Long Term Plan for Kangaroo Island

Stakeholder Reference Group Meeting 4

21 February 2018

Government of South Australia

SA Water

Agenda

10 min
Aaron

Acknowledgement of Country

Welcome and Apologies

Minutes of the previous meeting and Action Items

Overview of Multi-Criteria analysis approach

Draft criteria

Next Steps

Other Business

Acknowledgement of Country

We acknowledge and respect the traditional custodians of the land on which we meet.

We appreciate and thank them for their care of this land.

Welcome and Apologies

Welcome everyone!

Welcome those attending for the first time.

Apologies received, delegates and information to be shared.

Minutes and Action Items

Minutes of last meeting tabled.

Review of action items

Recap: purpose of today's meeting

5 min
Erin

How do we decide the best solution?

As you've seen from the landscapes there are a range of competing factors to balance and trade-off. There's no 'obvious or easy' solution!

Defining the evaluation criteria and their relative importance (or weighting) is best done before 'diving in' to options as it helps keep an independent mind and combat decision making bias.

Overview of Multi Criteria Analysis (MCA) approach

60 min
Marta

It's a technique that assists decision making where there are conflicting objectives.

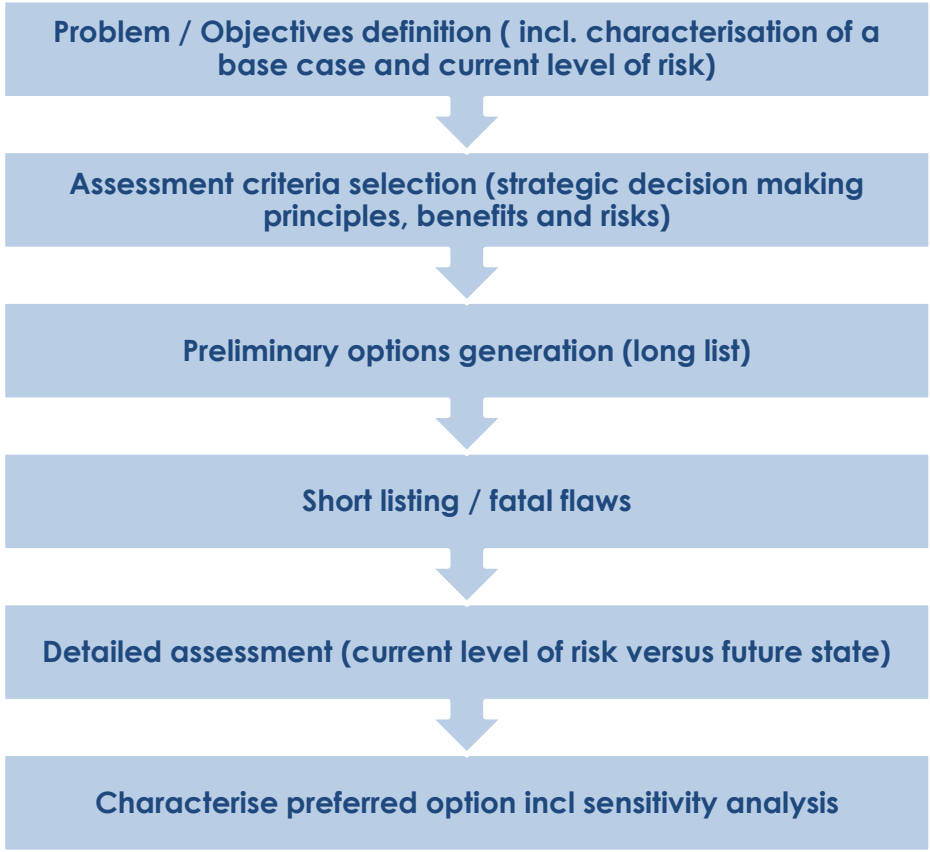
It uses quantitative and qualitative risks and benefits.

The result of a MCA is the *relative performance* of an option based on a range of criteria and their relative importance (weighting).

It allows for trade offs and sensitivity analysis.

The SA Water Framework : **options** evaluated against **criteria** that are aligned to our **strategic decision making principles** and are material to achieving **objectives.**

MCA Steps


Problem / Objectives definition (incl. characterisation of a base case and current level of risk)
Assessment criteria selection (strategic decision making principles, benefits and risks)
Preliminary options generation (long list)
Short listing / fatal flaws
Detailed assessment (current level of risk versus future state)
Characterise preferred option incl sensitivity analysis

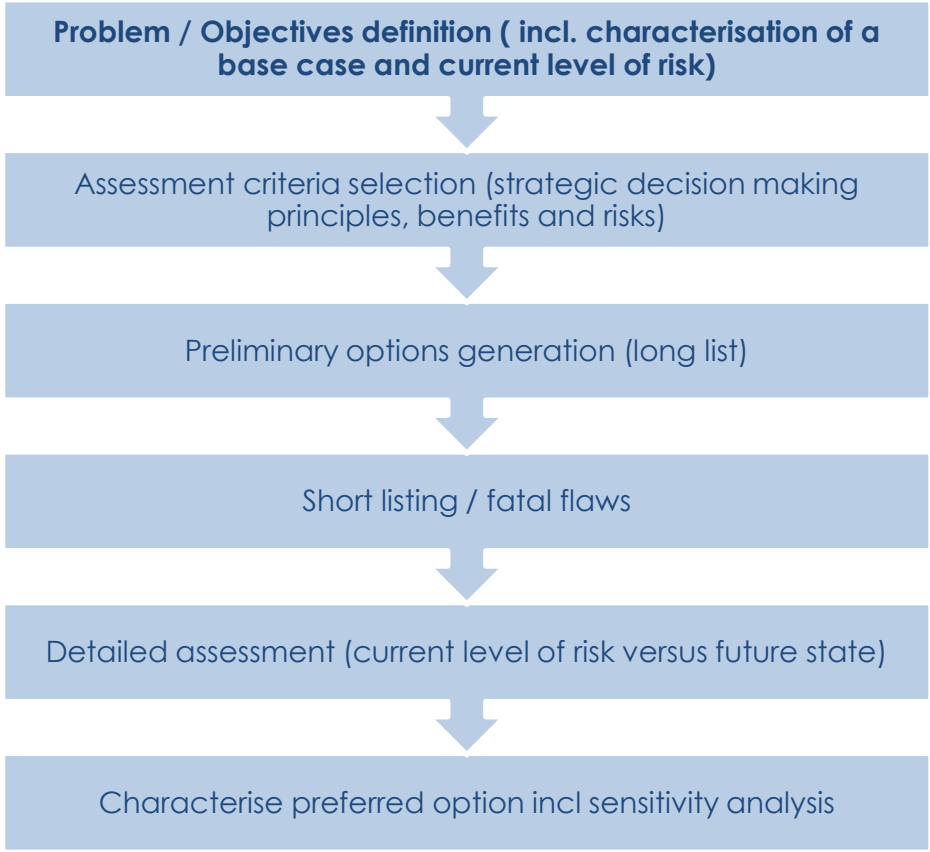
Problem / objectives

Problem / objectives:

- The key risks and opportunities associated with the security and reliability of water supply from source to tap for Kangaroo Island are identified (quantified and or / qualified) and managed, and

- The preferred solution is safe, cost effective, secure and technically and environmentally sound to support the current and future viability of the communities and industries in KI.

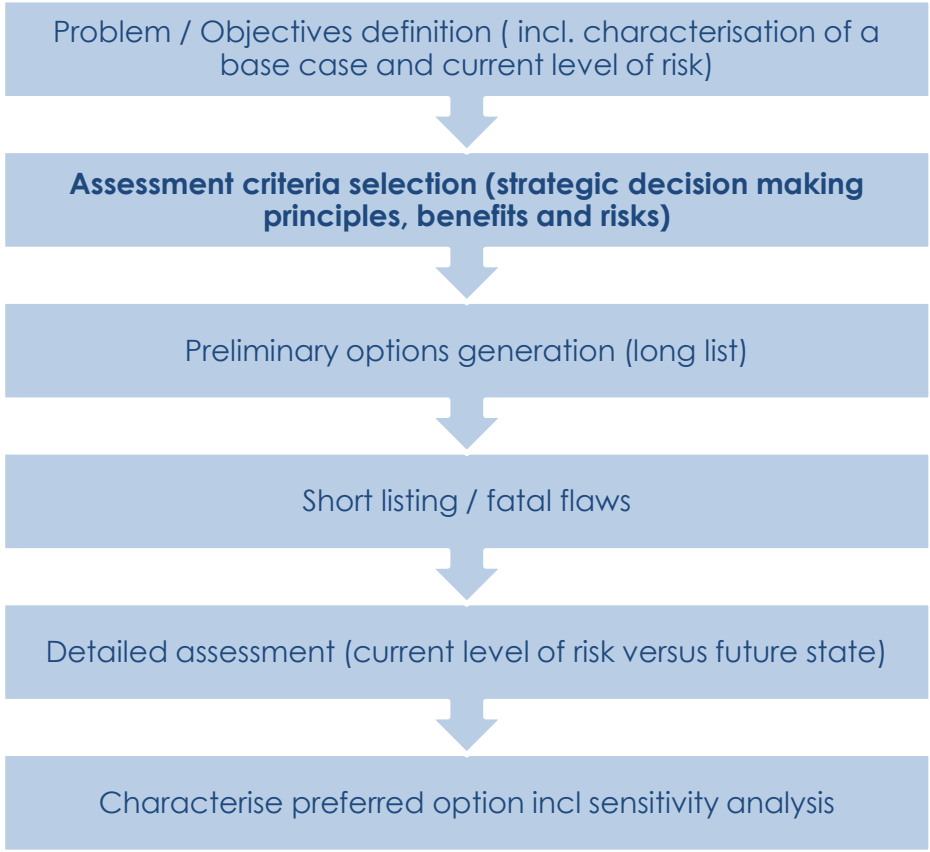
Feedback please: do these seem fair and reasonable?



Draft Criteria

Draft criteria proposed based on:

- The obligations that SA Water needs to meet and our vision to deliver world class water services for a better life
- The insights you and others in the community have given us on what's important on specific environment, heritage and social criteria.



Draft Criteria

Four categories with equal weighting which are the same as the 2009 Long Term Plan:

- Environment
- Social
- Economic
- Technical

Main criteria and sub-criteria beneath each category.

Three-tier weighting system reduces the impact of one category having more criteria than another.

Criteria and their rankings are either:

- Determined by SA Water, with feedback from stakeholders
- Determined by stakeholders, with feedback from SA Water

Draft Criteria - all

Category	%	Main criteria	%	Sub criteria	%	Strategic intent
Environment	25	GHG emissions	25	GHG footprint	100	Minimise Greenhouse Gas (GHG) emissions from both construction and operation
		Terrestrial ecosystem	25	Signifiant habitat, vegetation and fauna	100	Minimise impacts on significant vegetation and fauna
		Heritage	25	Significant heritage	100	Minimise impacts on significant Federal, State, Local and indigenous heritage
		Aquatic ecosystem	25	Inland and marine	100	Minimise impact from increased flows / waste into receiving aquatic ecosystem including sea and inland waters e.g. brine disposal
Social	25	Security of supply	40	Peak system demands	50	Maximise ability to maintain reliable pressure and water supply in peak demands (current and future)
				Source water accessibility	50	Maximise ability to access water source without precluding other stakeholders and uses e.g. agriculture, non customers and key critical services
		Customer and community acceptability of options	40	Impact on amenity	25	Minimise potential for ongoing and/or emerging impacts from "by products" from operation e.g. dust, noise, light pollution, amenity loss, impacts on tourist etc
				Impact on access to energy	25	Minimise the risk of further impacting the constrained energy (power) available to the island
				Economic growth, security & new customers	25	Maximise opportunity for economic growth and water security; and facilitate access potential for new customers/communities
				Acceptability of drinking water taste & odour	25	Minimise the potential for customer dissatisfaction with drinking water taste and odour
		Customer and community safety	20	Public health	100	Minimising the risk of health impacts to customers and community
Economic	25	Cost	100	Total cost to utility	100	Maximise efficient investment ensuring prudent use of financial resources
Technical	25	Operational complexity	25	Ease of operation and flexibility	100	Minimise operational risks from complexity of systems [current and future]
		Complexity	25	System complexity	100	Minimise functionality risks due to complexity of systems [current and future]
		Reliability	50	Functionality / redundancy	100	Maximise functionality and resilience of infrastructure [current and future]

Criteria – SA Water

Items in **bold text** are determined by SA Water.

Do these seem fair and reasonable?

Do you have any concerns?

Category	%	Main criteria	%	Sub criteria	%
Environment	25	GHG emissions	25	GHG footprint	100
		Terrestrial ecosystem	25	Signifiant habitat, vegetation and fauna	100
		Heritage	25	Significant heritage	100
		Aquatic ecosystem	25	Inland and marine	100
Social	25	**Security of supply**	40	**Peak system demands**	50
				Source water accessibility	50
		Customer and community acceptability of options	40	Impact on amenity	25
				Impact on access to energy	25
				Economic growth, security & new customers	25
				Acceptability of drinking water taste & odour	25
		Customer and community safety	20	**Public health**	100
Economic	25	**Cost**	100	**Total cost to utility**	100
Technical	25	**Operational complexity**	25	**Ease of operation and flexibility**	100
		Complexity	25	**System complexity**	100
		Reliability	50	**Functionality / redundancy**	100

Criteria – you

Items in **bold text** are determined by you, our Reference Group, as representatives of the wider community.

We have suggested these based on consultation and feedback to-date.

Do these seem fair and reasonable?

Do we need to vote?

Category	%	Main criteria	%	Sub criteria	%
Environment	25	**GHG emissions**	**25**	**GHG footprint**	**100**
		Terrestrial ecosystem	**25**	**Signifiant habitat, vegetation and fauna**	**100**
		Heritage	**25**	**Significant heritage**	**100**
		Aquatic ecosystem	**25**	**Inland and marine**	**100**
Social	25	Security of supply	40	Peak system demands	50
				Source water accessibility	50
		Customer and community acceptability of options	**40**	**Impact on amenity**	**25**
				Impact on access to energy	**25**
				Economic growth, security & new customers	**25**
				Acceptability of drinking water taste & odour	**25**
		Customer and community safety	20	Public health	100
Economic	25	Cost	100	Total cost to utility	100
Technical	25	Operational complexity	25	Ease of operation and flexibility	100
		Complexity	25	System complexity	100
		Reliability	50	Functionality / redundancy	100

Next Steps – Options

10 min
Erin

Meeting 1-3

- What matters to you and the communities you represent
- Start confirming objectives and planning assumptions e.g. growth, climate change
- Complete confirmation of objectives and planning assumptions

Meeting 4

- Understanding the Multi Criteria Analysis approach
- Criteria and weightings for evaluating options

Meeting 5 – 22nd March

- Feedback on possible (shortlisted) options

Meeting 6 – 19th April

- Ranking of options and sensitivity analysis to arrive at optimal solution
- Feedback on the draft Long Term Plan before wider community consultation in early May

Ongoing - conduit for information to and from the communities you represent

Other Business

10 min
Aaron

Any other business?

What do you need to consult with your communities in advance of next meeting?

Confirm dates and locations for next few meetings

Thank you.