

Meeting Title: EP Desal Project – Site Selection Committee Meeting 04

Project Name: Eyre Peninsula Desalination Plant Project

Meeting Purpose: Shortlisting of sites for the Eyre Peninsula Desalination Plant

Date: Thursday 03 March 2022

Time: 3.00pm – 5.00pm

Location: Ball room, Port Lincoln Hotel, Port Lincoln

Attendance:

Name	Role	Present
Peter Treloar	Chair	Yes
Steve Dangerfield	Engagement Facilitator	Yes
Sandra Klein	Community Engagement	Yes
Isaac Glonek	Minute Taker	Yes
Natasha Kousvos	Project Manager	Yes

Committee:

SSC Member	Role	Present	Proxy
Andy Dyer	President, SA Mussel Growers Association	Apology	Andrew Puglisi
Brad Flaherty	Mayor, City of Port Lincoln Council	Yes	
Brian Jeffriess	Chief Executive, Australian Southern Bluefin Tuna Industry Association Ltd	Yes (online)	
Bryan Trigg	Chair, Regional Development Australia Eyre Peninsula	Yes	
Clare McLaughlin	President, Eyre Peninsula Local Government Association	Apology	Peter Scott
Claire Webber	Executive Officer, South Australian Sardine Industry Association Inc.	Yes	
Delfina Lanzilli	Chief Executive, District Council of Lower Eyre Peninsula	Apology	Tim Blacker
Gary Neave	Independent Project Director, TSA	Yes	
Hannah Allen-Jordan	Acting Mayor, District Council of Tumby Bay	Yes (online)	
Jack Ritchie	Member, Port Lincoln Chamber of Commerce and Tourism	Yes	
Jo-Anne Quigley	Mayor, District Council of Lower Eyre Peninsula	Apology	Tim Blacker
Jonathan Clark	General Manager, Eyre Peninsula Landscape Board	Yes	
Mark Whitfield	Chair, Eyre Peninsula Landscape Board	Apology	Dr Steve Milner
Matthew Morgan	Chief Executive, City of Port Lincoln Council	Yes	
Peter Scott	Executive Officer, Eyre Peninsula Local Government Association	Yes	
Rebecca Hayes	Chief Executive, District Council of Tumby Bay	Yes (online)	
Rob Gratton	Chief Executive, Clean Seas Seafood Limited	Yes	
Ryan Viney	Chief Executive, Regional Development Australia Eyre Peninsula	Apology	Trevor Smith
Shane Hodgins	Director, RecFish SA	Apology	
Thomas McNab	President, Abalone Industry Association of South Australia Inc	Yes	
Tom Hyde	Member, Australian Abalone Growers Association	Yes	
TBA	Member for Flinders		

We acknowledge the Traditional Custodians of the Eyre Peninsula. We acknowledge their elders past, present and emerging, noting, in particular, their spiritual and cultural connection to the lands and coastal waters of the Eyre Peninsula.

1. Welcome and introductions

The Chair gave an Acknowledgement of Country and welcomed attendees.

Attendees were reminded of COVID protocols and the Chair noted the purpose of the meeting was to:

- Re-cap on shortlisted precincts
- Present supporting information (opportunities and constraints) on sites within precincts
- Identify a shortlist of sites within the precincts that can be considered for a shortlist to take to concept design
- Call for any other ideas or thoughts regarding broader community engagement once a shortlist is identified.

2. Apologies and proxies

- Andy Dyer was noted as an apology, with Andrew Puglisi attending as a proxy.
- Clare McLaughlin was noted as an apology, with Peter Scott attending as a proxy.
- Delfina Lanzilli and Jo-Anne Quigley were noted as apologies, with Tim Blacker attending as a proxy.
- Mark Whitfield was noted as an apology, with Steve Milner attending as a proxy.
- Ryan Viney was noted as an apology, with Trevor Smith attending as a proxy.
- Shane Hodgins was noted as an apology.

Jack Ritchie will represent the Port Lincoln Chamber of Commerce and Tourism.

3. Declaration of conflicts of interest

The Chair noted SSC members are encouraged to submit any real or perceived conflicts of interest in writing.

- Thomas McNab declared that he has a property in Sleaford Bay.

4. Minutes of the previous meeting

The minutes of the previous meeting held on 24/02/2022 were accepted.

4.1 Matters arising

The Chair raised the question taken on notice by TSA from the last meeting – to clarify the budget available for the project.

Gary noted that the SSC should assume we have a budget of \$150M and that this amount is inclusive of all costs, including if there is a requirement to purchase land.

5. Action items of the previous meeting

Steve noted that he and Gary took the SSC's project objectives to the SA Water Steering Committee on Tuesday. The project objectives were acknowledged by the Steering Committee and generated positive discussion.

6. Precinct Preferences Discussion – Recap of SSC ranked precincts

Steve provided a recap of the precinct ranking that had been determined by the SSC. The list in order of ranking included:

1. Southern Precinct
2. North Shields Precinct
3. Northern Precinct
4. Port Lincoln Precinct
5. Western Precinct

Steve noted that the SSC's focus at this meeting was to identify sites of interest within the shortlisted precincts.

7. Additional sites – Final call for any site not previously identified

The Chair called for any additional sites not already considered, to be tabled. Should any new site(s) be forthcoming from the SSC, the site(s) is to be discussed. If the SSC considers there is merit in pursuing the site(s), the project team will research the site and report back at the next meeting.

An SSC member raised a site south of Tumby Bay, called Trinity Haven for consideration.

The Chair raised a site suggested to him by a member of the public south of Elliston.

Both sites will be considered by the project team and a report back to the next meeting.

8. Site Selection – Discussion and selection within shortlisted precincts

The Chair reminded the Committee of the task for the meeting: to select sites of interest within shortlisted precincts.

Steve provided a diagram of the indicative layout of the base case site at Billy Lights Point to provide a guide to the SSC as to the size and layout of the site.

Gary noted that the Billy Lights Point site was 105 meters by 227 metres, around 2.5 hectares in total area, however, there are different ways to configure the plant, based on the site selected. The dimensions quoted are indicative and depend upon the site selected.

An SSC member questioned the height of infrastructure on the base case site.

Gary noted that the height of the building would be around 14 metres.

An SSC member questioned whether a pipeline project could be separated from the desalination plant project.

Gary noted that a separate project would require a solid business case in order to attract funding.

An SSC member noted that a mine site in Arno Bay, Renascor, would be operating in Q1 2023 and would need water and they are considering building their own desalination plant.

Gary noted that potable water is generally too expensive for mining companies. They look to obtain non-potable water at lower cost. Steve noted that while opportunities may be explored for non-regulated business, the SSC needs to focus on delivering against the project objectives, primarily to deliver water security and improved water quality to SA Water customers across the EP.

Steve presented in high-level terms, the advantages and disadvantages of sites within the precincts and opened the discussion for the SSC of information to identify sites worthy of consideration for a short list.

8.1 Southern Precinct

Steve summarised the sites identified in the Southern Precinct, noting the sanctuary zones where the desalination plant cannot be constructed.

Gary noted that in addition to sanctuary zones there are also marine parks. While marine parks are not as restrictive as sanctuary zones, a regulatory approval would be required, and specific conditions met. An SSC member asked if the sanctuary zones are no-go zones for regulatory or environmental reasons. The member also asked whether work has been done on the environmental implications of putting a desalination plant in a marine park.

Steve explained that sanctuary zones are highly regulated areas because of important environment considerations and sensitivities. With respect to Marine Parks, while an approval is not impossible, it is likely various conditions would need to be met and a longer lead time needed to obtain approval.

An SSC member asked if any issues had been identified previously with the Western side of Sleaford.

Gary replied that there are some issues that had been identified including:

- It is a whale aggregation zone
- There is a sanctuary zone extending across the top of the bay and across to the east
- Constructability given the presence of granite rock.

An SSC member noted the regional plan has aquaculture zones that should be considered alongside the marine parks and sanctuary zones. It would be useful to overlay these various zones onto a single map for easier reference.

Gary noted that the project team is working on developing a multi-layer mapping tool that can be shared with the SSC to assist in assessing the short-listed sites.

The Chair noted that the boundaries of these parks and zones has been legislated by Parliament and would need to be complied with. Steve noted that as the SSC progresses into the concept design phase, the SSC will need to take into consideration the various factors and consider possible trade-offs as no site will be without issue. However, at the same time some sites might provide greater opportunity and longer-term benefit to the community

Steve provided an overview of the sites identified within the Southern Precinct including:

- Gunyah Beach (southern area)
- Shoal Point/Cathedral Rocks
- Sleaford Bay (Fisheries Bay Road)
- Sleaford Bay (original site)
- Wanna Beach
- Taylors Landing
- Donington Road Proper Bay

An SSC member asked about the annual energy cost of the desalination plant, in the context of linking up with wind farms nearby and whether that saving could be taken into account when considering the total cost of each potential site.

Steve noted that the remit for the SSC does not allow consideration of how energy is sourced for the site and that the desalination plant will be powered from energy purchased from the grid.

Gary mentioned that SA Water is looking at options including buying renewable energy through the grid.

The Chair noted that Electranet transmission line into the Eyre Peninsula is being upgraded and ultimately, it will be connected into a national grid, which means that we will be able to purchase green energy through that grid.

An SSC member questioned whether desalinated water could be fed back into the aquifers to recharge.

The Chair noted that aquifers can leak, and the potential of relatively expensive water being fed into the aquifer and then leaking away would be counterproductive.

An SSC member explained that the aquifers at the southern end of the EP are not suited for recharge and recovery.

An SSC member noted that there are concerns about the Donington Road site with the intake in Proper Bay and how that would affect the mussel industry.

It was noted that Taylors Landing is about 10km away from the nearest pipeline, Wanna Beach is about 15km away from the nearest pipeline, Sleaford Bay (original site) is basically off the table due to heritage and environmental concerns and that Sleaford Bay (Fisheries Bay Road) was thought to have constructability issues. With respect to Sleaford Bay (Fisheries Bay Road) however, it was thought that the constructability issues could be mitigated/minimised. On this basis Sleaford Bay (Fisheries Bay Road) was looking more viable than the other sites.

An SSC member questioned the impost of the geology at Shoal Point/Cathedral Rocks and Sleaford Bay (Fisheries Bay Road) on construction.

Gary noted that Shoal Point/Cathedral Rocks would have the desalination plant sited in the borefield with the inlet/outlet structures travelling to Shoal point from there. However, the cost of building the intake and outlet pipes at that location could be significant, up to \$100 million depending upon the methodology.

An SSC member noted that any site on the southern coast of the Southern Precinct is a high-energy coast for 9 months of the year and would make construction extremely difficult, as well as its ongoing maintenance.

Gary noted that the constructability piece will impose restricted activities due to the weather and tight scheduling. It is doable and has been done before but comes with a fair degree of challenges.

An SSC member noted that other sites in Australia deal with similar high energy issues, therefore it can be done and that there are some alternative solutions to overcome this challenge.

An SSC member noted that Wanna Beach, Taylors Landing and Donnington Road sites may have problems with being in a national park and the need to construct relatively long pipelines. However, overall, the benefit of building a desalination plant in the southern precinct at an appropriate site would create an important infrastructure hub for SA Water at the southern end of the EP.

An SSC member noted the wet well being proposed at Sleaford was 30m deep and 18m wide.

An SSC member noted that there could be a huge opportunity at Sleaford Bay (Fisheries Bay Road) site, with so much work having already been done to help inform decision-making.

An SSC member questioned whether the Wanna Beach site was in the sanctuary zone.

Steve clarified that it was very close and that intakes and outlets would need to be carefully located to avoid the zone.

An SSC member noted that this discussion and the reasoning behind shortlisting and eliminating sites should be captured in the minutes in as much detail as possible in order to document the robust and thorough nature of the discussions and the process undertaken to determine a suitable site. The Chair confirmed that the discussions are being captured in the minutes.

The Chair asked SSC members to suggest any sites that could be taken off the table.

An SSC member suggested that the Donington Road Proper Bay site should be eliminated due to the potential impact on the aquaculture industry.

An SSC member suggested that the Wanna Beach site should be eliminated due to its proximity to a sanctuary zone.

An SSC member asked Steve and Gary for their opinions given that they have been looking at all of the sites in great depth. Steve responded noting that while both he and Gary had their views they were reluctant to lead the committee and preferred for the discussion to continue from the floor.

An SSC member raised the need to be sure about the boundaries of the sanctuary zone around Wanna Beach and whether the original site at Sleaford Bay does in fact have heritage concerns.

An SSC member noted that Wanna Beach site may have trouble gaining a social licence given broader community sentiment and attachment to the site.

An SSC member noted that the sites on the western side of the Southern Precinct avoid many issues and it will just be a question of costs given complex constructability.

Steve shared some of the information collated from the project team's investigation work to help the SSC in their deliberations.

An SSC member noted that there was a social licence issue at the original site at Sleaford Bay.

An SSC member suggested leaving Cathedral Rocks on the table and getting a real understanding of the issues. Fisheries Bay Road site at Sleaford and Cathedral Rocks were considered as the best options.

An SSC member advised that Gunyah beach has high community value and would not be an appropriate location for a desalination plant. The member suggested keeping the assessment to the Shoal Point area which included the location where the beach met the cliffs.

An SSC member noted that SA Water had been through this process and had clearly found difficulty in selecting an appropriate site. It would be of value to understand further the deliberations of SA Water in this regard. The discussion had by the SSC regarding possible sites was only serving to confirm the challenges in finding the right site.

An SSC member noted that building in Wanna Beach could be as expensive as Taylors Landing given the length of pipeline needed. If Taylors Landing was to be eliminated on the basis that it is in a National Park, would be difficult from a vegetation clearance perspective, and was some distance from power and existing pipeline infrastructure, then both should be removed from the shortlist.

An SSC member reminded the group that during construction, any site will need good access for construction materials and equipment.

Steve raised that for both Wanna Beach and Sleaford Wanna track, there has been little work done on the heritage significance of the area and this would be needed if the site was to progress to a shortlist.

An SSC member advised that if Sleaford Bay was ruled out in the previous assessment due to costs, now with the escalated costs of construction it will be even more expensive.

Steve noted that while the cost of materials has escalated, a detailed assessment of possible innovative options at the shortlisted sites will be considered during concept design.

Gary noted that Taylors Landing hasn't been assessed by SA Water.

An SSC member acknowledged that the community was critical of SA Water's multi-criteria analysis and realised that all sites have issues, including the base case.

Gary noted that the SSC will need to identify criteria for assessing the site shortlist in order to add a level of rigour to the process. However, the shortlist must be first identified.

An SSC member again highlighted the emotional attachment locals have to the Wanna Beach area.

Steve acknowledged that the community places strong value on national parks and any development would require significant consultation with a range of groups as well as the broader community. An SSC member noted that native vegetation clearance would also be expensive and that there would be an issue with social licence as well.

The Chair suggested that Shoal Point area, Sleaford Bay Fisheries Bay Road, Sleaford (original site) and Wanna Beach be retained for further assessment while Taylors Landing be removed. The reason for retaining Wanna Beach over Taylors landing was:

- Taylors Landing was much further in distance from the Port Lincoln borefield and existing infrastructure
- Taylors Landing would require significant vegetation clearance for a pipeline and power line from Port Lincoln borefield to the ocean
- Wanna Beach has an existing access track which can be used for pipeline and power
- While Wanna beach has strong community value, it did provide options whereby infrastructure could be installed and buried with no long-term visual impact on the area.

The Chair sought SSC endorsement. The SSC agreed to the following initial shortlist for the Southern Precinct:

1. Shoal Point region
2. Sleaford Bay (Fisheries Bay Road)
3. Sleaford Bay (original site)
4. Wanna Beach

8.2 North Shields Precinct

Steve asked the group to assess Point Boston and proposed to the SSC that there is enough merit to take it forward.

Gary also noted that there is merit in exploring this site further with some issues to be considered, such as a slightly longer discharge pipeline, but that it is relatively close to the network.

The Chair reminded the SSC that this precinct was ranked number 2 by the SSC members and therefore should be considered.

An SSC member noted that Louth Bay presents similar environmental concerns as Boston Bay.

Steve proposed that Easton Road North Shields should be discounted, as well as Louth Bay and Tod River due to being in both Boston Bay and Louth Bay.

An SSC member noted issues with aquaculture zones and flow at Point Boston.

Gary spoke about enhancing the existing site marine flow model noting that additional data would soon be available and would be released to the SSC.

The Chair noted that an aquaculture zone map together with the updated site marine flow model would be helpful to the SSC in further assessing the merit of Point Boston.

An SSC member questioned the water quality improvements to Port Lincoln from sites in the North Shields Precinct and the probable percentage of desalinated water coming back to Port Lincoln.

Gary noted that if Point Boston was to remain on the shortlist for the time being, further modelling could be undertaken in order to adequately inform the SSC. It is possible that Port Lincoln could have the benefit of having almost 100% desalinated water.

Steve noted that the concerns about water quality improvements and aquaculture cannot be resolved until additional work is undertaken, being mindful of those hurdles with a view to delivering the information needed for the SSC to make a decision.

An SSC proxy member questioned whether the aquaculture industry's biggest concern is entrainment.

Gary noted that there has been more discussion about dispersion than entrainment and that entrainment is not an issue at the North Shields sites.

The Chair put to the meeting that that the Point Boston region (incorporating the eastern coastline of the Peninsula) should be retained, and the remaining three sites within the precinct being Louth Bay, Tod River and Easton Road should be removed. This was endorsed by the SSC.

8.3 Northern precinct

Red Cliff and Cape Hardy will be assessed separately as an unregulated business opportunity. The project team will proceed with conversations with interested parties to discuss any future opportunities and keep the SSC informed.

9. Community Engagement – shortlisted sites

Steve asked the SSC to give thought to the broader engagement process.

10. Site Visit – Confirm attendance and logistics

The Chair called for final attendee numbers for a site visit on Monday 7 March with logistics to be confirmed:

- Meeting at the Port Lincoln Hotel foyer on Monday 7 March at 11.45 am
- Returning at 2.00pm, where a light lunch will be provided before the SSC meeting at 3.00pm
- A local SA Water staff member with knowledge of the network will host the group.

11. Other business

The Chair reminded the group to manage information about the site selection with discretion being mindful of community expectations. If SSC members hear different thoughts from the community, they should bring these concerns back to the SSC for clarification.

Steve advised the SSC that SA Water did not own land at Billy Lights Point for a desalination plant at this point in time but would continue dialogue with the landowner as it related to the base case.

The Chair reminded the SSC that it is not a political committee.

An SSC member noted two nominations for MSRC and that they will be sent in writing to the Chair for consideration.

An SSC member suggested getting a cost estimate for granite excavation from a private enterprise as a second opinion.

Gary noted this comment and advised that as part of the process he will be considering delivery options with a view to reduce overall costs where possible.

12. Next meeting and close

An agenda for the next meeting will be circulated prior to the next meeting, set for **Monday 7 March from 3.00 pm to 5.00 pm**.

With no further comments, the meeting closed at 5.19 pm.

Open action items register

No.	Action Description	By Whom	Date Raised	Date Due	Status
1	Project Objectives – Project Director will take the SSC's amended Project Objectives to the Steering Committee at SA Water for discussion.	Project Director	11/02/22	Closed	Closed
2	TSA to clarify if the land acquisition cost is included in the budget allocated to this project.	TSA	24/02/22	TBC	Closed
3	TSA to provide clarification regarding unit rates in relation to Sleaford Bay and current forecast.	TSA	24/02/22	TBC	Closed
4	TSA to provide more information about the precincts based on the conversations had at the meeting.	TSA	24/02/22	TBC	Closed
5	Additional information on sites to be provided: - Western side of Sleaford Bay: share with the Committee existing information about this area - Shoal point area: investigation about what infrastructure exists in this area to enable access for construction and heavy vehicle access. - Sleaford Bay original site: provide details of the specific heritage issues with site - Sanctuary zone boundaries: understand its boundaries and impact to Wanna Beach.	TSA	03/03/22	TBC	Open
6	Combined maps overlaying aquaculture zones, sanctuary zones and marine parks.	Project Team	03/03/22	TBC	Open
7	Trinity Haven site south of Tumby Bay and South of Elliston site – Project Team to investigate the feasibility of these sites and report back to the Committee.	TSA	03/03/22	TBC	Open
8	Seek advice on alternative construction methodologies – concept design team to consider and engage with industry to identify synergies and leverage knowledge.	TSA	03/03/22	TBC	Open

Appendix – Summary of shortlisted sites by the SSC

Sites shortlisted for further assessment				
	Site	Pros	Cons	Group consensus
Southern precinct	Shoal Point/Cathedral Rocks	- Existing power and proximity to the network - Opportunity to explore cost reduction - No marine zones - Good mixing - Available infrastructure	- Constructability and maintenance issues - High-energy coastline (open ocean swell and currents) - High cliffs	Requires further investigation and identification of sites that might be less challenging from a constructability point.
	Sleaford Bay West	- Merit in that vicinity - No marine zones	- Constructability and maintenance issues - Social licence due to heavy traffic during construction	SSC agreed to shortlist this site for further assessment
	Sleaford Bay (original site)	No marine zones Allows for further investigations Could be delivered without any long-term impact on the landscape in the vicinity of the Bay	- Aboriginal heritage (to be discussed with Aboriginal groups) - Constructability and maintenance issues - Social licence due to heavy traffic during construction.	SSC agreed to shortlist this site for further assessment
North Shields precinct	Point Boston	- Options to connect to the network and deliver project objectives - Relative access to power - Not in a closed bay system - Water quality improvement to Port Lincoln likely	Lack of site-specific baseline data (e.g., water flow, dispersion, etc) Potential similar issues to Boston Bay (aquaculture industry)	SSC agreed to shortlist this site for further assessment

Sites with special consideration				
	Site	Pros	Cons	Group consensus

Southern precinct	Wanna Beach / Sleaford Wanna Track	Linking to the Lincoln Borefield via an existing track thereby minimising vegetation clearance	- Challenge to achieve social licence - Construction costs could be similar to Taylors Landing due to distance to 525 main - Lack of heritage assessment - Wanna Beach is in the Thorny Passage Marine Parks marine sanctuary zone and located in the middle of Lincoln National Park - Assurance of no discharge into a sanctuary zone	SCC agreed to discuss it further
Northern precinct	Red Cliff and Cape Hardy	Northern economic development potential	Significant additional investment would be required (broader funding base needed)	SCC agreed that this site will be assessed separately as an unregulated business opportunity

Sites eliminated by the SSC				
	Site	Pros	Cons	Group consensus
Southern precinct	Donington Road		Concerns over water intake from Proper Bay that would impact the mussel's industry	SCC agreed to eliminate this site
	Gunyah Beach		- Native vegetation survey required with potential costs associated with native vegetation clearance - Classified as a Sanctuary Zone and within the Coffin Bay National Park	SCC agreed to eliminate this site
	Sleaford – Fishery Beach		- Whale aggregation area. - No-go zone - Geotech issues and hard rock	SCC agreed to eliminate this area
	Taylors Landing	Good location at Ocean interface Good dispersion	- Lincoln National Park - Significant costs to build underground power and pipeline due to the distance - Species and habitat present - Significant native vegetation clearance is required in the National Park - Pipeline upgrade required	SCC agreed to eliminate this site
North Shields	Louth Bay		Bay environment – concerns of similar issues with Boston Bay and shallow water	SCC agreed to eliminate this site
	Tod River		Bay environment – concerns of similar issues with Boston Bay and shallow water	SCC agreed to eliminate this site

	Easton Road		Bay environment – concerns of similar issues with Boston Bay and shallow water	SCC agreed to eliminate this site
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