

## Swim site activation overview

The purpose of this document is to provide a top-level site by site overview of the evidenced gathered to date on the 12 proposed swim sites on the Parramatta River. It is based on the swim site activation framework structured around vulnerability, feasibility and desirability criteria.

This document is supported by several more in-depth reports and the data that sits behind them, these include:

- The Parramatta River Swim Site Activation Framework report
- Parramatta River Masterplan Stakeholder and Community Engagement Report
- Parramatta River Masterplan Stage 1 Report
- Water Quality Modelling Report

#### The swim site activation framework

The swim site activation framework (the framework) was developed by McGregor Coxall in 2017 to provide guidance on the potential for activation at a swim site and the type of activation that can be achieved. The Parramatta River Swim Site Activation Framework report provides an in-depth explanation of how each of the criteria was developed.

#### **Vulnerability**

The vulnerability criteria determine the relative risks at the site and will influence the type of potential activation. The vulnerability score does not rule out a site for activation but gives an indication of the level of management measures that are needed to mitigate risk.

The sites have been scored **low**, **medium or high** on each criterion and been given an overall vulnerability score.

#### **Feasibility**

The feasibility criteria are used to initially determine the physical viability of activating a site for swimming. The feasibility assessment may rule out certain activations as they would be very difficult or excluded, for example if the site is too close to a ferry route it could exclude in river swimming.

The sites have been scored low, medium or high on each criterion.

#### **Desirability**

The desirability criteria are used to assess how likely it is that once activated a site will be used by the community. It looks at a range of criteria including access, parking and availability of facilities.

A desktop analysis of the desirability criteria, completed by a qualified urban planner, can be found in The Parramatta River Swim Site Activation Framework report. For the purposes of this report we have used the findings from the desirability assessments completed by the community.

The community desirability assessments were commissions as it was felt important to ask the community directly to assess the desirability of the 12 potential swim sites. Rather than take a traditional workshop approach to gain community feedback, RPS designed an experiential engagement process that took



community representatives to the swim locations to take part in site-based desirability assessments. These site-based assessments were supplemented by digital versions, hosted on the online engagement platform sydneywatertalk.com.au and promoted through social media and at the Riverfest community event

A total of 37 community members attended three workshops, each completing a desirability assessment. In addition, a further 131 surveys were completed at Riverfest and online at Sydney Water Talk.

The output of the desirability assessments has been analysed to provide a desirability score for each site. This scoring allows us to rank each of the 12 sites and unpick what aspect of the site is driving the score.

Participants were asked to consider 17 questions about the site and indicate whether they:

- Strongly agreed
- Agreed
- Neither agreed or disagreed
- Disagreed
- Strongly disagreed

In all cases strongly agreed indicated a high desirability of the site in relation to that attribute. We assigned a score to each answer ranging from 5 for strongly agreed to 1 for strongly disagree. This gave us an average score for each site out of 85 derived from the on-site and online assessments with a higher score indicating a more desirable site. These scores then informed a **low, medium or high** score.

It is important to note that a low desirability score does not mean that a swim site should be ruled out for activation or that it will not be desirable to the community in the future. It is instead an indication on the amount of change or investment that would be needed to activate the site. On the other hand, a high desirability score does not mean a site should be prioritised for activation, it is therefore important to read the desirability scores in conjunction with views from the community.

Any stakeholder views represented in this report were gathered at the **swim site prioritisation and interventions workshop** held in August 2017. More detail of the outcomes of this workshop and attendees can be found in the Parramatta River Masterplan Stakeholder and Community Engagement Report.



### Water quality modelling

Water quality outcomes were modelled using enterococci data in line with current Beachwatch methodology. For this report we have used the modelled 2025 water quality outcomes. More detail can be found in the full Water Quality Modelling Report.

	2014	2025		INTERVI	ENTIONS	
	2014	2025	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Location	Baseline	BAU	Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention
Lake Parramatta	✓	✓	✓	✓	✓	✓
Little Coogee	×××	×××	×××	***	×××	×××
Parramatta CBD	xxx	×××	xxx	***	×××	×××
Macarthur St Bridge	xxx	×××	xxx	***	***	××
Silverwater Park	xxx	×××	××	××	×	×
Meadowbank	*	×	*	✓	✓	✓
Brays Bay	×	×	×	✓	✓	✓
Putney Park	✓	✓	<b>√</b> √	<b>√</b> √	✓✓	<b>√</b> √
Kissing Point Park	✓	✓	✓	<b>√</b> √	✓ ✓	<b>√</b> √
Cabarita beach	✓✓	<b>√</b> √	✓✓	✓ ✓	<b>√</b> ✓	√√
Quarantive Reserve	✓	✓	<b>√</b> √	√√	<b>√</b> √	√√
Henley Baths	√√	<b>√</b> √	√√	<b>√</b> √	<b>√</b> √	√√
Bayview Park	✓	✓	✓	√√	√√	√√
Chiswich Baths	✓	✓	✓	✓	√√	√√
Callan Park	✓	✓	✓	✓	✓	✓
Dawn Fraser Pool	√√	<b>√</b> √	✓ ✓	✓ ✓	<b>√</b> √	<b>√</b> √

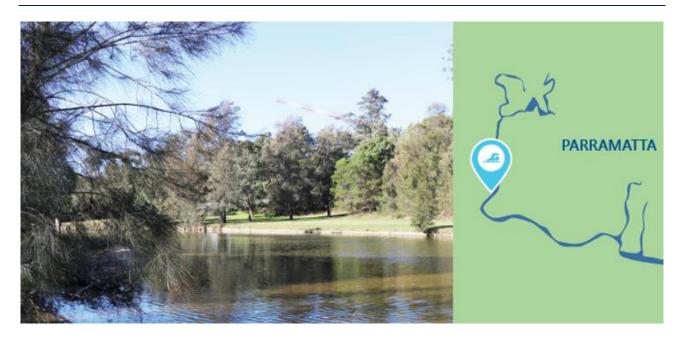
### Legend

Enterococci concentration (cfu/100ml) 95% of the time below.

×××	10,000	Water quality unlikely to be suitable for full immersion swimming
××	1,000	Water quality unlikely to be suitable for full immersion swimming
×	500	Water quality unlikely to be suitable for full immersion swimming
✓	200	Water quality suitable for full immersion swimming
<b>√</b> √	40	Water quality suitable for full immersion swimming



## 1 Little Coogee



#### **Background information**

Little Coogee, is located within Parramatta Park and was a very popular swimming and picnic spot as far back as the 1880s. It was home to the Olympic Carnival of 1914, amongst other events. The site is owned and managed by the Parramatta Park Trust.

#### **Recommended activation**

#### Splash contact – boating and secondary contact activities.

- Any activation at the site would need to consider heritage constraints as these mean it is very difficult to get approval for new structures and facilities.
- There is a flying fox colony upstream which needs to be considered both in terms of potential impacts on the colony as well as impacts of the flying fox colony on the water quality of the river.
- Although there was praise for the natural beauty and ease of access to the site, there was concern from both the community assessments and stakeholder workshop that any activation at this site could lead to overdevelopment and damage to the natural environment.



Overall s	Overall score – low to medium vulnerability							
	Score			Key vulnerability observations	Recommended actions/mitigations			
	Low	Medium	High					
Water Quality				<ul> <li>Immediately adjacent is parklands and the Parramatta Stadium</li> <li>There were no major stormwater outlets a this location</li> </ul>	Undertake water quality modelling     – initial 20 samples and evaluate to determine need for further testing			
Water Clarity				Moderate turbidity. Visible to about 0.2m from the surface and visible oily film on the surface	<ul> <li>Conduct dive study</li> <li>Any activation at the site would need to consider heritage constraints as these mean it is</li> </ul>			
River Sediment Type and Quality				<ul><li>No embayments</li><li>Fine muddy sediments</li></ul>	very difficult to get approval for new structures and facilities  There is a flying fox colony upstream which needs to be			
River Dynamics				<ul> <li>Low velocities in dry weather on the inside of the meander bend.</li> </ul>	considered both in terms of potential impacts on the colony as well as impacts of the flying fox			
River Bed Physical Hazards				<ul> <li>Logs, rubbish, dumped materials, etc</li> </ul>	colony on the water quality of the river  Carry out a Health Risk			
River Bank and River Edge Characteri stics				<ul> <li>A small sediment bar was present allowing access. Access to the water is typical of a natural riverbank, with a short drop at the top of bank</li> <li>Scattered trees growing along the river edge</li> <li>Location consists of natural banks and a natural bed</li> </ul>	Assessment of chemical contaminants in sediment included resuspension  Map historical land use and contaminated lands to assess risk  Undertake community consultation to better understand existing site uses and the community needs and desire at the site			
Heritage				<ul> <li>The reserve is heritage listed and has significant heritage constraints</li> <li>The Trust has indicated that they do not support any structures or other facilities located at Little Coogee due to the heritage constraints of the site</li> </ul>	Do an initial heritage screening assessment to determine potential heritage constraints			

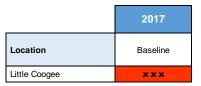


## **Site feasibility**

	Score			Key feasibility observations	Recommended		
	Low	Medium	High		actions/mitigations		
Boat Traffic				• N.A.	Survey river to confirm best locations		
Water quality				Water qaullity not well known at present	<ul><li>Heritage study</li><li>Ecological impact assessment</li></ul>		
Bathymetry				Depth may limit swimming	Undertake further water quality modelling		
Publicly Available Land				Large areas of land available.  Restrained by heritage	Undertake fora and fauna study as required		
Ecological Restriction				GHFF colony			

### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.



2025
BAU
xxx

INTERVENTIONS							
Scenario 1	Scenario 2		Scenario 3		Scenario 4		
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention		
xxx	×××		×××		×××		

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
1	Many desirable features	Most desirable features  The amount of open space, tree shade and plants  The site's good views and attractive landscape  Least desirable features  Access via public transport  The available facilities



#### What the community told us

'Leave it alone! It is too beautiful and peaceful. This is a natural resource that can quickly become eroded'

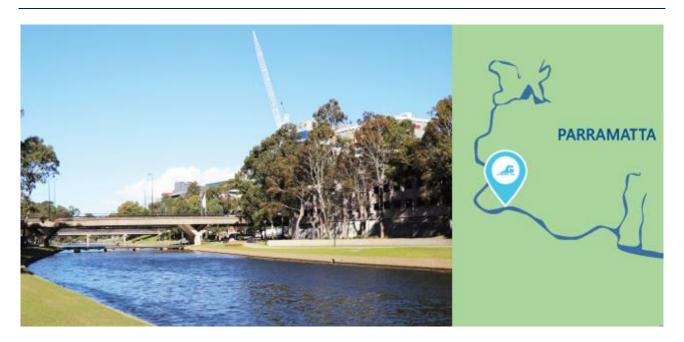
'I really like this place because it is so natural, it feels like you are close to nature when you are here'

'There is a strong history of swimming in this area, good historical context. It is a desirable site; it's nice and quiet, there is open / green space and plenty of trees providing shade. It feels very calm and peaceful'

Despite the water quality levels in 2025, participants involved in the community desirability assessments listed swimming in the river as an activity they would most like to do at the site.



## 2 Parramatta CBD



#### **Background information**

The site is located off Sorrell Street, just downstream of the Parramatta Heritage and Visitors Centre. It has minimal existing facilities, although there is a children's playground nearby and it is located between the current Riverside Theatre and future Powerhouse Museum site. Major development is already underway on the Parramatta River foreshore on the opposite side of the river. The land manager is City of Parramatta Council.

#### Recommended activation

## Splash contact and/or filtered pool

- The reserve is likely to undergo significant transformation in the short, medium and long term with the continuing development of Parramatta CBD.
- The site is scheduled for a number of significant upgrades including the potential for a new Powerhouse Museum facility as well an upgrade to Riverside Theatre along the river's edge.
- Additional facilities would be needed to make the site desirable to the community.
- There were concerns from stakeholders and community members that activation might be constrained by the available space at the site.



#### Overall score – low to medium vulnerability

	Score			Key vulnerability observations	Recommended actions/mitigations		
	Low	Medium	High		actions/initigations		
Water Quality				<ul> <li>Central Business District area</li> <li>Stormwater outlets are located within the section from the CBD</li> </ul>	Undertake water quality modelling     – initial 20 samples and evaluate to determine need for further testing		
Water Clarity				<ul> <li>Moderate turbidity. Visible to about 0.2m from the surface and visible oily film on the surface</li> </ul>	Carry out a Health Risk     Assessment of chemical     contaminants in sediment		
River Sediment Type and				<ul> <li>No embayment, however flushing is controlled by the weirs in this section of the river</li> </ul>	<ul> <li>included resuspension</li> <li>Map historical land use and contaminated lands to assess risk</li> </ul>		
Quality				<ul> <li>Muddy fine sediments</li> </ul>	Conduct dive study		
River Dynamics				Low velocities in dry weather.	Undertake community consultation to better understand existing site uses and the		
River Bed Physical Hazards				<ul> <li>Nothing identified on site, but likely to be hazards such as sharps, dumped material</li> </ul>	community needs and desire at the site  Do an initial heritage screening		
River Bank and River Edge Characteristi cs				<ul> <li>No beach or other accessible water edge, Sea wall restricts access to the river</li> <li>No vegetation along the river.</li> </ul>	assessment to determine potential heritage constraints		
Heritage				No heritage items are mapped in Council's LEP maps along the riverbank, however there are a number of heritage items in close proximity which may need to be considered			

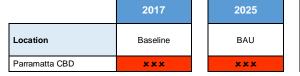


### **Site feasibility**

	Score			Key feasibility observations	Recommended actions/mitigations		
	Low	Medium	High				
Boat Traffic				• N.A.	Undetake further water quality modelling		
Water quality				Poor water qualty	<ul> <li>Implement Masterplan</li> <li>Survey river to confirm best locations</li> </ul>		
Bathymetry				Depth may limit swimming			
Publicly Available Land				Land available			
Ecological Restriction				Limited ecological constraints			

### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.



INTERVENTIONS							
Scenario 1	Scenario 2		Scenario 3		Scenario 4		
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention		
xxx	×××		xxx		xxx		

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
8	Range of desirable features	Most desirable features  The level of access via public transport and cycling  The proximity of shops and cafes  Least desirable features  The available facilities on site  Attractiveness of the water for swimming and paddling

### What the community told us

'This site has enormous potential for cultural activities'

'The river here holds lots of opportunity for water boating and a challenging obstacle course for kids'



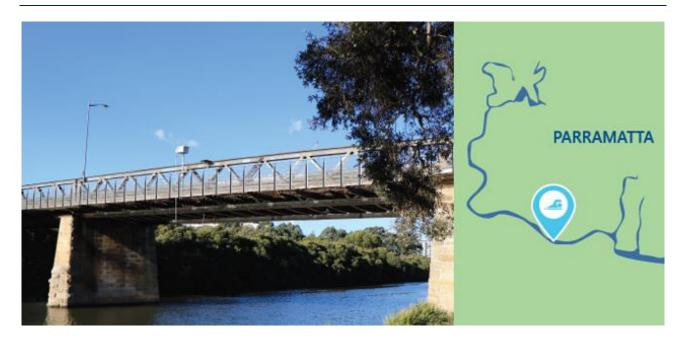
'I don't think there is enough physical space for a proper pool, change rooms, toilets and showers without ruining the current space. Therefore, a kid's splash pool is probably the only thing feasible'

There were differing views from stakeholders when asked to prioritise this site against the other 3 sites in the Upper Parramatta River catchment area. For some, it was given top priority due to the level of development in the area and therefore that a public recreational space would be utilised. However, for others, although the possible demand for the site was acknowledged, the potential cost of activating it was a concern. There were additional concerns about the amount of available land at the site, as there is limited space for any additional facilities.

Stakeholders agreed on a splash contact activation however there was also the suggestion of creating a filtered pool and a water park, whilst recognising that these activations would need substantial investment.



# 3 MacArthur Street Bridge



#### **Background information**

The site is located very close to the MacArthur Street Bridge and currently has minimal facilities and dedicated parking. The proposed Light Rail will pass close to this site. The land manager is City of Parramatta Council.

#### **Recommended activation**

#### Land based activities and splash contact

- The site has a relatively high sea wall therefore a river-based activation would need to consider ease of access to the water.
- The site is scheduled for a new stop on the new Parramatta Light Rail service.
- The site is close to the Parramatta wharf and the ferry passes in relatively close proximity to the river bank/sea wall.



Overall score - Low to Medium Vulnerability							
	Score			Key vulnerability observations	Recommended		
	Low	Medium	High		actions/mitigations		
Water Quality				<ul><li>Residential area</li><li>Stormwater outlets are located close by</li></ul>	Undertake water quality modelling     initial 20 samples and evaluate to     determine need for further testing		
Water Clarity				Moderate turbidity. Visible to about 0.3m from the surface	Undertake community consultation to better understand existing site uses and the community needs and		
River Sediment Type and Quality				<ul> <li>No embayment, however minimal tidal flushing due to location at upstream end of tidal section of river Sandy sediments with minimal fine sediments</li> <li>Some muddy sediments at site</li> </ul>	<ul> <li>desire for river edge access for the site</li> <li>Conduct a dive study</li> <li>Undertake high level background studies, including heritage constraints and develop initial</li> </ul>		
River Dynamics				Low velocities, some boat wash	concepts options for swim site activation developing a sketch plan with options for discussion		
River Bed Physical Hazards				Some rocks identified	Carry out a Health Risk     Assessment of chemical     containments in sediment included     resuspension		
River Bank and River Edge Characteristi cs				<ul> <li>No beach or other accessible shore, High sea wall restricts access to the river</li> <li>Mangroves located restrict areas of open access.</li> </ul>	Map historical land use and contaminated lands to understand levels of contamination risk		
Heritage				Queens Wharf Reserve is a locally listed heritage item including the stone wall and archaeological site and the Parramatta River wetlands			

## Site feasibility

Score				Key feasibility observations	Recommended	
	Low	Medium	High		actions/mitigations	
Boat Traffic				Rivercat passes in close proximity	Discuss exclusion zones with RMS      Design in harriogn	
Water quality				Water quality not well known at present	Design in barriers     Undertake further water quality modelling\	
Bathymetry				Not known	Bathymetry survey as required	
Publicly Available Land				Land available	Ecological impact assessment	
Ecological Restriction				Existing mangroves		



#### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.





INTERVENTIONS								
Scenario 1	Scenario 2	Scenario 3	Scenario 4					
Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention					
×××	×××	×××	××					

### Site desirability

Rank (of 12)	Score	What did the community find desirable?
5	Range of desirable features	Most desirable features  The amount of plants and trees  Proximity to shops and cafes  The attractiveness of the river to walk alongside Least desirable features  The available facilities on site  Availability of car parking

#### What the community told us

'This park has a quiet, peaceful ambiance. The Light Rail will certainly have an impact on that'

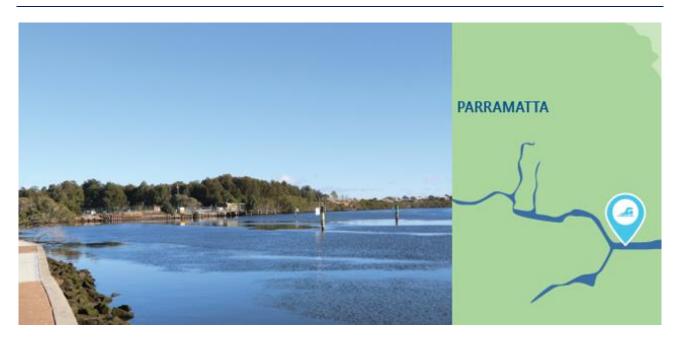
'Limited use of the waterway due to ferry but could have gondola hire!'

'I am reluctant to use this site: no parking, no toilets and a huge drop to the river'

When stakeholders were asked to prioritise the sites, McArthur Street Bridge was consistently at the bottom, both against the three other upper Parramatta River sites and the other 8 potential sites. It was recognised that Light Rail will be there in the future, which would improve access however the amount of space and proximity of the ferry were seen as limitations on activation.



## 4 Silverwater Park



#### **Background information**

This site was home to Silverwater Baths which was once located on the southern bank of the Parramatta River where the Silverwater Bridge crosses. They were opened in 1929 and were popular and well patronised until 1935, when the Council was advised by the Department of Health that the waters were polluted. The structures of the old baths were finally removed in the 1960. The site is located in the Greater Parramatta Olympic Park (GPOP) and is managed by City of Parramatta Council

#### **Recommended activation**

#### Splash contact, land based activities and swimming

- The ferry route and the proximity to the river's edge is a key issue at this site.
- The site is close to Duck River which provides additional opportunities for activation.
- The site is already activated for a range of land based activities.



## Overall score - Low to Medium Vulnerability

	Score	е		Key vulnerability observations	Recommended	
	Low	Medium	High		actions/mitigations	
Water Quality				The park's location at the junction of Duck River and Parramatta River means there is significant vulnerability of the site to water quality from large areas of upstream industrial land use within this catchment.	Undertake water quality modelling – initial 20 samples and evaluate to determine need for furthe testing	
				<ul> <li>High vulnerability. Monitoring undertaken during wet weather indicated very poor water quality and rapid deterioration of water quality even after small rainfall events.</li> <li>Initial preliminary screen monitoring has shown that water quality was reasonable during dry weather and very poor during</li> </ul>	<ul> <li>Liaise with RMS to understand implications of proximity to ferry wharf and potential restrictions due to proximity of ferry</li> <li>Further develop and workshop initial concept</li> </ul>	
				even small rainfall events.	options that have been developed into an adopte	
Water Clarity				Reasonable with visibility to about 0.5m from surface	Masterplan for the site  Undertake community	
River Sediment Type and Quality				<ul> <li>No major embayment at the site.</li> <li>Sediments are dark muddy sediments with high proportion of fines.</li> </ul>	consultation to better understand existing site uses and the community needs and desire at the	
·				<ul> <li>Muddy sediments at low tide as well as hazards on the floor</li> </ul>	site and align this consultation with the	
River Dynamics				Generally low velocities with boat wash occurring when the Rivercat passes the site.	development of the Masterplan for the park	
				The park's location at the junction of Duck River and Parramatta River is likely to cause a backwater eddy condition at the site and likely stagnant zones allowing for less	<ul> <li>Carry out a Health Risk Assessment of chemical containments in sediment included resuspension</li> </ul>	
				scouring of fine sediment.	<ul> <li>Map historical land use and contaminated lands t</li> </ul>	
River Bed Physical				<ul> <li>A range of hazards including slippery surfaces from fine sediment on rocks, bricks,</li> </ul>	understand levels of contamination risk	
Hazards				rocks, oysters, concrete, reo bars, etc	<ul> <li>Liaise with Sydney         Olympic Park and the EP         to better understand</li> </ul>	
River Bank and River Edge Characteristi cs				There is very good access from the land where the sea wall is present, approx. 80 meter in length, is present. There is a path immediately adjacent to the sea wall. Further to the west and up Duck River there is very peer access due to the depresent and the depre	<ul> <li>Undertake high level background studies, such as service constraints and heritage constraints</li> </ul>	
				is very poor access due to the dense stand of mangroves and access is generally not possible or preferable in this location.	<ul> <li>Consider potential for integration with future re- development for the area</li> </ul>	
Heritage				There are no listed heritage items in the LEP	and developer contributions to park upgrades	
					<ul> <li>Conduct a dive study</li> </ul>	



### Site feasibility

	Score	e		Key feasibility observations	Recommended	
	Low	Medium	High		actions/mitigations	
Boat Traffic				Rivercat passes in close proximity	Discuss exclusion zones with RMS. Design in barriers	
Water quality				<ul> <li>Poor in wet weather. Industrial catchment upstream. Historical landuses</li> </ul>	<ul><li>Implement Masterplan</li><li>Bathymetry survey as required</li><li>Ecological impact assessment</li></ul>	
Bathymetry				Not known	Leological impact assessment	
Publicly Available Land				Land available		
Ecological Restriction				Existing mangroves		

### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.





INTERVENTIONS								
Scenario 1	Scenario 2		Scenario 3		Scenario 4			
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention			
××	××		×		×			

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
10	Range of desirable features	Most desirable features  Availability of car parking  The amount of open space around the site  Least desirable features  Ease of access via public transport  Proximity to shops and cafes  Available facilities at the site  Attractiveness of the water



#### What the community told us

'The water does not look attractive to walk alongside or swim in'

'Facilities need to be upgraded and access to a café or mobile food truck is needed'

'I can hear a lot of noise from the traffic on the bridge'

'The proximity to nearby suburbs makes improving this site very attractive'

Stakeholders recognised that there were challenges at this site, due to the water quality, industrial surroundings, limited parking and public transport access, and cost of making changes to the river edge. However, the proximity to Duck River and the Olympic Park were seen as opportunities when thinking about how the site could be activated.



## 5 Meadowbank



### **Background information**

The Meadowbank site is in Memorial Park close to Meadowbank Rail station. It has BBQ, picnic and toilet facilities. There is also a children's play area. The site is managed by City of Ryde Council

#### **Recommended activation**

#### Land based activities

- Proximity to the ferry would need to be considers from a safety point of view.
- The site's industrial heritage and close proximity of storm drains pose challenges to any river based activation.
- The site is in a major re-development area with nearby high density residential buildings.



### **Overall score - Low to Medium Vulnerability**

		Score		Key vulnerability observations	Recommended
	Low	Medium	High		actions/mitigations
Water Quality				<ul> <li>Residential area on the southern side of the river, but opposite a major industrial chemical zone on the northern shore</li> <li>Major stormwater outlet upstream of the site</li> </ul>	<ul> <li>Undertake water quality modelling         <ul> <li>initial 20 samples and evaluate</li> <li>to determine need for further</li> <li>testing.</li> </ul> </li> <li>Carry out a Health Risk         <ul> <li>Assessment of chemical</li> </ul> </li> </ul>
Water Clarity				Moderate turbidity. Visible to about 0.2m from surface	containments in sediment included resuspension.
River Sediment Type and Quality				<ul> <li>No embayment, generally sandy sediments with some scattered fine sediment.</li> <li>Minimal muddy sediments.</li> <li>Generally low levels of sediment contamination for most contaminants identified in screening assessment, with potential risk identified with tests for chromium and dioxin like compounds associated with muddy sediments.</li> <li>However the dominant sediment is coarse sand with few visible fine sediments.</li> </ul>	<ul> <li>Map historical land use and contaminated lands to understand risk of contamination</li> <li>Liaise with RMS to understand implications of proximity to ferry wharf and potential restrictions due to proximity of ferry</li> <li>Conduct dive study</li> <li>Undertake high level background studies, including heritage and environmental constraints</li> <li>Undertake community consultation to better understand existing site uses and the community needs and desire at the site and align this consultation</li> </ul>
River Dynamics				Low velocities, some potential for boat wash.	with the development of the Masterplan for the park
River Bed Physical Hazards				<ul> <li>Rocks, and dumped ballast material as part of river bank protection. Shallow bedrock.</li> </ul>	
River Bank and River Edge Characteristi cs				No beach area. Steep banks. Access points would need to be provided.	
Heritage				Meadowbank Railway Bridge is State Significant Heritage listed and Memorial Park (reserve behind baths) is a locally listed heritage item	



### **Site feasibility**

	Score			Key feasibility observations	Recommended	
	Low	Medium	High		actions/mitigations	
Boat Traffic				Rivercat in close proximity.	Map exclusion zones, design in barriers	
Water quality				Water quality not well known at present	Undertake further water quality modelling	
Bathymetry				Observations indicate reasonable depths	<ul><li>Undertake bathymetry survey.</li><li>Understake fora and fauna study a</li></ul>	
Publicly Available Land				Limited land available	required	
Ecological Restriction				Limited, some mangroves are present		

### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.

	2017
Location	Baseline
Meadowbank	×

2025
Business as usual
×

2025 with INTERVENTIONS								
Scenario 1	Scenario 2	Scenario 3	Scenario 4					
Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention					
×	✓	✓	✓					

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
7	Range of desirable features	Most desirable features  The ease of access via public transport and cycling  The amount of tree shade and plants at the site.  Least desirable features  If the site felt safe from hazards both on land and in the water  The attractiveness of the water.

### What the community told us

'Not suitable for swimming or even paddling, but it is near a pleasant park and cycle route'

'Too much industrial waste'

'Opposite polluted Homebush Bay'



#### 'Water brown!!!

Stakeholders recognised the challenges that exist at this site due to the area's industrial heritage, the proximity to ferries and nearby storm drains. These challenges led to land based and secondary contact activations being suggested that would aim to make the most of the site's easy access especially from public transport.

However, there were some suggestions that this site should be focused on as interventions would improve the water quality to levels suitable for swimming by 2025. Therefore, any activations at the site could be held up as an inspirational example of interventions turning a non-swimmable site in to one suitable for full immersion swimming.



# 6 Brays Bay



### **Background information**

Brays Bay Reserve is in the Rhodes East precinct and is the start of the Kokoda memorial track. It is situated between McIlwaine Park and Rhodes Park and has some existing facilities. These include a large car park and toilets, BBQs and a children's play area in McIlwaine Park. The land is managed by City of Canada Bay Council.

#### **Recommended activation**

### Splash contact, land based activities and swimming

- The site is located in Rhodes East which has been identified as a potential priority precinct for redevelopment. Improving the amenities and facilities in Brays Bay is being considered as part of this redevelopment.
- The area's industrial heritage is likely to pose a challenge to activation and the community's desire to use the site.



Overall sc	ore -	Low to N	<b>ledi</b> ui	m Vulnerability		
	Score			Key vulnerability observations	Recommended actions/mitigations	
	Low	Medium	High		uotions/intigutions	
Water Quality Water Clarity				<ul> <li>The site has a range of land uses including industrial, commercial and retail and residential.</li> <li>Brays Bay reserve is on a large. wide embayment in the river</li> <li>Clarity was OK with visibility to about 0.5 to 1m from surface. In contrast to other locations in the estuarine section</li> </ul>	<ul> <li>Undertake water quality modelling – initial 20 samples and evaluate to determine need for further testing.</li> <li>Carry out a Health Risk Assessment of chemical containments in sediment included resuspension.</li> <li>Map historical land use and approximated lands to</li> </ul>	
				of the river the lack of flushing resulted in more floating litter and other visual indicators (e.g. oils)	contaminated lands to understand risk of contamination  Collate community consultation	
River Sediment Type and Quality				At the sea wall location sediments are fine typically fine sediments grey to dark grey. There is substantial coarse sand behind the residential houses to the north of the reserve	and consultation for Brays Bay Reserve based on consultation for the Rhodes East Peninsula Precinct Plan, developed by the Department of Planning	
				<ul> <li>Dark grey muddy sediments present at low tide</li> <li>Initial screening sediment assessment undertaken at Brays Bay low risk and compliance of samples with guideline values except for potential dioxin like compounds</li> </ul>	<ul> <li>Further investigate the bathymetry and bed hazards using a dive study and the potential options for a constructed swimming pool type option</li> <li>Do an initial heritage screening assessment to better</li> </ul>	
River Dynamics				Low velocities	understand the heritage of the site and any heritage constraints	
River Bed Physical Hazards				<ul> <li>A range of hazards at the sea wall location including rocks some evidence of rubbish, etc</li> </ul>	Further develop and workshop initial concept options that have been developed into an	
River Bank and River Edge Characteristi cs				In the sea wall area, there is good access from the landward side. There is poor access to the water at present requiring physical intervention to enable access. Combined with shallow depths at the edges this will likely require some jetty or wharf structure into the water	adopted Masterplan for the site     Consider potential for integration with future redevelopment for the area and developer contributions to park upgrades including swim site activation at the site     Consider requirements for	
Heritage				<ul> <li>The reserve is listed as a local heritage item.</li> <li>The reserve also looks out to a heritage item - the Thomas Walker Hospital Group which will need to be considered in a visual analysis.</li> </ul>	shark netting	



#### Site feasibility

	Score		ore Key feasibility observations		Recommended actions/mitigations		
	Low	Medium	High				
Boat Traffic				• N.A	•	Undertake further water quality modelling	
Water quality				Water quality not well known at present	•	Detailed survey of river to confirm best locations	
Bathymetry				Depth may limit swimming at low tides	•	Flora and fauna study as required	
Publicly Available Land				Land available			
Ecological Restriction				Limited, some mangroves are present			

### Water quality modelling

Unlikely to be suitable for full immersion swimming by 2025.

	2017
Location	Baseline
Brays Bay	×

2025
BAU
×

INTERVENTIONS								
Scenario 1	Scenario 2		Scenario 3		Scenario 4			
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention			
×	✓		✓		✓			

### Site desirability

Rank (of 12)	Score	What did the community find desirable?
11	Range of desirable features	Most desirable features  The ease of access via public transport  The amount of green space around the site Least desirable features  The attractiveness of the water and riverbank  Access to the river.

### What the community told us

'With the heavy industry previously in the area, water quality here is extra important. A swimming pool in the area should be fully segregated from the river with extra effort in filtering the water and building a structure around the pool with a deck'



'I find this site easy to access and exciting. It feels a bit industrial and there is a lot of road noise. I would use it for kayaking, sunbathing and walking as it is much closer than going to the beach. Adding netting would make me feel safer going to the water'

'The water doesn't look inviting enough to go in. Improvements would include a stepped sea wall edge for splash play, outdoor shower/tap, wooden board walk, ramp or sand beach to put in kayaks and places to go for a coffee'

The general view from stakeholders was that the amount of development in the area would mean that there is a demand and need for the site to be activated. It was recognised that there was lots of potential at the site due great access from public transport and amount of space however that it would be costly to realise this potential.

An additional challenge identified was how to break away from the area's industrial past and how this would influence people's perception of the water quality.



# 7 Kissing Point Park



### **Background information**

Kissing Point Park is located adjacent to a local residential community along the foreshore of the Parramatta River. The park is a relatively active site due to its adjacent uses including the Ryde river walk, a boat launch wharf, a ferry wharf, playground, carpark and toilet facilities. The site has a small sandy beach area which provides the best access to the river foreshore due to its current open outlook and gentle slopes to the water edge. The site also has a small community of salt marsh at the back of the beach. The land is managed by City of Ryde Council.

#### Recommended activation

### Swimming in the river or natural water pool / educational activities.

- The site has a stormwater outlet onto the beach which restricts access to the water's edge due to its location.
- RMS have safety concerns around the proximity of the ferry route and wharf.
- Stakeholders and community members expressed a desire for any activation to be linked to the nearby Putney Park proposed swim site.



	Score			Key vulnerability observations	Recommended actions/mitigations	
	Low	Medium	High			
Water Quality				Residential     Local stormwater outlets directly into the beach	Undertake water quality modelling     – initial 20 samples and evaluate to determine need for further testing.	
Water Clarity				Generally good, visible to about 1m from surface	Carry out a Health Risk     Assessment of chemical     contaminants in sediment included	
River Sediment Type and Quality				<ul> <li>No major embayments</li> <li>In the beach location, sediments are generally coarse to fine sand with some fine sediment.</li> <li>Minimal muddy sediments at low tide</li> </ul>	<ul> <li>resuspension.</li> <li>Map historical land use and contaminated lands to</li> <li>Liaise with RMS to understand implications of proximity to ferry wharf and potential restrictions due to proximity of ferry.</li> </ul>	
River Dynamics				Low velocities, site is affected by boat wash including from the rivercat as well as private recreational vehicles.	<ul> <li>Conduct dive study.</li> <li>Monitor the impact of new drainage works on the site including impact on water ponding at the beach</li> </ul>	
River Bed Physical Hazards				Minor hazards in the beach area were visible including shallow bedrock in some locations	Undertake community consultation to better understand existing site uses and the community needs and	
River Bank and River Edge Characteristi cs				Very good access from the landward side and into the water along a sandy beach. The key constraints are small patches of salt marsh and poor drainage from the stormwater outlet	<ul> <li>desire at the site and align this consultation with the development of the Masterplan for the park</li> <li>Do an initial heritage screening assessment to determine potential heritage constraints</li> <li>Consider requirements for shark</li> </ul>	
Heritage				Kissing Point Park is listed as a local heritage item (former boat slip lanes).	<ul> <li>Further develop a strategy for access to the beach and promotion of the beach as a destination</li> <li>Further investigate options for a</li> </ul>	
					pontoon or similar structure in the water which could provide a different river site activation experience	



## Site feasibility

	Score			Key feasibility observations	Recommended
	Low	Medium	High		actions/mitigations
Boat Traffic				Rivercat wharf in close proximity	Map exclusion zones, design in barriers
Water quality				Water quality not well know at present	Undertake further water quality modelling
Bathymetry				Very shallow depths limits swimming	Investigate the bathymetry as required, noting that the
Publicly Available Land				Some land available, but is limited in size	general bathymetry of the site is for a relatively flat shallow gradient into the river from the beach
Ecological Restriction				Salt marsh present	Understake fora and fauna study as required

### Water quality modelling

Water suitable for full immersion swimming by 2025.

	2017 2025		2025 with INTERVENTIONS				
	2017	2025	Scenario 1	Scenario 2	Scenario 3	Scenario 4	
Location	Baseline	Business as Usual	Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention	
Kissing Point Park	✓	✓	✓	<b>√</b> √	<b>√</b> √	✓✓	

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
6	Range of desirable features	Most desirable features  The good views and attractive landscape  The accessibility and attractiveness of the riverbank  The attractiveness of the water in general  Least desirable features  The proximity of shops and cafes  How safe the site feels from hazards and accidents  Ease of access via public transport.



#### What the community told us

The site is really beautiful'

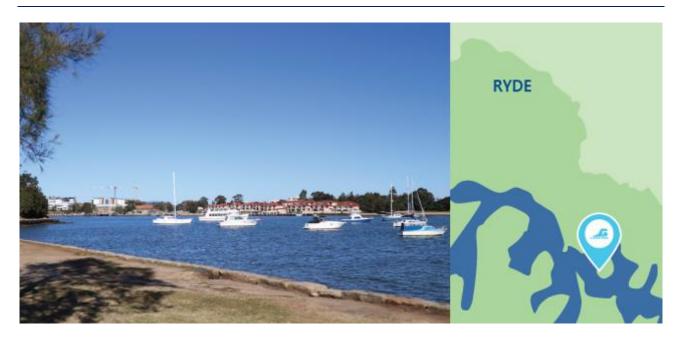
'I would be concerned about walking barefoot on the sand because of the glass and rubbish, however this could be tidied up'

'The stormwater drain is unsightly, and I wonder, is it healthy?'

Stakeholders identified the stormwater drains as a key challenge at the site as relocation would most likely be needed. There was an opportunity identified to link the site to Putney Park by creating an intertidal Ryde River walk.



# 8 Putney Park



### **Background information**

Putney Park is an active park due to its range of existing facilities. It has a large children's playground with a water feature, BBQs and a picnic area, car park and toilet block. There is limited access to the water due to a sea wall with a steep drop. The land is managed by City of Ryde Council.

#### **Recommended activation**

### Natural water pool swimming, land based activities

- Access to the beach area at the site is limited due to the sea wall.
- The proximity of moored boats was a safety concern for community members.
- A quick win to activate the site was to put some stairs in the sea wall so the beach could be accessed at low tide.
- The site is highly active and used for land based activities.



Overall sc	Overall score - Low to Medium Vulnerability							
Score		Key vulnerability observations	Recommended					
	Low	Medium	High		actions/mitigations			
Water Quality				<ul><li>Residential area</li><li>Minor stormwater outlets</li></ul>	Undertake water quality modelling – initial 20 samples and evaluate to determine need for further testing.			
Water Clarity				Low turbidity. Visible to about     1.0m from surface	Undertake community consultation to better understand existing site uses			
River Sediment Type and Quality				<ul> <li>Minor embayment, sandy sediments with minimal fine sediments.</li> </ul>	<ul> <li>and the community needs and desire for swimming at the site</li> <li>Conduct dive study</li> <li>Undertake high level background</li> </ul>			
River Dynamics				Low velocities, some boat wash.	studies, including heritage constraints and develop initial concepts options for swim site			
River Bed Physical Hazards				Few hazards, some rocks identified	activation developing a sketch plan     with options for discussion     Carry out a Health Risk Assessment     of chemical containments in sediment			
River Bank and River Edge Characteristi				Overtopping of the sea wall is creating dead patches of grass in the low-lying areas behind the wall. Overtime this overtopping will undermine the wall.	<ul> <li>or chemical contaminants in sediment included resuspension</li> <li>Map historical land use and contaminated lands to understand levels of contamination risk.</li> </ul>			
Heritage				Putney House is a locally listed heritage home				

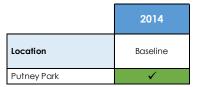
## Site feasibility

	Score			Key feasibility observations	Recommended		
	Low	Medium	High		actions/mitigations		
Boat Traffic				Private boat traffic	<ul> <li>Map exclusion zones</li> <li>Undertake further water quality modelling</li> <li>Undertake bathymetry survey. Access to the shoreline is required</li> </ul>		
Water quality				Water quality not well know at present			
Bathymetry				Observations indicate reasonable depths,			
Publicly Available Land				Land available			
Ecological Restriction				Limited ecological constraints			



#### Water quality modelling

Water suitable for full immersion swimming by 2025.





INTERVENTIONS							
Scenario 1		Scenario 2		Scenario 3		Scenario 4	
Targeted Overflows Contained		All Overflows Contained	Medium Catchment Intervention			High Catchment Intervention	
√√		√√		√√		√√	

### Site desirability

Rank (of 12)	Score	What did the community find desirable?
5	Range of desirable features	Most desirable feature  The amount of open space, plants and tree shade at the site  The good views and attractive landscape  Least desirable feature  Ease of access via public transport, bike and foot  The attractiveness of the water for swimming in  How safe the site feels from hazards and accidents

#### What the community told us

'A well-established family area, which is already activated for leisure activities'

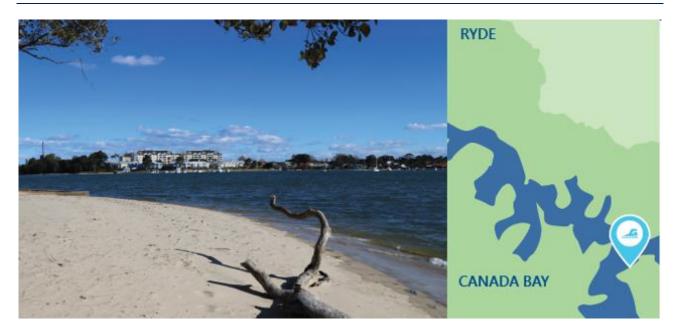
'The site is less accessible than I would like; no public transport and poor cycling access. If there were swimming baths I would be more likely to use this site'

'Ideal site for baths, such as Dawn Fraser or Bondi'

Stakeholders identified several challenges at the site but suggested ways that these could be overcome, including replacing the sea wall with an environmentally friendly option that would make access to the water easier, putting up a netted enclosure and improving access by moving the bike path closer to the water.



## 9 Quarantine Reserve



### **Background information**

Quarantine Reserve is in Abbotsford and is a large open space with a sandy foreshore which can be accessed via a grassy hill. The site has existing facilities, including BBQs, covered picnic spaces and toilets. The site also has several heritage buildings from when it was used as an animal quarantine facility. The land is managed by City of Canada Bay Council.

#### **Recommended activation**

#### Natural water swimming, install shark net and water quality signage

- The site was rated as highly desirable by community members however people expressed concern around any major changes at the site that may lead to increased visitor numbers.
- The beach area is limited in size meaning large numbers of visitors could not be accommodated.
- There are heritage items at the site that any activation would need to consider.
- The site is located in a quiet residential area with limited access via public transport.



Site vulnerability							
Overall score - Low to Medium Vulnerability							
	Score			Key vulnerability observations	Recommended actions/mitigations		
	Low	_ow Medium High			actions/intigations		
Water Quality  Water Clarity  River Sediment Type and Quality				<ul> <li>Residential area</li> <li>Minor local stormwater outlets</li> <li>Ok slightly turbid. Visible to about 0.5m from surface</li> <li>Low levels of sediment contamination, with only potential risk identified with tests for dioxin like compounds associated with muddy sediments. However, the dominant sediment is coarse sand with few visible fine sediment.</li> <li>In the opening to a large embayment on the river, sediments were coarse sandy sediments, very few fine sediment</li> <li>Minimal muddy sediments</li> </ul>	Undertake water quality modelling — initial 20 samples and evaluate to determine need for further testing Undertake community consultation to better understand existing site uses and the community needs and desire for river edge access for the site Conduct a dive study Undertake high level background studies, including heritage constraints Carry out a Health Risk Assessment of chemical containmants in sediment included resuspension Map historical land use and contaminated lands to understand levels of contamination risk		
River Dynamics				Low velocities			
River Bed Physical Hazards				Some branches, however few hazards identified			
River Bank and River Edge Characteristi cs				Sandy beach with gentle sloping access with existing establishing native vegetation including mangroves and good areas of bushland vegetation along the foreshore in some locations. There are obvious access points outside the vegetation, however there are no paths to the foreshore edge at present, limiting universal access.			
Heritage				<ul> <li>Quarantine Reserve is a local heritage item and is heritage listed in the LEP</li> </ul>			



### **Site feasibility**

	Score			Key feasibility observations		Recommended actions/mitigations	
	Low	Medium	High				
Boat Traffic				• N.A.	•	Undertake further water quality modelling	
Water quality				Water quality not well known at present	•	Undertake bathymetry survey. Flora and fauna study as required	
Bathymetry				Observations indicate reasonable depths			
Publicly Available Land				Land available			
Ecological Restriction				Limited, some mangroves are present			

### Water quality modelling

Water suitable for full immersion swimming by 2025.





INTERVENTIONS						
Scenario 1	Scenario 2	Scenario 3	Scenario 4			
Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention			
<b>√</b> √	<b>✓</b> ✓	<b>√</b> ✓	<b>√</b> ✓			

### Site desirability

Rank (of 12)	Score	What did the community find desirable?
3	Lots of desirable features	Most desirable feature  The attractiveness of the site, amount of tree shade and plants  The attractiveness of the water to paddle in  Least desirable feature  Ease of access via public transport and car

#### What the community told us

'This is pretty in terms of vegetation, it would be a pity to disturb it'

'Nice spot but more suited to local access. Could not sustain large crowds. If selected need to keep it a local spot e.g. scale the amenities provided'

'There is no wheelchair access and the toilet facilities are far away from the river'



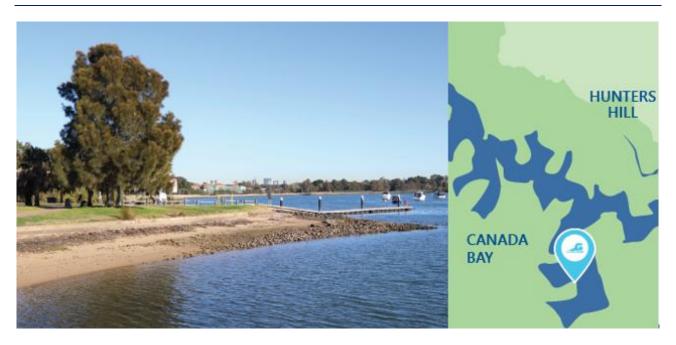
'This is a passive recreational area, leave it alone'

Participants agreed that very little would need to be done at the site for it to be swimmable. Many said they would be happy to use the site if shark nets were installed. There were suggestions to improve the access to the riverside as currently there is a steep drop which would be challenging for those with disabilities, children and older people.

There was a desire for any changes to be minimal as they did not want to drive lots of visitors to the site, feeling it was best kept for those in the local area.



# 10 Bayview Park



#### **Background information**

Bayview Park is located at the end of Burwood Road in Concord. It was once a regular swimming spot with public baths, which no longer remain. Bayview Park has several picnic tables, undercover areas, BBQ's, toilets and a public boat ramp. The land is managed by City of Canada Bay and is close to the site of the former Bushells Factory which is proposed for redevelopment.

#### **Recommended activation**

## Swimming in the river.

#### **Key actions and considerations**

- The proximity of the ferry to the beach area would need to be considered in any proposed activation.
- The site is already active for a range of river based activities included boating, paddle boarding and a swim site for dogs.
- Several community members suggested that all they would need to start using the site was a shark net and assurance the water quality was safe for swimming.
- Concerns were expressed around over use at this site and driving more visitors to the area.



# Site vulnerability

Overall so	ore -	Low to	Medi	um Vulnerability			
	Score			Key vulnerability observations	Recommended		
	Low	Medium	High		actions/mitigations		
Water Quality				<ul><li>Local Peninsula is a former industrial area</li><li>Minor local stormwater outlets</li></ul>	Undertake water quality modelling – initial 20 samples and evaluate to determine need for fu		
Water Clarity				Ok slightly turbid. Visible to about 0.3m from surface	ther testing     Dive study		
River Sediment Type and Quality				<ul> <li>Within a large embayment on the river, although sediments found to be coarse sandy sediments, very few fine sediment</li> <li>Minimal muddy sediments</li> </ul>	<ul> <li>Undertake high level background studies, including heritage and service constraints and develop initial concepts options for swim site activation developing sketch plans for a range of upgrades.</li> </ul>		
				Low levels of sediment contamination, with only potential risk identified with tests for dioxin like compounds associated with muddy sediments. However the	<ul> <li>Liaise with RMS to understand implications of proximity to ferry wharf and potential restrictions due to proximity of ferry</li> <li>Undertake community consultation to</li> </ul>		
				dominant sediment is coarse sand with few visible fine sediment.	better understand existing site uses and the community needs and desire		
River Dynamics				Low velocities	<ul> <li>for swimming at the site.</li> <li>Consider potential for integraiton with Bushell Site re-development and</li> </ul>		
River Bed Physical				The area to the immediate west of the wharf was undergoing erosion	developer contributions to park upgrades		
Hazards				and exposing former fill at the site including bricks and concrete.	<ul> <li>Carry out a Health Risk Assessment of chemical containments in sediment included resuspension</li> </ul>		
River Bank and River Edge Characteristi cs				Sandy beach with gentle sloping access with some existing establishing native vegetation dominated by casuarinas and further to the west of the wharf there are good mangrove stands which restrict access	Map historical land use and contaminated lands to understand levels of contamination risk		
Heritage				Bayview Park is a local heritage item and is heritage listed in the LEP			

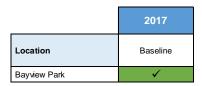


## Site feasibility

	Score			Key feasibility observations	Recommended	
	Low	Medium	High		actions/mitigations	
Boat Traffic				Rivercat wharf in close proximity	Discuss exclusion zones with RMS and design in barriers as required	
Water quality				Water quality not well known at present	Undertake further water quality modelling	
Bathymetry				Observations indicate reasonable depths	Undertake bathymetry survey	
Publicly Available Land				Land available		
Ecological Restriction				Limited ecological constraints		

## Water quality modelling

Water suitable for full immersion swimming in 2025.





INTERVENTIONS					
Scenario 1	Scenario 2		Scenario 3		Scenario 4
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention
✓	<b>√</b> √		√√		√√

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
2	Lots of desirable features	Most desirable feature     The attractiveness of the site, amount of tree shade and plants     The attractiveness of the river back and ease of access to the water     The attractiveness of the water for boating and walking alongside Least desirable feature     Proximity to shops and cafes



## What the community told us

'Beautiful and quiet location. Overcrowding this site would be a shame as it is small and not enough car parking. Better suited to swimming than Brays Bay'

'This site is beautiful. It would be worth catching a bus instead of a train just to get to this site over Brays Bay. More picnic tables would be an improvement. It feels so safe and relaxing, like an inner west oasis '

'Facilities need to be upgraded. Additional bus services need to be provided.'

Stakeholders shared the view of community members that minimal interventions were needed to make the site swimmable. It was suggested that this site could be a 'quick win' and making it swimmable could be used to generate momentum and support for some of the sites that are more challenging to activate



# 11 Henley Baths



## **Background information**

Henley Baths is on the north shore of the Parramatta River, off Dick St in Henley. The site previously had shark nets, however these were removed, and the site closed, as it was infrequently used. Most of the shoreline is stone walls built upon the sandstone rock, with a small beach sitting along a small bay. The water becomes deep very quickly to about 4 m near the old net posts. There are boat houses and jetties along the shore. The land is managed by Hunters Hill Council.

#### **Recommended activation**

## Minimal change

#### **Key actions and considerations**

- The site is in a quiet residential area and has limited access.
- The area for swimming is small and cannot accommodate large numbers of people.
- There was clear feedback from stakeholders and the community that the site was not suitable for further activation and that it should be left as is.
- Some identified that there was an opportunity to make the site more accessible for launching kayak and boats.



# Site vulnerability

# Overall score - Low to Medium Vulnerability

	Sco	re		Key vulnerability observations	Recommended
	Low	Medium	High		actions/mitigations
Water Quality				<ul><li>Single dwelling residential area</li><li>No major outlets</li><li>No major embayments</li></ul>	<ul> <li>Undertake water quality modelling –         initial 20 samples and evaluate to         determine need for further testing</li> <li>Undertake a dive study.</li> </ul>
Water Clarity				Generally good, visable to about 1m from surface	Conduct a hertiage screen to determind potential hertitage constraints
River Sediment Type and Quality				<ul> <li>At sea wall location sediments are fine grey and coarse sand</li> <li>At beach location sediments are coarse sand</li> </ul>	<ul> <li>Upgrade access to the swim spot</li> <li>Upgrade the signage and wayfinding to the mainswim site</li> </ul>
River Dynamics				Low velocities	<ul> <li>Consdier requirements for shark netting</li> <li>Undertake community consultation to</li> </ul>
River Bed Physical Hazards				<ul> <li>There are hazards on the bed at the baths including a rocky substrate.</li> <li>A range of hazards at the sea wall location including rocks, oysters,</li> </ul>	better understand existing site uses and the community needs and desire for swimming at the site.
River Bank and River Edge Characteristi cs				<ul> <li>boat moorings, etc</li> <li>The small available open space area is physically disconnected from the water by a small sandstone 'cliff'.</li> <li>The access to the water edge is steep and is not universally acceptable.</li> </ul>	
Heritage				The house adjacent to the baths has been identified as heritage significance	



## **Site feasibility**

	Score			Key feasibility observations	Recommended
	Low	Medium	High		actions/mitigations
Boat Traffic				Private boat traffic limits swim area	Map exclusion zones     Undertake further water quality
Water quality				Water quality not well known as present	modelling  Flora and fauna study as required
Bathymetry				Observations indicate reasonable depths	
Publicly Available Land				Limitd land available espcially at access to shore	
Ecological Restriction				Limited constraints	

## Water quality modelling

Water quality suitable for full immersion swimming in 2025.





2025 with INTERVENTIONS						
Scenario 1	Scenario 2	Scenario 3	Scenario 4			
Targeted Overflows Contained	All Overflows Contained	Medium Catchment Intervention	High Catchment Intervention			
<b>√</b> √	<b>√</b> √	<b>✓</b> ✓	<b>√</b> √			

## Site desirability

Rank (of 12)	Score	What did the community find desirable?
12		In general, the site received low scores across all measures.
	_	
	Few desirable	
	features	

### What the community told us

'I wouldn't recommend this site for consideration for swimming or other activities considering the accessibility, location and lack of basic amenities'

'The site is too small, not accessible and too narrow for many people to fit'

'Not practical, move on



## 12 Callan Park



#### **Background information**

Callan Park, is a 60-hectare site on the Parramatta River in the Inner West which was previously the home of the Rozelle Psychiatric Hospital. The site is owned by NSW Health and managed by The Office of Environment and Heritage (OEH). It is already an active recreational space and is part of the Bay Run however there are limited existing facilities to support swimming near the foreshore.

#### **Recommended activation**

# Floating pontoon and netted pool, secondary contact and land based activities.

#### **Key actions and considerations**

- There are three potential locations for a swim site; the sea wall immediately adjacent to the Bay Run, the sea wall adjacent to the open lawn and the rocky, beach shore area.
- Governance and heritage considerations are very important when considerating any type of activation.
- Some areas at the site are already being used to access the water, for dogs and for launching kayaks and boats.
- This is a highly active site due to its location on the Bay Run.



# Site vulnerability

# Overall score - Low to Medium Vulnerability

	Scor	е		Key vulnerability observations	Recommended
	Low	Medium	High		actions/mitigations
Water Quality Water				<ul> <li>Previous hospital, and fill at site.</li> <li>Large stormwater channel outlet near sea wall location No major outlets near beach section</li> <li>No major embayments</li> <li>Generally good, visable to about</li> </ul>	<ul> <li>Undertake water quality modelling         <ul> <li>initial 20 samples and evaluate to determine need for further testing.</li> </ul> </li> <li>Conduct dive study</li> <li>Carry out a Health Risk         <ul> <li>Assessment of chemical containments in sediment included</li> </ul> </li> </ul>
River Sediment Type and Quality				<ul> <li>1m from the surface</li> <li>At sea wall location sediments are fine grey and coarse sand</li> <li>At beach location sediments are coarse sand</li> <li>Minimal muddy sediments at low tide</li> </ul>	<ul> <li>resuspension.</li> <li>Map historical land use and contaminated lands to understand levels of contamination risk.</li> <li>Undertake high level background studies, including heritage and environmental constraints.</li> <li>Consider requirements for shark</li> </ul>
River Dynamics				<ul> <li>Low velocities</li> <li>Current beaches are used by local dogs and their owners and are also being used to store boats.</li> <li>The site has lots of different users which need to be accommodated including people using the bay run for walking, running, cyclists using the bay run for recreation and commuting, vehicle access, sports clubs and their players.</li> </ul>	<ul> <li>netting</li> <li>Undertake community consultation to better understand existing site uses and community needs</li> <li>Investigate the bathymetry and bed hazards and the potential options for a constructed swimming pool type option in the Callan Park</li> <li>Excellent opportunities for ecological sea wall restoration</li> </ul>
River Bed Physical Hazards				<ul> <li>There are a number of large services and submarine cables at the site which need to be considered.</li> <li>There are a range of hazards on the bed in the sea wall section including oysters, rocks, fill and dumped material (concrete, reo, bricks, glass, etc).</li> </ul>	
River Bank and River Edge Characteristi cs				Significant erosion of the sea wall is occurring in a number of locations.	
Heritage				Callan Park is a heritage listed site with a range of heritage items that need to be considered.	



## **Site feasibility**

Feasibility Overall score				Park future investigations)		
	Score	е		Key feasibility observations	Re	commended actions/mitigations
	Low	Medium	High			
Boat Traffic				• NA.		Undertake further water quality modelling
Water quality				Water quality not well known at present		Undertake bathymetry survey Flora and fauna study as required
Bathymetry				Unknown at present	•	Heritage study
Publicly Available Land				Land available		
Ecological Restriction				Native veg present		

# Water quality modelling

Water suitable for full immersion swimming in 2025.

	2017	
Location	Baseline	
Callan Park	✓	

2025	
BAU	
✓	

INTERVENTIONS						
Scenario 1	Scenario 2		Scenario 3		Scenario 4	
Targeted Overflows Contained	All Overflows Contained		Medium Catchment Intervention		High Catchment Intervention	
✓	✓		✓		✓	

# Site desirability

Rank (of 12)	Score	What did the community find desirable?
9	Range of desirable features	Most desirable     The amount of open space and trees around the site     The attractiveness of the water to walk alongside     Least desirable     How safe it felt from accidents and hazards (this is likely to be due to the number of rocks and oyster shells at the riverside)     The attractiveness of the water for swimming     Ease of access via public transport



#### What the community told us

'Difficult to see how it would be developed, due to oyster shells and rocks. It could be good but would need some imaginative ideas. The area off the rocky point might be good for a 'constructed' pool.'

'There are so many oysters and barnacles on the river edge and large rocks in the water, I feel there is a lot of risk of injury to feet and toes'

'Park is very utilised already, the adding of swimming facilities may cause too much traffic, hence park could lose its appeal'

'This looks like a good place to kayak, it doesn't seem exclusive or as private as the other spots. I would feel happy to kayak around but not to swim. Boats make it feel unsafe to swim'