

# **Boyne Tannum Aquatic Centre**

**Concept Design Options Report – Option 4** 

Gladstone Regional Council
23 February 2022



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#### 1. Introduction

#### 1.1 Project Background

GHD Pty Ltd (GHD) has been engaged by Gladstone Regional Council (GRC, Council) to undertake the Concept Design for the Boyne Tannum Aquatic Recreation Centre (BTARC) Facility. The BTARC facility is to be a contemporary community aquatic centre facility with the recreational functions and the capability to host Swimming Australia local and regional events.

The project leverages previous studies and is being undertaken in a staged approach to ensure the development of an appropriate and functional design which meets the required community outcomes and Council's strategic objectives. This project is being delivered in the following phases:

- Studies completed previously
- Concept Design Options Study this phase
- Concept Design and Reference Design
- Design and Construct delivery

#### 1.2 Concept Design Options Study Addendum

Boyne Tannum Aquatic Centre Concept Design Options Report (GHD, 2021) described the approach to site masterplanning for the proposed facility. The report included:

- Definition of the functional requirements
- Site selection
- Preparation of three concept design options, construction staging, and cost estimates
- Infrastructure, services, and approvals reviews
- Options assessment

The functional requirements and objectives of the facility were subsequently refined to provide improved outcomes for the community and greater alignment with Council's objectives.

This report describes the refined objectives and functional requirements and Concept Option 4 descriptions, layouts, and cost estimates.

This report has been prepared as an addendum to *Boyne Tannum Aquatic Centre Concept Design Options Report* (GHD, 2021) and is to be read in conjunction with that document.

#### 1.3 Scope and Limitations

This report: has been prepared by GHD for Gladstone Regional Council and may only be used and relied on by Gladstone Regional Council for the purpose agreed between GHD and Gladstone Regional Council as set out in this report.

GHD otherwise disclaims responsibility to any person other than Gladstone Regional Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Gladstone Regional Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or

checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The Cost Estimate has been prepared for the purpose of Concept Options Comparison and Staging Development and must not be used for any other purpose.

The Cost Estimate is a preliminary estimate only. Actual prices, costs and other variables may be different to those used to prepare the Cost Estimate and may change. Unless as otherwise specified in this report, no detailed quotation has been obtained for actions identified in this report. GHD does not represent, warrant or guarantee that the project can or will be undertaken at a cost which is the same or less than the Cost Estimate.

Where estimates of potential costs are provided with an indicated level of confidence, notwithstanding the conservatism of the level of confidence selected as the planning level, there remains a chance that the cost will be greater than the planning estimate, and any funding would not be adequate. The confidence level considered to be most appropriate for planning purposes will vary depending on the conservatism of the user and the nature of the project. The user should therefore select appropriate confidence levels to suit their particular risk profile.

#### 2. Functional Requirements

#### 2.1 Functional Objective

The Functional Objectives described in the Concept Design Options Report remain valid and have been refined to the following facility goals:

- Provide Learn-to-Swim facilities
- Provide facilities suitable for training and hosting events by a local swim club
- Attract community and tourism use
- Complement Council's existing aquatic facilities
- Not restrict future site development

The following key elements have been proposed to achieve the described goals:

- 8 lane, heated 50 m pool with a relocatable bulkhead for multi-use scenarios
- Twin waterslides
- Amenities, kiosk, seating-mound, and plant
- Carparking to support swim-carnival use
- Green space recreation area

#### 2.2 Functional Requirements

Table 1 summarises the functional requirements of the facility and its elements, developed based on the above objectives, previous studies, community consultation undertaken by Council, and workshops with Council stakeholders.

The basis of requirements column highlights the source of the requirements, generally being FINA compliance, Industry Standard, Council request, or GHD's experience with similar regional facilities. The requirements form the basis of the optioneering stage and will be further refined for the preferred option.

Table 1 Functional Requirements

Item	Requirement	Basis of Requirement			
50m Pool					
Basis for inclusion  To facilitate:     competitive swim training and events, including school carnivals and club events     usage for fitness, rehabilitation, leisure, and cross-training     educational and other providers of learn-to-swim training and rehabilitation and hydro-therapy     activities					
Compliance	Compliance – FINA compliant for local / regional standard				
Key dimensions	ey dimensions  - 50 m (excluding bulkhead) x 20.4 m clear internal dimension (excluding ramp) (approx. 23.7 m wide including ramp)				
Depth	- 1.35 m - 2 m	FINA compliant			
Lanes	- 8 lanes at 2.50 m per lane + 0.2 m to first and last lanes	FINA compliant			
Walls / floor treatment	- Tiled finish	Industry standard			
Heating	- Heated	GRC			
Pool entry	<ul><li>Accessible ramp</li><li>Stairs</li><li>Ladder</li><li>Swim club marquee area</li></ul>	Royal Life Saving Society			
Shading	Shade structure over and approximately half of the pool	GRC			

Item	Requirement	Basis of Requirement		
Accessories	<ul> <li>Bulkhead</li> <li>Pace clock</li> <li>Starting blocks/platforms at both ends</li> <li>Timing touch pads</li> </ul>	GRC FINA compliant FINA compliant FINA compliant		
Seating	Adjacent tiered seating (refer to grandstand)	Regional experience		
Lighting	Lighting towers for competition and evening events	FINA compliant / GRC		
Store	- Storeroom	GHD experience		
Marshall / Timekeeper	Increase concourse depth to facilitate this activity     Both ends	FINA compliant GHD experience		
Waterslide				
Basis for inclusion	Recreational usage, leisure activities, and tourist attraction.			
Туре	<ul> <li>Polin Brand – Mantis waterslide or equivalent (2 x tubular slides)</li> </ul>	GHD experience / budget		
DxWxH	- 16 m X 17.5 m X 6.5 m			
Waterslide exit	- Pool			
Capacity	- 180 x 4 riders per hour			
Plant Equipment				
<ul> <li>50 m pool filters / plant</li> <li>15 m x 10 m - 150 m²</li> <li>Backwash tanks, sand filters, recirculation pumps, no chemicals</li> </ul>		GHD experience		
Water slides	<ul> <li>15 m x 10 m - 150 m²</li> <li>Backwash tanks, sand filters, water slide flow pump (100+L/s)</li> </ul>	GHD experience		
Chemical store - chlorine	<ul> <li>5 m x 6 m - 30 m²</li> <li>10kL sodium hypochlorite tank</li> </ul>	GHD experience Chlorine and CO2 / acid are		
Chemical store – CO2 / acid	<ul> <li>4 m x 3 m - 12 m²</li> <li>4x 180 kg BOC Gasmatic Drums</li> </ul>	required to be stored in separate rooms.		
Outdoor heat pump plant area	3.6 x 6 m – 22 m <sup>2</sup> - 50 m pool	GHD experience		
Building Services	HVAC and plant for enclosed pool area, administration, amenities	GHD experience		
Note	Council has requested consideration of perlite/diatomaceous filts Gladstone Aquatic Centre. This option, including cost, operation footprint, will be further considered for the preferred option.			
Other Program				
Basis for inclusion	Facility functionality requirements, including recreational/leisure, and general attractiveness.	activity oversight, sun-protection,		
Recreational green space	Undeveloped recreational greenspace	GRC		
Bench seating	Scattered throughout site to provide adequate seating and visual access at each area	GHD experience		
Shading	- 1 shaded area = 100 m <sup>2</sup>	GHD experience		
Grandstand				
Basis for inclusion	To facilitate competitive events, including school and club compe	etition.		
Accommodates	<ul> <li>Approximately 550 people, unallocated. Approximate accommodation based on nearby schools:</li> <li>Tannum Sands State School – 831</li> <li>Tannum Sands State High School – 1,167</li> </ul>	GHD experience		

Item	Requirement	Basis of Requirement
Туре	<ul><li>Grassed mound or grassed tiers</li><li>Fully shaded</li></ul>	Industry standard
Amenities		
Change rooms	<ul> <li>60 m²</li> <li>6 showers each change room</li> <li>20 linear m bench seating</li> <li>60 lockers total</li> </ul>	GHD experience
Female toilets	<ul> <li>25 m²</li> <li>6 pans, 4 basins</li> </ul>	Planning requirements
Male toilets	<ul><li>25 m²</li><li>3 pans, 4 urinals, 4 basins</li></ul>	Planning requirements
Family change	<ul> <li>4 m²</li> <li>Baby change facilities</li> <li>2 x family change</li> </ul>	GHD experience
Changing places	- 16 m²	Planning requirements
Cleaner's store	- 4 m²	GHD experience
Administration		
Club room	- 80 m <sup>2</sup>	GHD experience
Staff room	<ul> <li>25 m²</li> <li>Kitchenette</li> <li>Tables &amp; Chairs</li> <li>10 Lockers</li> </ul>	GHD experience
Kiosk	<ul> <li>40 m²</li> <li>Ancillaries to include: Fridge, Fryer, Grill, Bain Marie, Pie cooker, Coffee machine, Microwave, Cool room, Dry store, drinking fountains</li> <li>Serves outside</li> </ul>	GHD experience
Manager's office	- 8 m²	GHD experience
Reception	<ul> <li>25 m²</li> <li>Entry desk</li> <li>Merchandise/retail</li> </ul>	GHD experience
Store	- 40 m²	GHD experience
First aid room	- 12 m²	Royal Life Savings Society
Carparking		
Number	- 100 car parks, 4 PWD parks	Local statutory planning requirements
Emergency vehicle	- 1 space for ambulance / police vehicle	GHD experience
_oading bay	- 1 space	GHD experience
Bike	- 20 secure bike parking	GHD experience
Bus set down		GRC

#### 3. Site Selection

The site selection recommendation described in the Concept Design Options Report remains valid and has been adopted for this option.

#### 4. Concept Arrangement Options

#### 4.1 Layout Objectives

The Concept Arrangement Layout Objectives described in the Concept Design Options Report remain valid, being

- Site integration
- Functionality
- Access
- Spatial efficiency
- Aesthetics
- Safety & comfort
- Constructability
- ESD performance
- Staging & future proofing

The functional and technical requirements and layout objectives have been applied to develop a general arrangement concept option.

The following section describes the developed Concept Design Option 4 with a design description, plans, and explanation of the option's execution of the above requirements.

Staged construction is not proposed.

General arrangement and visualisations for the option are provided in Appendix A.

#### 4.2 Concept Option 4

Concept Option 4 integrates the facility functionality in a multi-use 50 m pool with the following characteristics responding to the requirements:

- 8 lane pool in accordance with FINA requirements for regional competitions
- Heated to provide all-season programming
- All-abilities accessibility via ramp access
- Moveable bulkhead to divide the pool and facilitate concurrent programming (e.g. bulkhead placed to provide
   25 m laned pool and 25 m learn-to-swim area)
- Shading to half of the pool

The site arrangement consists of a terraced carpark following the natural surface profile and placed orthogonally to the road to reduce visual impact and earthworks. The facility entrance is located centrally separating the plant and amenities buildings, oriented to provide a subtle site enclosure and focal point. The building spine locates the plant and chemical functions furthest from the site entry and neighbouring properties to maximise the separation between users and operations while facilitating easy access for operations and events.

Within the facility, the entrance node also consists of a kiosk and amenities adjoining the primary circulation axis. The amenities, kiosk, and seating area are located to provide efficient staffing and proximity to the shaded end of the 50m pool, waterslide, and green space. Twin waterslides are located at the northern end of the site, adjoining the green recreation space and kiosk area and forming a recreation zone. The southern end of the site is

dedicated to the 50m pool and spectator mounding, with the southernmost end of the facility arranged to allow access and space for marquees and other event activities.

Figure 1 is an excerpt of the general arrangement plan provided in Appendix A.

Table 2 describes how the concept option responds to the design objectives.

Figure 2 to Figure 5 provides concept renders describing the design. Renderings are provided in Appendix A.





Figure 1 General Arrangement Plan

Table 2 Option 4 Requirements Execution

•	·
Objectives	Design Response
Site integration	<ul> <li>Carparking is oriented in a north south direction, along the natural topography, forming two parking terraces, with a logical circular flow of cars, buses, and servicing vehicles, while minimising conflict with pedestrian activity.</li> </ul>
	<ul> <li>Maximize bushland location by bringing vegetation into the site and protruding outwards from site towards bushland and outlook, rather than forming distinct barrier.</li> </ul>
Functionality	<ul> <li>The main entry point is located centrally in proximity to administration functions, changing / toilets and kiosk.</li> </ul>
	<ul> <li>Two distinct building function groupings – pool plant functions and visitor service functions. The entry and administration functions in the centre.</li> </ul>
	<ul> <li>The northern end of the site provides a recreational hub consisting of the waterslides, greenspace, and shaded end of the 50 m pool, with centrally located kiosk, amenities, and seating for supervision. The southern end is focussed on the 50 m pool, marshalling space, club room, and spectator mound.</li> </ul>
	<ul> <li>Lighting to be provided to light facility and oriented to reduce impact on adjacent properties.</li> </ul>
Access	<ul> <li>The axial nature of the layout ensures clear paths to and from the main entry at the centre. All functions are accessed along clear axis lines.</li> </ul>

Objectives	Design Response
	<ul> <li>The north-south axis is cranked to follow the natural topography. This crank occurs at the primary east-west axis, strengthening the legibility of the entry / exit and associated central functions.</li> </ul>
	<ul> <li>Chemical storage and delivery is placed at far end from site entry to avoid conflict with pedestrian site entry, including active transport links. Separate bump out exit / entry, close to bus drop off and 50m pool and spectator mound.</li> </ul>
Spatial efficiency	Ensuring spatial layouts are accessible, legible, and easily navigable.
	<ul> <li>Building functions are grouped into two distinct halves, but linear in nature for future expansion if required.</li> </ul>
Aesthetics	<ul> <li>North-south cranked axis reduces the perceived length of the overall facility (car park, buildings and pools enclosure) and forms a subtle enclosure.</li> </ul>
	<ul> <li>Focal points at axis termination.</li> </ul>
	<ul> <li>Exploration and movement of and between diverse, integrated mix of passive and active spaces, uses, and social interactions.</li> </ul>
	<ul> <li>Integrating landscape design and service elements with the building design to create welcoming and interesting places.</li> </ul>
	<ul> <li>Achieving a purposeful composition of materials and elements including colours, textures, finishes, light, and detailing.</li> </ul>
Safety & comfort	<ul> <li>The northern recreational activity hub includes a mixture of active and passive experiences. The area is enclosed by a turfed embankment, also serving as an amphitheatre. The hub is semicircular to ensure containment and safety, solar access throughout the day, 180-degree outlooks to the north and a focal point to and from the rest of the facility.</li> </ul>
	<ul> <li>Separation of greenspace recreation zone from road noise and provides immersive experience adjacent to undeveloped bush-land.</li> </ul>
	<ul> <li>Buildings form a distinct edge between inside and outside of facility – increased security and surveillance – separation of carparking to enclosure</li> </ul>
	<ul> <li>Providing an appropriate range of climatic experiences – shelter, enclosure, openness, solar access, and shade</li> </ul>
	<ul> <li>Observation tower located on both main axes to ensure view of whole facility</li> </ul>
Constructability	Linear building form allows for potential expandability single roof structure following site topography to reduce civil works.
	<ul> <li>Built elements and surfaces that are resilient and durable while reflecting quality and permanence, ensuring visual and functional quality over time.</li> </ul>
ESD performance	Water sensitive urban design with raingardens integrated into carparks.
	<ul> <li>Provisions for solar-power on rooftops.</li> </ul>
	<ul> <li>Responding to local climate conditions, and using efficient, passive approaches and systems to provide shade and shelter. Buildings external face to the west and active interaction with the buildings to the east</li> </ul>
Staging & future proofing	<ul> <li>The layout provides for future facility expansion north and provides clear space for future developments including splash-pads, dry playgrounds, or pools.</li> </ul>
-	<ul> <li>The element functions are very specific except for the clubrooms, which offer a degree of flexibility.</li> </ul>
	The spectator mound can be upgraded to a grandstand in future.



Figure 2 Site Arrangement



Figure 3 Perspective from Northern Site Boundary



Figure 4 Perspective from the Kiosk, Viewing Green Space, Waterslide, Seating Area, and Shaded 50 m Pool



Figure 5 Perspective from the Southern End of the Site, Viewing the 50 m Pool, With Bulkhead Located at the Mid-Point, and Spectator Mound

#### 5. Cost Estimates

High level construction and lifecycle cost estimates have been prepared for Option 4 for the purposes of options comparisons. Summary costs are provided in Table 3 below. Detailed breakdowns are provided in Appendix B and Appendix C.

Table 3 Cost Estimates

Option	Construction Cost (2022)	Lifecycle Cost			
		Present Value	Future Value (2062)		
Option 4	\$21,084,000	\$70,818,088	\$109,737,947		

This cost estimate includes a line item reflecting escalation within the construction industry since estimates for previous options were prepared.

Whole of life costs include construction cost estimates and have been developed over a 40 year period with assumed contingencies, on-costs, and annual inflation detailed in the appendices.

The following items are excluded from the cost estimates:

- GST
- Consultant's fees and disbursements, land and legal costs, and Council's project costs
- Headworks charges and statutory fees and charges
- Major upgrades, alterations, or relocations of existing services
- Rent and lease costs
- Income
- Maintenance to external site infrastructure (e.g. Coronation Drive, sewerage)

#### 6. Site Infrastructure

The Site Infrastructure reviews described in the Concept Design Options Report remain valid.

Site infrastructure reference designs will be developed in the next phase of the project to suit the preferred concept design option, including preliminary sizing, alignments, and requirements.

#### 7. Approvals Review

The Approvals Review described in the Concept Design Options Report remains valid. The approvals matrix is provided in Appendix D.

### Appendices

### Appendix A

**Concept Design Option Drawings** 





GRC / BTARC

**SK11** 

OPTION 4 GENERAL ARRANGEMENT PLAN

scale 1 : 750 @A3 date

job no. 12537620











GRC/BTARC SK102



GRC/BTARC
SK103

3D View - Vehicular entry from Corronation Drive





3D View - Main entry from car parking area

scale @A3
date
rev
iob no. 12537620



GRC/BTARC
SK105



GRC/BTARC SK106

3D View - Entry to 50m pool and waterslide enclosure adjacent to kiosk



GRC/BTARC

3D View - 50m pool and waterslide and central shade structure from kiosk



GRC/BTARC
SK108

3D View - Central shade structure toward 50m pool, kiosk and entry

Level 3 GHD Tower, 24 Honeysuckle



GRC / BTARC

3D View - 50m pool and central shade structure toward 50m pool, kiosk, entry and changing rooms

Level 3 GHD Tower, 24 Honeysuckle Drive, Newcastle NSW 2300 Australia PO Box 5403 Hunter Rgn Mail Cent. NSW 2310 T 61 2 4979 9998 E



GRC/BTARC
SK110

3D View - 50m pool looking north toward waterslide and covered spectator area

Level 3 GHD Tower, 24 Honeysuckle Drive, Newcastle NSW 2300 Australia PO Box 5403 Hunter Rgn Mail Cent. NSW 2310 T 61 2 4979 9999 F 61 2 4979 999



GRC/BTARC

## Appendix B Capital Cost Estimate

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15<sup>th</sup> February 2022

GHD Pty Ltd Level 2, 100 Goondoon Street Gladstone QLD 4680

**Attention: Mr Andrew Chiknaikin** 

Dear Andrew,

Boyne Tannum Aquatic Centre High Level Cost Estimates – Options 4 & 4A

As requested, we have prepared High Level Cost Estimates for the above project Options 4 & 4A based on the information provided by yourselves.

We report our High Level Cost Estimates as follows:

Option 4 (50m pool) \$21,084,000 (excl GST)

Option 4A 25m pool \$14,487,000 (excl GST

We have attached a copy of our High Level Cost Estimate Summaries and a Detailed Break-ups for your information.

The following are specifically excluded from the above estimates:

- GST
- Economic and/or other impacts of Covid-19 virus
- Escalation from today's date
- Consultant's fees & disbursements
- · Land and legal costs



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DIRECTORS GLENN CORKE BILL DOUGLAS ALASDAIR MACMILLAN ADAM FRANCEY ADELAIDE BRISBANE CANBERRA DARWIN MELBOURNE PERTH SYDNEY TOWNSVILLE



- Client Costs
- Local Authority headworks charges
- Statutory fees and charges including Portable Long Service
- Major upgrades and/or alterations to existing services
- Relocation of major existing services
- · Any unidentified asbestos or other hazardous materials removal
- Piling to pools
- Wading pool
- Water park and splashpad
- Observation tower
- Viewing platform
- Announcer box
- Media box
- Officials box
- Heating to 25m pool (Option 4A)
- Pool blanket to 25m pool (Option 4A)
- Shade sails or other shading to 25m pool (Option 4A)
- Touch pads to 25m pool (Option 4A)
- Timing system to 25m pool (Option 4A)
- Club room (Option 4A)
- Heat pump plantroom (Option 4A)
- Waterslides (Option 4A)

We trust the foregoing is satisfactory. Please do not hesitate to contact us should you require any further assistance.

Yours faithfully

Donald Cant Watts Corke (Qld) Pty Ltd

Jim McKiddie

**Associate Director Queensland** 

Your Miller

Boyne Tannum Aquatic Centre High Level Cost Estimates Page 2 of 2

#### **Elemental Summary**



Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	OPTION 4				21,084,000		21,084,000
	EXCLUSIONS				0		0

GFA: 0.00 m2 21,084,000

DONALD CANT WATTS CORKE

Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	OPTION 4						
	OPTION 4						
	50m Pool (x 20m wide)						
	Pool						
	Excavate for pool	1	Item	200,610.00	200,610		200,610
	Pool shell including finishes	1	Item	1,412,640.0 0	1,412,640		1,412,640
	Pool piling	1	Item		Excl		0
	Pool plant	1	Item	1,379,780.0	1,379,780		1,379,780
	Pool heating	1	Item	250,000.00	250,000		250,000
	Filtered water	1	Item	75,000.00	75,000		75,000
	Balance tank	1	Item	201,960.00	201,960		201,960
	Backwash holding tank	1	Item	130,680.00	130,680		130,680
	Fill pool and chemicals	3,500,000	Lt	0.09	315,000		315,000
	Equipment						
	Lane rope anchor	16	No	205.00	3,280		3,280
	Lane ropes	7	No	1,600.00	11,200		11,200
	Lane line storage reel	2	No	2,020.00	4,040		4,040
	Back stroke marker and false flag socket	8	No	200.00	1,600		1,600
	Back stroke post	4	No	130.00	520		520
	False start post	4	No	200.00	800		800
	Starting blocks	16	No	2,850.00	45,600		45,600
	Touch pads	16	No	1,500.00	24,000		24,000
	Timing system	1	Item	175,000.00	175,000		175,000
	Starting block cover	16	No	200.00	3,200		3,200
	Pool cover						
	Pool blanket and roller	1	No	70,000.00	70,000		70,000
	Safety equipment						
	Rescue tubes	2	No	200.00	400		400
	Spinal board with straps	1	No	1,500.00	1,500		1,500
	Oxygen equipment and defibrillator	1	No	10,000.00	10,000		10,000
	50m Pool Shade Sails						
	Footings and structure	179	m2	350.00	62,650		62,650
	Shade sails	179	m2	400.00	71,600		71,600
	Waterslide						
	<u>Waterslide</u>						

DONALD CANT WATTS CORKE

Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	OPTION 4 (Continued)						
	Slide structure and tubes	1	No	1,300,000.0	1,300,000		1,300,000
	Pool to base of slides	1	No		Incl		0
	Plant and equipment	1	No		Incl		0
	Plant and Amenities Buildings						
	Plant buildings	460	m2	1,600.00	736,000		736,000
	Chemical store	77	m2	1,600.00	123,200		123,200
	Amenities buildings	171	m2	3,400.00	581,400		581,400
	Administration (staff, manager, reception, etc)	84	m2	3,000.00	252,000		252,000
	Commercial (kiosk)	51	m2	3,000.00	153,000		153,000
	Commercial (club room)	104	m2	3,000.00	312,000		312,000
	Stores	169	m2	1,850.00	312,650		312,650
	Unenclosed covered areas	643	m2	450.00	289,350		289,350
	High level roof over entry	94	m2	750.00	70,500		70,500
	Feature entry	1	Item	50,000.00	50,000		50,000
	Roof to Kiosk Seating Area						
	Roof to Kiosk Seating Area	407	m2	650.00	264,550		264,550
	Sundry Structures						
	Observation tower	1	No	20,000.00	Excl		0
	Viewing platform	1	No	15,000.00	Excl		0
	Shaded turf Seating Embankment						
	Block retaining wall - assumed 2m high	49	m	890.00	43,610		43,610
	Tanking to retaining wall andstore walls	92	m2	85.00	7,820		7,820
	Subsoil drainage	66	m	85.00	5,610		5,610
	Balustrade to top of retaining wall	49	m	950.00	46,550		46,550
	Fill to embankment - ave 800	319	m3	85.00	27,115		27,115
	Turf to embankment	438	m2	25.00	10,950		10,950
	Substructure and supports to roof	460	m2	400.00	184,000		184,000
	Roof - single cantilever	460	m2	500.00	230,000		230,000
	Electrics	460	m2	100.00	46,000		46,000
	Announcer box	1	No	2,500.00	Excl		0
	Media box	1	No	5,000.00	Excl		0
	Officials box	1	No	5,000.00	Excl		0
	Covered Seating Area						
	Turf - included in Landscaping below		Note				
	Footings and structure	179	m2	340.00	60,860		60,860

DONALD CANT WATTS CORKE

Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	OPTION 4 (Continued)						
	Shade sails	179	m2	310.00	55,490		55,490
	Paving						
	Concourse paving	3,034	m2	260.00	788,840		788,840
	Pathways	640	m2	120.00	76,800		76,800
	External Furniture						
	Bench seats (kiosk seating)	8	No	2,500.00	20,000		20,000
	Seats to covered seating area	1	Item	20,000.00	20,000		20,000
	Kiosk outdoor furniture	1	Item	20,000.00	20,000		20,000
	Site Preparation						
	Environmental controls	16,062	m2	5.00	80,310		80,310
	Tree removal	16,062	m2	10.00	160,620		160,620
	Site preparation	16,062	m2	7.50	120,465		120,465
	Bulk earthworks	16,062	m2	57.14	917,829		917,829
	Retaining walls	16,062	m2	27.14	435,969		435,969
	Site Services						
	<u>Hydraulic</u>						
	Site stormwater	2,784	m2	134.49	374,410		374,410
	Site sewer	2,784	m2	37.84	105,341		105,341
	Site water mains	2,784	m2	37.84	105,341		105,341
	<u>Electrics</u>						
	Switch boards	1	Item	250,000.00	250,000		250,000
	External lighting, mains, comms, security, PA	3,423	m2	426.47	1,459,809		1,459,809
	Carpark						
	Earthworks	3,776	m2	68.39	258,254		258,254
	Retaining walls	3,776	m2	27.14	102,491		102,491
	Carpark pavement	3,776	m2	87.31	329,676		329,676
	Chemical binding	1	Item	5,000.00	5,000		5,000
	Pathway	42	m2	120.00	5,040		5,040
	Steps between carpark levels	1	Item	10,000.00	10,000		10,000
	Kerbs	767	m	80.00	61,360		61,360
	Signage and linemarking	3,776	m2	5.77	21,789		21,789
	Stormwater	3,776	m2	16.49	62,273		62,273
	Electrics including lighting	3,776	m2	56.62	213,808		213,808
	Works to Coronation Drive				·		
	Demolish existing kerbs	82	m	30.00	2,460		2,460
	Crossover slab - new entry to carpark		m2	150.00	11,850		11,850
	<u> </u>				<u> </u>		

DONALD CANT WATTS CORKE

Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	OPTION 4 (Continued)						
	Pavement to bus set-down area	240	m2	120.00	28,800		28,800
	Kerbs	76	m	80.00	6,080		6,080
	Invert	60	m	80.00	4,800		4,800
	New concrete footpath	762	m2	120.00	91,440		91,440
	Raised pedestrian crossing over existing road	1	Item	10,000.00	10,000		10,000
	Bus stop shelter including finishes, structures and footings	2	No	15,000.00	30,000		30,000
	Street lights	10	No	7,500.00	75,000		75,000
	Electrical reticulation	1	Item	30,000.00	30,000		30,000
	Landscaping	635	m	35.00	22,225		22,225
	Fencing						
	1800 High screen fencing	394	m	200.00	78,800		78,800
	Pedestrian gates	2	No	1,200.00	2,400		2,400
	Emergency vehicle gates	1	No	3,000.00	3,000		3,000
	Turn-stiles to entry	1	Item	20,000.00	20,000		20,000
	Landscaping						
	Form mounded area	454	m2	180.00	81,720		81,720
	Turfed areas	3,863	m2	18.00	69,534		69,534
	Garden beds	430	m2	120.00	51,600		51,600
	Trees - large	66	No	450.00	29,700		29,700
	Trees - medium	30	No	350.00	10,500		10,500
	Irrigation to turfed areas	3,863	m2	12.00	46,356		46,356
	Irrigation to garden beds	430	m2	20.00	8,600		8,600
	On-Costs						
	Preliminaries	1	Item		1,306,720		1,306,720
	Builders Margin	1	Item		1,058,443		1,058,443
	Contingency	1	Item		1,869,917		1,869,917
	Escalation - June 21 to Feb 22	1	Item		514,227		514,227
	Rpinding	1	Item		688		688

21,084,000



Project: Q20165 Boyne Tannum Aquatic Centre Details: High Level Cost Estimate 15/02/22

Building: Option 4

Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
	EXCLUSIONS						
	EXCLUSIONS						
	This Estimate specifically excludes:						
	GST		Note				
	Economic and/or other impacts of Covid-19 virus		Note				
	Escalation from today's date		Note				
	Consultant's fees & disbursements		Note				
	Land and legal costs		Note				
	Client Costs		Note				
	Local Authority headworks charges		Note				
	Statutory fees and charges including Portable Long Service		Note				
	Major upgrades and/or alterations to existing services		Note				
	Relocation of major existing services		Note				
	Any unidentified asbestos or other hazardous materials removal		Note				
	Piling to pools		Note				
	Wading pool		Note				
	Water park and splashpad		Note				
	Observation tower		Note				
	Viewing platform		Note				
	Announcer box		Note				
	Media box		Note				
	Officials box		Note				

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## Appendix C

**Whole of Life Cost Estimate** 

Brisbane Level I I 360 Adelaide Street Brisbane QLD 4000

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E: dcwcqld@dcwc.com.au W: www.dcwc.com.au

REF: Q20165 Boyne Tannum Aquatic Centre Higl Level LCC 220215

SDATIE QLD 7000

Level I 33-35 Palmer Street South Townsville QLD 4180

T: +61 7 4724 1040 F: +61 7 3049 7070

**Townsville** 



15<sup>th</sup> February 2022

GHD Pty Ltd Level 2, 100 Goondoon Street Gladstone QLD 4680

**Attention: Mr Andrew Chiknaikin** 

Dear Andrew,

**Boyne Tannum Aquatic Centre Life Cycle Cost Reports** 

As requested, we have prepared and attached a copy of our Life Cycle Cost Reports for the above project Options 4 & 4A based on the information provided by yourselves.

The following are specifically excluded from the above estimate:

- GST
- Land and legal costs
- Rent and lease costs
- Income
- Economic and/or other impacts of Covid-19 virus
- Maintenance on Coronation Drive (by Council)



DONALD CANT WATTS CORKE (QLD) PTY LTD
ABN 12 091 531 823

DIRECTORS GLENN CORKE BILL DOUGLAS ALASDAIR MACMILLAN ADAM FRANCEY



We trust the foregoing is satisfactory. Please do not hesitate to contact us should you require any further assistance.

Yours faithfully

Donald Cant Watts Corke (Qld) Pty Ltd

Jim McKiddie

**Associate Director Queensland** 

Jam Mille

Boyne Tannum Aquatic Centre Life Cycle Cost Report Page 2 of 2

#### BOYNE TANNUM AQUATIC AND RECREATIONAL CENTRE

Enc dydic door noport option 4

 Job No: 020145
 PMASE Migh Level Cost Estimates
 CONTRIBENCES: 2.50%

 Date: 150022
 PERSON do Yusus
 ON COSTS: 28.47%

 house: 01
 BASE FERSON: 2022
 ARMILL RELIGIOUS

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NRKF.	

Issue: 01		BASE YEAR:	2022		ANNUA	AL INFLATION: 2.6	.60%	0 1	2	3	4	5	6	7 8	9	9 10	- 11	12	13	14	15	16	17	18	19 20	21	22	23	24 25	26	27	28	29 30	31	32	33	34	35	36	37	38	39	40	
tem Element Stage	Ty Year Se	pical rvice Recommended works / Comments	Estimated Cost Re as per High Exist	emoval of ting & Prep	oportion of on	Total Costs M	Maintenance/R epair cost	2022 2023	2024	2025 2	026 2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039 204	0 20	1 2042	2043	2044 204	5 204	6 2047	2048	2049 2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062 TO	OTAL
1 CAPITAL COSTS		ife	Level Cost Plan	Work	costs		epair tost	10,542,000 10,542,000																																				
Capital Costs								10,542,000 10,542,000													4	1,917,438 Stage 4																					2	6,001,438
50m Pool (x 20m wide) 50m Pool - Pool																																												
Pool shell including finishes and tanks	2023	5 Minor refurbishment including pool tiling repairs, etc.	502,125	0	142,754	644,879	32,244					38,	553				43,832					49,834				56,659				0				73,239					83,268					345,385
Pool shell including finishes and tanks		25 Major refurbishment including replacement of pool tiling	602,125	0	171,184	773,309	773,309																							1,544,928														1,544,928
Pool shell including finishes and tanks		50 Replacement of existing pool including structure	1,745,280	174,528	545,801	2,465,609	2,465,609																																					0
Pool plant Elitored water	2023 2023	15 Replacement of plant equipment 15 Replacement of filter equipment	1,379,780 75.000	68,989 3.750	205,943 22.389	1,654,712 101.139	1,158,298 70.797															1,790,202 109,420												2,630,949 160,808										4,421,150 270,229
Pool plant Filtered water 50m Pool - Equipment 50m pool - Equipment 6pulpment including pool cover and safety equipment Touch pads & Timing system Touch pads & Timing system																																												
safety equipment Touch pads & Timing system		8 Maintenance and replacement 15 Maintenance and replacement	152,140 199,000	7,607 9,950	45,416 59,404	205,163 268,354	205,163 268,354								264,941	1						414,753	525,555						399,491					609,537		490,553								1,480,318 1,024,290
50m Pool - Shade structure over pool																																												
Repaint structure Footings and structure Shade sails	2023 2023 2023	5 Repainting columns 50 Maintenance and replacement	2.145 62,650 71.600	107 3,133 3,580	640 18,702 21 374	2.892 84,485 96.554	2.892 84,485					3,4	158				3,932					4,470				5,082				5,778				6,569					7,469					36,759 0 368,541
	2023	15 Replacement of shade sail	71.600	3.580	21.374	96.554	96.554															149,229												219,312										368,541
Waterslide Waterslide - Waterslide Slide structure and tubes, pool, plant																																												
		5 Minor refurbishment including pool tiling repairs, etc.	18,525	926	5,530	24,981	1,249					1,4	193				1,698					1,930				2,195				0				2,837					3,226					13,379
Slide structure and tubes, pool, plant and equipment Slide structure and tubes, pool, plant		25 Major refurbishment including replacement of pool tiling	38,525	1,926	11,500	51,951	51,951																							103,789														103,789
Slide structure and tubes, pool, plant and equipment Pool plant		20 Replacement 20 Replacement	900,000 400.000	45,000 20.000	268,664 119.406	1,213,664 539.406	728,198 323,644																			1,279,582 568,703																		1,279,582 568,703
	2023	AN INCOMENTATION	400.000	20,000		53/J.4Ub	323.644																																					
Plant Buildings Plant buildings - Stage 1	2023	1 General onzoing repairs and maintenance	736.000	36.800	219.707	992.507	14.888		16,064	16,481	16,910 17,3	49 17,	801 18,2	163 18,738	19,225	5 19,725	20,238	20,764	21,304	21,858	22,426	23,009	23,608 2	4,222	4,851 25,497	26,160	26,841 2	7,538 2	8,254 28,989	29,743	30,516 31,	309 32,	23 32,959	33,816	34,695	35,597	36,522	37,472	38,446	39,446	40,471	41,524	42,603	1,063,360
Plant and Amenities Buildings Chamical store Amenities buildings Administration (staff, manager, recostion, etcl Commercial (slook) Commercial (slook)	2023	1 General oneping repairs and maintenance	123.200	6.160	36.777	166.137	2.492		2,689 16,919	2,759	2,831 2,9 17,810 18,2	04 2,1 73 18,	380 3,0 749 19,2	157 3,137 136 19,736	3,218 20,249	8 3,302 9 20,776	3,388 21,316	3,476 21,870	3,566 22,439	3,659 23,022	3,754 23,621	3,852 24,235	3,952	4,054 5,512	4,160 4,268 16,175 26,855	4,379 27,554	4,493 4 28,270 2	4,610 9,005 2	4,730 4,852 9,759 30,533	4,979 31,327	5,108 5, 32,141 32;	241 5,3	77 5,517	5,660 35,617	5,808 36,543	5,959 37,493	6,114 38,468	6,272 39,468	6,436 40,494	6,603 41,547	6,775 42,627	6,951 43,735	7,131 44,872	177,997
Amenities buildings Administration (staff, manager,	2023 2023 2023	General ongoing repairs and maintenance     General ongoing repairs and maintenance	123.200 581,400 252,000	6.160 29,070 12,600	36.777 173,557 75.226	166.137 784,027 339.826	2.492 15,681 6,797		16,919 7.333	2,759 17,359 7,524	2,831 2,9 17,810 18,2 7,720 7,9		749 19,3 126 8.3							23,022 9,979	23,621 10.238				4,160 4,268 6,175 26,855 13.45 11.640				9,759 30,533 2,899 13,234	31,327 13.578		977 33,1 293 14.6		35,617 15,438	36,543 15.839		38,468 16.673	39,468	40,494 17,552	41,547 18.008				177,997 1,119,996 485,447
reception. etc) Commercial (kiosk)	2023	1 General onening renairs and maintenance	153,000		45,673	206.323			4,452											6.058	6.216												04 9.135	9,373	9,617			10.386	10,656					294,736
Commercial (club room) Stores Feature entry and covered area	2023 2023 2023	General ongoing repairs and maintenance     General ongoing repairs and maintenance	312,000 312.650	7,650 15,600 15,633 20,493	93,137 93.331	420,737 421.614 552,689	4,126 21,037 6.324 11,054		22,699 6,824 11,927	23,289 7,001 12,237	4,687 4,8 23,894 24,5 7,183 7,3 12,555 12,8	16 25,: 70 7,:	934 5,0 153 25,8 562 7,7 217 13,5	062 5,194 807 26,478 758 7,960 660 13,913	5,329 27,166 8,167 14,274	9 5,467 6 27,873 7 8,379 4 14,646	5,609 28,597 8,597 15,026	29,341 8,821 15,417	5,905 30,104 9,050 15,818	30,886 9,285 16,229	31,689 9,527 16,651	32,513 9,774 17,084	6,543 33,359 3 10,028 1 17,528 1	6,714 4,226 0,289 7,984	6,888 7,067 15,116 36,029 10,557 10,831 18,452 18,931	7,251 36,966 11,113 19,424	7,439 37,927 3 11,402 1: 19,929 2:	7,633 8,913 3 1,698 1 0,447 2	7,831 8,035 9,925 40,963 2,002 12,314 0,978 21,524	8,244 42,028 12,635 22,083	43,120 44, 12,963 13, 22,658 23,	678 8,9 242 45,3 300 13,6 247 23,1	92 46,572 46 14,001 51 24,471	47,783 14,365 25,107	49,025 14,738 25,760	9,867 50,300 15,121 26,430	51,608 15,515 27,117	52,950 15,918 27,822	54,326 16,332 28,546	10,933 55,739 16,756 29,288	11,218 57,188 17,192 30,049	11,509 58,675 17,639 30,831	11,809 60,200 18,098 31,632	294,736 1,502,575 451,712 789,525
	2023	1 General ongoing repairs and maintenance	409,850	20,493	122,346	552,689	11,054		11,927	12,237	12,555 12,8	82 13,3	ra/ 13,5	ьи 13,913	14,274	4 14,646	15,026	15,417	15,818	16,229	16,651	17,084	1/,528 1	7,984	8,452 18,931	19,424	19,929 2	u,447 2	u,ans 21,524	22,083	z2,658 23,	24/ 23,1	51 24,471	25,107	25,760	26,430	27,117	27,822	28,546	29,288	30,049	30,831	31,632	789,525
Seating Areas Roof to kiosk seating area	2023	1 General ongoing repairs and maintenance	264,550	13,228	78,972	356,750	7,135		7,699		8,104 8,3		531 8,7	753 8,980	9,214	4 9,453	9,699	9,951	10,210	10,476	10,748				1,910 12,220				3,541 13,893	14,254	14,625 15,	005 15,3	95 15,796	16,206	16,628	17,060	17,504	17,959	18,426	18,905	19,396	19,901	20,418	509,623
Shaded turf seating embankment	2023	1 General ongoing repairs and maintenance	601,655	30,083 5.818	179,603 34,732	811,341 156.900	16,227 3.138		17,509 3.386	17,964 3.474	18,431 18,9	10 19,4	402 19,5 752 3,8			5 21,500 2 4.158				23,824 4.607	24,444 4.727	25,079 4,850			7,087 27,791 5,238 5,374		29,255 3 5,657		0,796 31,597 5,955 6,110	32,418 6,269	33,261 34, 6,432 6,	126 35,0 599 6,3		36,857 7,128	37,816 7.313	38,799 7,503		40,843 7,898	41,905 8.104	42,994 8,314		45,259 8.752		1,159,014 224.134
Covered seating area	2023	1 General ongoing repairs and maintenance	116,350	5,818	34,732	156,900	3,138		3,386	3,474	3,564 3,6	67 3,	752 3,8	150 3,950	4,052	2 4,158	4,266	4,377	4,490	4,607	4,727	4,850	4,976	5,105	5,238 5,374	5,514	5,657	5,804	5,955 6,110	6,269	6,432 6,	599 6,7	71 6,947	7,128	7,313	7,503	7,698	7,898	8,104	8,314	8,531	8,752	8,980	224,134
Paving Paving Paving	2023 2023	5 Maintenance 25 Renlacement	865,640 865,640	43,282 43,282	258,407 258.407	1,167,329 1.167,329	11,673 116,733					13,5	957				15,869					18,042				20,512				0 233.211				26,515					30,145					125,040 233,211
	2025	25 PAROLECHTRISE	865.040	43.282	258.407	1.107.329	110.733																							233,211														133,111
External Furniture External furniture	2023	5 General oneoine repairs and maintenance	60.000	3.000	17.911	80.911	16.182					19,	348				21,998					25,010				28,435				32,329				36,756					41,789					205,666
Site Services Switch boards External lighting, mains, comms, security, PA	2023	20 Replacement	250.000	12.500	74.629	337.129	168.565																			296,200																		296,200
External lighting, mains, comms, security, PA	2023	10 Replacement	1,459,809	72,990	435,775	1,968,574	393,715										535,213									691,831								894,281										2,121,325
		5 Maintenance										2.4	nor.				2.769					3.148								4.069				4.626					5.260					22.200
Carpark Carpark covernent Carpark povernent Electrics including lighting	2023 2023 2023	20 Replacement 10 Replacement	151.040 151,040 213,808	7.552 7,552 10,690	45,088 45,088 63,825	203,680 203,680 288,323	2.037 20,368 57,665						433				79 200					3,146				35,790				4,009				120.020					5,200					22,308 35,790 310,696
	2023	10 napiacement	213,606	10,090	03,823	200,323											74,343									202,320								130,073										
Fencing 1800 High screen fencing Pedestrian gates Emergency vehicle gates Turn-stiles to entry	2023 2023	22 Replacement 22 Replacement	78.800 2,400	3.940 120	23.523 716	106.263 3,236 4,046	106.263 3,236 4,046																				19	6,560 5,986																196,560 5,986 7,484 49,888
Emergency vehicle gates Turn-stiles to entry	2023 2023 2023 2023	22 Replacement 22 Replacement	3,000 20.000	150 1.000	896 5.970	4,046 26.970	4,046 26.970																				4	6,560 5,986 7,484 9,888																7,484 49,888
Landscaping Landscaping																																												
Landscaping	2023	10 Replacement	296,010	14,801	88,363	399,174	39,917										54,263									70,142								90,668										215,074
Rent/Lease Costs Rent/Lease Costs																																												
			Excl																																									
Landscaping Landscaping	2023	1 On-going operational costs	298,010	14,901	88,960	401,871	20,094		21,681	22,244	22,823 23,4	16 24,0	25 24,6	50 25,291	25,948	8 26,623	27,315	28,025	28,754	29,501	30,268	31,055	31,863 3	2,691	13,541 34,413	35,308	36,226 3	7,168 3	8,134 39,126	40,143	41,187 42,	258 43,3	56 44,484	45,640	46,827	48,044	49,294	50,575	51,890	53,239	54,624	56,044	57,501	1,435,197
Rates & charges Rates & charges																																												
	2023	1 On-going operational costs	52,710.00				52,710		56,874	58,352	59,870 61,4	26 63,0	123 64,6	66,343	68,068	8 69,838	71,654	73,517	75,428	77,389	79,401	81,466	83,584 8	5,757	17,987 90,274	92,621	95,030 9	7,500 10	0,035 102,636	105,305	108,043 110,	852 113,7	34 116,691	119,725	122,838	126,032	129,309	132,671	136,120	139,659	143,290	147,016	150,838	3,764,856
Insurance costs Insurance costs	2023	1 On-going operational costs	21.084.00				21.084		22,749	23,341	23,948 24,5	70 25,	209 25,8	165 26,537	27,227	7 27,935	28,661	29,407	30,171	30,956	31,760	32,586	33,434 3	4,303	15,195 36,110	37,049	38,012 3	9,000 4	0,014 41,055	42,122	43,217 44,	341 45,4	94 46,676	47,890	49,135	50,413	51,723	53,068	54,448	55,864	57,316	58,806	60,335	1,505,943
Site Services External lighting, mains, comms, security, PA																																												
external ighting, mains, comms, security, PA	2023	1 General ongoing servicing and maintenance	1,459,809	72,990	435,775	1,968,574	9,843		10,620	10,897	11,180 11,4	71 11,	769 12,0	175 12,389	12,711	1 13,041	13,380	13,728	14,085	14,451	14,827	15,213	15,608 1	6,014	6,430 16,857	17,296	17,745 1	8,207 1	8,680 19,166	19,664	20,176 20,	700 21,	38 21,790	22,357	22,938	23,535	24,147	24,774	25,419	26,079	26,757	27,453	28,167	703,035
Careark Electrics including lighting	2023	1 General ongoing servicing and maintenance	213.808	10 690	63.825	288 323	1 447		1.555	1.596	1.637 1.6	80 1.	724 1.7	169 1.814	1.862	2 1.910	1.960	2.011	2.063	2.117	2.172	2.228	2.286	2.345	2.406 2.469	2.533	2.599	2.667	2.736 2.807	2.880	2.955 3.	032 3.:	11 3.191	3.274	3.360	3,447	3.537	3.629	3.723	3.820	3.919	4.021	4.125	102.969
Power consumption (Utilities) Power consumption (Utilities)												-	-		,					-	-															-								
	2023	1 On-going operational costs	40,000.00				40,000		43,160	44,282	45,433 46,6	14 47,1	826 49,0	170 50,346	51,655	5 52,998	54,376	55,789	57,240	58,728	60,255	61,822	63,429 6	5,078 6	6,770 68,506	70,288	72,115 7	3,990 7	5,914 77,888	79,913	81,990 84,	122 86,3	09 88,553	90,856	93,218	95,642	98,128	100,680	103,297	105,983	108,739	111,566	114,466	2,857,034
Water consumption (Utilities) Water consumption (Utilities)	2023	1 On-going operational costs	20,000.00				20,000		21,580	22,141	22,717 23,3	07 23,5	913 24,5	35 25,173	25,827	7 26,499	27,188	27,895	28,620	29,364	30,128	30,911	31,715 3	2,539	13,385 34,253	35,144	36,058 3	6,995 3	7,957 38,944	39,956	40,995 42,	061 43,	55 44,277	45,428	46,609	47,821	49,064	50,340	51,649	52,991	54,369	55,783	57,233	1,428,517
Chemicals & pool consumables									F2 20V		55,141 56,5	74 58,0	145 59,5	i54 61,103	62,692	2 64,322	65,994	67,710	69,470	24.22	73,130	27.004	2000	0.003	11,037 83,144	07.30	87,523 8	9,799 9	2,134 94,529	96,987	99,509 102,	196 104,7	51 107,474	440.357	113,135	116,077	119,095	422.45	125,368	128,628	131,972	435 403	430.034	0
50m Pool - chemicals Waterslide - chemicals	2023 2023	1 Yearly consumption of chemicals 1 Yearly consumption of chemicals	252,000 30.000	0	71,644 8.529	323,644 38.529	48,547 5.779		6,236	53,743 6,398	55,141 56,5 6,564 6,7	74 58,0 35 6,1	345 59,5 310 7,0	54 61,103 190 7,274	62,692 7,463	2 64,322 3 7,657	65,994 7,856	67,710 8,061	69,470 8,270	71,276 8,485	73,130 8,706	75,031 8,932	76,982 7 9,164	8,983 1 9,403	11,037 83,144 9,647 9,898	85,306 10,155	87,523 8 10,419 1	9,799 9 0,690 1	2,134 94,529 0,968 11,253	96,987 11,546	99,509 102, 11,846 12,	196 104,7 154 12,4	51 107,474 70 12,795	110,268 13,127	113,135 13,468	116,077 13,819	119,095 14,178	122,191 14,547	125,368 14,925	128,628 15,313	131,972 15,711	16,119	138,924 16,539	3,467,482 412,795
Sundries Sundries	2023	1 On-going operational costs	30.000.00				30.000		32.370	33,211	34,075 34 9	61 351	370 369	802 37.75a	38.741	1 39.748	40.787	41.847	42.930	44.046	45,191	46,366	47,572 4	8,809	0,078 51.3Rn	52.716	54,086 5	5,493 5	6,935 58.416	59.934	61,493 63;	092 64	32 66.415	68.142	69.913	71.731	73.596	75.510	77.473	79.487	81.554	83,674	85,850	2,142,775
	102.3	E VANTE VANTE VANTE	20.000.00				January .		,3							,140						,				,				,					,3	,	,,	,-10	,	,'		,		
PERSONNEL COSTS Staff costs Staff costs	2023	1 On-going personnel operational costs	600,000.00				600,000		647,396	664,228 6	81,498 699,2	17 717,	997 736,0	149 755,186	774,821	1 794,966	815,635	836,842	858,600	880,923	903,827	927,327	951,437 97	6,175 1,00	1,555 1,027,596	1,054,313	1,081,725 1,10	9,850 1,13	8,706 1,168,313	1,198,689	1,229,855 1,261,	831 1,294,6	39 1,328,299	1,362,835	1,398,269	1,434,624	1,471,924	1,510,194	1,549,459	1,589,745	1,631,078	1,673,486 1	,716,997 4	42,855,509
TOTAL			17,446,158	852,070	4,779,099	22,313,532	8,188,513	10,542,000 10,542,000	1,034,102	1,060,989 1,0	88,575 1,116,8	78 1,225,	162 1,175,7	1,206,279	1,502,583	3 1,269,821	2,060,798	1,336,710	1,371,464	1,407,122	1,443,707	8,964,720 1	1,845,089 1,55	9,270 1,5	9,811 1,641,406	4,840,542	1,727,868 2,03	2,711 1,81	8,886 2,265,668	3,838,802	1,964,479 2,015,	556 2,067,5	60 2,121,727	7,063,968	2,233,491	2,782,115	2,351,143	2,412,273	2,646,149	2,539,341	2,605,364	2,673,104 2	,742,604 10	29,737,947
PRESENT VALUE (DISCOUNTED TOTAL)			17.446.158	852.070	4,779,099	22.313.532	8.188.513	10,542,000 10,274,854	982,356	982,356 9	82,356 982,3	56 1,050,2	90 982,3	56 982,356	1,192,648	8 982,356	1,553,869	982,356	982,356	982,356	982,356	5,945,371 1	.192,648 98.	2,356 98	2,356 982,356	2,823,576	982,356 1,126	5,384 98.	2,356 1,192,648	1,969,538	982,356 982,	156 982,3	56 982,356	3,187,723	982,356	1,192,648	982,356	982,356	1,050,290	982,356	982,356	982,356	982,356 7	0,818,088
Productions																																												

Exclusions GST

> Land Legal Cost Rent / Lease cost Income

come
spect of COVID-19
Setton race on Compation Drive (By Council)

QD5165 Boyne Tamoun Aquatic and Recreation Cantra LCZ 19524

## Appendix D

**Approvals Register** 

Legislation	Agency	Activity Trigger	Applicability	Applicability Description	Licence/Permit/ Approval Required	Pre-lodgement Advice	Process and Supporting Information	Timeline	Fees	Being Managed By	Lodgement Date	Additional Notes for Consideration	Complete
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Department of Environment and Energy	Actions that have or are likely to have a significant impact on a matter of national environmental significance (MNES) require approval from DoE. MNES includes listed threatened species and ecological communities.	Not Applicable	Due to the relatively small project site and no relevant essential habitat mapping, this is deemed not required. The proposed works are not expected to have a significant impact on a MNES.		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Planning Act Approvals													
		Operational works	To Be Confirmed	Operational works are triggered for works that are not accepted developed as defined in Schedule 10 of the Planning Regulation.	ТВА	Confirmation from SARA to be obtained during prelodgement discussions.		3-5 months	TBA				
		Operational works - infrastructure related referrals	To Be Confirmed	The project site is situated adjacent to a road that intersects with a State-controlled road. Mapping in inconclusive to determine if the site is within 100m of the intersection.	ТВА	Confirmation from SARA to be obtained during prelodgement discussions.		3-5 months	TBA				
Planning Act 2016 Planning Regulation 2017	DSDIGP	Operational works - infrastructure related referrals	To Be Confirmed	Major sport or recreational facility equal to or greater than 5,000m2 total site area.	ТВА	Confirmation from SARA to be obtained during prelodgement discussions.		3-5 months	TBA				
		Operational works (Planning Scheme)	Not Applicable	The Planning Regulation 2017 identifies that operational work by or for a public sector entity is development that the "loca categorising is prohibited from stating is assessable development".	ТВА	Confirmation from GRC to be obtained							
		Material change of use	Applicable	Defined as outdoor sport and recreation and requires code assessment. GRC will be the assessment manager and SARA will be referral agency.	Permit required	Prelodgement with GRC to be undertaken to confirm application requirements.	Planning report, DA Form, Final design drawings	3-5 months	TBA				
		Development on land under tidal water (below MHWS / HWM).	Not Applicable	Tidal works confirmed as not required. Not required as land affected is not tidal.	None	n/a	n/a	n/a	n/a	n/a			
Coastal Protection and Management Act 1995	DES	If within a CMD: i. interfering with quarry material on State Land above HWM ii. Disposing of dredge spoil or other solid waste in tidal water iii. removing or interfering with coastal dunes in an erosion prone area	Not Applicable	Not required as not mapped within CMD.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fisheries Act 1994	DAF	Permanent works within waterways are the construction or raising of a waterway barrier.		No works within a waterway. Amber waterway is located on the land parcel however will not be impacted.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		Works that involve damage or disturbance to marine plants	Not Applicable	No marine plant disturbance.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vegetation Management Act 1999 (VM Act)	DNRME	Clearing of native vegetation assessable under the VM Act.	To Be Confirmed	Exemption applies if a lot to which the application relates is less than 5ha, for which a local government is the assessment manager.	ТВА	Confirmation from SARA to be obtained during prelodgement discussions.		3-5 months	ТВА				

_egislation	Agency	Activity Trigger	Applicability	Applicability Description	Licence/Permit/ Approval Required	Pre-lodgement Advice	Process and Supporting Information	Timeline	Fees	Being Managed By	Lodgement Date	Additional Notes for Consideration	Complete
Non-Planning Act Approvals				<u>'</u>									
Aboriginal Cultural Heritage Act 1994	DR DATSIP	Require those conducting activities in areas of significance to take all reasonable and practical measures to avoid harming cultural heritage.	Applicable	The Local Government ILUA identifies that works in a defined area (i.e. this project) is likely high risk works and require further actions.	Refer to ILUA					GRC			
invironmental Protection Act	DES	Disposal of contaminated material.	To Be Confirmed	Search of the property is required to confirm if it is listed on the EMR or CLR.						n/a			
999		Environmentally Relevant Activity	Not Applicable	Volume of chemicals on site is unlikely to trigger an ERA.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
invironmental Offsets Act 2014	DES	Requirements for offsets for Prescribed Environmental Matters – matters of State environmental significance.	To Be Confirmed	To be considered as part of material change of use application.	ТВА	Confirmation from SARA to be obtained during prelodgement discussions.		3-5 months					
Fisheries Act 1994	DAF	Temporary works within waterways that form waterway barriers.	Not Applicable	Should any temporary works be required within the waterway.	None	n/a	n/a	n/a	n/a	n/a	n/a		
lative Title Act 1993	DATSIP	Suppression of Native Title Rights and Interests that is inconsistent with the construction of pipeline.	Applicable	The Local Government ILUA identifies that works in a defined area (i.e. this project) can occur as low risk as the property is Freehold land and Native Title is extinguished.	Refer to ILUA					GRC			
lature Conservation Act 1992 NC Act)		Clearing of protected plants for construction of the proposed works.	Not Applicable	The site is not in a high risk area and protected plants are highly unlikely.	None	n/a	n/a	n/a	n/a	n/a	n/a	Note: if protected plants are identified during works, permit requirements will need to be met by Contractor.	n/a
No Act) lature Conservation (Wildlife) legulation 2006	DES	Tampering with animal breeding place of a protected animal.	To Be Confirmed	It is considered unlikely that animal breeding places will be disturbed. The site survey will confirm this.	Species Management Program Damage Mitigation Permit (or other if not held by Fauna Spotter Catcher)	t							
Queensland Heritage Act 1992		Works associated with places registered under the Act.	Not Applicable	There are no heritage places in proximity to the works.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
tate Development and Public /orks Act 1971	Office of Coordinator General DSDIGP	Works within a State Development Area (SDA).	Not Applicable	Project is not within the Gladstone SDA.	None	n/a							
Vater Act 2000		Destroy vegetation, excavate or place fill in a watercourse.	Not Applicable	Waterway situated in the north of the property boundary will not be impacted by works.	None	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a



→ The Power of Commitment