Assessment

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Annual monitoring of vegetation sites, bore levels (extensive network of bores) and</b>  <b>computer model predictions by independent panel OR a joint committee comprising of</b>  <b>Barwon Water and community members.</b>	<ol style="list-style-type: none"><li>1. Rising of aquifer water table to fully recharged condition.</li><li>2. Restoration of natural summer flows to Boundary Creek, Barongarook Riiver, Barwon River and Ten Mile Creek</li><li>3. Collaborative and open working relationship between Barwon Water and the community</li></ol>

# Community outcome 8: Platypus Study

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>Restore platypus to pre pumping number and condition.</b>	<ol style="list-style-type: none"><li>1. Conduct yearly platypus surveys in the lower mid and upper barwon catchment that reflect population and health condition to pre-pumping (not Jacobs). Success of the licence would be represented by a return of platypus to pre pumping numbers &amp; health.</li><li>2. Engage independent expert (not Jacobs) ie platypus conservation to undertake scientifically rigorous studies that are peer reviewed by independent experts. Success of the licence would see an improvement platypus key environmental indicators.</li><li>3. What is a healthy platypus ecosystem - establishment of comprehensive baseline - benchmark studies (not Jacobs). Done in a manner to engage the trust of the community. Success of the licence would be reflected by re establishment of a healthy and diverse platypus ecosystem.</li></ol>

# Community outcome 9: Sustainable yield

What end result do you want to see on the site?	What would tell you this was successful on the ground? What would you see?
<b>There is no sustainable yield figure we are comfortable with. We would first like to see the aquifer fully recharges then options for artificial recharging of the aquifer be investigated.</b>	<ol style="list-style-type: none"><li>1. A fully recharged aquifer</li><li>2. Artificial recharge regime investigated</li><li>3. Achieved a natural flow regime in Boundary Creek</li></ol>



# Barwon Water's proposed actions



# Barwon Water action 1: Interactive engagement with the community

What is Barwon Water committing to?	What can Barwon Water influence?	What is out of Barwon Water's control?
<ul style="list-style-type: none"> <li>Establishing a Barwon Downs Borefield Working Group to meet every 3 months (or more if needed) throughout the licence renewal process and twice a year during the next licence period (2019 – 2034) to tap into local knowledge and expertise.</li> <li>The proposed purpose of the Working Group will be to provide guidance on what data needs to be collected to monitor remediation and ongoing management of Boundary Creek, the Yeodene Swamp and the broader catchment.</li> <li>Undertaking an independent review, with the Barwon Downs Working Group of performance against the licence conditions at five year intervals during the next licence period.</li> <li>Hosting an information session in Colac once a year to update the broader community on performance against the licence during the next licence period (2019 – 2034).</li> <li>Informing the community before an event occurs and engaging with the community before any change in licence conditions as a result of recommendations from the adaptive monitoring program during the next licence period (2019 - 2034).</li> </ul>	<ul style="list-style-type: none"> <li>Work in partnership with the CCMA for the overall management of the Upper Barwon including flows and water quality.</li> <li>Actively participate in the Upper Barwon Surface Water Advisory Group run by the CCMA to deliver environmental flows to the Barwon River.</li> </ul>	

# Barwon Water Action 2: A precautionary approach to managing the borefield

What is Barwon Water committing to?	What can Barwon Water influence?	What is out of Barwon Water's control?
<ul style="list-style-type: none"> <li>Reducing the reliance on the borefield during the first two phases by shifting the borefield from the first to the last alternate water source called on after surface water.</li> <li>Proposing the following licence conditions in the application for the next licence period:               <ul style="list-style-type: none"> <li>Removing the maximum volume of water that may be taken in any period of 100 years</li> <li>Extending the maximum volume of water that may be taken in any period of 10 years to 15 years to match the licence period</li> <li>An overall reduction in volumetric entitlements</li> </ul> </li> <li>The management plan for the next licence period(15 years) to include:               <ol style="list-style-type: none"> <li>Phase 1 – Remediation: to have water flowing all year in Boundary Creek and to improve water quality downstream of Big Swamp (ongoing monitoring with review after 5 years)</li> <li>Phase 2 – Adaptive yield assessment: to begin pumping at conservative levels and stage increases to extraction volumes incrementally to observe the resilience of environmental indicators (ongoing monitoring with review after 5 years)</li> <li>Phase 3 – Long term sustainable operation: extraction regime based on the best available science.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Work in partnership with the CCMA and other stakeholders during all phases of the management plan, particularly the Phase 1 – Remediation.</li> </ul>	<ul style="list-style-type: none"> <li>Unforeseen climate and imminent threats to water supply in the region. This means that if after exhaustion of other standby sources, supplies continue to drop to the point where restrictions would need to be introduced, then the borefield could be operated on an “emergency” basis set at the licence’s volumetric extraction conditions.</li> <li>A commitment to improve water quality cannot be solely controlled by Barwon Water’s actions. There are many other factors that could influence pH levels over time including landowners’ practices, environmental factors, severe drought, etc.</li> </ul>

# Barwon Water Action 3: Developing and implementing a remediation plan for Boundary Creek

What is Barwon Water committing to?	What can Barwon Water influence?	What is out of Barwon Water's control?
<ul style="list-style-type: none"><li>• At a concept level, this includes:<ul style="list-style-type: none"><li>• Increasing the supplementary flow initially from 2 ML/day to 3 ML/day upstream of the swamp by the end of 2018,</li><li>• An automated flow release at McDonalds Dam to ensure that the supplementary flow is passed by the end of 2018,</li><li>• Infilling the fire trenches and agricultural drains at the eastern end of the swamp, and</li><li>• Building a hydraulic barrier to with the intent to keep the swamp wet at all times.</li></ul></li><li>• Improving the ecological condition in sections of Boundary Creek that are rated as 'low ecological value' by releasing additional flows.</li><li>• Engaging an independent expert to undertake a platypus study of the upper Barwon.</li><li>• Providing continuous access to stock and domestic water for farmers in the lower reach of Boundary Creek of quality suitable for stock watering in 2020.</li></ul>	<ul style="list-style-type: none"><li>• Involve any other relevant agencies during the remediation of Big Swamp such as CCMA and DELWP.</li><li>• Work with community groups like Landcare Networks to revegetate in the Boundary Creek catchment.</li></ul>	<ul style="list-style-type: none"><li>• A commitment to improve water quality cannot be solely controlled by Barwon Water's actions. There are many other factors that could influence pH levels over time including landowners' practices, environmental factors, severe drought, etc.</li><li>• Increasing flows and remediating the swamp are important aspects of returning the creek back to a healthy environment. Barwon Water needs support from the whole community to implement a whole of catchment approach to see a return of flora and aquatic life in Boundary Creek.</li></ul>

# Barwon Water Action 4: Establishing an adaptive monitoring program

What is Barwon Water committing to?	What can Barwon Water influence?	What is out of Barwon Water's control?
<ul style="list-style-type: none"><li>Proposing a structure for the next licence that is flexible to respond to what is being observed and measured on the ground.</li><li>Proposing inclusion of triggers for the next licence period to enable effective management of risks associated with borefield operation.</li><li>Working in partnership with the community and stakeholders to monitor the condition of key environmental indicators in the zone of pumping influence including for example:<ul style="list-style-type: none"><li>14 vegetation sites,</li><li>5 acid sulphate soils sites (including Big Swamp),</li><li>aquatic ecology (fish, macroinvertebrates, platypus, and frogs, etc.),</li><li>15 land subsidence sites,</li><li>surface water flows in rivers and tributaries, and</li><li>groundwater levels in 37 monitoring bores.</li></ul></li><li>Continuing to collect surface water flow and groundwater level data and making it publicly available through the Water Management Information System.</li><li>Monitoring and adjusting the supplementary flow release to ensure a continuous flow is achieved downstream of Big Swamp.</li></ul>		<ul style="list-style-type: none"><li>The final wording and structure of the new licence.</li></ul>

# Barwon Water Action 5: Building knowledge and trust in the science with the community



What is Barwon Water committing to?	What can Barwon Water influence?	What is out of Barwon Water's control?
<ul style="list-style-type: none"><li>• Submitting all technical studies prepared to support the licence application (Southern Rural Water will co-ordinate an independent review of these studies).</li><li>• Establishing a citizen science program to involve the community in collecting data and samples during the next licence period.</li><li>• Publishing all data and technical studies generated during the licence renewal process and ongoing monitoring on our website.</li><li>• Undertaking an independent review, with the Barwon Downs Working Group of performance against the licence conditions at five year intervals during the next licence period.</li></ul>	<ul style="list-style-type: none"><li>• Work in partnership with the CCMA for the overall management of the Upper Barwon including flows and water quality.</li><li>• Actively participate in the Upper Barwon Surface Water Advisory Group run by the CCMA to deliver environmental flows to the Barwon River.</li></ul>	<ul style="list-style-type: none"><li>• As part of the licence application process it is Southern Rural Water's decision on to appoint to conduct the independent review.</li></ul>

# How do our actions map against community outcomes?

	Interactive engagement with the community	A precautionary approach to managing the borefield	Developing and implementing a remediation plan for Boundary Creek	Establishing an adaptive monitoring program	Building knowledge and trust in the science with the community
Trust and community consultation					
Flora, Fauna and Environmental Protection					
Sulphate Protection, Rehabilitation of Boundary Creek, Big Swamp, Barwon River					
Aquifer Recharged					
CCMA Partnership					
Adaptive Licence					
Monitoring/ Assessment					
Platypus Study					
Sustainable yield					





# Barwon Downs Community Reference Group reflections

*A workshop was held with the Community Reference Group (CRG) on 28 November, 2017 to get feedback on Barwon Water's proposed actions in response to the community outcomes identified through a broader consultation process.*

*This report captures their feedback.*

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Trust and community consultation</b>	<ul style="list-style-type: none"> <li>• Interactive engagement with the community</li> <li>• Building knowledge and trust in the science</li> </ul>	<ul style="list-style-type: none"> <li>• The engaged community proposal is correct and is something that the CRG has recommended a long time ago. This needs to be put in a format that is understandable to the broader community and put trigger points in if Barwon Water are not achieving ____.</li> <li>• The 5 yearly reviews need to be flexible.</li> <li>• Need targets / triggers for the operation of the borefield (needs roadmap).               <ul style="list-style-type: none"> <li>• This will help with trust.</li> <li>• There is a CRG role with setting these. E.g. Bore recovery, continuous flow in Boundary Creek</li> </ul> </li> </ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Flora and fauna and environmental protection</b>	<ul style="list-style-type: none"> <li>• A precautionary approach to managing the borefield</li> <li>• Developing and implementing a remediation plan for Boundary Creek</li> <li>• Establishing an adaptive monitoring program</li> <li>• Building knowledge and trust in the science</li> </ul>	<ul style="list-style-type: none"> <li>• This is more than just triggers but also outcomes               <ul style="list-style-type: none"> <li>• Barwon Water acknowledges this and is trying to take the lead</li> </ul> </li> <li>• The wider catchment (Gellibrand, Acid Sulphate Soils, Loves Creek) needs to also be captured</li> <li>• Not just a precautionary approach, need to look at flora + fauna impacts across the catchment area and also needs to cover the whole of the catchment. E.g. Fish kills linked to big swamp as water outflow.</li> <li>• Need monitoring and triggers for the whole of catchment</li> <li>• Actions should include to the extent that the flora &amp; fauna are affected by pumping, and not all other impacts to the catchment</li> </ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Flora and fauna and environmental protection</b>	<ul style="list-style-type: none"> <li>• A precautionary approach to managing the borefield</li> <li>• Developing and implementing a remediation plan for Boundary Creek</li> <li>• Establishing an adaptive monitoring program</li> <li>• Building knowledge and trust in the science</li> </ul>	<ul style="list-style-type: none"> <li>• The remediation plan needs to state what Barwon Water are remediating, and needs to define success.                             <ul style="list-style-type: none"> <li>• Data should be used to define Barwon Water's actions</li> </ul> </li> <li>• The precautionary approach needs to adjust according to modelling data</li> <li>• Need design with the CRG around those triggers</li> <li>• Barwon Water needs to take the lead and show what they are doing. Targets and triggers needed to build greater community confidence.                             <ul style="list-style-type: none"> <li>• Need to be simple triggers</li> </ul> </li> <li>• Barwon Water should test their level of service for their customers (e.g. Water restrictions greater than 5 per cent of the time).</li> </ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Sulphate Protection, rehabilitation of Boundary Creek, Big Swamp and Barwon River.</b>	<ul style="list-style-type: none"><li>• Interactive engagement with the community</li><li>• A precautionary approach to managing the borefield</li><li>• Developing and implementing a remediation plan for Boundary Creek</li><li>• Establishing an adaptive monitoring program</li><li>• Building knowledge and trust in the science</li></ul>	<ul style="list-style-type: none"><li>• No additional comments, comments are captured in outcomes 1 &amp; 2 comments.</li></ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Aquifer recharged</b>	<ul style="list-style-type: none"><li>• A precautionary approach to managing the borefield</li><li>• Establishing an adaptive monitoring program</li><li>• Building knowledge and trust in the science</li></ul>	<ul style="list-style-type: none"><li>• Aquifer storage and recovery needs to be examined and have a good look at as a possibility. (This may be cheaper than desalination water).</li><li>• If the aquifer can be restored, this does several things:<ul style="list-style-type: none"><li>• Good for the farming community</li><li>• Good for the environment</li><li>• Improves Barwon Water's asset</li></ul></li></ul>



# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>CCMA Partnership</b>	<ul style="list-style-type: none"><li>• Interactive engagement with the community</li><li>• Developing and implementing a remediation plan for Boundary Creek</li></ul>	<ul style="list-style-type: none"><li>• Barwon Water needs to look at the bulk entitlement in West Barwon Reservoir to see how environmental flows work in the Barwon River.</li><li>• Need to add in that Barwon Water proposes to get involved in the 'Long Term Water Resource Assessment', review of the 'Central Regions Sustainable Water Strategy' and development of the new 'Sustainable Water Strategy'</li></ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Adaptive licence</b>	<ul style="list-style-type: none"><li>• Interactive engagement with the community</li><li>• A precautionary approach to managing the borefield</li><li>• Establishing an adaptive monitoring program</li><li>• Building knowledge and trust in the science</li></ul>	<ul style="list-style-type: none"><li>• Consultation needs to happen before adaptation / an event; not after.<ul style="list-style-type: none"><li>• On the Data</li><li>• Why there might be a change (if there are any changes)</li></ul></li></ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Monitoring / Assessment</b>	<ul style="list-style-type: none"><li>• Interactive engagement with the community</li><li>• A precautionary approach to managing the borefield</li><li>• Developing and implementing a remediation plan for Boundary Creek</li><li>• Establishing an adaptive monitoring program</li><li>• Building knowledge and trust in the science</li></ul>	<ul style="list-style-type: none"><li>• Will this be built in to the licence of an appendix?</li></ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Platypus study</b>	<ul style="list-style-type: none"><li>• Interactive engagement with the community</li><li>• A precautionary approach to managing the borefield</li><li>• Developing and implementing a remediation plan for Boundary Creek</li><li>• Building knowledge and trust in the science</li></ul>	<ul style="list-style-type: none"><li>• 15 years ago, there was a Platypus Conservancy did a report. This should be used as a baseline.</li><li>• This should be linked to Flora + Fauna + environmental protection. I.e. Ponds &amp; vegetation.</li><li>• Working with other groups. E.g. Landcare groups.</li></ul>

# Community Reference Group

Community Outcome	Barwon Water proposed actions to meet community outcome	Community Reference Group reflections
<b>Sustainable yield</b>	<ul style="list-style-type: none"> <li>• A precautionary approach to managing the borefield</li> <li>• Establishing an adaptive monitoring program</li> <li>• Building knowledge and trust in the science</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable is an ill-defined concept</li> <li>• The yield from the borefield should not be more than the recharge.               <ul style="list-style-type: none"> <li>• Flora and Fauna is rehabilitated</li> </ul> </li> <li>• Provide that the resource over a period is healthy, noting that there will be fluctuations over that time.</li> <li>• Recharge should be a rolling average over a reasonable period (5-10 years)               <ul style="list-style-type: none"> <li>• Suggestions:                   <ul style="list-style-type: none"> <li>• Still apply for a 15 year licence but adjust the licence management</li> <li>• Not in 15 year blocks, but in a rolling average</li> <li>• Investigate the possibility licence reissued/renewed every 5 years</li> <li>• Move to a rolling capacity</li> </ul> </li> </ul> </li> </ul>