

Meeting Title: EP Desal Project – Site Selection Committee Meeting 06

Project Name: Eyre Peninsula Desalination Plant Project

Meeting Purpose: Final selection of sites for concept design for the Eyre Peninsula Desalination Plant

Date: Monday 11 April 2022

Time: 3.00pm – 5.00pm

Location: Ravensdale Community Sports Centre

Attendance:

Name	Role	Present
Peter Treloar	Chair	Yes
Steve Dangerfield	Engagement Facilitator	Yes
Sandra Klein	Community Engagement	Yes (online)
Isaac Glonek	Minute Taker	Yes
Natasha Kousvos	Project Manager	Apology
Nancy Nguyen	Assistant Project Manager	Yes

Committee:

SSC Member	Role	Present	Proxy
Andy Dyer	President, SA Mussel Growers Association	Yes	
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	
Claire Webber	Executive Officer, South Australian Sardine Industry Association Inc.	Yes	
Clare McLaughlin	President, Eyre Peninsula Local Government Association	Yes	
Delfina Lanzilli	Chief Executive, District Council of Lower Eyre Peninsula	Apology	
Gary Neave	Independent Project Director, TSA	Yes	
Hannah Allen-Jordan	Acting Mayor, District Council of Tumby Bay	Yes	
Jack Ritchie	Member, Port Lincoln Chamber of Commerce and Tourism	Yes	
Jo-Anne Quigley	Mayor, District Council of Lower Eyre Peninsula	Yes	
Jonathan Clark	General Manager, Eyre Peninsula Landscape Board	Yes	
Mark Whitfield	Chair, Eyre Peninsula Landscape Board	Yes	
Matthew Morgan	Chief Executive, City of Port Lincoln Council	Yes (present for first 15 minutes)	
Peter Scott	Executive Officer, Eyre Peninsula Local Government Association	Apology	
Rebecca Hayes	Chief Executive, District Council of Tumby Bay	Yes	
Rob Gratton	Chief Executive, Clean Seas Seafood Limited	Yes (online)	
Ryan Viney	Chief Executive, Regional Development Australia Eyre Peninsula	Yes	
Sam Telfer	Member for Flinders		
Shane Hodgins	Director, RecFish SA	Yes	
Thomas McNab	President, Abalone Industry Association of South Australia Inc	Yes	
Tom Hyde	Member, Australian Abalone Growers Association	Yes	

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:

- Provide an update on project activities since the last meeting
- Provide details on the WebApp tool developed for use by SSC members with map overlays
- Provide an update on the northern precinct non-regulated business opportunity
- Clarify the definition of the base case
- Update SSC on the Independent Marine Scientific Review Committee members
- Present data of further investigations gathered on 3 sites to enable the finalisation of the shortlist:
 - Shoal Point
 - Wanna Beach
 - Sleaford Bay (original site)
- To finalise the shortlist to proceed to concept design
- To commence the discussion on proposed categories for assessment criteria
- Provide a community engagement update.

2. Apologies and proxies

Delfina Lanzilli was noted as an apology. Peter Scott was noted as an apology.

The Chair noted that when the SSC was established, the committee discussed the possibility of inviting the Member for Flinders to join the SSC following the State Election in March. As such, the Chair sought direction from the SSC as to whether the invitation should be extended to the newly appointed local member.

In discussion, the SSC advised of the importance in having the local member on the committee and voted in favour of extending an invitation to the Member for Flinders, Sam Telfer.

Following the decision of the SSC, the Chair advised that the project team would provide the Member for Flinders with the required documentation including minutes of the previous meetings and the Terms of Reference.

3. Declaration of conflicts of interest

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

4. Minutes of previous meetings 4 and 5

The minutes of Meeting 4 held on 03/03/2022 were accepted.

An SSC member noted that members who attended Meeting 5 online were unable to hear the committee's discussions and that the minutes should be amended to reflect this. It was also noted that this had not been advised either during or at the end of Meeting 5.

On the basis that this note be added, the minutes of Meeting 5 held on 07/03/2022 were accepted.

5. Action items of previous meetings

The Chair noted that the action items of previous meetings would be addressed at various points throughout the meeting.

6. Project activity update

Steve noted that a site tour was undertaken at Sleaford, primarily on the western coast of the bay, with Tom Hyde, Jono Clarke and a local contractor attending.

Steve noted that he and Peter Treloar held a community briefing session with landowners from Sleaford Bay, with several key themes raised in relation to both sites at Sleaford:

- Noise
- Amenity
- Whales (harmonics)
- Community benefit.

An SSC member asked what harmonics means in relation to whales in Sleaford Bay.

Steve explained that some members of the Sleaford community were concerned about the sound emitted underwater by the pumps via the intake and outlet, and whether that could impact whales in the area.

Steve noted that there had been some discussion regarding the Point Boston site with the aquaculture industry through Tom Hyde and Rob Gratton, as well as the Point Boston Community Corporation Committee through the Presiding Member, Ian Crossland. There are some issues to work through on the marine side with the aquaculture industry, and some opportunities on the land side to work with the Point Boston Community Corporation to deliver outcomes which serve the Point Boston community in addition to the broader Eyre Peninsula community.

Steve noted that the project team had undertaken investigative work around Wanna Beach, Shoal Point and Sleaford (original site), and the findings will be presented in the committee's site selection discussion. Steve mentioned that the project team had also commenced work on Sleaford West and Point Boston.

Steve noted his understanding that a determination had been made in the Nao people's Native Title Claim in the Sleaford area, with the claim being accepted. This will be confirmed in the coming weeks. Tim Kildea has had discussions with Nao representatives and has noted that there are sites of significance and sites of interest near the Sleaford North location that will need further consideration.

Steve noted that initial contact has also been made with the Barngarla people in relation to the Point Boston site and heritage matters at Sleaford, and meetings and site visits will occur over the coming months.

Gary noted that the project team has been investigating the required size and capacity of the desalination plant to be able to accommodate immediate new demand – the previous modelling was conducted in 2018. The project team has also been assessing other aspects of the project including water quality, the health of the borefield and the cost of water delivery to the community.

7. Combined maps overlay – WebApp GIS tool

Steve noted that the project team has put together a map showing aquaculture leases, State Marine Park sanctuary zones and habitat protection zones, national parks, etc., to provide clarity to the SSC about any issues that will need to be considered through concept design.

Members will receive an email with further information about accessing this map as well as a how-to guide.

8. Northern Precinct non-regulated business opportunity – update

Gary noted that he has contacted the Department for Energy and Mining about any non-regulated business opportunities for delivering desalination in the Northern Precinct. There will also be some discussion with private industry, such as H2U. Further discussion will take place over the coming months.

9. Base case definition

Gary noted that the ex-BHP site at Billy Lights Point remains the base case for this project.

Gary noted that the base case will be maintained as a means of comparison against the shortlisted sites, and that there is still some further work to be done on the base case to ensure an accurate comparison. The work on the base case will be completed in parallel with the work being carried out on the shortlisted sites, and the SSC will be kept up to date on this work.

The base case currently provides:

- The most efficient entry into the network
- Located in a semi-industrial area
- Access to land.

An SSC member noted that in discussions with the Minister, it will be important to make clear why the base case site is not the best option despite having several positive attributes.

The Chair noted that he has never considered the role of the SSC to look at Billy Lights Point – the SSC has been tasked with finding a viable alternative. The Chair also noted that he is intending to meet with the new Minister for Climate, Environment and Water, and will discuss the role of the SSC and the brief issued by the previous Minister regarding the requirement to obtain a social licence for any preferred site, noting that Billy Lights Point does not carry a social licence.

An SSC member noted that if the assessment criteria include the need for a social licence, Billy Lights Point won't be a viable site as it has already failed to achieve social licence.

Steve noted that he and Gary are considering what would be the actual cost of making Billy Lights Point a more feasible option and how would it compare to the sites that the committee is considering.

The Chair noted that the Minister will understand these considerations, given her environmental and conservation background.

Gary noted that SA Water owns land at Sleaford, but it doesn't necessarily mean the plant will be built there. Similarly, SA Water having access to land at Billy Lights Point doesn't presuppose that the plant will be built there either.

An SSC member noted that some within the aquaculture industry, believe that maintaining Billy Lights Point as a base case is undermining the work of the committee.

Steve acknowledged the SSC member's comment but noted that it is important to realise that the SSC will be taking 3 or 4 sites into concept design, which is a significant time and budget investment and demonstrates the legitimacy and validity of the site selection process. If the SSC doesn't have the base case site as a point of comparison for its recommendation to SA Water and the Government, the ability of the SSC to justify its site recommendation will be diminished.

An SSC member noted the base case will need to account for the risk of impact to industry and the cost of mitigation.

Gary noted that to provide a meaningful point of comparison, the base case will consider such risks, amongst others.

10. Independent Marine Scientific Review Committee membership

Steve thanked the SSC for their suggestions regarding the membership of the Marine Scientific Review Committee (MSRC). At least two names suggested from the SSC had been approached and agreed to join the MSRC.

Steve noted that the MSRC will have an important role with the EPA, PIRSA and SA Water in reviewing data captured in the concept design phase, but also into the future considering operational issues and long-term monitoring to assist in the regulatory licensing process.

Steve noted that MSRC members will be involved with the project for a term of at least three years, and that they will operate under a Terms of Reference which is currently being drafted and will need to be ratified by the MSRC.

Steve noted the role of the MSRC as follows:

- Review the veracity of the data on the shortlist of sites
- Provide commentary and input to the development approval and EPA licensing
- Review and comment on operational data
- Not be conflicted with the regulatory approval process or previous assessments.

Steve noted that the following people have agreed to sit on the MSRC:

- Dr Don Plowman
- Professor Sean Connell
- Dr Anu Kumar
- Dr John Luick
- Dr Ian Wallis
- Dr Alistair Hobday

11. Site Selection

Shoal Point

Steve noted that members of the project team have visited Shoal Point to assess potential sites along the coastline. Steve also noted that information about Shoal Point was provided to the SSC last week for review. The project team specifically gathered information to address some of the various questions and issues raised by the SSC.

Steve presented two photographs taken in the Shoal Point area – one at a small beach inlet near Shoal Point, and the other at the southern end of Gunyah Beach.

The Chair noted that there will be issues with all of the sites being considered by the SSC but pointed out the advantage of Shoal Point being its proximity to the Uley South borefield.

Steve noted that project team have investigated where a desalination plant could potentially be built in the Shoal Point region to link in with existing infrastructure. The document presented to the SSC referenced two options:

- Construct a pipeline as the crow flies from the borefield to the coast – which would save cost by reducing the length of the pipeline, but presents a native vegetation issue and the offsets associated with that
- Construct a pipeline following an existing track from the borefield to the coast – which reduces the amount of native vegetations clearance.

Steve noted that the southern end of Gunyah Beach sits within a marine sanctuary zone and would likely require a change in legislation to be viable. The other small beach inlet sits outside of the marine sanctuary zone.

Steve noted some of the constructability considerations at Shoal Point, including:

- Likely to need wet well and tunnelling for intake / outfall. Geotech conditions near cliff area could be difficult to tunnel through (hard rock). Methods of tunnelling and associated drilling fluids might be limited if we are in the protected groundwater aquifer region

- Barge required to build offshore elements but could be difficulties transporting workers to and from the barge (weather impacts boat access).
- Opportunity to avoid drilling/boring if pipes can be fixed down the side of cliff (aesthetic issues), but this brings its own construction and WHS challenges.
- Exposed to open ocean swells and currents. High Loading on intake and outfall pipe.
- High risk of inclement weather during construction.

Steve noted that following the existing track to Shoal Point would require a pipeline of 12km in length, with approximately 10km in a heavily vegetated area and the final 2km to the ocean is through sand dunes.

Steve noted that there is calcrete limestone with undulating topography in the area, so geotechnical investigations would be required to understand the implications of this.

Steve noted the following site considerations:

- Cliff height greater than 20m.
- Currently any refuelling (e.g., for the generators associated with the bores) within the Uley Basin is required to occur at the pump station in order to protect the borefields and aquifer.
- This could have implications for use of excavators and pipeline installation.
- Further investigation required into whether protecting the aquifer would have other potential implications for operation of the plant (e.g., chemical dosing).

Steve noted the following with regard to amenity value:

- Location should achieve the objective to improve potable water quality to all existing SA Water customers across the Eyre Peninsula Region.
- Visual impact of plant negligible as proposed within the Uley Basin.
- If pipes are fixed down the side of the cliff this could create an aesthetic issue.

Steve noted that there are no aquaculture leases or licences in the area.

Steve noted the following heritage considerations:

- Indigenous burial site and artefacts are known in the area which require further consultation.
- Cultural heritage significance unknown and will require additional surveys with local communities.

Steve noted the following with regard to native vegetation:

- The existing track proposed for use is 3m wide.
- Approximately 25m wide clearance corridor is required for power and vehicle access (including transfer pipeline), equating to a potential clearance envelope of 22 hectares.
- High quality native vegetation present which would require a Native Vegetation Survey to estimate clearance costs.
- Option to install pipeline on a more direct route, but this would increase the vegetation clearance corridor by at least 25%.

Steve noted the following financial considerations:

- Broad cost estimate for native vegetation clearing based on past surveys in the area, is in the order of \$0.7 - \$1.5 million.
- New substation required – at least \$5 - \$6 million.
- Overhead 33kV – at least \$1 million/km at 8km long.
- Possibility of needing to develop a wet well and tunnelling for intake / outfall. Indicative cost for a similar tunnelling scope at Sleaford was estimated in 2020 at more than \$80 million.

Steve summarised the Shoal Point site as follows:

- As the location of the site is to the south of the North Side Hill Tanks, there is a greater ability to deliver on water quality and water security objectives.
- Significant financial consideration due to geotechnical conditions and construction difficulties in tunnelling for intake and outfall and native vegetation clearances – if to avoid Sanctuary Zone.
- If the intake and outfall can only go in the Sanctuary Zone to reduce cost (after detailed investigation), then this may add additional time to seek approvals for work in the Sanctuary Zone requiring a potential change to Legislation.
- Opportunity to consolidate SA Water infrastructure.
- Existing pipe and associated infrastructure able to be accessed / upgraded.

Steve noted that there is a question mark next to the estimated engineering costs, because to really understand these costs, the project team needs to do the work through concept design. There is scope to challenge the estimated cost and look at some innovative solutions.

An SSC member questioned whether it is easier and cheaper to tunnel through limestone than granite.

Gary noted that the tunnel would be longer and the depth of the wet well would be greater, but it is generally true that the easier the rock is to drill, the cheaper.

An SSC member noted that the cliffs around Shoal Point have about 10m of limestone and then granite below.

An SSC member noted that in terms of longevity, erosion could be an issue at Shoal Point, as well as engineering challenges because of the high-energy coastline.

An SSC member asked why the marine sanctuary zone is present at the southern end of Gonyah Beach.

An SSC member noted that there is a sign at Gonyah Beach that says it is specifically to protect salmon and hooded plovers.

Steve noted that his understanding is that the sanctuary zones are interconnected with the Thorny Passage Marine Park, with certain zones selected as no-go areas to protect species and provide habitats for species within the broader marine park.

The Chair noted that a discussion might need to take place with the Minister about having the intake and outlet in or near a sanctuary zone and what this might mean from a legislation perspective.

Gary noted that the species being protected within the sanctuary zone are covered by the EPBC Act and could therefore make it an issue for the Federal Government.

An SSC member noted that marine parks are reviewed on a regular basis (i.e., some number of years), and questioned when this area would be up for review.

The Chair noted that he would take that question on notice.

Steve noted that the potential obstacle of sanctuary zones is the reason why the project team has identified two different Shoal Point options to investigate.

Wanna Beach

Steve shared some images of Wanna Beach.

Steve noted that if a desal plant was being built at Wanna Beach, it would be in the Lincoln Borefield area to consolidate infrastructure in one location.

Steve noted the following points in relation to native vegetation:

- The existing track proposed for use is 3m wide.
- Approximately 25m clearance corridor is required for power and vehicle access (including transfer pipeline), equating to a potential clearance envelop of 30 hectares.

- Dense, high quality native vegetation is in the region which would require a Native Vegetation Survey to estimate clearance costs.
- Option to install pipeline on a more direct route, but this would increase the vegetation clearance corridor.
- There are a number of rare, scarce and vulnerable species and habitats present which is likely to require referral under Federal Legislation.

Steve noted the following marine considerations:

- Wanna Beach is in the Thorny Passage Marine Park which encompasses both a Habitat Protection Zone and a Sanctuary Zone.
- The likely location for intake and outfall is through the cliffs to Wanna Beach which is in the Sanctuary Zone (SZ).
- If to avoid the SZ, an extra 3.5 - 4km of pipeline is required.
- High wave energy environment, with the coast regularly experiencing large oceanic swell and strong winds.
- If within SZ, Federal Government referral will be required as migratory mammals (particularly the southern right whale) are the key reason for Sanctuary Zone designation.
- Sea eagle breeding locations are known to exist around Sleaford cliffs.

Steve noted that Wanna Beach could also present an issue with species protection under the Federal Environment Act.

Steve noted that cultural heritage at Wanna Beach is unknown.

Steve noted that there are no aquaculture leases or licences in the area.

The location of Wanna Beach should achieve the objective to improve potable water quality to all existing SA Water customers across the Eyre Peninsula region.

Steve noted the following points regarding amenity:

- Visual impact of plant negligible as proposed to be constructed at the Lincoln Borefield.
- Strong community sentiment with Wanna Beach.
- Significant cost differential for underground power which would likely be the community preference.

Steve noted site considerations:

- High cliffs.
- Sand dunes and rocky outcrops (predominately granite).
- Further geotech required to identify the geology in the region.
- Access by vehicles, walkers and bicycles is permitted along nominated and designated roads, tracks and routes which would need to be managed through construction.

Steve noted the following pipeline considerations:

- 18.5km from Wanna carpark to Lincoln Basin Main (525 section) connection, along an existing 3m wide track.
- Approximately 25m clearance corridor is required for power and vehicle access (including transfer pipeline), equating to a potential minimum clearance envelope of 30 hectares.
- Option to lay pipe 'as the crow flies' will require further Native Vegetation clearance resulting in difficulty in the justification to not follow the existing disturbed track.
- Will require extensive geotech testing.

Steve noted that it is 18.5km from the Wanna Beach carpark to Lincoln Basin main, which is a 525mm main and would need to be upsized or another pipeline constructed parallel to it to get water back to North Side Hill Tanks.

Steve noted the following regarding high voltage supply:

- Approximately 20km from existing Graphite Rd – 33kV connection following existing roads / line routes.
- Assuming new line will be all overhead lines based on 525 main will need to be upsized over time.
- New substation required.

Steve noted the constructability considerations as follows:

- Accessibility difficult for large vehicles during construction and after chemical deliveries.
- Geotech unknown.
- Opportunity to explore pipeline route cross country vs following the road to connect to the Lincoln Basin borefield.
- Purpose built road link direct to Lincoln Basin borefield site would require Native Vegetation removal.
- Marine works safety could be an issue with dangerous currents.
- Digging through sandy areas could be sensitive from a cultural heritage perspective, sand unstable and difficult to protect pipes and infrastructure.
- Exposed to open ocean swells and currents. High loading on intake and outfall pipe.
- High risk of inclement weather during construction.

Steve noted the following financial considerations:

- Broad cost estimate for high quality native vegetation clearing based on past surveys in the area, is in the order of \$0.9 - \$1.5 million.
- New 33KV – 11KV substation required – at least \$5 - \$6 million.
- Overhead 33kV power – at least \$1 million/km at 20kms long.
- Underground 33kV power – at least \$3 million/km at 20kms long.

Steve summarised the Wanna Beach site as follows:

- As the location of the site is to the south of the North Side Hill Tanks, there is a greater ability to deliver on water quality and water security objectives.
- The vulnerable Slender-billed Thornbill, several other nationally protected species, sea eagle breeding location, southern right whale and other migratory mammals all occur within the Sanctuary Zone.
- If the intake and outfall can only go in the Sanctuary Zone (after detailed investigation), then this may add additional time to seek approvals
- May prove to be difficult in achieving social licence for Wanna Beach due to community sentiment.
- Possible that the community (in order to achieve a social licence) may require underground power as a preference, which comes at an additional \$2 million/km rate (compared to overhead) at 20km length.
- Native Vegetation clearance will be required in the National Park.
- Distance to network connection point from Wanna Beach via Lincoln Basin is circa 20km.

An SSC member questioned the cost of replacing the pipeline from Lincoln Borefield to North Side Hill Tanks, as well as whether the pipeline from Uley South to North Side Hill Tanks would need to be replaced for a plant at Shoal Point.

Gary noted that the current pipeline may be sufficient given the initial capacity of the desalination plant, however further modelling is required.

Gary also noted that the pipeline from Uley South to North Side Hill Tanks is a bigger pipe, and the project team is tentatively thinking that the water from the borefield and the desalinated water could be combined in the existing pipeline – this is one of the innovations that requires further testing.

An SSC member questioned the idea of using the existing pipeline from Uley South to North Side Hill Tanks, given that there would need to be two sources of water pumped – being the Uley South borefield and a desalination plant.

The Chair noted that the quantity of water required is already being pumped through the pipeline from Uley South to North Side Hill Tanks.

Gary noted that the project team is investigating whether desalinated water and borewater from Uley South could be mixed at the Uley South end before being pumped through the pipeline, but this idea also requires further testing.

An SSC member questioned whether there is much capacity in the pipeline from Uley South to North Side Hill Tanks, based on current usage.

Gary noted that the pipeline is used at its full capacity on peak days.

An SSC member noted that the problem is that there is a need for more water, but more water can't be provided if the pipeline is at capacity.

Gary noted that under the current operating conditions, the pipeline does operate at capacity on peak days, but with new pumps and new design criteria that might be applied such as strengthening of gussets, the capacity of the pipeline could be greater – that is a part of the engineering assessment that needs to be done in concept design. There is a starting capacity and potentially a different ultimate capacity of the desalination plant, so there could be an option to defer those costs if the current infrastructure would be adequate initially.

Sleaford (original site)

Steve noted that Sleaford (original site) was previously assessed by SA Water, and it is his understanding that there were concerns from the Traditional Owners about local heritage considerations. Steve also noted that the project team has started engaging with the local Sleaford community as well as the Traditional Owners.

Steve explained that a desalination plant at Sleaford (original site) would be constructed outside of the sanctuary zone in Sleaford Bay, but still within a habitat protection zone.

Steve noted that Sleaford (original site) presents a high-energy coastline and other marine considerations as follows:

- The marine environment encompasses both a Habitat Protection Zone and a Sanctuary Zone, as part of Thorny Passage Marine Park. There is opportunity to avoid the Sanctuary Zone by placing pipelines to the west.
- High wave energy environment, with the coast regularly experiencing large oceanic swell and strong winds.
- EPBC referral may be required as migratory mammals (and in particular the southern right whale) are the key reason for Sanctuary Zone designation.
- Construction of a desalination plant intake and outfall permissible under the Marine Parks Act (2007) as long as outside the Marine Park Zone.

Steve noted the following amenity considerations:

- Location should achieve the objective to improve potable water quality to all existing SA Water customers across the Eyre Peninsula Region.
- Previous discussions with key stakeholders associated with the area identified several issues with the construction of a desalination plant on the SA Water property being:

- Acoustic impacts to nearby resident properties;
 - Visual impacts to residents and tourists, in an area renowned for its natural beauty;
 - Potential cultural heritage impacts;
 - Outfall needs to be sensitive to known whale aggregation/breeding zone;
 - Construction and operational impacts on whales.
- Opportunity to incorporate a visitor centre / tourist attraction by designing a desalination plant which features a tourist element, recognising the cultural significance of the area.

Steve noted that there are heritage issues present, and engagement with First Nations communities to further understand constraints is underway.

Steve noted the following site considerations:

- Adjacent to both the Sleaford Mere Conservation Park and the Lincoln National Park.
- Extensive site assessment notes from previous works.
- 18 months of previous detailed marine and terrestrial studies.
- The ownership of land in the area by SA Water does not presuppose a final location.

Steve noted that the pipeline would be up to 14km in length, mainly contained in roadside verges.

Steve noted the following with regard to high voltage supply:

- Approximately 10kms from existing Graphite Rd – 33kV connection following existing roads / line routes.
- Assuming new line will be all overhead lines based on existing.
- New substation required.
- New 33KV – 11KV substation required – at least \$5 - \$6 million.
- Overhead 33kV – at least \$1 million/km at 8kms long.
- Underground 33kV – at least \$3 million/km at 8kms long.
- Pipeline in the order of at least \$2 million km up to 14kms long.

Steve noted the following constructability considerations:

- Potentially easier to construct given beach environment although this potentially creates turbidity issues.
- Potential risks around impact to marine mammals during construction.

Steve summarised Sleaford (original site) as follows:

- As the location of the site is to the south of the North Side Hill Tanks, there is a greater ability to deliver on water quality and water security objectives.
- Intake pipe located in a surf zone which may result in uptake of sand posing pre-treatment challenges in the desalination process.
- Federal Environment Act referral may be required.
- Closer proximity to power from existing graphite mine location.
- Opportunity to locate plant inland avoiding impact to marine-side visual amenity, opportunity to enhance tourism such as a viewing platform / heritage recognition.

An SSC member noted that the pipeline would be significantly longer than 14km and questioned whether the project team has looked into an issue to do with the Sleaford Mere Conservation Park – their understanding was that a wet well could create a problem of water from the ocean making its way into Sleaford Mere.

Gary noted that the original location considered by SA Water was closer to Sleaford Mere and may have been an issue during the construction of the wet well, but this wasn't fully investigated. Gary also noted that the project team would be looking at a different location for the wet well.

An SSC member noted the size of the wet well – 16m by 16m by 30m – that could be required for a desalination plant at Sleaford (original site).

Gary noted that through the concept design, the designers will be giving thought to such matters and will seek to challenge standard engineering concepts. The project team is not presupposing the same outcome that was previously considered.

An SSC member noted potential concern regarding abalone if the outtake is further from the shoreline.

An SSC member questioned whether there has been any revision of the costings for a desalination plant at Sleaford (original site) since 2019/20.

Steve noted that the detailed costings would be done through concept design.

Steve noted that there would need to be native vegetation surveys and assessment of species under the Federal Environment Act. In addition, heritage surveys for each site will also be a consideration subject to further engagement with the First Nations communities.

An SSC member noted that from discussions they have had, a pipeline and underground power could be constructed for less than has been suggested.

The Chair noted that the project team would take this onboard.

Gary noted that he has a quote from SA Power Networks and can ask if they're happy for the detailed pricing to be shared with the SSC. There is only one organisation that we can go to for electrical pricing in South Australia, and that is SA Power Networks. The pricing per kilometre that has been previously presented for constructing a pipeline is market-tested.

Shortlist decision

The Chair noted that the SSC need to confirm a shortlist of sites to proceed to concept design.

An SSC member suggested that Wanna Beach should not be shortlisted, on the basis that the potential issues outweigh any benefits that the location might provide.

Several SSC members echoed the previous comment and agreed that Wanna Beach should not be further considered by the SSC.

The Chair noted that the SSC has the opportunity to shortlist four sites for concept design and would recommend taking that opportunity.

Following further discussion and careful consideration of the information presented, the SSC confirmed the shortlist of sites for concept design to be as follows:

- Point Boston
- Uley South Shoal Point
- Sleaford West (western side of the bay)
- Sleaford North (head of the bay)

The SSC, in choosing the shortlist noted that the four sites provided good variation with different advantages and disadvantages for each, allowing for innovative thought and strong comparative analysis.

Steve advised the project team will now take the four sites forward to concept design. Questions about cost, engineering, heritage and marine impacts will now be considered further.

Gary noted the value in a shortlist of four sites, rather than three, as the concept design work has the potential to reveal a fatal flaw for a given site. Having four sites allows for this to occur while still providing the SSC with several options for consideration at the end of concept design.

12. Assessment criteria for final site selection

Discussion deferred to the next meeting.

13. Community engagement update and media announcement

Steve noted that he had previously proposed an engagement process where the shortlist of sites would be taken to the broader community to obtain feedback from various groups, including site neighbours, other Eyre Peninsula Councils and the broader community of Eyre Peninsula.

Steve noted that this engagement process would now get underway given the SSC had confirmed a shortlist.

Steve noted that a short survey will be published to gather feedback from the broader community, and the information gathered will then be provided to the SSC as part of their assessment of the shortlisted sites.

Steve noted that there will be community pop-up sessions in various towns across Eyre Peninsula to ensure accessibility to information and allow anyone who is interested to provide feedback.

Steve noted that a draft schedule of community engagement activities would be provided to SSC members (and all Councils) post the SSC meeting.

The Chair will be advising the media of the shortlist post the SSC meeting.

14. Other business

An SSC member noted that it was important for the media release being circulated after the meeting to emphasise that the committee's task is to find a viable alternative site to Billy Lights Point. This point was noted.

Government commitment to EP desalination project

A discussion was had regarding the change of Government and the new Government's ongoing commitment to the process.

It was noted that SA Water with the support of the Government continue to fund the site selection process that has commenced.

Discussion was also had about funding and the new Government's position with respect to additional funding and funding sources.

The Chair noted that there may be an opportunity for some members to form a group to explore other funding opportunities, but that this will need to be considered further.

15. Next meeting and close

An agenda for the next meeting will be circulated prior to the next meeting, set for **Thursday 19 May from 3.00pm to 5.00pm**.

With no further comments, the meeting closed at 5.26pm.

Open action items register

No.	Action Description	By Whom	Date Raised	Date Due	Status
1	Combined maps overlaying aquaculture zones, sanctuary zones and marine parks.	Project Team	03/03/22	TBC	Closed
2	Seek advice on alternative construction methodologies – concept design team to consider and engage with industry to identify synergies and leverage knowledge.	Project Team	03/03/22	TBC	Defer to when a site is selected
3	Concept design to commence on the Point Boston area and Sleaford Bay – western side (Fishery Bay Road).	Project Team	07/03/22	Mid-June	Open
4	Assessment of the Northern Precinct as a separate project – independently from the functions of the SSC – to look at the viability of supporting economic development in the northern region.	Project Team	07/03/22	TBC	Open
5	Undertake further investigation of Shoal Point, Sleaford Bay (original site) and Wanna Beach to identify any showstoppers and inform the SSC's decision-making regarding progressing a maximum of two of those three sites to concept design.	Project Team	07/03/22	11/04/22	Closed
6	Login details and how-to guide for WebApp with combined maps to be emailed to SSC members.	Executive Officer	11/04/22	20/04/22	Closed
7	Liaise with SA Power Networks to confirm if detailed pricing of electricity infrastructure can be shared with the SSC.	Project Team	11/04/22	TBC	Open