



# APPENDIX A SUMMARY OF STAKEHOLDER CONSULTATION





Consultation on the development of this SMP has been undertaken through various mechanisms:

- Through the Project Steering Group;
- Through workshops with the groups listed below in 2021;
- Through consultation with stakeholders as the Department for Environment and Water led the exploration and development of other relevant initiatives in parallel; and
- Through the consultation undertaken for the development of other relevant SMPs.

The groups who were consulted within the development of this SMP, their key comments and questions and how they have been considered in the document or elsewhere is documented below.

Individual consultation was held with local government CEOs:

- City of Playford (CoP)
- Town of Gawler (ToG)
- Adelaide Plains Council (APC)
- Light Regional Council (LRC)
- Barossa Regional Council (BRC)
- Adelaide Hills Council (AHC)

For the other stakeholders, areas of potential synergy / common interest were considered to determine groupings, and operating agencies, regulatory agencies, and private, commercial and community organisations were consulted in the following groups:

- Flood protection:
  - Department for Environment and Water (DEW)
  - Bureau of Meteorology (BOM)
  - State Emergency Service (SES)
  - The Department of Primary Industries and Regions (PIRSA)
  - AusVeg
  - HortEx Alliance Inc
  - Northern Adelaide Plains Food Cluster
- Transport and Development:
  - Department for Infrastructure and Transport (DIT)
  - Walker Corporation/ Riverlea Development
  - Hickinbotham Group
  - City of Playford (CoP)
  - Town of Gawler (ToG)
  - Adelaide Plains Council (APC)
  - Light Regional Council (LRC)
  - Barossa Regional Council (BRC)



- Utilities etc:
  - Australian Rail Track Corporation (ARTC)
  - SA Water
  - Telstra
  - Epic Energy South Australia Pty Ltd
  - SA Power Networks (SAPN)
  - Australian Gas Infrastructure Group
  - BUNYIP water
- Recreation and amenity:
  - PLUS Places for People
  - City of Playford (CoP)
  - Town of Gawler (ToG)
  - Adelaide Plains Council (APC)
  - Light Regional Council (LRC)
- Environmental and Water Quality:
  - Department for Environment and Water (DEW)
  - Bureau of Meteorology (BOM)
  - The Department of Primary Industries and Regions (PIRSA)
  - Environment Protection Authority (EPA)
  - Conservation Council SA
  - Green Adelaide Landscape Board
  - Northern & Yorke Landscape Board
- Other
  - Barossa Regional Development Authority
  - Barossa Grape and Wine Association



Stakeholder Group A Points Raised	Water Technology Response
Has there been a level of planning considered for flooding from both rivers? E.g., City of Playford – flooding from Smith Creek or R Gawler	SMP has been amended to include consideration of Light River and Smith Creek and some of the outputs from the modelling of those watercourses. But the main mitigation options are for the Gawler River.
Will development controls (planning controls) be included as a mitigation option? E.g., controlling what's affected rather than reducing flooding area	Planning controls are included as a mitigation option.
Can we include holistic solutions, such as WSUD principles in the recommended solutions?	WSUD has been added as a mitigation solution.
Who pays? Separate piece of work, but there will be a discussion on possible funding models as part of this SMP. Has this been included in "top 100" list of infrastructure to be funded? It is useful to apply the "Is it reasonable?" question for checking who pays. The funding model needs to be expanded to include other levels of government. Previous actions have had the capital works funded by state and commonwealth with local councils funding ongoing operations and maintenance - that was a good model.	The GRFMA has established a cost sharing model between Councils. There is a section in the SMP about possible funding options.
What value will the helicopter survey give us?	Veg survey, areas where embankments need maintenance.  It is a video survey to observe channel condition and stability aspects where possible.
Economic impact of natural disasters. A reasonable objective would be to keep major transport routes such as Port Wakefield Road and the rail line open, as these have national significance.	Some of the economic impact of past flooding events has been included. Transport routes have been listed and noted that they are important to try to keep open.
Flood preparedness planning for individual properties, similar to bushfire preparedness measures should be implemented. Can there be a financial incentive for individual property owners to protect their own properties from flooding? Helping people become community prepared (resilient). Concept of shared responsibility often gets missed.	A key recommendation is for ongoing flood awareness education that will help with flood preparedness.
Climate hazard avoidance is critical	Climate change impacts have been included as a problem and considered in the modelling.



Stakeholder Group A Points Raised	Water Technology Response
We are looking at social, environmental and economic benefits. Economic assessments should look to avoid adverse impacts – would support primary production remaining as the primary land use going forward but understand the need for development	There is specific mention about this not just impacting urban areas but also the primary production areas too. But there is the demand for further development urban and primary production development.
Would there be benefits in encapsulating any recommendations in MOSS land?	Recommendations have been included about considerations to be made for new developments.
Will special rates be considered as a way of funding/ apportioning costs for beneficiaries?	The GRFMA has established a cost sharing model. There has not been any discussion or inclusion of ideas such as special rates.

Stakeholder Group B - Points Raised	Water Technology Response
How much regard are we paying to the upstream catchment? Would this mean that we would see the benefits of (say) Bruce Eastick downstream?	<p>Hydrology studies upstream have fed into this SMP.</p> <p>Bruce Eastick would address breakouts around Heaslip Road, but as it is a perched system, wouldn't address breakouts further downstream.</p> <p>A recommendation has been added to revisit and consider in more detail the upper catchment.</p>
If we did increase the catchment area of the study, would this change the priorities of proposed mitigation options?	No.
How will developments such as Riverlea be considered?	Reference to these developments and their stormwater management has been included in the SMP.
Pleasing to see mitigation options are many, and that this SMP is not intended to promote or support any one option.	The mitigation options have been broadened and also aligned with the DEW business case options and assessment. As well as including high priority options from other SMPs.
Return on investment criteria should be about future costs avoided – should there be more criteria recommended in cost sharing model work being undertaken?	The MCA will aim to achieve a balance between cost, environmental and societal impacts and benefits. No proposed changes to the cost sharing model at the moment.



Stakeholder Group B - Points Raised	Water Technology Response
We should be aiming to “better” the current situation, but we don’t have any piped discharge into the river, so this would relate to (say) wetlands or creation of shared trails/ biodiversity hub. We would support the idea of an access trail.	These options have been included and in particular as a recommendation to explore options such as trails and how to improve biodiversity.

Stakeholder Group C – Points Raised	Water Technology Response
Who are the beneficiaries of the proposed works? These should be listed and understood. The costs may significantly impact on councils’ budgets.	The GRFMA has established a cost sharing proposal and is currently seeking feedback from constituent councils on support for the model. This only includes councils and doesn’t include previous investment, or private contributors.  Previous SMPs haven’t gone into the detail of this.
Shouldn’t be developing in floodplain.	Planning controls included as a recommended mitigation strategy as well as community education about the importance of the river and floodplain.
Can this study consider looking at whole area, not just the current area of interest.	The area has been expanded to include as much as possible based on previous work undertaken. Recommendation made to revisit the upper catchment and update information in this area.
Improvement to prioritised work – assume setting objectives and resulting outcomes, but will need to consider who is responsible for paying, who is responsible for maintenance of the Bruce Eastick dam, and who the beneficiaries will be.	Objectives have been defined in the SMP, responsibilities have been assigned and the funding still needs to be determined but options are presented.
Water allocation planning – may decide to spend more on capturing and retaining water for reuse.	The WAP has been referenced in the SMP as well as the limitations it presents. Recommendation to consider changes to the WAP to enable more reuse.
How are we considering the Concordia development (Bruce Eastick Dam). Access will probably go across the dam - there could be opportunities through this development.	GRFMA are working with DHUD (Department Housing Infrastructure Planning Development Unit) on this. This was not in scope or considered in the modelling but is a significant development that needs to be considered going forward.



Stakeholder Group D Points Raised	Water Technology Response
The SMP will need to demonstrate understanding of mitigation measures, costs and what the benefits are. Need to try and speak less “hypothetically” about this. People need to understand what the quantum is.	These have been included based on estimates undertaken but vary in the way estimates were done and when.
There are different levels of protection, and the recommended level of protection should be based on returns on investment if economically viable to do this. The aspiration is likely to be protection to 1:100 standard, but the study should also consider safety and social impact.	This has been included as a recommendation to further determine desired level of protection against risk.
It would be a benefit to enhance environmental outcomes, but as a minimum we need to ensure we don't make any worse.	Improving environmental outcomes has been included.
Need to make sure we consider recreation, e.g., Angle vale linear park (biodiversity and community recreation), Riverlea development, Bakers Road wetland system (Mallala), the international bird sanctuary.	This has been included as an opportunity and also as a recommendation that recreation opportunities be further considered.
Ensure the history of the development of the Gawler River is explained in the report, how the lower reaches are protected, and how raising the Bruce Eastick dam doesn't contribute to protection of the lower reaches.	The infrastructure has been included and some of the history but to a limited extent.
Zoning is one form of mitigation. It's very hard to “down zone”, and a huge economic and social driver is improved agricultural practices.	Planning controls have been included as a mitigation measure – balance between protection and development.
Residential areas are identified in the 30-year plan (e.g., Riverlea) and it will be important to note that the focus and intentions of this plan isn't a driver for those developments.	Further development is noted in the SMP as an opportunity and a risk.

Stakeholder Group E Points Raised	Water Technology Response
The GRUMP study will be useful to compare findings and outcomes.	A reference to this work has been included in the SMP.
Incorporating consideration of Buckland Park is critically important.	Buckland Park has been referenced.



Stakeholder Group E Points Raised	Water Technology Response
There are 3850 properties remaining in the floodplain, and the question was asked if the SMP will consider land use value and whether all properties will receive (say) 1:100-year protection, or will it be more cost effective to buy some of the properties.	This is not currently part of the brief, but the issue will be discussed as part of ongoing recommendations.
There may be political tension between Northern Floodway and Southern Floodway, and the question was asked if the SMP will compare the benefits of both of these mitigating works	The options have been assessed and compared to the base case. A short list of options was assessed using MCA and are consistent with the DEW business case
Water re-use and MAR were discussed, and the question was asked whether this will be considered in the SMP and the opportunities for optimising capture for re-use	Opportunities have been raised in the SMP but also the limitations and challenges facing these schemes

Stakeholder Group F Points Raised	Water Technology Response
Is 1:100 realistic level of protection, and will this suit everyone.	This has been added as a recommendation to explore what is the most reasonable level of protection.
Critical infrastructure (e.g., access to schools), sensitive land uses.	Critical infrastructure has been noted as a need for consideration in flood protection and response.
Given the level of research and studies previously, do we have a sense that a lot of the work has already been done, and is this just repackaging.	There has been additional work undertaken but a lot is consolidation of the previous work undertaken in the required format of a SMP.
Will the SMP help inform who's responsible for what investment.	The GRFMA has established a cost sharing proposal. Responsibilities have been assigned in the SMP to lead the initiatives but with the scale and cost of the options joint investment will be necessary.
South Para reservoir – why can't the water level be lowered, and provide flood storage capacity in the reservoir? Can this be revisited as it has already been rejected by SA Water due to water supply security.	Water security vs flood protection needs to be discussed between government agencies and decisions made about priorities and appropriate provisions in WAPs made.
Is the Gawler the main east-west tributary for a river trail? If not included, it might be a key opportunity lost. Does the new planning code still allow for 30m buffer for new development adjacent to the river?	Looking into trails has been included as a recommendation.



Stakeholder Group F Points Raised	Water Technology Response
Flooding across Highway 1 that occurred in 2016 – will this be considered?	Key transport infrastructure has been included in the plan as a consideration.

Stakeholder Group G Points Raised	Water Technology Response
Need to ensure that the growth in urban development and the impacts of this growth are considered as part of the SMP.	Impacts of growth have been included as far as possible.
Require recommendations around river restoration potential.	Recommendations have been included.
Development up north – will the plan consider the effect increased development will have on the environment? Any actions need to avoid potential adverse habitat impacts.	Future development has been included and recommendations made to avoid adverse impact on the environment.
<p>The following will need to be included to help inform objectives:</p> <ul style="list-style-type: none"> <li>- Risk of flooding</li> <li>- Ecological impact</li> <li>- What might the floodplain be missing if we divert water from it?</li> <li>- Cultural values</li> <li>- Issues beyond flooding and water quality</li> </ul>	These have been mentioned to varying degrees. More work is required to define them in a way that can be actioned and so these have been mentioned in the recommendations.
<p>What is the sweet spot between managing floodwater on floodplains and horticulture? Explore the tolerance of crops to flooding – some crops might be able to tolerant some flooding for the greater good.</p> <p>Need to understand tolerance of industry, opportunities for resilient construction and flood warning.</p> <p>What can the horticultural industry tolerate?</p>	Great questions that need some further exploration. The tolerance / acceptance level has been included as a recommendation to explore and define further.
Concerns about pollution impacts – how has pollution management been dealt with under other SMPs? Focus seems to be on flood mitigation and management, but it is a flood plain. Is there an opportunity to improve on this in the current SMP?	Pollution has been dealt with by trying to meet water quality performance measures. This is difficult to achieve for existing areas and potentially easier for newly developed areas. The cost and area available are the main factors. Water quality has been included in the SMP.
Where can we incorporate wetlands etc to maintain ecological benefits, rather than just focusing on retaining the flows.	Ecological benefits have been included in the SMP.



Stakeholder Group G Points Raised	Water Technology Response
Risk assessment needs to be undertaken to identify the impacts on the environment as well as people and the economy.	A more detailed risk assessment needs to be undertaken and has been included in the recommendations.
Preventing flooding will starve the floodplain of nutrients and water – these are the very things that have made the area a rich agricultural region.	A consideration of the balance needs to be undertaken at the same time as the environmental water requirements – included in recommendations.
Must have regard for water dependent ecosystems.	Yes. As above.
Lower river has a long lead time to flooding so flood preparedness measures could be very effective as well as being cost effective.  Individuals should be expected to take some responsibility for protecting themselves – similar to wildfires.  National Disaster Resilience listing – Gawler River community is rated very low.	A high priority mitigation strategy is community education, awareness and flood warning systems.
Western end of the system is of high ecological value and some parts are in good condition. Lignum swamps of the mouth a critically important.	The ecology has been included in the description of the catchment.
The fringing eucalypts are also important as there are very few areas elsewhere in the region of these species in this setting. These are under significant stress.	The ecology has been included in the description of the catchment.
Our assessment needs to recognise the landscape setting within which the ecological systems are located and rely on.	The ecology has been included in the description of the catchment.
May need to consider actions and initiatives outside of the study area to have an effective impact – not only for flooding issues but also environmental issues.	The broader catchment has been noted.
Avoid constraining or containing all water within the channel levees, that will limit environmental outcomes on the floodplain.	Noted as an issue for levee development.
Equity amongst landholders is a reasonable concern.	Noted.
For the most part the environmental condition is highly disturbed rather than moderately disturbed.	Need more detailed assessment – included as a recommendation.
There are some areas of very good condition, and they need to be highlighted. Hence should incorporate a variable characterisation of environmental condition along the river.	Need more detailed assessment – included as a recommendation.



Stakeholder Group G Points Raised	Water Technology Response
Rather than considering the level restoration desired should consider what degree of condition depreciation is acceptable.	That could be an interesting approach to consider going forward.
Will be difficult to do much on a large scale upstream of Port Wakefield Road. But there may still be targeted biodiversity related opportunities East of the highway that should be identified and pursued through the SMP.	Need more detailed assessment – included as a recommendation.
Vegetation condition an indicator of biodiversity.	Noted.
Recreation not in the forefront at present but that will change as the population grows and drives an increase in interest.	Recreation opportunities have been noted and included in the recommendations.
There is an opportunity to incorporate sensitive recreation activities within biodiversity related works. That can also increase peoples' awareness of biodiversity issues and values and they may appreciate these more.	As above and noted to be included in education and awareness programs.
MOSS zoning has been replaced by an Open Spaces zone under the new planning system. The implications of this need to be checked.  Very little use of open space currently.	Noted.
Opportunity to use the helicopter survey to evaluate tree die back and tree health through epicormic growth.	This has been included as a recommendation.
The objectives should promote water sensitive mitigation solutions.	This has been taken into account when defining the objectives and the mitigation strategies.
Objectives should focus on water dependent ecosystems on the floodplain and well as in the river channel.	This has been taken into account when defining the objectives.
Use urban growth to promote recreational opportunities.	Recreation opportunities has been included as a recommendation.

Stakeholder Group H Points Raised	Water Technology Response
What about town levee banks? Can this be included as a mitigation option (e.g., Gawler, Virginia, Two Wells)	Town levee banks were considered as an option.
What level of mitigation are we trying to achieve? How do we express acceptable residual risk?	Defining this has been included as a recommendation.



Stakeholder Group H Points Raised	Water Technology Response
Water Quality – flows out of the river “proper” should be considered separately to WQ impacts resulting from (say) animal runoff. Keen to see consideration of impact of development on floodplain, and siting of development inc safety. Need to protect env values in the floodplain and ensure connectivity.	A recommendation has been included to look into this further.
What consideration is being given to safety – e.g., if you’re in a dry place but can’t access or egress it safely.	This has been noted in the mitigation strategies.
There are many new landholders in the area who will not have experienced flooding before – need for an awareness program.	There is a high priority action for an awareness program.
<p>1% AEP not feasible to “protect” horticultural development, as the benefits come from the nutrients following flooding. Need to really consider acceptable residual risk.</p> <p>For example, Smith Creek SMP applies a variable target level of protection for different land uses.</p> <p>Flood hazard - 1% AEP doesn’t mean the same thing between catchments, council areas or stakeholders. Horticultural industry is sensitive to crops flooding.</p> <p>An education program for growers and urban landholders important.</p>	<p>A recommendation has been made to further investigate the level of protection.</p> <p>And a high ranking mitigation option is for the education and awareness program.</p>
Erosion – to protect riverbanks, buried infrastructure, and not increasing the risk of sediment transfer downstream, and eventually to the sea.	Erosion and sediment management has been included.
Issues with new people moving into the area, who haven’t experienced flooding in the area, and their expectations are that they should be increasing development.	Education and awareness programs are a high priority action.
It’s a floodplain – should we be trying to avoid it flooding? The aim is at least should be not to make things worse.	Recommendation of further assessing what level of protection and the needs of the environment being built into decision making processes.
Need to ensure emergency access for people and also critical infrastructure. Protection of main transport routes should be a high priority.	Transport routes have been included. Emergency access has also been noted in the SMP.
Flooding of the Gawler River is driven by long duration events. Hence there is time for warning and response actions. These should feature in the SMP.	This has been included as an action.



Stakeholder Group H Points Raised	Water Technology Response
There needs to be consideration of what people are prepared to pay.	This could be undertaken as a future recommendation.
We should not be trying to avoid all flooding – there are benefits to the floodplain from flooding.	Noted.
Need a mechanism for ongoing access to watercourse to ensure access for maintenance can be reliable. Need to identify stakeholders responsible for ongoing maintenance of infrastructure (e.g., levees, Bruce Eastick Dam)	This has been included as a problem for the area in terms of access and ownership and responsibilities for maintenance.
Need to make sure any works or actions achieve primary aim, but also that it doesn't cause other issues – e.g., doesn't attract weeds, become a dust bowl etc.	Multi objective approach – objectives have been broadened in the SMP.
Flood hazard management should be a primary objective.	Included as an objective and flood hazard management has been noted as the highest priority for SMPs.
Any flood mitigation actions need to acknowledge the special characteristics of the Gawler River – hence the solutions may differ from other catchments and also within the catchment.	The explanation of the characteristics of the catchment have been included.
Explore the Linear Park Act in regard to management but that only impacts Crown and Council held land.  Will need to provide compensation for loss of land for recreation trail if it goes ahead.	Not sure which recreation trail this is referring to. Recreation and amenity considerations have been included in the SMP.
We should include protection of the soil resource e.g., siltation, waterlogging etc.	This has been included.
Trying to prevent carp travelling upstream and encouraging fish habitat e.g., wetland upstream of Bakers Road ford. Either through what's there naturally, or through infrastructure works.	This has been included as a recommendation.
South Para environmental flows work, and a trial should provide useful information.	Further information on the environmental flows released and their benefit has been included as a recommendation.
Need to protect refuge habitat areas along the Gawler River.	Noted.
Look for opportunities to promote linking/connecting community to the river.	This has been included as a recommendation.
Need to ensure any recommendations not explicitly included as an action from the SMP are also captured.	Yes, a section has been included in the SMP with recommendations.



Stakeholder Group H Points Raised	Water Technology Response
Mitigation options need to be fit for purpose and promote the opportunities for long term community use. Multipurpose use of infrastructure should be promoted.	This is included as an objective and forms part of the strategies.
What effect will mitigation works have elsewhere – will upstream and downstream effects be considered?	Yes upstream and downstream has been considered.
Recreational opportunities and wider ecological opportunities need to be considered.	Yes these have been included.
Potential linkages / connectivity to the International bird sanctuary should be explored.	The bird sanctuary and surrounding environments have been mentioned.
Need to get to an agreement about level of acceptable risk e.g., area/ depth/ velocity	Will be using ARR2019 guidance. Could be further considered.
Are we looking at coastal interaction and climate change issues, community resilience?	Yes – these have all been considered and included.
Need to ensure that the SMP identifies issues that lie outside of the SMP area, but that have a significant impact on it.	Yes - the area has been broadened in what has been included in the document.
The risk profile of downstream stakeholder needs to be considered when assessing actions.	The risk profiling of all community members is something that is usually considered in the development of flood warning and response systems. This has been noted in this section.
How can we build on community resilience?	A community education and awareness program is included as a mitigation option.
Need to ensure Council/SES response plans make sure ford crossings are closed. They are very dangerous if tried to cross during a flood.	Noted. This has been included.
Some landholders have a long history of experiencing flooding and may be happy with things as they are.	Noted. This can be considered a risk.
Flooding is a very emotive issue and many landholders have taken their own actions to reduce the flood risk to themselves.	Noted. This can be considered a risk.



Stakeholder Group I Points Raised	Water Technology Response
Water Allocation Plan for the Barossa – rural urban stormwater is a possibility – is there an opportunity for this to be included?	Stormwater use has been considered as a mitigation option but the high priority options are around flood mitigation.
The idea of a linear trail could be extended beyond Gawler to the sea. Considerable economic leverage can be gained from the Aldinga to Clare wine trail and trails can deliver important agri-tourism benefits to businesses along the way as well as to the tourism economy generally.	This has been included as a recommendation.
Trail – what would be feasible in terms of land re tenure? Could we consider arterial routes to connect adjacent towns. Has there historically been some discussion about a “Rail trail” from Gawler to Burra? Also, could a boardwalk option be considered in some difficult places (e.g., to manage biosecurity issues). Recreation and tourism can provide a strong economic case for such actions.	Noted.
Trails will look at both sides of the river – but private landowners and farmers will need to be consulted. We will be engaging landowners and users through an online survey.	Noted.
Land Tenure will present some challenges so need to consult with landholders early in the piece.	Noted.
Thoughts on level of protection? Do you just protect “highest and best” assets? Can there be more information on what’s possible and feasible?	This has been included as a recommendation to further assess the benefits, costs, risks of the level of protection.
Recreation experience would be maximised if the environmental benefits were maximised – e.g., nodes or hubs to key places to attract people (e.g., areas of shade or seating)?	Recreation and amenity considerations have been included in the recommendations.
Recommendations on environmental rehabilitation need to focus on ensuring the highest value assets are protected and what is able to be realistically achieved in other areas.	Value assessment would probably need to be done in more detail. Environmental rehabilitation is included as a recommendation.
Should also look to tie in actions to make the most from the NRM initiatives of DEW and the Landscape Boards.	Yes.
Recognised that the primary role is a stormwater one – but is there Green Infrastructure work (such as the Torrens Linear Park) we can capture learnings for this SMP?	Linear parks and biodiversity corridors have come up frequently in the consultation. This has been included as a recommendation.



Stakeholder Group I Points Raised	Water Technology Response
It will be difficult to achieve water quality outcomes from within the study area because it is so small and the catchment very large.	Agree. Water quality has been considered but is going to be challenging to retrofit and best achieved through new developments. However, wherever possible water quality should try to be improved.
Catchment >1000km <sup>2</sup> , but this is a relatively small study area. Potential to make the study area more appropriate. What development controls could increase benefits? SMP could set targets for receiving water e.g., water quality from new housing developments.	The document is now considering the wider catchment area and WQ improvements and planning controls have been included.
Land development controls should be applied to new development and any new inflows to the river.	Dependent on the planning code and ability of Councils to work with developers. Planning controls and water quality targets have been recommended.
Equity with landholders is going to be important in deciding benefits.	Noted.
A lot of the damage to property is paralleled by damage to the environment following flooding.	Noted.
Planning controls need to recognise that structural works can fail.	Noted.
Need to apply a systems approach to the catchment and assessment of works and actions.	Assessment of the broader catchment has been included and multi objectives and outcomes applied.
Climate change impacts need to be considered.	Climate change has been included.
When considering future objectives, potentially not all future works will show immediate benefits, and not all works will be in one area. Need to focus upstream and downstream. Need to consider multi objective outcomes.	A broad range of objectives have been included a multi criteria analysis undertaken.
A damages assessment will need to be undertaken to assess the benefits.	Damages assessment has been undertaken.
Structural vs non-structural. When the work is done, what will be the opportunity be for advance warning e.g., evacuation? We can incorporate benefits and savings that would be achieved into our consideration	Structural and non-structural mitigation options have been included.
Will Rosedale be included in the study? This will be included in impacts of (say) raising the Bruce Eastick Dam	Not included in the scope.



Stakeholder Group I Points Raised	Water Technology Response
Lots of cultural elements, particularly around Gawler Junction	Cultural aspects have been noted in the document.
NE connector from Concordia – could this be incorporated? Has this been raised before? Need to aim to maximise benefits to the community	To be considered going forward
KPMG Sport Advisory has done some work with Sport Australia around developing COBA which may be useful	Noted

Stakeholder Group J Points Raised	Water Technology Response
Will we be including the breakout areas on the North Para around the caravan park?	The modelling has been undertaken downstream of the dam. Breakout areas have been considered.
Has there been a dam break analysis? SA Water did one for S Para, and GRFMA did one for N Para. Doesn't inform the mitigation measures, but the hydrological study done as part of it may be useful information to consider in this SMP.	The dam break analysis has been summarised in the SMP.
Queried the term “socially acceptable” with respect to 1% AEP protection.	A recommendation has been raised that the level of protection needs to be discussed further with stakeholders and community.
Is there some guidance we can use from council Asset Management Plans which describe levels of service for stormwater infrastructure?	Consideration of asset management has been undertaken and included as a recommendation.
GRFMA may find the preparation of an Asset Management plan beneficial.	Asset management has been included as a recommendation.
Need to consider impacts and benefits and where they are occurring. End of catchment solution may put too much impost on land uses further downstream. Different levels of service have been targeted in other neighbouring catchments.	Yes this has been undertaken through the options assessment.
Need to consider financial variable options.	Noted.
Flood hazard and public (life) safety should be a key factor in guiding what works, and actions are required.	Yes is a priority of the SMP (driven from the SMP Guidelines).
Land use planning is considered an important aspect to be considered, as are flood awareness and resilience measures.	All of these have been included as high priority options.



Stakeholder Group J Points Raised	Water Technology Response
Cost sharing and prioritisation needs to consider the impacts that are occurring and who is benefiting.	A proposed cost sharing model has been developed.
If high levels of sedimentation are anticipated following this work, will we include recommendations for further study? We've lost approx. half of Australia's topsoil over the last decade - perhaps PIRSA would have some comment on this?	Land management practices have been considered and included as a recommendation. Need specific advice and studies about that side of management of the floodplain.
A key outcome for the SMP should be further actions that are required upstream and works outside the study area will most likely be required.	The most relevant actions have been included but too many to put all in this document and need to refer to other relevant documents.
Reduced flooding frequency will reduce the replenishment of alluvial soils – on which the horticulture industrial is based. The loss of nutrients will need to be replenished.	Noted.
Virginia area is Australia's largest undercover cropping area. Over what time will we lose soil fertility. PIRSA may be able to advise.	Noted.
Is the aspiration to contain the flow at all times, or to consider benefits other than flood mitigation?	Other options, benefits and trade offs have also been investigated.
How does the study overlay with groundwater drawdown areas? E.g., connection with shallower quaternary regions?	The area overlays with Water Allocation Planning areas. "Recent" work has shown that the groundwater levels are recovering but this was not looked into in any detail as part of the SMP.
Riverlea, Angle Vale and Gawler itself – anticipated there would be an appetite for a linear trail (e.g., Gawler to the Sea)	Linear trail has been included as a recommendation.
Open space sport and recreation plan – identifies Reed Reserve as a neighbourhood level open play space, which is mostly within floodplain. Would there be benefits to looking to see how this was affected?	This can be looked at with a specific assessment but was not looked at within the context of the SMP.
Look for opportunities to link water quality and biodiversity benefits with recreation as well as flood mitigation.	Noted.
BoM planning flow monitoring site at Gawler junction and flow control structure	Noted.



Stakeholder Group K Points Raised	Water Technology Response
ATRC have built a new bridge at the Virginia Park River Crossing and in the process rebuilt the levees adjacent to the bridge on their land.	Noted.
The present modelling includes an assumption that the South Para Reservoir is 80% full - Is there scope to include a 60% full and 100% full, as a sensitivity analysis.	Noted for possible future scenarios.
AGIG have some gas pipelines that cross the river – would need to refer to APA planning department. Not sure if sea gas pipe crosses the Gawler River	Noted
Any changes in risk will be documented in the SMP, and the aim is to not worsen things – there may be possibilities for partnership with infrastructure organisations if there are mutual benefits from mitigation works.	Noted
What are the consequences of mitigation options? If road and rail get cut, are we looking at downstream impacts e.g., emergency services breaching rail or road embankments to allow water to flow across the floodplain.	Consequences and benefits of mitigation solutions have been assessed as far as possible
Need to consider the impact on sewer infrastructure, and also septic tanks.	Noted
SA Water – will wastewater infrastructure (e.g., booster pumps) be impacted / considered?	Not specifically considered
Will there be flood maps for different reservoir levels? Or will it assume the dam is full?	There are not flood maps for different reservoir levels
The gap analysis should include identifying land use and available land for actions.	Some of this has been done in the assessment of the options and in the other SMPs.
Live data / networking for emergency management. should be considered as well as flood warning.	This has been included as a recommendation.
Could a system of minor, moderate and major levels be developed for each of the gauging stations, which would help with flood warning?	This could be a part of the flood warning system development.
Maintenance of critical infrastructure and access to do this is an important consideration	Asset management including maintenance has been included.
Consider barriers to prevent road access during floods, as this is a major safety issue.	Should be included as part of the emergency response plans.



Stakeholder Group K Points Raised	Water Technology Response
Is 1% necessary, or would 1:50 be acceptable?	A consideration of what is considered acceptable has been included as a recommendation.
Will the gap analysis look at what's been recently constructed in terms of infrastructure, and also defences.	We have taken one point in time and so some changes have happened since then but also considered other SMPs
Cost of rail closure are in the order of \$ millions per day. Hence flooding can be very costly.	Noted and impact on infrastructure / transport routes has been included.
There is a high degree of landholder flooding fatigue in the lower sections of the Gawler River leading to highly volatile reactions by landholders and industry groups.	Noted. Would need to be taken into consideration with any community engagement and awareness raising programs.
ARTC subject to rail regulations, and any recreational trails would need to consider these. There would be significant interface issue that would need to be managed.	Noted.
DIT would support the concept of shared paths beneath bridges and culverts etc.	Noted.
There are bad areas environmentally – landowners pushing unknown material onto levees, weeds and veg overgrowth, carp etc are all problems, and there could be an opportunity for improvements here.	Education and awareness programs have been recommended as well as ownership and responsibility arrangements
Need to consider landholder chemical use on land adjacent the river and on the floodplain.	Education and awareness programs have been recommended
Council stormwater discharges top the river should be managed / controlled.	Actions in relevant SMPs
Quite a lot of flow “disappears” in the 5km downstream of Gawler – any mitigation works would need to consider impacts on GW recharge and water quality.	Further investigation and discussion in WAP relating to groundwater discharge and groundwater use and groundwater dependent ecosystems
Is there any governance or oversight on landowners discharging into watercourses, or other below quality council discharges?	EPA and DEW have responsibility as well as Council
Many areas of the river are degraded but the area in good condition should be protected and looked after.	Included as a recommendation
Additional consultees – it is worth contacting David Cunliffe DoH, and also SA Water sewerage assets	Noted



Alternative Stakeholder Group 1 Points Raised	Water Technology Response
Impacts will be felt at Buckland Park, and we are concerned solutions all focus on directing flows to the sea at Buckland Park development. Private developers have already spent \$m on flood protection. We don't want perception that Walker Corp will "fix" the problem of additional floodwater at their end. If N Floodway were implemented, this will quadruple water at western end. Needs to be a combination of solutions. Any additional protection work – will this be subsidised by others?	Noted
When flooding does occur, it's typically widely spread, shallow and slow moving. Farmers reshape their land locally, which significantly influences flow paths – will this be recognised in our modelling? Different patterns. How do we protect the areas outside of our study? Where is the damage being done, and how can these impacts be modified?	Modelling uses surface levels from survey at a particular point in time. Is therefore taken into account in a small extent as much as possible.
Pipeline crosses river at two locations (Epic Energy) in 2 locations, buried – will erosion affect this?	Infrastructure has been noted
SAPN infrastructure – consultation may need to be more specific if affecting infrastructure, and lead in time might be up to 12 months. We would always try and avoid impacting critical infrastructure – this would be at implementation	Infrastructure has been noted
Why is ToG SMP separate process to this?	Town of Gawler SMP has been developed purely regarding the stormwater from the town and does not consider riverine flooding. The Town of Gawler SMP has been referred to in this SMP
This work is a strategy to unlock funding, and allocation is not "in the bag". This work opens a pathway to funding.	Noted
How benefits are considered will be reviewed	Noted
Water quality is critical, and the river environment needs cleaning up – there are a number of fallen trees, rubbish and pollution generally. It should be one of the environmental imperatives to clean this up	Environment Protection and Enhancement is an objective of this SMP and included actions and recommendations



Alternative Stakeholder Group 2 Points Raised	Water Technology Response
Economic analysis – how are estimated damages determined following a flood event. Are offsets included? E.g., whilst some growers are adversely impacted that pushes up the price of produce and hence returns for other growers.	There are many different ways to calculate damages. A description has been included in the SMP
Lots of public money going into flood works – where's the shared partnership arrangement for the floodplain e.g., preparedness measures at property level. Are the savings from these actions factored into the Cost Benefit Analysis?	We are not sure that the cost benefit analysis can really go into that level of detail.
Need to recognise that any actions will involve a shared partnership where there are private benefits from public expense.	Noted
Planning code and policy is under review but doesn't deal well with flooding of properties.	Noted
AGD is looking at future modelling to improve availability of hazard layers (e.g., flooding) particularly for the 2050 climate change scenario.	Noted
It would be good to get an understanding of which stakeholders are involved, and how will this influence cost benefit analysis.	Decision making process will be transparent, and will be an MCA approach
Are we also considering protection to 1:50 as well as 1:100, and what is the incremental benefit to a higher level of protection	Both scenarios will be run
A 1% AEP standard has already been set for future and recently approved developments. Changing this now for future development would place recently approved development at a competitive disadvantage.	Noted
Growth is already zoned in this area, and landowners will be required to do what's required under the planning code – there won't be scope to change land use areas following on from this, and it's important that we don't raise expectations	Noted
Proper consideration should be given for this being a highly valued agriculture area	Noted
Would be good to see a trail developed – this has been sitting in various government plans for some time	This has been included as a recommendation



Alternative Stakeholder Group 2 Points Raised	Water Technology Response
Public safety measures will be an important consideration when assessing mitigation options.	Flood mitigation and awareness has been considered as well as the risks associated with structural failure of any options.
Legacy issue of past decisions – if these have been required as part of previous DA applications, is there scope to relax those (e.g., what will happen if new developers are able to provide a lower level of protection, which would become a commercial advantage)?	This would have to be determined between Council and the planning department
We will be considering maintenance issues such as weed clearance and Buckland Park lake.	Weed management and maintenance is included in the SMP.
In the flood plain, eucalypts and other species are at risk the more the flood plain gets developed. Examples include Lewiston (nardoo), Buckland Park (redgums) and the bird sanctuary	These important areas have been noted in the SMP.
The small areas of native vegetation left on the floodplain will come under further stress if the frequency of flooding is reduced by mitigation works.	Recommendations for further work to assess and monitor the environmental water requirements and what is being delivered.
What happens in the low-lying area from Virginia to the coast – is there potential to do different things?  There are many historic water holes along this lower section of river.	Various options across the catchment have been considered and assessed
Buckland Park and Windamere Park will be considered as part of the study	Buckland Park is included in the model
Weeds are still a major issue for biodiversity.	Weed management has been included as a recommendation.
There seems to be no ongoing obligation for private landowners to maintain weeds once money has been spent clearing them – is this a waste of money.	Review of responsibilities and maintenance is a recommendation. Including also education and awareness program of the importance of the river and floodplain system.
How will “illegal levees” be dealt with? A lot have been put there by private landowners. Would a shared ownership arrangement be worth looking at? This would need to be backed up by proper legal agreements so that they were transferred e.g., when land is sold or inherited.	Review of responsibilities and maintenance is a recommendation.
Need to adopt a big picture look at the flooding and biodiversity issues,	Noted



Alternative Stakeholder Group 2 Points Raised	Water Technology Response
Gawler Council biodiversity management plan is a good source of information and can be found on their website. There is an opportunity for ToG to make the data behind this available, as it is not included online.	Noted



## Gawler floodplain - First Nations engagement



May 2021  
DEW began discussions with David Mott (archeologist) and Merle Simpson (RAWsa Kurna liaison)



August 2021  
GRFMA engaged Emma Pink to try and progress this



3rd September 2021  
Emma met with Aboriginal Partnerships Manager, DEW to find out where things were up to from that perspective



7th October 2021  
Emma met with Merle Simpson to get her perspective and guidance. She recommended meeting with the Directors of RAWsa and KYAC to discuss



21st October 2021  
Emma met with Directors of RAWsa, Merle and Lachlan Keeley from Green Adelaide. Jeffrey Newchurch from KYAC was unable to attend but an agreement was reached to hold a workshop for representatives from the Kurna, Ngadjuri and Peramangk Nations to discuss how they wanted to be engaged



23rd June 2022  
DEW and GRFM invited to present at the Kurna Yerta Aboriginal Council (KYAC) Board meeting. It was agreed that the Board would identify a working group to focus on this project and Emma would develop a proposal for how this group would work alongside DEW and GRFMA



17th and 18th March 2022  
Emma met with Merle and Green Adelaide to discuss how the engagement would work from an administrative point of view - payments etc. Emma was also due to meet with the Chair of KYAC but he couldn't attend



8th March 2022  
Workshop held at RAWsa offices with Ngadjuri and Peramangk Board Chairs - Kurna Chair unable to attend. DEW and GRFMA presented the project and we agreed to present same info to each Nation's Board as the next step



27th January 2022  
Emma met with Merle again to discuss the lack of progress with locking in a date for the workshop and agree a way forward



5th August 2022  
DEW and GRFMA met with Ngadjuri Aboriginal Council (NAC) Board to discuss further. Emma followed up to check everyone on same page but this was not followed up due to issues with the KYAC working group not yet being resolved



16th August 2022  
SANTS confirmed the members of the KYAC working group



24th August 2022  
Emma met with DEW Aboriginal Engagement Team to discuss outcomes of these meetings and get guidance on considerations for next steps. She then developed a proposal based on this conversation and those with KYAC



5th October 2022  
Provided KYAC with a proposal for the engagement which had been approved by GRFMA and DEW



20th October 2022  
Received formal approval from KYAC for the proposal



27th June 2023  
DEW, GRFMA and members of the new KYAC Board met to discuss a new way forward together which will include a joint meeting with Kurna and Ngadjuri Boards in late August



30th May 2023  
Emma met with new KYAC Chair to progress. Dates for a meeting with the new Exec team have were suggested. Will also now progress discussions with Ngadjuri and Peramangk based on this agreed structure



12th April 2023  
Emma contacted David Mott for advice as despite many voicemails, messages and e-mails there was no movement on the first meeting. Emma then contacted RAWsa who put her in touch with the new KYAC Chair and they spoke the next day



21st October 2022  
Emma emailed working group members to invite them to kick off meeting

