



SUPPORTING INFORMATION

for respective items considered at

General Meeting

12 December 2019

SUPPORTING INFORMATION

Ref: [A19422838](#) & [fA838473](#) (provided separately)

The following list of supporting information is provided for:

ITEM 2.2

MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL

#a Minister's Approval to Adopt

#b Amendment Instrument - Tailored Amendment No. 1

- ***#appendix a (Amendment Document)***
- ***#appendix b (Amendment Maps)***

(Due to size constraints, supporting information provided separately)

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 3
Supporting Information

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

#a Minister's Approval to Adopt



The Hon. Cameron Dick MP
Minister for State Development, Manufacturing,
Infrastructure and Planning

Our ref: MC19/5704/TP-00121

Your ref: A19206174/A19283495

1 William Street
Brisbane QLD 4000
PO Box 15009 City East
Queensland 4002 Australia
Telephone +61 7 3719 7200
Email statedevelopment@ministerial.qld.gov.au
www.dsdmip.qld.gov.au

28 NOV 2019

Councillor Allan Sutherland
Mayor
Moreton Bay Regional Council
PO Box 159
CABOOLTURE QLD 4510

Email: mayor@moretonbay.qld.gov.au

Dear Councillor ~~Sutherland~~ *Allan,*

I refer to the letter of 31 October 2019 from the Moreton Bay Regional Council (the council) requesting approval to adopt the proposed Tailored Amendment 1 (the proposed amendment) to the Moreton Bay Regional Council Planning Scheme (the planning scheme).

The proposed amendment has been assessed in accordance with step 11 of the Chief Executive Notice given under section 18(3) of the *Planning Act 2016*.

I am please to advise that, in accordance with the Chief Executive Notice, I am satisfied that the proposed amendment appropriately integrates the relevant state interests and the council may now proceed to adopt the proposed amendment.

If you have any questions about my advice to you, please contact my office on (07) 3719 7200 or email statedevelopment@ministerial.qld.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Cameron Dick".

CAMERON DICK MP
Minister for State Development, Manufacturing,
Infrastructure and Planning

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

#b Amendment Instrument - Tailored Amendment No. 1

MBRC Planning Scheme
it's our place



Amendment Instrument

Moreton Bay Regional Council Planning Scheme

Tailored Amendment No. 1

Made under the Planning Act 2016, Section 18
(making or amending planning schemes)



This amendment has effect on and from [insert date here]

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

1. Short title

This amendment instrument may be cited as *The Moreton Bay Regional Council Planning Scheme Tailored Amendment No. 1.*

2. Commencement

This amendment instrument has effect on and from XX XXXXX XXXX.

3. Purpose

The overall purpose and general effect of the adopted amendments to the planning scheme are to:

- reflect Council’s commitment to maintain the planning scheme as a “living document” for its 10-year projected life;
- respond to implementation issues identified since the MBRC planning scheme came into effect on 1 February 2016;
- support the operational efficiency of the planning scheme and reduce the number of applications presently being triggered; and
- give effect to measures that address these commitments and implementation issues.

4. Amendment Table

This amendment instrument amends the Moreton Bay Regional Council Planning Scheme and associated mapping. The concurrent, but separate, Planning Scheme Policy Major Amendment No. 1 amends 14 Planning Scheme Policies and introduces a new Planning Scheme Policy.

The table below outlines the components of the planning scheme being amended and identifies the location of further details regarding the amendments.

Table 1

Planning Scheme Component	Amendment Detail
Part 1 About the planning scheme	Refer to Appendix A
Part 3 Strategic framework	Refer to Appendix A
Part 5 Table of assessment	Refer to Appendix A
Part 6 Zone	Refer to Appendix A
Part 7 Local plans	Refer to Appendix A
Part 8 Overlays	Refer to Appendix A
Part 9 Development codes	Refer to Appendix A
Part 10 Other plans	Refer to Appendix A
Schedule 1 Definitions	Refer to Appendix A
Schedule 2 Mapping	Refer to Appendix B
Schedule 6 Planning scheme policies	Refer to separate Planning Scheme Policy Major Amendment No.1
Schedule 7 Car parking	Refer to Appendix A
Schedule 10 Stormwater management design objectives	Refer to Appendix A
Appendix 2 Table of amendments	Refer to Appendix A

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

Consequential Amendments

As a consequence of the amendments in Table 1, this amendment instrument also makes consequential amendments to the components of the Moreton Bay Regional Council Planning Scheme as outlined in Table 2.

Table 2

Planning Scheme Component	Consequential Amendments
Citation and Commencement	Amend to read 'Moreton Bay Regional Council Planning Scheme V4'.
Part 1 About the planning scheme	Amend numbering of provisions in response to amendment.
Part 3 Strategic framework	Amend punctuation and numbering of provisions in response to amendment.
Part 5 Table of assessment	Amend formatting and numbering of provisions in response to amendment.
Part 6 Zone	Amend formatting, capitalisation, punctuation, grammar, spelling, numbering and cross-referencing, hyperlinks to definitions and RAD/PO conversion tables in response to amendment.
Part 7 Local plans	Amend capitalisation, punctuation, grammar, spelling, formatting, numbering and cross-referencing, RAD/PO conversion tables in response to amendment.
Part 8 Overlays	Amend formatting, capitalisation, punctuation, numbering and RAD/PO conversion table in response to amendment.
Part 9 Development codes	Amend formatting, punctuation, spelling, grammar, numbering and RAD/PO conversion table in response to amendment.
Part 10 Other plans	Amend numbering in response to amendment.
Schedule 1 Definitions	Amend hyperlinks to other sections of the scheme and numbering of provisions in response to amendment.
Schedule 2 Mapping	Amend Schedule 2.1 Map index to include and reflect gazettal date of all maps being amended. Amend each map to be amended to list the effective on and from date.
Schedule 6 Planning scheme policies	Refer to separate Planning Scheme Policy Major Amendment No.1
Appendix 2 Table of amendment	Amend Table AP2.1 to include new row with the following information: <ul style="list-style-type: none"> • Date of adoption and effective date • Planning scheme version number • Amendment type • Summary of amendments

5. Amendment

Planning Scheme Document

As the proposed changes are not isolated to a specific area of the planning scheme the amendment is documented in the format of a marked-up version of the full planning scheme. The marking-up of changes occurred at 2 phases of the process and are shown as follows:

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

Changes shown for public consultation and state interest review

The proposed amendment changes as advertised during the public consultation period and considered in the state interest review appear as follows:

- **black text with yellow highlight** for new text as shown during consultation and state interest review; and
- ~~red text with strike through~~ for deleted text as shown during consultation and state interest review.

Changes made after public consultation and state interest review

Following consultation and state interest review further changes were made to the amendment in response to matters raised. The changes made after the public consultation period and state interest review appear as follows:

- **black text with green highlight** for new text after consultation and state interest review;
- **red text with green highlight** for text that was marked for deletion during consultation that has been reinstated after consultation and state interest review;
- ~~green text with strike out~~ for text that has been deleted after consultation and state interest review; and
- **green text with strikeout and yellow highlight** for new text proposed during consultation that has been deleted after consultation and state interest review.

Planning Scheme Maps

The changes to the maps are listed in a summary document, referred to as 'Map Changes Summary'. Each change is reflected in the map.

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

Appendix A

Moreton Bay Regional Council Planning Scheme - Amendment Document

ITEM 2.2 MBRC PLANNING SCHEME - PROPOSED TAILORED AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19297787 (Cont.)

Appendix B

Moreton Bay Regional Council Planning Scheme - Amendment Maps

- Map Changes Summary Document
- OM_ Acid Sulfate Soils
- OM_ Active Transport
- OM_ Building Heights
- OM_ Bushfire Hazard
- OM_ Coastal Hazard (Erosion Prone)
- OM_ Coastal Hazard (Storm Tide)
- OM_ Community Activities Neighbourhood Hubs
- OM_ Environmental Areas
- OM_ Environmental Offset Receiving Areas
- OM_ Extractive Resources
- OM_ Flood Hazard
- OM_ Heritage Landscape Character
- OM_ Infrastructure Buffers
- OM_ Landslide Hazard
- OM_ Overland Flow Path
- OM_ Riparian and Wetland setbacks
- OM_ Road Hierarchy
- OM_ Rural Res Lot Size
- OM_ Scenic Amenity
- OM_ Stormwater Catchments
- OM_ Transport Noise corridor
- OM_ Walking Distance Centre
- OM_ Walking Distance Train Station
- SF_ Allocation of Place Types
- SF_ Place Types NLR
- SF_ Place Strathpine
- SF_ Regional Planning Areas
- SF_ Regional Settlement Pattern
- ZM_ Zoning Map

SUPPORTING INFORMATION

Ref: fA838710 (provided separately)

The following list of supporting information is provided for:

ITEM 2.3

**MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT
NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL**

#a Amendment Instrument - Planning Scheme Policies Major Amendment No.1

- ***#appendix a (Amendment Documents)***

(Due to size constraints, supporting information provided separately)

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

#a Amendment Instrument - Planning Scheme Policies Major Amendment No.1

MBRC Planning Scheme
it's our place



Amendment Instrument

Moreton Bay Regional Council Planning Scheme

Planning Scheme Policies Major Amendment No. 1

Made under the Planning Act 2016, Section 22
(making or amending planning scheme policies)



This amendment has effect on and from [insert date here]

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

1. Short title

This amendment instrument may be cited as *The Moreton Bay Regional Council Planning Scheme - Planning Scheme Policy Major Amendment No. 1*.

2. Commencement

This amendment instrument has effect on and from XX XXXXX XXXX.

3. Purpose

The overall purpose and general effect of the new planning scheme policy and the adopted amendments to the existing planning scheme policies are to:

- for new PSP - *Township character*: to provide design guidance for development of land within the Township zone; and
- for existing PSPs:
 - *Advertising devices*; to provide additional guidance on the design of advertising devices, including illumination and digital displays;
 - *Centre and neighbourhood hub design*; to provide better guidance by including more examples and illustrations;
 - *Environmental areas and corridors*; to correct terminology, provide clarity on what constitutes a Matter of environmental significance, and provide additional guidance on interpreting requirements and provisions;
 - *Flood hazard, coastal hazard and overland flow*; to clarify the triggers for requiring a technical report with a development application; to provide greater latitude for filling within some parts of the flood planning area; and to incorporate drainage master plans that have been completed for identified drainage investigation areas;
 - *Heritage and landscape character*; to correct the location of a significant tree;
 - *Integrated design*; to update public infrastructure design requirements and standards, and to aid interpretation;
 - *Integrated transport assessment*; to add clarity and improve usability;
 - *Landslide hazard*; to add clarity and improve usability;
 - *Neighbourhood design*; to respond to changes to the reconfiguring a lot code and to align with the general structure of that code; to expand on the need to plan for and maintain continuity of movement networks; to provide direction on how to appropriately deal with interfaces; and to provide additional guidance generally;
 - *Noise*; to provide additional clarity and to expand the list of zones that will ordinarily trigger the requirement for a traffic noise impact assessment;

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

- o *Operational works inspection, maintenance and bonding procedures*; to update checklists and pro-forma documents within the appendices, nominate compliance testing standards, clarify on-maintenance requirements, include stormwater asset requirements that were previously in a different PSP, and address a number of terminology issues;
- o *Residential design*; to reflect changes proposed to planning scheme provisions; to provide better guidance by including more examples and illustrations; and to specifically address earth retaining structures;
- o *Stormwater management*; to include references to Council’s Flood Check Development Reports, clarify development impact issues, and provide cross references to the related PSP - Flood hazard, coastal hazard and overland flow; and
- o *Waste*; to add clarity and improve usability.

4. Amendment Table

This amendment instrument amends the Moreton Bay Regional Council Planning Scheme, Schedule 6 Planning scheme policies. The concurrent, but separate, Tailored Amendment No. 1 to the MBRC Planning Scheme amends other parts of the planning scheme.

The table below outlines components of Schedule 6 being amended and identifies the location of further details regarding the amendments.

Table 1

Planning Scheme Policy	Amendment Detail
PSP - Advertising devices	Refer to Appendix A
PSP - Centre and neighbourhood hub design	Refer to Appendix A
PSP - Environmental areas and corridors	Refer to Appendix A
PSP - Flood hazard, coastal hazard and overland flow	Refer to Appendix A
PSP - Heritage and landscape character	Refer to Appendix A
PSP - Integrated design - Main Body	Refer to Appendix A
Integrated design - Appendix A	Refer to Appendix A
Integrated design - Appendix B	Refer to Appendix A
Integrated design - Appendix C	Refer to Appendix A
Integrated design - Appendix D	Refer to Appendix A
Integrated design - Appendix F	Refer to Appendix A
Integrated design - Appendix G	Refer to Appendix A
Integrated design - Appendix H	Refer to Appendix A
PSP - Integrated transport assessment	Refer to Appendix A
PSP - Landslide hazard	Refer to Appendix A
PSP - Neighbourhood design	Refer to Appendix A
PSP - Noise	Refer to Appendix A
PSP - Operational works inspection, maintenance and bonding procedures	Refer to Appendix A
PSP - Residential design	Refer to Appendix A
PSP - Stormwater management	Refer to Appendix A
PSP - Township character	Refer to Appendix A
PSP - Waste	Refer to Appendix A

Note - PSP - Integrated Design Appendix E is not part of this amendment.

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

Consequential Amendments

As a consequence of the amendments in Table 1, this amendment instrument also makes consequential amendments to the components of Schedule 6 as outlined in Table 2.

Table 2

Planning Scheme Policy	Consequential Amendments
PSP - Advertising devices	Amend End Notes and Amendments section in response to the amendment.
PSP - Centre and neighbourhood hub design	Amend numbering, Table of Contents, Table of Amendments, End Notes and add an Amendments section in response to the amendment.
PSP - Environmental areas and corridors	Amend numbering, Table of Contents, numbering, cross-references, End Notes and Amendments section in response to the amendment.
PSP - Flood hazard, coastal hazard and overland flow	Amend formatting, numbering, cross-references and Table of Amendments, End Notes and add an Amendments section in response to the amendment.
PSP - Heritage and landscape character	Amend numbering, Table of Contents, End Notes and Amendments section in response to the amendment.
PSP - Integrated design - Main Body	Amend numbering and Table of Contents, End Notes and Amendments section in response to the amendment.
Integrated design - Appendix A	Amend Table of Contents, formatting, numbering and cross-references in response to the amendment.
Integrated design - Appendix B	Amend formatting, numbering and Table of Contents in response to the amendment.
Integrated design - Appendix C	No change.
Integrated design - Appendix D	Amend formatting in response to the amendment.
Integrated design - Appendix F	No change.
Integrated design - Appendix G	No change.
Integrated design - Appendix H	No change.
PSP - Integrated transport assessment	Amend numbering and Table of Contents, End Notes and Amendments section in response to the amendment.
PSP - Landslide hazard	Amend End Notes and Amendments section in response to the amendment.
PSP - Neighbourhood design	Amend Table of Contents, formatting, numbering, cross-references, End Notes and Amendments section in response to the amendment.
PSP - Noise	Amend numbering, Table of Contents, End Notes and Amendments section in response to the amendment.
PSP - Operational works inspection, maintenance and bonding procedures	Amend formatting, End Notes and Amendments section in response to the amendment.

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

PSP - Residential design	Amend numbering, Table of Contents, formatting, punctuation and Amendments section and add End Notes in response to the amendment.
PSP - Stormwater management	Amend End Notes and Amendments section in response to the amendment.
PSP - Township character	Amend adoption and commencement dates in response to the amendment introducing the PSP and add a blank End Notes table.
PSP - Waste	Amend numbering, Table of Contents, End Notes and Amendments section in response to the amendment.

5. Amendment

Planning Scheme Policy Documents

As the amendments are proposed to multiple Planning Scheme Policies (PSP's) each PSP subject to the amendment is documented in the format of a marked-up version of the PSP. The marked-up changes occurred at 2 phases of the process and are shown as follows:

Changes shown for public consultation

The proposed amendment changes as advertised during the public consultation period appear generally as follows:

- Text added is shown in track changes and/or **yellow highlight**;
- Text deleted is shown in ~~strike through~~;
- Text that had been moved and not changed within a section was not identified;
- Figures added included a transparent yellow box over the figure or text identifying the figure as new;
- Figures deleted included a large red cross on the face of the figure.

Changes made after public consultation

Following consultation further changes were made to the amendment in response to matters raised. The changes made after the public consultation period appear as follows:

- **black text with green highlight** for new text after consultation;
- **red text with green highlight** for text that was marked for deletion during consultation that has been reinstated after consultation;
- ~~green text with strike out~~ for text that has been deleted after consultation; and
- ~~green text with strikeout and yellow highlight~~ for new text proposed during consultation that has been deleted after consultation.

ITEM 2.3 MBRC PLANNING SCHEME - PROPOSED PLANNING SCHEME POLICIES MAJOR AMENDMENT NO.1 - ADOPTION OF AMENDMENT AND SETTING OF A COMMENCEMENT DATE - REGIONAL - A19384235 (Cont.)

Appendix A

Moreton Bay Regional Council Planning Scheme Policies - Amendment Documents

- PSP - Advertising devices
- PSP - Centre and neighbourhood hub design
- PSP - Environmental areas and corridors
- PSP - Flood hazard, coastal hazard and overland flow
- PSP - Heritage and landscape character
- PSP - Integrated design - Main Body
 - Integrated design - Appendix A
 - Integrated design - Appendix B
 - Integrated design - Appendix C
 - Integrated design - Appendix D
 - Integrated design - Appendix F
 - Integrated design - Appendix G
 - Integrated design - Appendix H
- PSP - Integrated transport assessment
- PSP - Landslide hazard
- PSP - Neighbourhood design
- PSP - Noise
- PSP - Operational works inspection, maintenance and bonding procedures
- PSP - Residential design
- PSP - Stormwater management
- PSP - Township character (New)
- PSP - Waste

SUPPORTING INFORMATION

Ref: [A16444696](#)

The following list of supporting information is provided for:

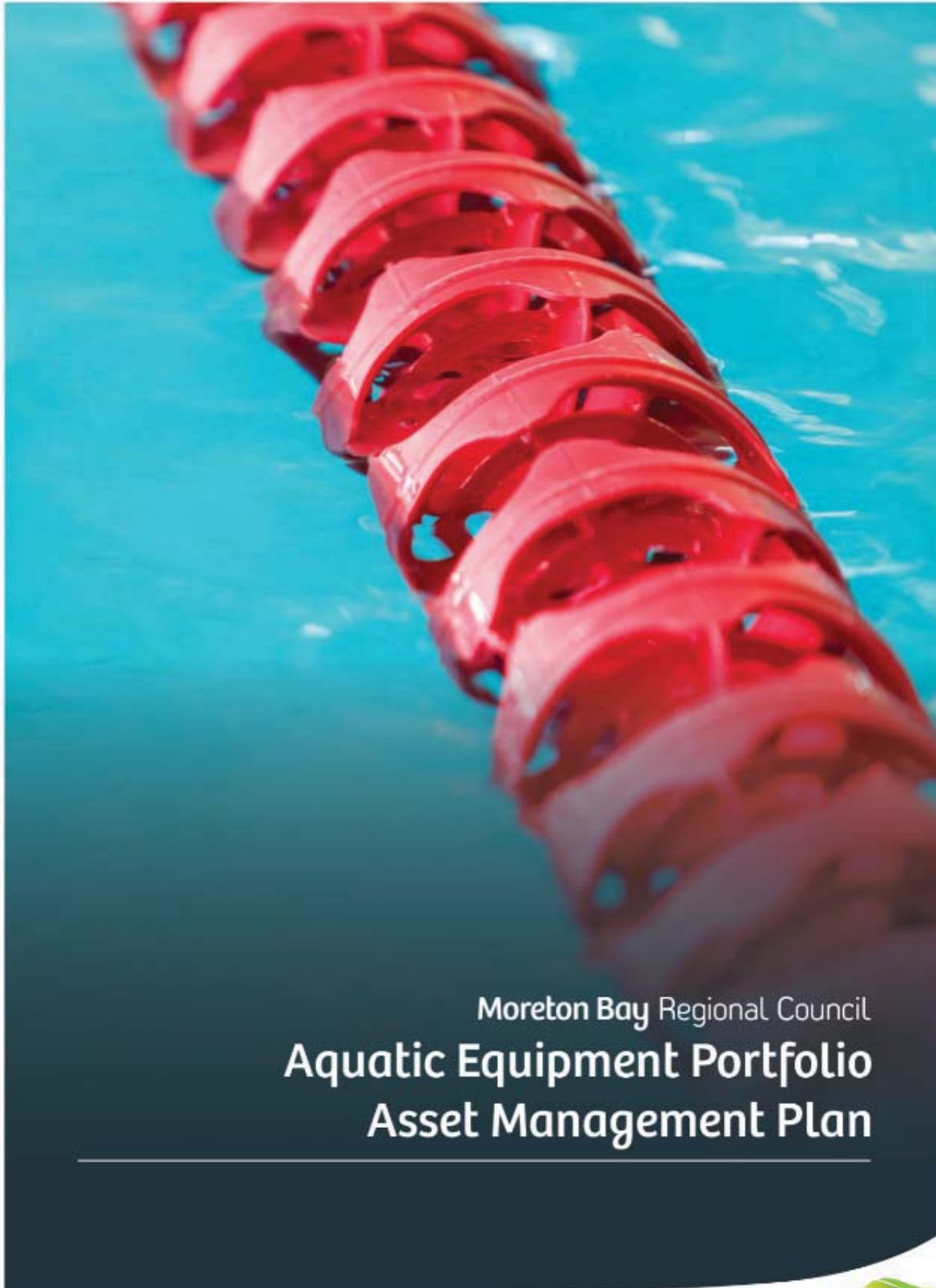
ITEM 4.2

AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL

#1 Aquatic Equipment Portfolio Asset Management Plan

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

#1 Aquatic Equipment Portfolio Asset Management Plan



Moreton Bay Regional Council
**Aquatic Equipment Portfolio
Asset Management Plan**

www.moretonbay.qld.gov.au | Phone 3205 0555



Adopted: xx December 2019

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 19
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Document Reference	
Document title	Aquatic Equipment Portfolio Asset Management Plan
RIO Reference	A16444696
Date prepared	January 2018
Date adopted by council	xx December 2019
Prepared by	Asset Management

Version Control				
Version / Reviewed	Version / Reviewed	Version / Reviewed	Version / Reviewed	Version / Reviewed
Draft v1	January 2018	Initial draft	F Kaisa	J Turnbull, J Frost
Draft v2	July 2018	Comments from key stakeholder workshop	F Kaisa	J Turnbull, J Frost
Draft v3	November 2018	Update comments from J Frost, D Meyer	F Kaisa	J Frost, D Meyer
Draft v4	May 2019	Update comments from J Frost	F Kaisa	J Frost
Draft v5	July 2019	Update comments from A Ryan	J Frost	A Ryan
Draft v6	August 2019	Final draft	J Frost	A Ryan
1.0	xx December 2019	Version 1.0 adopted by Council	J Frost	A Ryan

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Contents

Executive Summary	6
1 Purpose	10
2 Asset Information	10
2.1 Asset Attributes.....	14
3 Levels of Service	14
4 Future Demand	16
5 Asset Life Cycle Management	17
5.1 Asset capacity and performance	17
5.2 Condition and profile	17
5.3 Defects.....	18
5.4 Risk Management Plan.....	18
5.5 Maintenance	20
5.5.1 Current maintenance plan	20
5.5.2 Recommended maintenance plan.....	21
5.6 Resource plan.....	22
5.6.1 Current resource plan	22
5.6.2 Recommended resource plan	22
5.7 Capital renewal / replacement plan	23
5.7.1 Current renewal/replacement plan	23
5.7.2 Recommended renewal/replacement plan.....	23
6 Corporate Systems	25
7 Financial Summary	25
7.1 Useful Life.....	25
7.2 Financial Statements and Ratios	25
7.2.1 Valuations & Depreciation	25
7.2.2 Financial Sustainability Ratios.....	25
8 Action Items	28
9 Appendices	30
Appendix A: Council and Operator Maintenance Activities & Responsibilities	31
Appendix B: Star Rating Methodology.....	42
Appendix C: Aquatic Equipment Attributes.....	43
Appendix D: Current Condition Profile.....	45
Appendix E: Current Defects by Equipment Type	47
Appendix F: Pool Water Quality Test Measurement Guidelines	55
Appendix G: Council and Lessee Agreed Maintenance Financial Limits	55
Appendix H: Comparison of current planned versus reactive maintenance work	56

Moreton Bay Regional Council

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix I: Current Capital Renewal/Replacement Programs (ePIDS).....	57
Appendix J. Recommended Capital Renewal/Replacement Program	61
Appendix K. Predicted Deterioration of Assets under Current and Proposed Funding Allocations	73

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Definitions for Abbreviations

Term	Definition
ACR	Asset Consumption Ratio
ASR	Asset Sustainability Ratio
AI	Action Item
AMT	Asset Management Team
AM	Asset Maintenance (Operations)
Asset Class	First Level in Council's parent child asset hierarchy
Asset Group	Second Level in Council's parent child asset hierarchy
Asset Type	Third Level in Council's parent child asset hierarchy
B&F	Building & Facilities
BMS	Building Management System
AEPAMP	Aquatic Equipment Portfolio Asset Management Plan
CSR	Customer Service Request
C&ES	Community and Environmental Services
embarc	Moreton Bay Council's Internal Website
ERUL	Estimated Remaining Useful Life
ePID	Electronic Project Identification Document
eContractor	MBRC's work management system used by External Third Party to capture maintenance data on Council assets
F&PS	Financial & Project Services
FME	Feature Manipulation Engine
IP	Infrastructure Planning
PMC	Project Management & Construction
PM	Planned Maintenance
P&CS	Property & Commercial Services
RUL	Remaining Useful Life
TOMAS	MBRC's Asset Management System <i>(based on Technology One Platform)</i>
WO	Work Order
ICT	Information & Communication Technology
MBRC	Moreton Bay Regional Council
NAMS.AU	National Asset Management Strategy Group Australia
LGIP	Local Government Infrastructure Plan
RCM	Reliability Centred Maintenance
RM	Reactive Maintenance
SAMP	Strategic Asset Management Plan
TBC	To be completed

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Executive Summary

The aquatic equipment portfolio asset management plan outlines MBRC's approach to the management of aquatic equipment within the 14 aquatic facilities located throughout the MBRC region. Aquatic equipment includes the following asset types:

- pool shells
- dosing, filtration & plant
- heat banks
- pool equipment

The table below summarises Council's asset base, asset condition, financial value and expected useful life for each asset type within this portfolio.

Aquatic Equipment Asset Type	Qty	Expected Useful Life	Average Condition	Average Remaining Useful Life	Qty Condition 4's	Qty Condition 5's	Value
Pool Shell	41	50 years	3	16	22	8	\$18.2 million
Dosing, Filtration & Plant	438	10 - 15 years	3	5	92	32	\$2.3 million
Heating	34	15 years	3	6	12	1	\$1.6 million
Pool Equipment (e.g. Lane ropes, diving blocks)	137	5-20 years	3	4	46	13	\$1.2 million
Total Assets	650				172	54	\$23.3 million

Key Issues

- 1 in 3 aquatic equipment assets will fail in the next 5-10 years (i.e. condition 4 & 5)
- Most assets have a much shorter lifespan than most civil assets making the window of opportunity to intervene much smaller
- Minimal preventative and routine maintenance have been undertaken to date meaning that the asset base will likely fall short of achieving its expected useful life
- Based upon the recent condition audit, current budget allocations are insufficient and need to increase otherwise a large portion of the asset base will reach a condition state beyond repair requiring an expensive full replacement
- If budget allocations are not increased to address the maintenance backlog, there is a much greater risk of pool closures, health & safety risks, service delivery risk, political/reputational risk due to potential asset failures and a substantial financial risk due to significantly elevated maintenance and replacement costs. For example, in 50 years' time, using today's dollars, a minimum \$20 million cash injection would be required to replace pool shells, followed by a similar cash injection of \$15 million a few years later. This represents a significant risk to the Council's financial position, budget cashflow and service delivery.

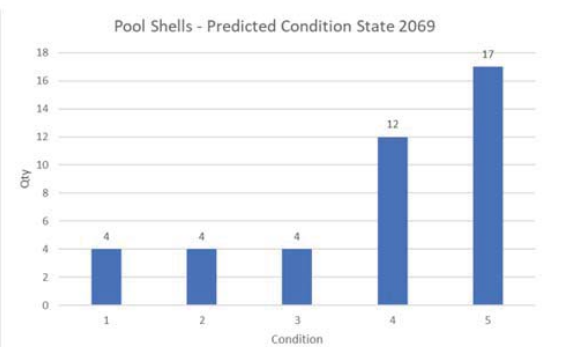
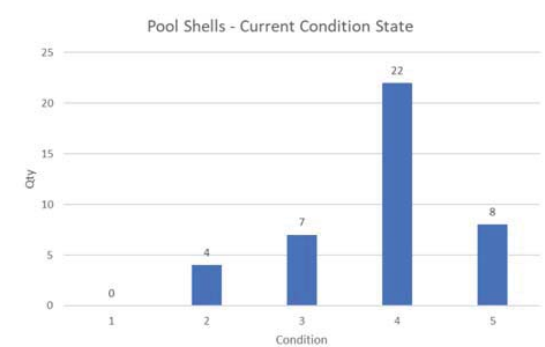
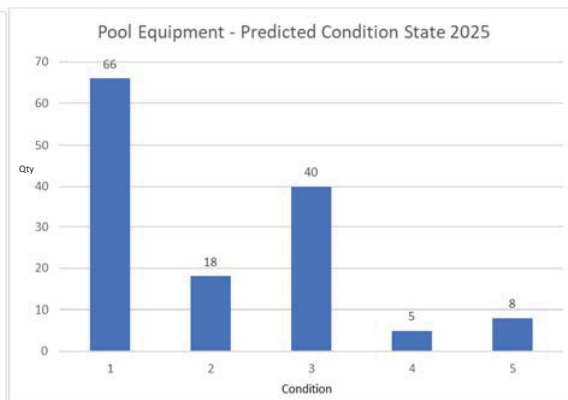
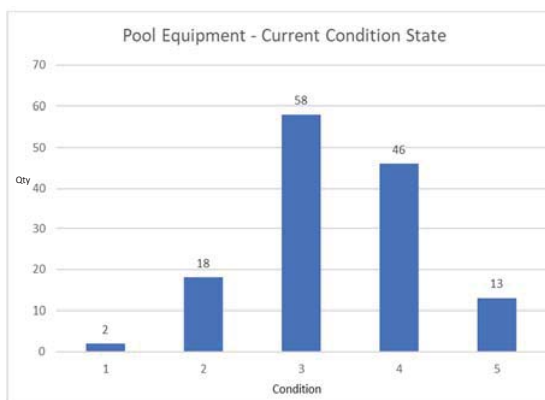
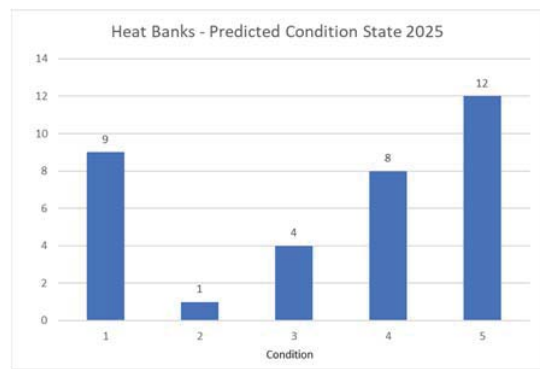
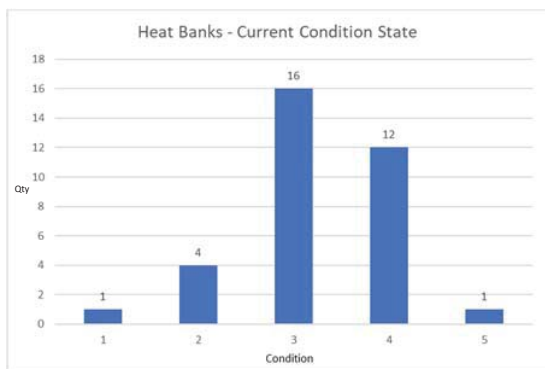
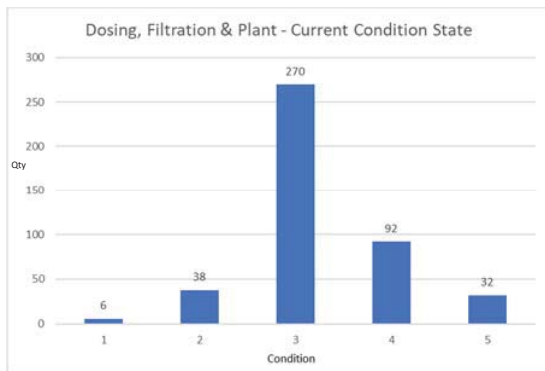
The current budget allocations are as follows:

- Maintenance \$334k p.a.
- Average renewals of \$1.2 million p.a. comprising of:
 - Dosing, Filtration & Plant \$450k p.a.
 - Heating \$150k p.a.
 - Pool Equipment \$100k p.a.
 - Pool Shell \$500k p.a.

Should these budget allocations continue, the condition profile of the aquatic equipment asset portfolio will deteriorate as follows over the next 5 years for dosing, filtration, plant, heat banks & pool equipment and over 50 years for pool shells.

Moreton Bay Regional Council

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)



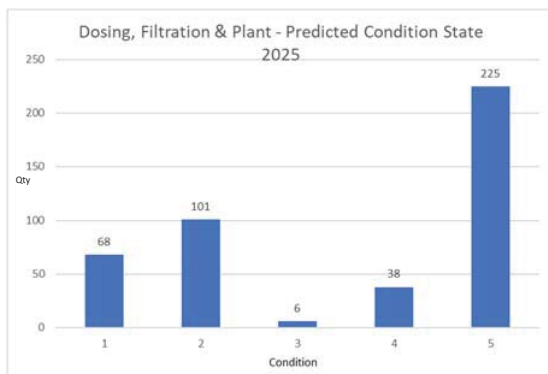
ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The recommended budget allocations are outlined below:

- Increase of maintenance budget to \$425k p.a. (extra \$91k: expected routine maintenance costs are \$362k p.a. leaving \$63k p.a. for reactive maintenance and addressing minor elements of the defect backlog)
- Increase average renewal funding to \$2.1 million p.a. as follows:
 - Dosing, Filtration & Plant \$800k p.a.
 - Heating \$200k p.a.
 - Pool Equipment \$150k p.a.
 - Pool Shell Tiling/Replacement \$850k p.a.
 - Pool Shell Repainting \$100k p.a.

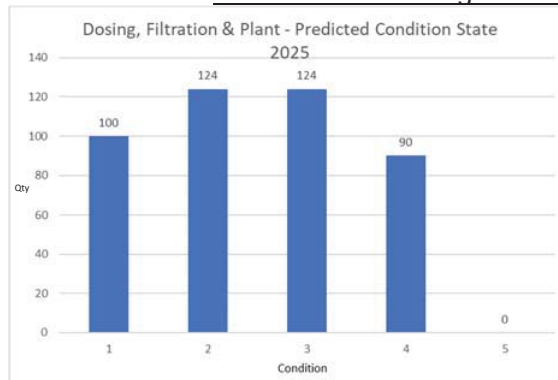
Should these recommended budget allocations be adopted into the next long term financial forecast, the condition profile of the aquatic equipment asset portfolio should deteriorate as follows over the next 5 and 50 year period. The recommended budget allocation results in a much improved position for the Council and will avoid the risk of future large cost shocks.

Current Budget Allocation



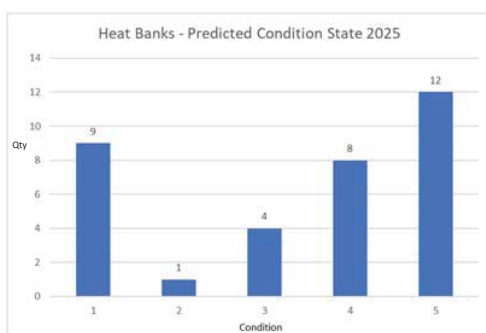
\$450k p.a.

Recommended Budget Allocation



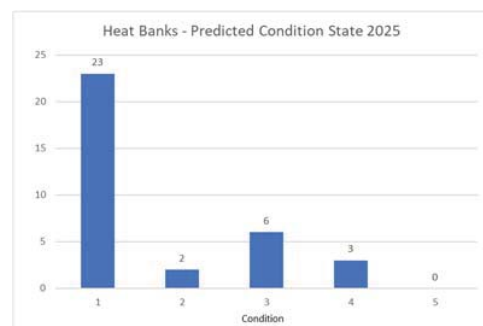
\$800k p.a. + ongoing servicing

Current Budget Allocation



\$150k p.a.

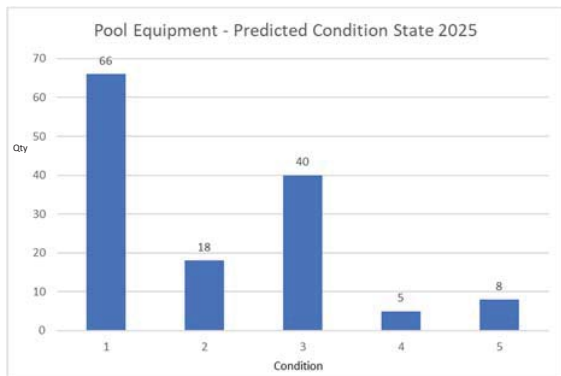
Recommended Budget Allocation



\$200k p.a. + ongoing servicing

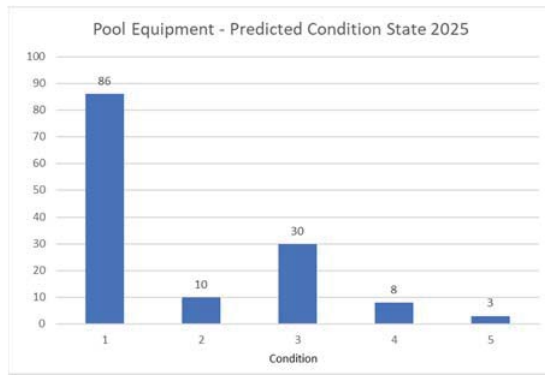
ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Current Budget Allocation



\$100k p.a.

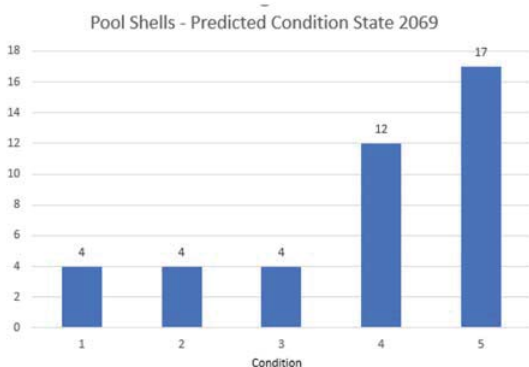
Recommended Budget Allocation



\$150k p.a.

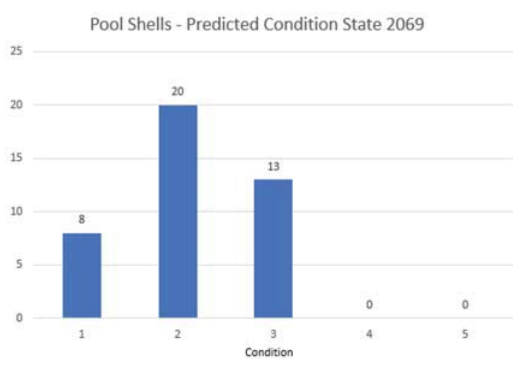
Longer term modelling over the next 50 years was undertaken on pool shells as they are the highest risk asset and have a longer life span. The graphs below compare the predicted deterioration using the current budget allocation vs the recommended budget allocation.

Current Budget Allocation



\$500k p.a.

Recommended Budget Allocation



\$950k p.a.

In 50 years' time, using today's dollars, a minimum \$20 million cash injection would be required, followed by a similar cash injection of \$15 million a few years later. This represents a significant risk to the Council's financial position, budget cashflow and service delivery.

Increasing the maintenance budget to \$425k p.a. and renewals allocations to \$2.1 million p.a. will clear the deferred maintenance backlog over the course of the next decade and will return the existing asset base to an adequate standard/condition that is consistently maintained appropriately. This will significantly reduce the risk of pool closures, health and safety risks and will reduce the likelihood of expensive lump sum replacement bills in the future.

As per Council's strategic asset management framework, it is imperative that Council adopts a more proactive approach to managing aquatic equipment assets including preventative and routine maintenance. This has recently commenced however, as this has not been the case until recently, Council now faces an asset backlog to address due to deferred maintenance. Moving forward, the proactive approach will extend the life of assets and prevent assets reaching a state beyond repair, where expensive full replacement costs would otherwise be incurred.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The recommended funding increases will allow Council to achieve its strategic asset management objectives including:

- Organisational commitment to effective asset management
- Managing risk appropriately
- Delivery of services to agreed standards
- Optimise asset performance
- Minimise asset failure where minimal assets reach a condition state 5

Regular condition audits will be undertaken for this asset portfolio to continually monitor the condition of the assets and the budget will be updated accordingly. It is essential that more detailed engineering inspections are carried out as a matter of priority for the pool shells to further analyse the condition state and develop/implement appropriate intervention actions. Pool shells are the largest asset in this portfolio in terms of financial value and they represent a significant risk to the operation of the aquatic centre should they not be maintained appropriately. Once these engineering inspections are performed, any such revisions to the renewal and maintenance budget for pool shells will be presented to Council for further consideration as part of a workshop and long term financial forecast.

1 Purpose

The purpose of the Moreton Bay Regional Council (MBRC) Aquatic Equipment Portfolio Asset Management Plan (AEPAMP) is to outline MBRC's approach to the management of aquatic equipment assets. The AEPAMP serves to:

- Demonstrate responsible and sustainable management;
- Communicate and justify funding requirements; and
- Ensure compliance with regulatory requirements.

The AEPAMP will be reviewed and updated on a periodic basis and represents the latest review. MBRC's approach to asset management has been aligned to the ISO55000 series of standards for infrastructure asset management, as outlined in Council's Strategic Asset Management Plan. Aquatic Centre buildings and if applicable, associated park assets, are covered in their relevant AMPs.

2 Asset Information

Aquatic equipment has a financial value of approximately \$30 million and supports the function and operation of aquatic facilities, a service that is enjoyed by the wider community.

There are 14 aquatic facilities throughout the MBRC region of which 11 are Council owned and 3 are owned by the Department of Education.

As at May 2019, there were 650 aquatic equipment assets identified within Council's Asset Register as outlined in the table below:

Aquatic Equipment Asset Type	Qty	Expected Useful Life	Average Condition	Average Remaining Useful Life	Qty Condition 4's	Qty Condition 5's	Value
Pool Shell	41	50 years	3	16	22	8	\$18.2 million
Dosing, Filtration and Plant	438	10 - 15 years	3	5	92	32	\$2.3 million
Heating	34	15 years	3	6	12	1	\$1.6 million

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 28
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Aquatic Equipment Asset Type	Qty	Expected Useful Life	Average Condition	Average Remaining Useful Life	Qty Condition 4's	Qty Condition 5's	Value
Pool Equipment (e.g. Lane ropes, diving blocks)	137	5-20 years	3	4	46	13	\$1.2 million
Total Assets	650				172	54	\$23.3 million

The table below, highlights a breakdown of aquatic equipment by type and facility name:

Facility Name	Dosing Equipment	Filtration Equipment	Heating Equipment	Plant Equipment	Pool Equipment	Pool Shells	Total Assets
Albany Creek Leisure Centre	1	8	5	30	13	6	63
Caboolture Regional Aquatic & Leisure Centre (CRALC)	7	4	3	42	16	3	75
Settlement Cove Lagoon	5	27	1	37	8	3	81
Caboolture Swimming Pool	5	8	3	21	14	3	54
Bribie Island Aquatic & Leisure Centre	4	4	4	22	6	3	43
Deception Bay Aquatic & Fitness Centre	3	10	1	22	13	4	53
North Lakes Aquatic Centre	3	12	3	12	5	3	38
Murrumba Downs Community Pool	4	6	3	7	11	1	32
Lawnton Aquatic Centre	8	6	4	18	14	3	53
Dayboro Swimming Pool	3	3	1	7	5	2	21
Ferny Hills Aquatic Centre	5	7	3	34	13	3	65

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 29
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Facility Name	Dosing Equipment	Filtration Equipment	Heating Equipment	Plant Equipment	Pool Equipment	Pool Shells	Total Assets
Redcliffe Memorial Swimming Pool	1	8	2	13	12	4	40
Woodford Swimming Pool	1	3	1	17	7	3	32
Total	50	106	34	282	137	41	650

Council's Property and Commercial Services (P&CS) team is the aquatic equipment asset owner. As part of the management of the various aquatic facilities, these equipment types are operated by commercial or private entities under a management agreement that defines both Council and the operator's routine maintenance activities & responsibilities. See Appendix A.

Aquatic facilities are further categorised into Class A, B or C based on the size of the complex and the operating timeframe.

- Class A facilities are regional/sub-regional large size facilities that are operated all year.
- Class B are local suburban medium size facilities, where some pools are operated all year round and others only in summer.
- Class C are local suburban small size facilities that are operated in summer only.

The table below, shows a summary of information for each aquatic facility including class, operational timeframe, star rating, owner, operator, tenure agreement and service provided.

Facility Name	Class	Operational Timeframe	*Star Rating	Owner	Operator	Tenure Agreement	Service
Albany Creek Leisure Centre	A	All Year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Leisure • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Caboolture Regional Aquatic & Leisure Centre (CRALC)	A	All year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Leisure • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Settlement Cove Lagoon	A	All year	5	MBRC	Royal Life Saving Society	Management Agreement	<ul style="list-style-type: none"> • Leisure • Lap swimming • Aquatic education
Caboolture Swimming Pool	B	All year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Bribie Island Aquatic & Leisure Centre	B	All year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Leisure • Lap swimming • Aquatic education

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 30
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Facility Name	Class	Operational Timeframe	*Star Rating	Owner	Operator	Tenure Agreement	Service
							<ul style="list-style-type: none"> • Therapeutic • 3 heated pools
Deception Bay Aquatic & Fitness Centre	B	Summer	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • 1 heated pool
North Lakes Aquatic Centre	B	All year	5	Department of Education	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Murrumba Downs Community Pool	B	Summer	5	Department of Education	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education
Lawnton Aquatic Centre	B	All year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Dayboro Swimming Pool	B	Summer	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • 1 heated pool • Aquatic education
Ferny Hills Aquatic Centre	B	Summer	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • Therapeutic • 2 heated pools
Redcliffe Memorial Swimming Pool	B	All Year	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • Therapeutic • 4 heated pools
Woodford Swimming Pool	C	Summer	5	MBRC	Belgravia Leisure	Management Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • 1 heated pool
Samford State Swimming Pool	C	School Days/Hours	5	Department of Education	Samford Swim & Fitness	Funding & Use Agreement	<ul style="list-style-type: none"> • Lap swimming • Aquatic education • 1 heated pool

Notes:

- (a) The Samford State Swimming Pool is mainly used by the school but is available for public use. The management, control, regulation, use, repair and maintenance of the pool is the responsibility of the Department of Education. Council contributes costs related to public use of the swimming pool for electricity and chemicals in accordance with a Funding and Use Agreement.
- * (b) The methodology used to determine star rating is based on the six (6) items listed below. Appendix B provides details of the methodology and criteria used in determining the star rating.
- Building type - as defined by building classifications within the Building Codes of Australia (BCA) Classes of buildings. **Note:** Aquatic facilities fall under Class 10b - Building structures with swimming pools.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

- Intended purpose or use of the building.
- Primary users of the building - groups / organisations that use the building main area most frequently.
- Secondary users of the building - groups / organisations that occasionally utilise the building or areas within the building.
- Volume of transactions or services - based on estimated number of individuals / visitors / staff / contractors / volunteers / tourists / customers / tenants / community groups etc., that use the building and / or services provided.
- Complexity of building design - the configuration and number or size of engineering systems installed in the building such as dosing, plant, filtration, heating irrigation, structural, mechanical, plumbing & hydraulics, electrical & lighting, fire protection, security & alarm systems and hi-tech systems and / or green star rating accreditation.

2.1 Asset Attributes

Asset attributes provide unique information regarding the characteristics and status of an asset type. The asset attributes listed in Appendix C will be recorded against the aquatic equipment assets.

AI-AQ001 - Capture asset attribute, condition and spatial data on all aquatic equipment via TOMAS and develop process for updating attributes on new equipment.

3 Levels of Service

The community and technical service levels are defined in Section 3 of the SAMP.

It is important that the facilities are efficiently and safely managed to achieve the best service level outcomes that align with Council's strategy, as well as State Government and Royal Life Saving Society guidelines as described below:

Policy/Plan	Description
Queensland Health Swimming and Spa Pool Water Quality and Operational Guidelines	Guidelines for water quality and operational standards for swimming and spa pools
Guidelines for Safe Pool Operations (Royal Life Saving Society)	Guidelines for operators on safe operation of swimming pools

Community levels of service

Service attribute	Service objective	Performance measure process	Current (2018) performance	Expected performance in 10 years (LTFF)
Quality	Suitability of pool water quality during recreational use	Periodic water quality tests	Pool water test measurement results comply with QLD State Government's recommended ideal range for water quality standards (Refer to Appendix B - QLD Guidelines)	Pool water test measurement results comply with QLD State Government's recommended ideal range for water quality standards (Refer to Appendix B - QLD Guidelines)
	Aquatic equipment in acceptable condition	Aquatic equipment condition and defects.	2019 condition inspection (refer results in Appendix D) 50 safety compliance defects (i.e. dosing, heating and filtration)	Annual condition inspection Zero condition 5 aquatic equipment. Zero high defects. Zero safety compliance defects.

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 32
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Service attribute	Service objective	Performance measure process	Current (2018) performance	Expected performance in 10 years (LTFF)
Function	Reliable aquatic equipment that is fit-for-purpose and supports the efficient functioning of the facility	Functional system reliability measure for: Dosing system Heating system Filtration system Plant system Note: Council to adopt reliability modelling measurement approach	99% reliability for functioning of pool shell and aquatic equipment. Pools are operational 99% of available service times annually. Pools off line for less than 40 minutes per week	>99% reliability for functioning of pool shell and aquatic equipment. Pool is operational 99% of available service times annually Pool off line for less than 30 minutes per week
Capacity / utilisation	Aquatic equipment is appropriate for service use, with new, upgrade, renewals projects aligned to future demand, sustainability and innovation.	Number of replacement/ renewal/ upgrade/new projects to increase the capacity and utilisation of the facility as compared to the forecast	95% of upgrade projects delivered when compared to forecast	Council adoption of the AMP. All aquatic projects are driven from MBRC strategic decisions and long-term planning strategies to meet future demand, sustainability and innovation. 100% of upgrade projects delivered when compared to forecast

Technical levels of service

Service attribute	Service objective	Activity measure process	Current (2018) performance	Desired optimum position	Agreed sustainable position
Operations	Ensure safe, suitable work procedures	Incident Reports.	1 recorded work injury	Zero work related injuries per year.	Zero work related injuries per year.
Condition assessments	Aquatic equipment is inspected annually	Condition and defects recorded in MBRC's Asset Register	Annual condition assessments	Annual determined assessment of condition 4 and 5 aquatic equipment by external specialist.	Annual condition assessments Every 2 years detailed inspection of condition 5 aquatic equipment by specialist consultant.
Planned Maintenance (PM)	Carry out planned maintenance	Planned maintenance as per schedules in TOMAS.	31% planned maintenance (refer results in 5.5.1)	≥ 80% planned maintenance	≥ 70% planned maintenance
Reactive Maintenance (RM)	Reduce reactive maintenance work	Reactive maintenance WOs in TOMAS.	69% reactive maintenance (refer results in 5.5.1)	≤ 20% reactive maintenance	≤ 30% reactive maintenance

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Service attribute	Service objective	Activity measure process	Current (2018) performance	Desired optimum position	Agreed sustainable position
Capital (renewal/replacement)	Aquatic equipment is renewed to meet / achieve the designed service life while achieving the most cost beneficial outcome.	Number of condition 4 & 5 aquatic equipment	172 condition 4 and 54 condition 5 aquatic equipment	Nil 4 & 5 condition aquatic equipment.	Nil condition 5 aquatic equipment.
Capital - Upgrade	Aquatic equipment is upgraded to meet changes in technology, demand, innovation and improvements	Aquatic equipment upgraded results in efficient and cost effective operational outcomes	Aquatic equipment upgrades incorporate efficient & smart technology	Efficient & smart technology incorporated is standardised across all facilities where appropriate	Efficient & smart technology incorporated is standardised across all facilities where appropriate

- AI-AQ002 - Develop reporting for monitoring levels of service for each facility
- AI-AQ003 - Implement a systemised process for collecting water quality tests (*hard copy documents currently being used*)
- AI-AQ004 - Configure Council's BMS to aquatic facilities not yet connected, to monitor and report on pool safety and performance (**Note:** Bribie Island, CRALC, Deception Bay, Redcliffe and Settlement Cove are configured to the BMS to provide information to BF Officers on aquatic equipment performance)
- AI-AQ005 - Create a new CSR code for aquatic centres to improve reporting on reactive maintenance work
- AI-AQ006 - Develop process for standardising aquatic equipment assets for upgrades or new capital projects

4 Future Demand

Growth management is identified as a key issue in Council's Corporate Plan and well-planned growth is emphasised in the Community Plan. The demand and usage of each aquatic centre will be discussed in detail within each respective facility management plan.

This asset management plan should be read in conjunction with the following documents:

- Demand Assessment Report (A5309636)
- Situation Analysis Report (A5309634)
- Strategic Options Report (A5309635)
- Strategic Plan (A7633833)

It is recommended that these strategies be updated on a periodic basis to ensure timeliness, appropriateness and relevance for Council's intended future direction.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

AI-AQ007 - Develop a facility management plan for each of the fourteen (14) aquatic facilities.
AI-AQ008 - To update the aquatic centre strategy documentation mentioned above

5 Asset Life Cycle Management

5.1 Asset capacity and performance

With the advent of new and more efficient technology, aquatic equipment is now being designed and constructed for more effective utilisation and performance.

AI-AQ009 - Develop process for recording/reporting on utilisation and performance of aquatic equipment

5.2 Condition and profile

The condition of aquatic equipment is identified using the NAMS standard 1 to 5 condition scale table below.

Table 5.2.1 NAMS asset condition rating scale

Condition Rating	Description of condition
1	Very Good Only normal maintenance required (90 % life remaining)
2	Good Minor maintenance required (70 % life remaining)
3	Moderate Significant maintenance required (50 % life remaining)
4	Poor Significant ongoing maintenance, renewal or upgrade (30 % life remaining)
5	Very Poor Asset requires decommissioning or replacement (10 % life remaining)

Appendix D provides details of the current condition profile for dosing, filtration, heating, plant and pool shell equipment across all the 14 aquatic facilities. **Note:** Council does not capture condition on certain pool equipment which are run-to-fail items; such as lane ropes, pipe work, gauges, pool rollers, diving blocks.

The current condition profile listed in Appendix D highlights the following key issues:

- 1 in 3 aquatic equipment assets will fail in the next 5-10 years (i.e. condition 4 & 5)
- Most assets have a much shorter lifespan than most civil assets making the window of opportunity to intervene much smaller
- Due to the minimal preventative and routine maintenance that has been undertaken to date, the asset base will likely fall short of achieving its expected useful life
- Based upon this recent condition audit, current budget allocations are insufficient and need to increase otherwise a large portion of the asset base will reach a condition state beyond repair requiring an expensive full replacement
- If budget allocations are not increased to address the maintenance backlog, there is a much greater risk of pool closures, health & safety risks, service delivery risk, political/reputational risk due to potential asset failures and a substantial financial risk due to significantly elevated maintenance and replacement costs. For example, in 50 years' time, using today's dollars, a minimum \$20 million cash injection would be required to replace pool shells, followed by a similar cash injection of \$15 million a few years later. This represents a significant financial risk to the Council's financial position, budget cashflow and service delivery.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Increasing the maintenance budget and renewals allocations as proposed in the recommended maintenance and recommended renewal sections of this plan will clear the deferred maintenance backlog over the course of the next decade and will return the existing asset base to an adequate standard/condition that is consistently maintained appropriately. This will significantly reduce the risk of pool closures, health and safety risks and will reduce the likelihood of expensive lump sum replacement bills in the future.

As per Council's strategic asset management framework, it is imperative that Council adopts a more proactive approach to managing aquatic equipment assets including preventative and routine maintenance. This has recently commenced however, as this has not been the case until recently, Council now faces a large asset backlog to address due to the deferred maintenance. Moving forward, the more proactive approach will extend the life of assets and prevent assets reaching a state beyond repair, where expensive full replacement costs would otherwise be incurred.

Regular condition audits will be undertaken for this asset portfolio to continually monitor the condition of the assets and the budget will be updated accordingly. It is essential that more detailed engineering inspections are carried out as a matter of priority for the pool shells to further analyse the condition state and develop/implement appropriate intervention actions. Pool shells are the largest asset in this portfolio in terms of financial value and they represent a significant risk to the operation of the aquatic centre should they not be maintained appropriately. Once these engineering inspections are performed, any such revisions to the renewal and maintenance budget for pool shells will be presented to Council for further consideration as part of a workshop and long term financial forecast.

5.3 Defects

Defects are managed and prioritised based upon risk. The total estimated cost to rectify defects across the 14 facilities is \$589,952. Please refer to Appendix E on current defects by equipment type across all the 14 aquatic facilities.

A large portion of the defects outline that the assets require replacement as they are approaching end of life. The remainder of the defects show that minor asset componentry should be repaired to ensure the asset is performing to the required standard. Additionally, the remaining defects highlight the need for the asset to be serviced. The proposed increase in the maintenance budget will allow the capacity for routine maintenance to be conducted on all dosing, filtration, plant and heating assets and also allow for repairs of the minor asset componentry (e.g. repair pressure gauges on filtration systems)

The proposed increase in maintenance and renewal funding will address the key issues highlighted in the defect backlog. Should the additional funds not be allocated there is a much greater risk of pool closures, health & safety risks, service delivery risk, political/reputational risk due to potential asset failures and a substantial financial risk due to significantly elevated maintenance and replacement costs.

AI-AQ010 - Develop a defect management, business process for aquatic equipment for both Council responsibility and tenant/lessee responsibility.

AI-AQ011 - Create defect code for aquatic equipment to update all defects identified

5.4 Risk Management Plan

Risks for the aquatic equipment are assessed using Council's Enterprise Risk Management (ERM) framework to identify and evaluate the risk, scoring the likelihood and consequence and the process to eliminate or mitigate the risk.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Risks associated with supervision and pool operations of aquatic facilities are identified, evaluated and managed using guidelines stipulated in the Guidelines for Safe Pool Operations, see Appendix F

The table below shows the risk assessments associated with aquatic equipment.

Table 5.4 - Risk assessment for aquatic equipment assets

<i>Type of Risk</i>	<i>Risk</i>	<i>Consequences</i>	<i>Existing control measures</i>	<i>Likelihood after control measures</i>	<i>Final Risk Rating</i>
Service Delivery	Aquatic equipment unavailable for intended use	Community and visitors unable to use pools for swimming activities	Regular maintenance and condition assessment	Unlikely	Minor
Environmental	Improper storage or use of chemicals	Dangerous and hazardous chemical exposure can damage the environment (<i>flora & fauna</i>)	Secure storage of chemicals and handling of chemicals by competent trained staff.	Possible	Minor
Financial	Inadequate financial resources	Compromised performance of aquatic equipment	Adequate budget allocations and regular quarterly reviews	Possible	Minor
Legislation	Amendment or change of legislation.	Non-compliance with safety related legislation	Periodic monitoring/re view of legislative changes.	Possible	Moderate
Health & safety	Out of range pool water quality measurements	Serious health and safety issues for users. Risk of drowning.	Regular water quality tests and re-calibration of dosing systems Regular lifeguards' audits to ensure maximum safety	Likely Unlikely	Minor Minor
Political / reputation	Closure of a facility, either short or long term due to equipment failure and/or a potential health issue.	Negative media attention and loss of reputation.	Established maintenance procedures and renewal programs	Unlikely	Minor

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

5.5 Maintenance

Council currently utilises three maintenance approaches for aquatic equipment:

- Routine maintenance - planned work which involves maintenance activities that are performed at predetermined frequencies.
- Programmed maintenance - planned work or defects which are bundled by trade and performed at ad hoc intervals
- Reactive maintenance - this is unplanned repair or emergency work that restores the asset to its functional state.

A significant proportion of maintenance for aquatic equipment is performed by contractors, while the remainder is completed by the Operators (see Appendix A). This maintenance is currently being recorded on either spreadsheets or service maintenance reports which are forwarded to Council for filing in the RIO system. It is proposed to develop a process that enables external Contractors to record maintenance work electronically using its Corporate system.

AI-AQ012 - Develop a maintenance strategy for the management of aquatic equipment.

AI-AQ013 - Implement routine maintenance schedules to record details of maintenance activities performed by Contractors using Council's Corporate system (i.e. eContractor)

AI-AQ014 - Review the desired frequency of all current maintenance activities to their optimum maintenance intervals based on their operation and root cause analysis. **Note:** This will form part of BF's continuous improvement process

5.5.1 Current maintenance plan

For aquatic equipment under Council's responsibility, routine maintenance is currently being performed quarterly by contractors. Where the lessee is required to maintain the aquatic equipment, but is unable to achieve safe and/or functional condition, Council may assist the lessee, within the agreed financial limits highlighted in Appendix G

It is recommended to have routine maintenance work scheduled in TOMAS for automatic generation of work orders (WOs). This includes internally and externally resourced work. At present 31% of maintenance is planned while 69% is reactive.

Future review of scheduled maintenance and asset performance will enable an evaluation and continuous improvement of routine maintenance tasks, to reduce reactive maintenance to the desired optimum level of 20%. Appendix H provides a comparison of current planned versus reactive maintenance spend across all aquatic facilities.

The planned maintenance budget for aquatic equipment is shown in the table below (all figures in \$k).

Table 5.5.1: Maintenance budget for aquatic equipment

Description	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Pool Servicing (excluding Heat Bank)	104.3	104.3	104.3	104.3	104.3	104.3	104.3	104.3	104.3	104.3
Pool Servicing - Preventative Maintenance	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
Pool Infrastructure Condition Assessment	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Pool Equipment Replacement	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0
Total	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6

5.5.2 Recommended maintenance plan

The recommended maintenance plan should detail maintenance requirements, detailed procedures and scheduling frequency for performing tasks and activities for aquatic equipment assets. Maintenance planning should be based on a value / cost benefit approach for each facility to ensure that it is achieving the service levels in line with the maintenance strategy.

The following are the recommended key activities to include in the maintenance plan:

- Reliability centred maintenance procedures and processes that apply failure analysis of aquatic equipment to review or determine schedule maintenance frequency intervention timeframes.
- Preventive maintenance tasks/procedures for all aquatic equipment types based on the reliability characteristics of each type including defined responsibilities.
- Create all preventive maintenance schedules in TOMAS
- Defect management processes and procedures for reviewing categories of defects with high severity with intervention methods to reduce or eliminate recurrence. These intervention methods should include:
 - Processes/procedures for identifying, if scheduled, maintenance should exist for the defect failures identified and creating new schedules as appropriate.
 - Procedures for communicating with the projects teams on defects that can be included in capital works programs.
 - Defect bundling or packaging by trade (i.e. programmed maintenance)
- Workload measurement techniques to determine adequacy levels of resources required to perform planned and reactive work. **Note:** Reactive work should diminish with time as planned maintenance work increases and therefore, re-allocation of resources is essential.
- Determining optimum maintenance levels for run-to-fail items using reliability centred maintenance to determine intervention timeframes.
- Audit processes/procedures for monitoring and reviewing Contractor performance and quality of completed work.
- Failure analysis reporting

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The current maintenance budget of \$334k p.a. is inadequate as the projected routine maintenance costs are \$362k p.a. Further to this, a small allowance for reactive work and an allowance for addressing the repair elements of the defect backlog should be put in place. It is therefore recommended that the maintenance budget for aquatic equipment assets increased to \$425k p.a. and this will continue to be reviewed and monitored as further condition audits are undertaken.

AI-AQ016 - Implement a comparison and monitoring report of planned versus reactive maintenance costs over time

AI-AQ017 - Develop a maintenance strategy for aquatic equipment

AI-AQ018 - Adopt a reliability centred modelling and workload measurement approach

AI-AQ019- Identify and develop maintenance and failure analysis reporting

5.6 Resource plan

Council utilises contractors to perform routine, programmed and reactive maintenance work for aquatic equipment due to the need for specialist skills, tools and equipment.

Operators of the facilities are responsible for general maintenance as per agreed maintenance financial limits for each facility.

5.6.1 Current resource plan

Where it is deemed Council's responsibility within the management agreement, the current resource plan includes both specialist and non-specialist tasks/jobs that are performed by Contractors. The following table highlights the current resource plan

	Visual Inspections	Specialist Condition Assessment	Routine Maintenance	Reactive Maintenance	Defects Rectifications
Resource	None	Contractor	Contractor	Contractor	Contractor

5.6.2 Recommended resource plan

The recommended resource plan should enable Council to perform non-specialist tasks/jobs while a Contractor performs specialist tasks or jobs. The following table highlights the recommended resource plan:

	Visual Inspections	Specialist Condition Assessment	Routine Maintenance	Reactive Maintenance	Defects Rectifications
Resource	Council	Contractor	Contractor-specialist tasks/jobs only	Contractor-specialist tasks or jobs only	Contractor-specialist tasks/jobs only
			Council non-specialist tasks/jobs only	Council non-specialist tasks/jobs only	Council non-specialist tasks/jobs only

AI-AQ020 - Develop maintenance plan that identifies non-specialist tasks that can be performed by a Council officer at asset type and facility level.

AI-AQ021 - Identify training needs for Council staff to undertake visual inspections and maintenance tasks and implement necessary training.

AI-AQ022 - Review the current routine maintenance tasks highlighted in Appendix A, to determine those that can be performed either by Contractors or MBRC as per recommendation in resource plan section 5.6.2

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

5.7 Capital renewal / replacement plan

5.7.1 Current renewal/replacement plan

The current aquatic equipment renewal/replacement program is developed from a collaborative approach undertaken by relevant stakeholders and is highlighted in Appendix I.

The table below summarises the current project expenditure per financial year.

	Year 1 19/20	Year 2 20/21	Year 3 21/22
Budget - Capital	\$1,052,800	\$700,000	\$600,000
Budget - Operational	\$600,000	\$85,000	\$711,500

The operational renewals refer to assets that Council is renewing that belong to the Department of Education or works that cannot be capitalised such as pool shell repainting.

The budget submissions above need to be re-prioritised and aligned to the results of the recent condition audit. Additionally, there is remaining renewal budget allocation available which should be populated with the replacement of condition 4 & 5 assets as per table below:

	Year 1 19/20	Year 2 20/21	Year 3 21/22
Budget - Capital	\$1,052,800	\$700,000	\$600,000
Allocated Projects - Capital	\$977,800	\$591,360	\$496,050
Funds Available - Capital	\$75,000	\$108,640	\$103,950
Budget - Operational	\$600,000	\$85,000	\$711,500
Allocated Projects - Operational	\$502,000	\$85,000	\$711,500
Funds Available - Operational	\$98,000	Nil	Nil

Any remaining funds should be allocated to unactioned assets highlighted in Appendix J - Condition 4's and Condition 5's from the recent condition audit. This information forms the basis of the recommended renewal program.

5.7.2 Recommended renewal/replacement plan

The recommended approach is for Council to use a predictive modelling process to develop renewal/replacement programs based on equipment condition, utilisation, star rating, criticality and remaining useful life.

A detailed breakdown of estimated costs for the recommended renewal/replacement programs for each facility is shown in Appendix J based upon condition data from the recent audit.

Using the information contained within the recent audit, the average annual renewal allocation should be in the vicinity of \$2.1 million per annum across the following asset types:

- Dosing, Filtration & Plant \$800k p.a.
- Heating \$200k p.a.
- Pool Equipment \$150k p.a.
- Pool Shell Tiling/Replacement \$850k p.a.
- Pool Shell Repainting \$100k p.a.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The current condition data reveals that most assets are half way through their asset lifecycle. Further to this, 1 in 3 aquatic equipment assets will fail in the next 5-10 years (i.e. condition 4 & 5). Aquatic equipment assets have a much shorter lifespan than most civil assets making the window of opportunity to intervene much smaller. Due to minimal preventative and routine maintenance being undertaken to date, the asset base will likely fall short of achieving its expected useful life therefore Council will be required to intervene earlier than anticipated. It is therefore necessary for Council to review its budget allocations as a matter of priority to reflect the information provided from the recent condition audit.

After reviewing such allocations, it has been determined that current budget allocations are insufficient and need to increase otherwise asset failures will increase and a large portion of the asset base will reach a condition state beyond repair requiring an expensive full replacement.

The 19/20 budget shows the budget allocation (capital and operational) is on average \$1.2 million per annum. It is recommended that the renewals allocation be increased as a matter of priority to \$2.1 million per annum. As condition data is re-calibrated and further predictive modelling is undertaken, and detailed engineering inspections are undertaken on the pool shells, this renewal allocation will be updated accordingly.

Appendix K shows the predicted deterioration of the aquatic equipment assets using existing funding allocations and existing maintenance practices vs an increased funding allocation and more proactive maintenance practices. The difference between the two is significant and represents a significant risk to Council. It is for this reason that increasing the maintenance budget to \$425k p.a. (from \$334k p.a.) and average renewals allocations to \$2.1 million p.a. (from \$1.2 million p.a.) is recommended. This will clear the deferred maintenance backlog over the course of the next decade and will return the existing asset base to an adequate standard/condition that is consistently maintained appropriately. Additionally, this will significantly reduce the risk of pool closures, health and safety risks and will reduce the likelihood of expensive lump sum replacement bills in the future.

The recommended funding increases will allow Council to achieve its strategic asset management objectives including:

- Organisational commitment to effective asset management
- Managing risk appropriately
- Delivery of services to agreed standards
- Optimise asset performance
- Minimise asset failure where minimal assets reach a condition state 5

- | |
|--|
| <ul style="list-style-type: none">• AI-AQ023 - Adopt predictive modelling tool to build renewal/replacement programs for aquatic equipment in consultation with stakeholders.• AI-AQ024 - Develop a periodic exception report for monitoring condition ratings 4 and 5 for aquatic equipment to include in renewal/replacement programs.• AI-AQ025 - Create ePIDs for the recommended renewal/replacement programs from budget year 20/21 onwards.• AI-AQ026 - Engage services of a technical specialist to prepare an engineering assessment report for all pool shells to determine estimated renewal costs |
|--|

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

6 Corporate Systems

The corporate systems that support asset management activities are listed in the SAMP in Table 6.1 in Appendix B.

7 Financial Summary

7.1 Useful Life

When assets are initially recognised, each asset is recorded with an estimated useful life which is used as a basis for determining depreciation. The table below outlines the estimated useful life for aquatic equipment.

Asset Type	Estimated Useful Life	Valuation Methodology
Heating	15 years	Cost
Dosing	10 years	Cost
Plant	15 years	Cost
Pool Shell	50 years	Fair Value - last revalued 31.05.2017
Pool Equipment	<ul style="list-style-type: none"> • Start and Finish Blocks (20 years) • Lane Ropes (5 years) • Pool Covers/Thermal Blankets (15 years) • Furniture/Umbrellas (5 years) • Pool Vacuum Cleaner (10 years) • Blanket Pool Rollers (5 years) 	Cost

7.2 Financial Statements and Ratios

7.2.1 Valuations & Depreciation

(all figures in \$M):

Description	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Total Replacement Value (TRV)	23.3	29.1	29.9	30.7	31.8	32.1	32.7	33.3	33.9	34.5
Total Written Down Value (WDV)	13.2	18.9	19.0	19.1	19.3	18.9	18.7	18.5	18.3	18.1
Total Annual Depreciation Expense	0.662	0.729	0.740	0.761	0.778	0.781	0.790	0.792	0.796	0.797

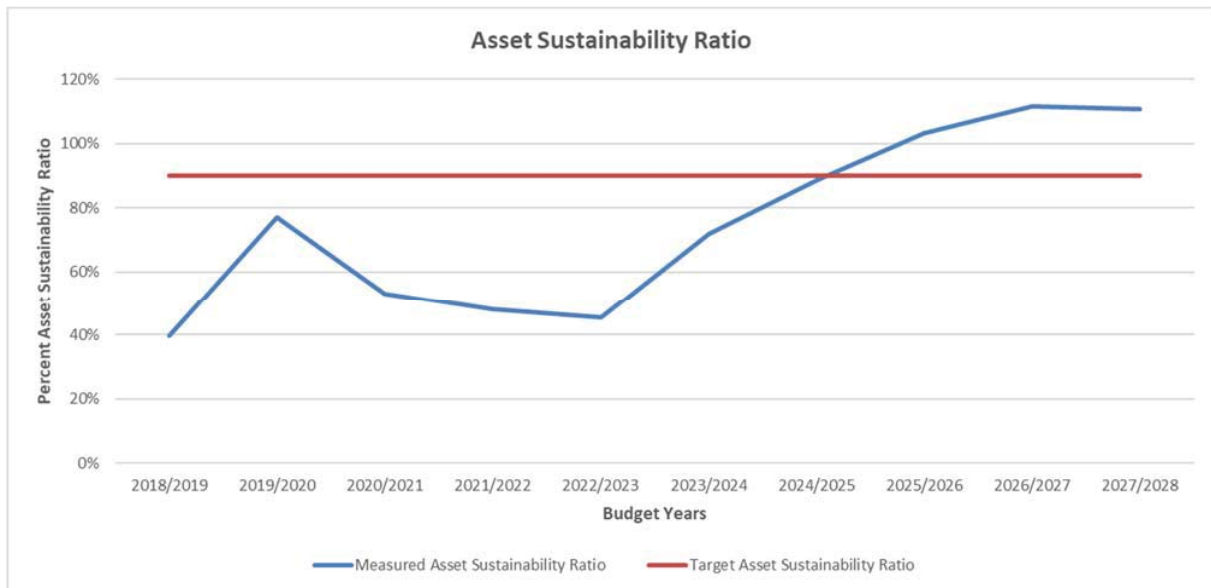
- AI-AQ027 - Cleanse, commission and re-life the financial asset register to align with the condition audit results recently obtained

7.2.2 Financial Sustainability Ratios

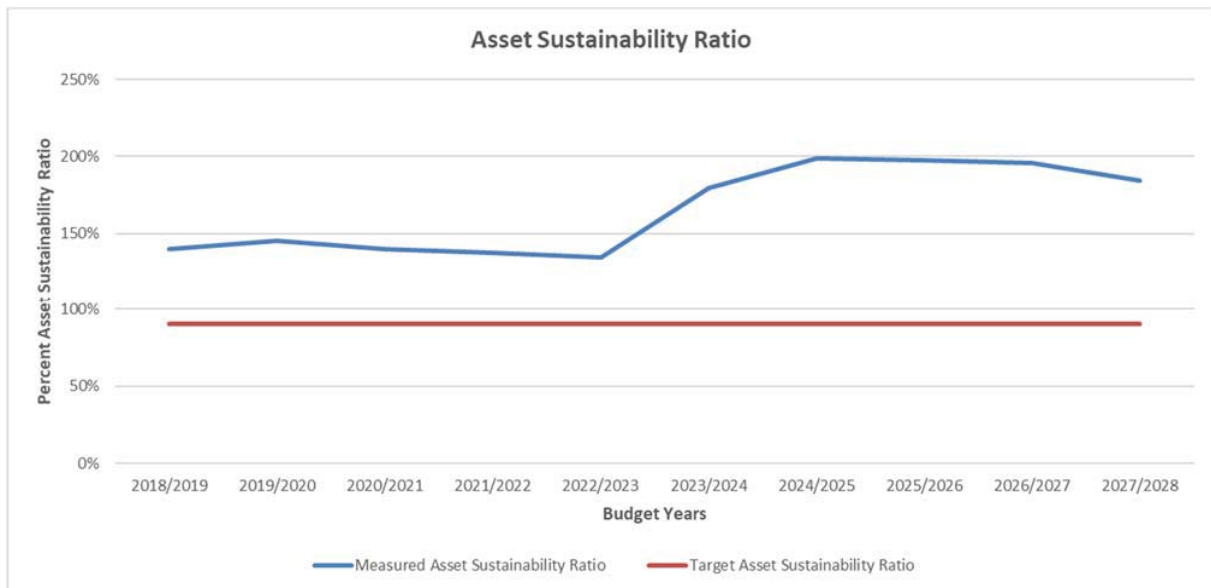
The Asset Sustainability Ratio demonstrates the extent to which the infrastructure assets managed by Council are being replaced as they reach the end of their useful lives. This ratio measures how much capital expenditure goes toward replacing existing assets each year relative to depreciation expense. The target range is approximately 90%-110%.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The current renewal allocation (i.e. \$1.2 million on average p.a.) presents an asset sustainability ratio as follows:



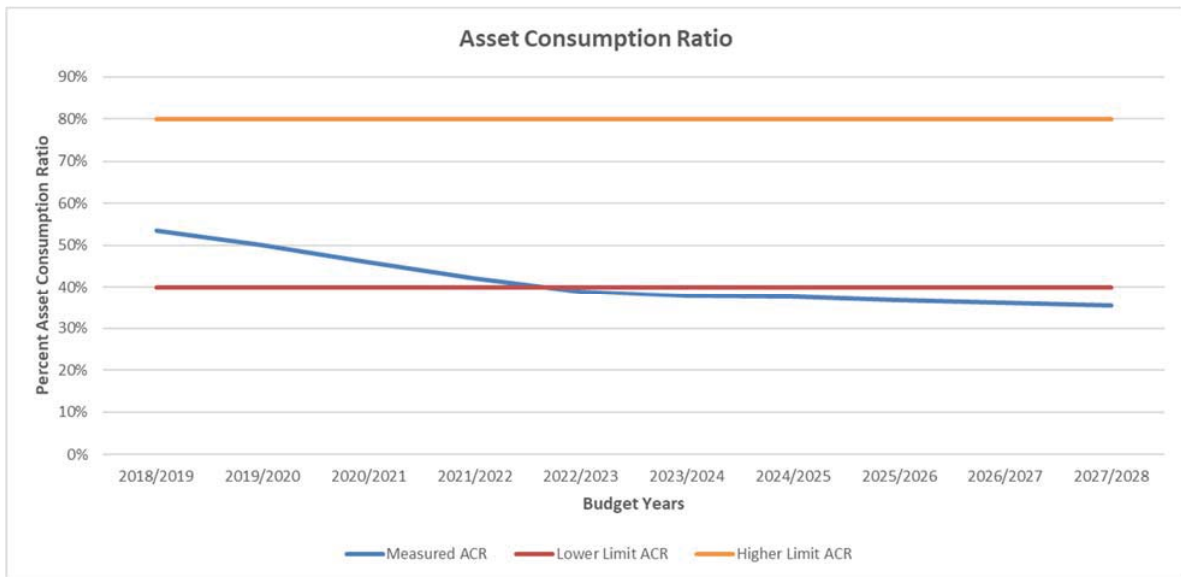
The proposed renewal allocations (i.e. \$2.1 million on average p.a.) shows the following asset sustainability ratio.



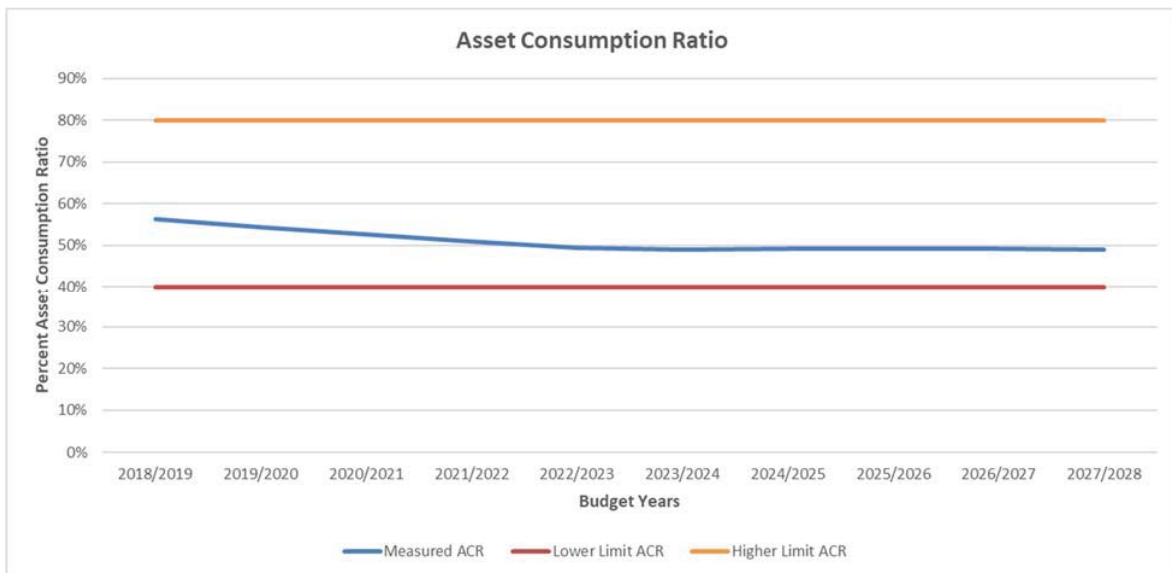
The Asset Consumption Ratio is the value of infrastructure assets divided by gross current replacement cost of infrastructure assets. This ratio shows the current value of depreciable assets relative to their “as new value” in current prices. This ratio seeks to highlight the aged condition of the stock of physical assets. Council’s desired range is between 40% to 80%.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

The current renewals program (i.e. an average of \$1.2 million p.a.) shows the following asset consumption ratio.



The proposed renewals program (i.e. \$2.1 million on average p.a) shows the following asset consumption ratio:



It is clearly evident that the proposed funding allocations put Council in a much stronger financial position as shown by these financial ratios.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

8 Action Items

Action Item No.	Description	Responsibility	Due Date
AI-AQ001	Capture asset attribute, condition and spatial data on all aquatic equipment via TOMAS and develop process for updating attributes on new equipment	AMT and B&F	19/20 - Q4
AI-AQ002	Develop reporting for monitoring levels of service for each facility	AMT and B&F	19/20 - Q2
AI-AQ003	Implement a systemized process for collecting water quality tests (hard copy documents currently being used)	AMT	19/20 - Q1
AI-AQ004	Configure Council's BMS to aquatic facilities not yet connected, to monitor and report on pool safety and performance (Note: only Bribie Island, CRALC, Deception Bay, Redcliffe-Settlement Cove are configured to the BMS.	AMT, B&F and PCS	20/21 - Q1
AI-AQ005	Create a new CSR code for aquatic centres to improve reporting on reactive maintenance work	AMT and ICT	21/22 - Q1
AI-AQ006	Develop a process for standardising aquatic equipment assets for upgrades or new capital projects	AMT, B&F and PMC	20/21 - Q2
AI-AQ007	Develop a facility management plan for each of the fourteen (14) aquatic facilities	AMT, PCS, B&F	20/21 - Q1
AI-AQ008	To update the aquatic centre strategy documentation mentioned above	AMT, P&CS and Sports & Rec and Community Services	20/21 - Q3
AI-AQ009	Develop process for recording/reporting of utilization and performance of aquatic equipment	AMT and B&F	19/20 - Q4
AI-AQ010	Develop defect management, business process for aquatic equipment for both Council responsibility and tenant/lessee responsibility.	AMT, P&CS and B&F	20/21 - Q4
AI-AQ011	Create defect code for aquatic equipment to update all defects identified.	AMT and B&F	20/21 - Q3
AI-AQ012	Develop maintenance strategy for the management of aquatic equipment	B&F	20/21 - Q3
AI-AQ013	Implement routine maintenance schedules to record details of maintenance activities performed by Contractors using Council's Corporate system (i.e. eContractor)	AMT and B&F	20/21 - Q1
AI-AQ014	Review the desired frequency of all current maintenance activities to their	AMT and B&F	20/21 - Q4

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 46
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Action Item No.	Description	Responsibility	Due Date
	optimum maintenance intervals based on their operation and root cause analysis		
AI-AQ015	Implement a comparison and monitoring report of planned versus reactive maintenance costs over time	AMT, P&CS and B&F	19/20 - Q4
AI-AQ016	Develop maintenance plan that identifies maintenance work that can be performed by Council at equipment type and facility level	AMT and B&F	19/20 - Q4
AI-AQ017	Adopt a reliability centred maintenance modelling tool and workload measurement approach	AMT	20/21 - Q1
AI-AQ018	Identify develop maintenance failure analysis monitoring reporting/root causes	AMT and B&F	19/20 - Q4
AI-AQ019	Develop maintenance plan that identifies non-specialist tasks that can be performed by Council Officers at asset type and facility level	AMT	19/20 - Q3
AI-AQ020	Identify training needs for Council staff to undertake visual inspections and maintenance tasks. Implement necessary training	AMT and B&F	19/20 - Q3
AI-AQ021	Adopt Predictive Modelling tool to build renewal/replacement programs for aquatic equipment in consultation with stakeholders	AMT and F&PS	19/20 - Q4
AI-AQ022	Review the current routine maintenance tasks highlighted in Appendix A, to determine those that can be performed either by Contractors or MBRC as per recommendation in resource plan section 5.6.2	AMT & BF	20/21-Q1
AI-AQ023	Develop periodic exception reporting for monitoring condition ratings of 5 to include in renewal/replacement program.	AMT and B&F	18/19 - Q3
AI-AQ024	Create ePIDs for the recommended renewal/replacement programs in Table 5.7.1c	AMT/B&F	19/20 - Q1
AI-AQ025	Review renewals budget allocation for aquatic equipment	AMT	19/20 - Q4
AI-AQ026	Engage services of a technical specialist to prepare an engineering assessment report for all pool shells to determine estimated renewal costs.	AMT	20/21- Q1
AI-AQ027	Cleanse, commission and re-life the financial asset register to align with the condition audit results recently obtained	Finance	19/20 Q2

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

9 Appendices

<i>Appendix.</i>	<i>Title</i>	<i>Section</i>
Appendix A	Council and operator's routine maintenance activities & responsibilities	2
Appendix B	Star Rating Methodology	2
Appendix C	Aquatic equipment attributes	2.1
Appendix D	Current Condition Profile	5.2
Appendix E	Current Defects by Equipment Type	5.3
Appendix F	Pool Water Quality Test Measurement Guidelines	5.4
Appendix G	Council and Lessee Agreed Financial Limits	5.5.1
Appendix H	Comparison of Planned versus Reactive Maintenance	5.5.1
Appendix I	Current Capital Renewal/Replacement Programs (ePIDS)	5.7.1
Appendix J	Recommended Renewal/Replacement Programs	5.7.2
Appendix K	Predicted Deterioration of Asset Base under Current and Proposed Funding Allocations	5.7.2

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix A: Council and Operator Maintenance Activities & Responsibilities

	P1 - Routine Maintenance Pool	Interval	Responsibility
1	Check water clarity of pool	Daily	Operator
2	Undertake full chemical test, advise Principal of anomalies	Daily	Operator
3	Check for filter media on pool floor	Daily	Operator
4	Check general pool condition, advise Principal of issues	Weekly	Operator
5	Report Water usage for Site	Quarterly	MBRC
6	Report Water usage for individual pools if individual pool meter is available.	Quarterly	MBRC
	CST1 - Routine Maintenance Chemical Storage Tanks	Interval	Responsibility
1	Check chemical storage tanks and areas for issues	Daily	Operator
	BCO2 Tank Routine Maintenance - Bulk CO2 Tanks	Interval	Responsibility
1	Check bulk CO ₂ tank for general condition (tank works by client)	Fortnightly	Operator
	PS1 - Routine Maintenance Steel Bodied Pumps	Interval	Responsibility
1	Check condition of strainer basket advise Principal if blocked	Daily	Operator
2	Check condition of pressure gauges	Daily	Operator
3	Check seal for leaks with unit in operation	Weekly	Operator
4	Check pump/motor operation for noise, heat and vibration	Weekly	Operator
5	Check supports and flexible pipes for wear or damage	Quarterly	MBRC
6	Test flow switch for correct operation	Quarterly	MBRC
7	Where pumps are fitted with grease nipples, regrease bearings on pump head bearing and motor	Yearly	MBRC
8	Clean dust from motors	Quarterly	MBRC
9	Check Foot Valve functionality when cleaning strainer baskets	Weekly	Operator
	BWT1 - Routine Maintenance Backwash Tank	Interval	Responsibility
1	Check backwash tank for sludge level.	Quarterly	MBRC
	BT1 - Routine Maintenance Balance Tank	Interval	Responsibility
1	Check Balance Tank for condition and cleanliness without entering Tank	Quarterly	MBRC
2	Visual Check of foot valve condition	Quarterly	MBRC
	VP1 - Routine Maintenance Valves and Pipework	Interval	Responsibility
1	Inspect and report on all valves and above ground pipework for condition and leaks.	Quarterly	MBRC
	PS2 - Routine Maintenance Steel Bodied Pumps - Hydro Titan	Interval	Responsibility

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 49
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

1	Check condition of strainer basket advise operator if blocked	Daily	Operator
2	Check condition of pressure gauges	Daily	Operator
3	Check seal for leaks with unit in operation	Weekly	Operator
4	Check pump/motor operation for noise, heat and vibration	Weekly	Operator
5	Check supports and flexible pipes for wear or damage	Quarterly	MBRC
6	Test flow switch for correct operation	Quarterly	MBRC
7	Inspect and regrease bearings on pump head bearing and motor	Yearly	MBRC
8	Clean dust from motors	Quarterly	MBRC
9	Check Foot Valve functionality when cleaning strainer baskets	Weekly	Operator
AB1 - Routine Maintenance Air Blower Pump - Esam		Interval	Responsibility
1	Check condition of Air intake Filters visually	Quarterly	MBRC
2	Check pump/motor operation for noise, heat and vibration	Weekly	Operator
3	Check supports and flexible pipes for wear or damage	Quarterly	MBRC
4	Replace main seal, turbine and fan end bearings, motor end cover, turbine end gasket, foam and cage	5 Yearly	MBRC
5	Replace Polyester Filters, metal capacitor	Yearly	MBRC
6	Replace metal capacitor	Yearly	MBRC
PS3 - Routine Maintenance Plastic Bodied Pumps		Interval	Responsibility
1	Check condition of strainer basket advise operator if blocked	Daily	Operator
2	Check condition of pressure gauges	Daily	Operator
3	Check seal for leaks with unit in operation	Weekly	Operator
4	Inspect main seal	3 Yearly	MBRC
5	Check pump/motor operation for noise, heat and vibration	Fortnightly	Operator
6	Clean dust from motor	Quarterly	MBRC
7	Check supports and flexible pipes for wear or damage	Quarterly	MBRC
8	Test flow switch for correct operation	Quarterly	MBRC
9	Dismantle pump wet-end and inspect	3 Yearly	MBRC
10	Clean dust from motors	Quarterly	MBRC
11	Check Foot Valve functionality when cleaning strainer baskets	Weekly	Operator
SF1 - Routine Maintenance Sand Filters		Interval	Responsibility
1	Inspect vessels for signs of leaks and general condition	Daily	Operator
2	Check vacuum breaker operation	Quarterly	MBRC
3	Check filter pressures and backwash history	Daily	Operator
4	Undertake backwash and check backwash time and flow as required or at interval	Fortnightly	Operator

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 50
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

5	Check all valves for operation and condition	Quarterly	MBRC
6	Check time since last media replacement. Inspect filter bed for signs of lateral wear or damage.	Yearly	MBRC
UF1 - Routine Maintenance UFF Filters		Interval	Responsibility
1	Inspect vessels for signs of leaks and general condition	Daily	Operator
2	Check filter pressures and backwash history	Daily	Operator
3	Open air bleed to ensure all air is purged	Daily	Operator
4	Check all valves for operation and condition	Quarterly	MBRC
5	Check filter loading blower for condition, noise and heat.	Quarterly	MBRC
6	Carry out Filter Service	5 Yearly	MBRC
CF1 - Routine Maintenance Cartridge Filters		Interval	Responsibility
1	Inspect vessels for signs of leaks and general condition	Daily	Operator
2	Check filter pressures and cartridge cleaning/replacement history	Daily	Operator
	If pressure gauge reading has risen >50kpa, clean or replace cartridges		
3	Open air bleed to ensure all air is purged	Weekly	Operator
4	Check all valves for operation and condition	Quarterly	MBRC
CC2 - Routine Maintenance Chemistry Controller - Siemens Strantrol System 3i		Interval	Responsibility
1	Clean Unit; wipe down with soft damp cloth using clean water only	Quarterly	MBRC
2	Check probe condition and calibration	Weekly	Operator
3	Check probe condition and calibration; clean tips with HRR Cleaning Solution and toothbrush. Allow to run for 15m in sample stream water before recalibrating	Quarterly	MBRC
4	Check probe strainer; clean if required	Fortnightly	Operator
5	Check controller fault record; advise if faults found for further investigation	Weekly	Operator
6	Check controller functionality; system able to dose chlorine and pH	Daily	Operator
7	Check operator chemical records for correct levels and stability	Daily	Operator
8	Service Controller	Yearly	MBRC
9	Inspect probes for condition, stability and ability to hold calibration.	Yearly	MBRC
CC1 - Routine Maintenance Chemistry Controller - Ezetrol		Interval	Responsibility
1	Clean Unit; wipe down with soft damp cloth using clean water only	Quarterly	MBRC
2	Check probe condition and calibration; clean and calibrate	Weekly	Operator
3	Check probe strainer; clean if required	Daily	Operator

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 51
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

4	Check controller fault record; advise if faults found for further investigation	Weekly	Operator
5	Check controller functionality; system able to dose chlorine and pH	Daily	Operator
6	Check operator chemical records for correct levels and stability	Daily	Operator
7	Service Controller	Yearly	MBRC
8	Inspect probes for condition, stability and ability to hold calibration.	Yearly	MBRC
	CC3 - Routine Maintenance Chemistry Controller - Siemens Strantrol System4/5/6	Interval	Responsibility
1	Clean Unit; wipe down with soft damp cloth using clean water only	Quarterly	MBRC
2	Check probe condition and calibration	Weekly	Operator
3	Check probe condition and calibration; clean tips with HRR Cleaning Solution and toothbrush. Allow to run for 15m in sample stream water before recalibrating if required	Quarterly	MBRC
4	Check probe strainer; clean if required	Fortnightly	Operator
5	Check controller fault record; advise if faults found for further investigation	Weekly	Operator
6	Check controller functionality; system able to dose chlorine and pH	Daily	Operator
7	Check operator chemical records for correct levels and stability	Daily	Operator
8	Service Controller	Yearly	MBRC
9	Inspect probes for condition, stability and ability to hold calibration.	Yearly	MBRC
	CC4 - Routine Maintenance Chemistry Controller - Pentair Intellichem	Interval	Responsibility
1	Clean Unit; wipe down with soft damp cloth using clean water only	Quarterly	MBRC
2	Inspect Peristaltic Squeeze Tubes for wear/leaks	Weekly	Operator
3	Replace peristaltic squeeze tubes as required or on interval	Yearly	MBRC
4	Check interconnecting hoses for decay	Quarterly	MBRC
5	Clean probes	Quarterly	MBRC
6	Inspect probes for condition, stability and ability to hold calibration.	Yearly	MBRC
7	Clean strainer	Quarterly	MBRC
8	Check controller fault record; advise if faults found for further investigation	Weekly	Operator
9	Check controller functionality; system able to dose chlorine and pH	Daily	Operator

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 52
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

10	Check operator chemical records for correct levels and stability	Daily	Operator
11	Service Controller	Yearly	MBRC
	CP1 - Routine Maintenance Chemical Dosing Pump - Prominent Beta	Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Check system is maintaining chlorine level	Daily	Operator
7	Check hydraulic lines fixed firmly to liquid end	Quarterly	MBRC
8	Check suction valve and discharge valve are fitted tightly	Quarterly	MBRC
9	Check tightness of the entire liquid end, particularly around the leakage hole	Quarterly	MBRC
10	Check that the flow is correct: Allow the pump to prime briefly - turn the multifunction switch briefly to "test"	Quarterly	MBRC
11	Check electrical connections are intact	Quarterly	MBRC
12	Check integrity of housing	Quarterly	MBRC
13	Check dosing head screws are tight	Quarterly	MBRC
14	Check bypass line is fixed firmly to the liquid end	Quarterly	MBRC
15	Check bleed valve is tight	Quarterly	MBRC
16	Check discharge and bypass lines for kinks	Quarterly	MBRC
17	Dismantle and inspect Diaphragm, suction valve, discharge valve, O-rings.	Yearly	MBRC
18	Remove and clean injectors	Yearly	MBRC
	CP2 - Routine Maintenance Chemical Dosing Pump - Prominent Concept	Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Check system is maintaining chlorine level	Daily	Operator
7	Check hydraulic lines fixed firmly to liquid end	Quarterly	MBRC
8	Check suction valve and discharge valve are fitted tightly	Quarterly	MBRC
9	Check tightness of the entire liquid end, particularly around the leakage hole	Quarterly	MBRC
10	Check that the flow is correct: Allow the pump to prime briefly - turn the multifunction switch briefly to 100%	Quarterly	MBRC

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 53
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

CP4 - Routine Maintenance Chemical Dosing Pump - Diaphragm		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check suction and discharge tubes for correct connection and possible damage	Monthly	Operator
5	Inspect injectors for condition, crystallisation, blockages and damage, clean if required.	Quarterly	MBRC
6	Check electrical connections are secure and in good condition	Quarterly	MBRC
7	Check system is maintaining chlorine level	Daily	Operator
8	Dismantle and inspect Diaphragm, suction valve, discharge valve, O-rings. Replace if failing or worn.	Yearly	MBRC
CP3 - Routine Maintenance Chemical Dosing Pump - Wallace + Tiernan Chem Ad VPP-S		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Check squeeze tube for condition and signs of leaks (Peristaltic Pump)	Quarterly	MBRC
7	Remove and clean pump inlet and outlet non-Defect turn valves	Quarterly	MBRC
8	Check electrical connections are secure and in good condition	Quarterly	MBRC
9	Check system is maintaining chlorine level	Daily	Operator
10	Replace capacity kit and pump hose	Yearly	MBRC
11	Replace pump rotor and rotor rollers	3 Yearly	MBRC
CP5 - Routine Maintenance Chemical Dosing Pump - Peristaltic		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check squeeze tube, roller block for lubrication, condition and signs of leaks	Quarterly	MBRC

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 54
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

5	Check suction and discharge tubes for correct connection and possible damage	Quarterly	MBRC
6	Inspect injectors for condition, crystallisation, blockages and damage	Quarterly	MBRC
7	Inspect injector rubber, check is clean and without damage	Quarterly	MBRC
8	Check electrical connections are secure and in good condition	Quarterly	MBRC
9	Check system is maintaining chlorine level	Daily	Operator
CP6 - Routine Maintenance Chemical Dosing Pump - LMI		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Remove and clean pump inlet and outlet non-Defect turn valves	Quarterly	MBRC
7	Check electrical connections are secure and in good condition	Quarterly	MBRC
8	Check system is maintaining chlorine level	Daily	Operator
9	Dismantle and inspect Liquiform (diaphragm), cartridge valves, seal rings/valve balls, multi-function valve cap and injection check valve spring.	Yearly	MBRC
CP7 - Routine Maintenance Chemical Dosing Pump - Sera		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Remove and clean pump inlet and outlet non-Defect turn valves	Quarterly	MBRC
7	Check electrical connections are secure and in good condition	Quarterly	MBRC
8	Check system is maintaining chlorine level	Daily	Operator
9	Check Oil level (oil eye)	Fortnightly	Operator
10	Check Tight fit of the screws fastening the pump body	Quarterly	MBRC
11	Check motor does not produce strong vibrations	Fortnightly	Operator
12	Check air cooling openings are not closed or obstructed	Fortnightly	Operator
13	Perform oil change	Yearly	MBRC

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 55
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

14	Dismantle and inspect diaphragm, integrated overflow diaphragm, suction and pressure valves	Yearly	MBRC
	CP9 - Routine Maintenance Chemical Dosing Pump - Rolachem	Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Check squeeze tube for condition and signs of leaks (Peristaltic Pump)	Quarterly	MBRC
7	Remove and clean pump inlet and outlet valves	Quarterly	MBRC
8	Check electrical connections are secure and in good condition	Quarterly	MBRC
9	Check system is maintaining chlorine level	Daily	Operator
10	Replace capacity kit and pump hose	Yearly	MBRC
11	Replace pump rotor and rotor rollers	3 Yearly	MBRC
	CP8 - Routine Maintenance Chemical Dosing Pump - Tacmina	Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check suction line for condition, crystallisation and blockages.	Weekly	Operator
3	Check dosing line for condition, crystallisation and blockages.	Weekly	Operator
4	Check foot valve operation	Quarterly	MBRC
5	Remove injector and clean	Quarterly	MBRC
6	Remove and clean pump inlet and outlet valves	Quarterly	MBRC
7	Check electrical connections are secure and in good condition	Quarterly	MBRC
8	Check system is maintaining chlorine level	Daily	Operator
9	Check Oil level (oil eye)	Fortnightly	Operator
10	Check Tight fit of the screws fastening the pump body	Quarterly	MBRC
11	Check motor does not produce strong vibrations	Fortnightly	Operator
12	Check air cooling openings are not closed or obstructed	Fortnightly	Operator
13	Perform oil change	Yearly	MBRC
14	Dismantle and inspect diaphragm, integrated overflow diaphragm, suction and pressure valves.	Yearly	MBRC
	CO2 - Routine Maintenance CO2 Dosing System	Interval	Responsibility
1	Check manual operation of CO ₂ dosing unit if applicable	Daily	Operator
2	Remove CO ₂ stone and check condition	Weekly	Operator

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 56
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

3	Check pool to see if CO ₂ is appearing in pool. Adjust flow if so.	Weekly	Operator
	CH1 - Routine Maintenance Calcium Hypochlorite Chlorine Feeders - Constant Operation - Pulsar	Interval	Responsibility
1	Check briquettes level in feeder top hopper	Daily	Operator
2	Check level of cleaning solution in 5L dosing drum, refill as required	Weekly	Operator
3	Check solenoid spray water strainer clear any debris	Weekly	Operator
4	Check operation of lid safety switch, safety overflow switch	Daily	Operator
5	Check hopper briquette level inspect manifold assembly for leaks	Daily	Operator
6	Ensure inlet supply solenoid valve coils are not hot to touch. Check ball valve is open during fill cycle and allowing flow.	Daily	Operator
7	Remove top hopper section and deflection plate from inside the feeder and inspect inside the sump area to ensure that the cleaning solution has kept it clear from scale. If excessive solids are present in the sump, open drain port valve on back of unit and hose out the sump with fresh water; close valve; replace deflection plate and top hopper; resume normal operations	Weekly	Operator
8	Check hopper is clear of Briquettes, remove top hopper and deflection plate, then flush out sump with hose after opening drain port valve and pour some extra cleaning solution around the sides of the sump – leave to descale for min 30-60mins then hose out through drain port. Replace deflection plate and top hopper and resume normal operations	Quarterly	MBRC
9	Inspect venturi for clogging/build-up	Quarterly	MBRC
10	Have technician perform inspection of the unit venturi and solenoids	Quarterly	MBRC
11	Replace supply solenoid valve	Yearly	MBRC
	CH3 - Routine Maintenance Calcium Hypochlorite Feeder - Generic	Interval	Responsibility
1	Remove cover and check system for condition and leaks	Daily	Operator
2	Check water tank for calcium build-up, organise to de-scale if necessary	Weekly	Operator
3	Check inlet filter, clean or organise replacement if necessary	Quarterly	MBRC
4	Check water level in mixing chamber is half-full	Quarterly	MBRC
5	Check float valve in mixing chamber seals correctly	Quarterly	MBRC
6	Check float switch in mixing chamber works at high and low levels	Quarterly	MBRC
7	Check bucket straps for condition	Quarterly	MBRC

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 57
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

8	Check acid pump condition	Quarterly	MBRC
9	Check for fault warnings on the control panel. Investigate if found.	Daily	Operator
CS1 - Routine Maintenance Salt Chlorinator - AIS		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check all electrical terminals for tightness	6 Monthly	MBRC
3	Check cells for condition, spray with corrosion preventing product	6 Monthly	MBRC
4	Check cells for calcium build-up; advise acid wash if required	Quarterly	MBRC
5	Check screen for alarms and warnings	Daily	Operator
6	Check time since last service. Recommend if >12 months	Yearly	MBRC
7	Check circulation pump for condition, leaks, heat and vibration	Weekly	Operator
TS1 - Routine Maintenance Turbidity Sensor - Hach		Interval	Responsibility
1	Check system for condition and leaks	Weekly	Operator
2	Inspect and clean photocell window, bubble trap and body	Quarterly	MBRC
3	Calibrate sensor	Quarterly	MBRC
4	Check electrical connections	Quarterly	MBRC
CS2 - Routine Maintenance Salt Chlorinator - Pentair Freeflo		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check all electrical terminals for tightness	6 Monthly	MBRC
3	Inspect cell	Quarterly	MBRC
4	Check cells for calcium build-up	Quarterly	MBRC
5	Replace cell when unit age reaches interval	3 Yearly	MBRC
6	Check salt levels	Weekly	Operator
7	Check screen for alarms and warnings	Daily	Operator
8	Check time since last chlorinator service. Recommend if >12 months	Yearly	MBRC
9	Check circulation pump for condition, leaks, heat and vibration	Weekly	Operator
FM1 - Routine Maintenance Flow Meter		Interval	Responsibility
1	Check system for condition and leaks	Weekly	Operator
2	Calibrate unit	Yearly	MBRC
3	Check electrical connections	Quarterly	MBRC
MU1 - Routine Maintenance Water Make-up System		Interval	Responsibility
1	Check operation of water make-up valve	Quarterly	MBRC
2	Check water level floats	Quarterly	MBRC
3	Check limit switches for correct operation and continuity, where present	Yearly	MBRC
4	Check for leaks	Quarterly	MBRC

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 58
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

CS3 - Routine Maintenance Salt Chlorinator - Waterco/Zodiac/Astral		Interval	Responsibility
1	Check system for condition and leaks	Daily	Operator
2	Check all electrical terminals for tightness	6 Monthly	MBRC
3	Inspect cell	Quarterly	MBRC
4	Check cells for calcium build-up	Quarterly	MBRC
5	Replace cell when unit age reaches interval	3 Yearly	MBRC
6	Check salt levels	Weekly	Operator
7	Check screen for alarms and warnings	Daily	Operator
HG1 - H2 Gas Detector		Interval	Responsibility
1	Check electrical connections	Quarterly	MBRC
2	Check accuracy of detector and calibrate or replace if required	Yearly	MBRC
Routine Maintenance Heat Banks		Interval	Responsibility
1	Check pool heat pumps	6 Monthly	MBRC
2	Check heat bank switchboards	6 Monthly	MBRC
3	Check heating system including: <ul style="list-style-type: none"> • refrigerant • controllers • VSD & fans • valves • compressors & condensers • terminals, pipes & fittings • water flow switches • evaporator coils • suction accumulators • oil levels & pressure • temperature sensors • electrical connections and terminations • evaporator de-icing elements • bearings 	6 Monthly	MBRC

Appendix B: Star Rating Methodology

Definitions and meanings

Volume of transactions or services processed <i>Note: Based on qualitative analysis with key stakeholders and their respective teams, since data is not yet available.</i>	Building Design Complexity
<ul style="list-style-type: none"> • High - significantly high volume of transactions and/or services completed per year • Med - medium to high volume of transactions and/or services completed per year • Low - very low volume of transactions and/or services completed per year 	<ul style="list-style-type: none"> • High - e.g. complex configuration with a significant number & size of engineering systems installed such as filtration, dosing, plant, heating, irrigation, structural, mechanical, plumbing & hydraulics, electrical & lighting, fire protection, security, alarm or hi-tech systems and building may also have green star rating • Med - e.g. No hi-tech and irrigation systems. Less complex configuration with medium size engineering systems installed such as structural, mechanical, plumbing & hydraulics, electrical & lighting, fire protection, security or alarm systems • Low - No hi-tech and irrigation systems. Simple configuration of engineering systems or no engineering systems installed.

Decision matrix for assigning star rating for the building types

Volume of transactions or services	Building design complexity	Star Rating
High	High	5
High	Med	4
High	Low	3
Medium	Medium	3
Medium	Low	2
Low	Low	1

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix C: Aquatic Equipment Attributes

Asset Group	Asset Type	Asset Sub-Type	Asset Attribute Details
Aquatic	Dosing		<ol style="list-style-type: none"> 1. Voltage Input (V) 2. Current (I) 3. Power Rating (kWh) 4. Accuracy (%) 5. Flow rate (m3/hr) 6. Serial Number 7. Model Number 8. Manufacturer
Aquatic	Filtration		<ol style="list-style-type: none"> 1. Capacity (L) 2. Type of media: <ul style="list-style-type: none"> • Sand • Basket Type • Membrane • Other 4. Power Rating (kWh) 5. Accuracy (%) 6. Flow rate (m3/hr) 7. Serial Number 8. Model Number 9. Manufacturer
Aquatic	Heating		<ol style="list-style-type: none"> 1. Voltage Input (V) 2. Current (I) 3. Power Rating (kWh) 4. Accuracy (%) 5. Flow rate (m3/hr) 6. No. Heater Banks 7. Serial Number 8. Model Number 9. Manufacturer
Aquatic	Plant	Controller	<ol style="list-style-type: none"> 1. pH Range 2. ORP range 3. Types of probes 4. Serial Number 5. Model Number 6. Manufacturer
Aquatic	Plant	Flow Meter	<ol style="list-style-type: none"> 1. Voltage Input (V) 2. Current (I) 3. Power Rating (kWh) 4. Accuracy (%) 5. Flow rate (m3/hr) 6. Serial Number 7. Model Number 8. Manufacturer
Aquatic	Plant	Pump Unit	<ol style="list-style-type: none"> 1. Voltage Input (V) 2. Current (I) 3. Power Rating (kWh) 4. No. of Phases 5. Drive Type: <ul style="list-style-type: none"> • VSD • DOL

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 61
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Group	Asset Type	Asset Sub-Type	Asset Attribute Details
			6. Impeller Size (mm) 7. Flow rate (m3/hr) 8. Serial Number 9. Model Number 10. Manufacturer
Aquatic	Plant	Tank	1. Capacity (L) 2. Serial Number 3. Model Number 4. Manufacturer
Aquatic	Plant	Valve	1. No. of Valves 2. Valve Type: <ul style="list-style-type: none"> • Ball • Butterfly • Gate 3. Serial Number 4. Model Number 5. Manufacturer
Aquatic	Pool Shell		1. Capacity (L) 2. Lining Type: <ul style="list-style-type: none"> • Fibreglass • Concrete • Other

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix D: Current Condition Profile

Table 5.3.1a Condition Profile Dosing Equipment

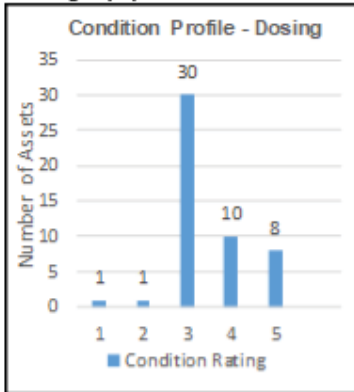


Table 5.3.1b Condition Profile Filtration Equipment

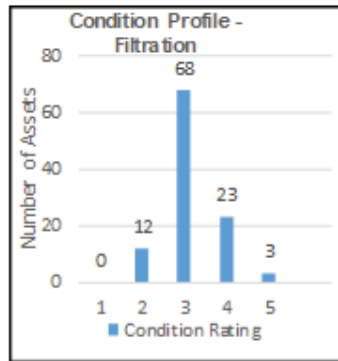


Table 5.3.1c Condition Profile Heating Equipment

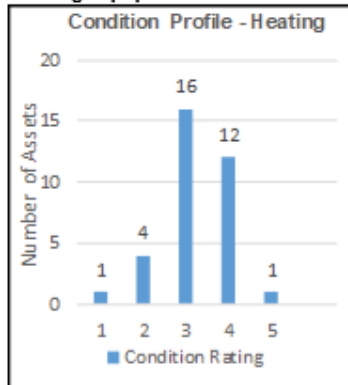


Table 5.3.1d Condition Profile Plant Equipment

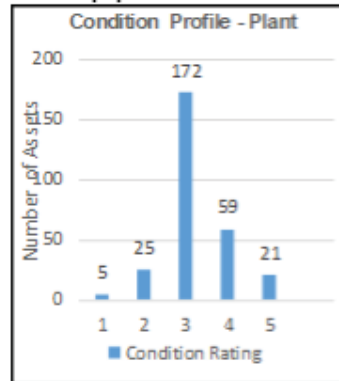


Table 5.3.1e Condition Profile Pool Shell

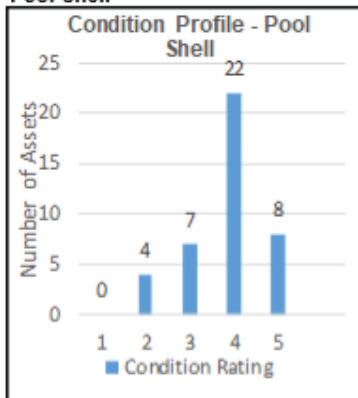
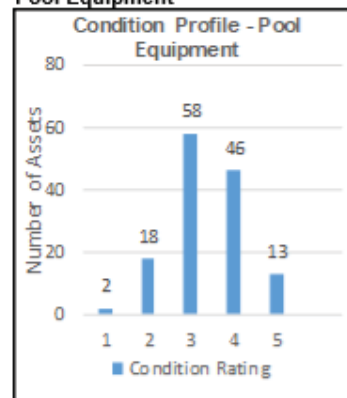


Table 5.3.1f Condition Profile Pool Equipment



Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 63
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Facility Name	Dosing Condition Rating	Filtration Condition Rating	Plant Condition Rating	Pool Shell Condition Rating	Heating	Pool Equipment
Albany Creek Leisure Centre	3	3	4	5	3	4
Ferny Hills Swimming Pool	4	3	3	4	3	3
Lawnton Aquatic Centre	4	3	3	3	3	4
Dayboro Swimming Pool	3	3	3	4	2	4
Murrumba Downs Swimming Pool	4	3	3	4	2	3
North Lakes Aquatic Centre	3	3	3	5	3	3
Redcliffe Memorial Swimming Pool	3	3	3	5	4	4
Settlement Cove Lagoon	3	3	3	4	3	3
Deception Bay Swimming Pool	3	3	3	5	4	2
Caboolture Regional Aquatic and Leisure Centre	Not assessed due to current renewal work	Not assessed due to current renewal work	Not assessed due to current renewal work	Not assessed due to current renewal work	Not assessed due to current renewal work	Not assessed due to current renewal work
Caboolture Swimming Pool and Fitness Centre	3	3	3	4	4	3
Bribie Island Aquatic Leisure Centre	4	4	3	5	3	3
Woodford Swimming Pool	3	3	3	4	3	3
Average Condition Rating	3	3	3	3	3	3

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix E. Current Defects by Equipment Type

Details of aquatic defects by equipment type.

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00783866	Filter	Unable to open to inspect- Inlet/Outlet valve failing/failed- Filter stays under pressure with valve closed. Sand ok for now but needs a scrape in Off season	SigHigh	2,000	ALBANY CREEK
A00800905	Tank	Shared access- Unable to access as you need to drain 50m balance tank to be able to gain access to 2nd / LTS tank - i.e.) Enter 50m tank then walk approx. 40m to 2nd tank. Both need to be drained to inspect & clean required	Med	12,500	ALBANY CREEK
A00783864	Filter	Sand level is very low, but the sand is ok for now but needs a scrape in Off season with top up of sand in both filters	High	2,000	ALBANY CREEK
A00800961	Pump	Very poor condition, - Not financially viable to fix - Replacement recommended	High	4,500	ALBANY CREEK
A00800965	Pump	Pump in Bad condition, not financially viable to fix. Recommend replacement. Check valve failing (100mm Wafer)	Urgent	3,600	ALBANY CREEK
A00783901	Pump	Foot valves x 2 have slow leaks.	High	4,200	BONGAREE
A00783902	Pump	Unable to shut down as does not hold prime. Cavitation noise & bearing noisy & running hot	High	4,500	BONGAREE
A00783900	Pump	Very bad condition- not financially viable to repair	High	4,800	BONGAREE
A00801371	Strainer	Valve very sticky & hard to manipulate	High	800	BONGAREE
A00783896	Pump	Running Hot. Rusted Cowling. Broken leg	High	5,500	BONGAREE
A00783883	Chlorinator	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	300	BONGAREE
A00783931	Pump	Pipe work movement. Noisy & excessive heat. No leaks from seal but wet stain indicates leak possible when motor shuts down.	Med	2,500	CABOOLTURE
A00783916	Controller	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	SigHigh	300	CABOOLTURE

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 65
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00783948	Pump	No leaks but salt build up indicating a leak when pump shuts down. Recommend service	Med	1,800	CABOOLTURE
A00783949	Pump	Slight noise from motor	High	1,800	CABOOLTURE
A00654314	Pump	Bearings noisy. Slight vibration. Flanges rusted. Check valve (150mm) failing	High	3,200	DAYBORO
A00783961	Pump	Pump in poor condition Service required	High	3,200	DAYBORO
A00801408	Chlorinator	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	300	FERNY HILLS
A00801419	Filter	Sand mat on top of sand bed	High	1,600	LAWNTON
A00801431	Chlorinator	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill add CO2 unit as less \$ if purchased together	SigHigh	200	LAWNTON
A00783985	Tank	WHS- Access Lid fused closed - like welded closed unable to access	Med	3,500	MURRUMBA DOWNS
A00784017	Pump	Pump & Base frame are very dirty, bearing noisy, leaks evident, rust on flanges needs attention. This pump will need a service.	High	4,900	NORTH LAKES
A00784094	Pump	*Cracks in coupling. *Running hot & some vibration in pipework from sensor	High	4,889	REDCLIFFE
A00784868	Lint Basket	Suction gauge faulty	High	165	REDCLIFFE
A00784869	Lint Basket	Suction gauge faulty	High	165	REDCLIFFE
A00784870	Lint Basket	Suction gauge faulty	High	165	REDCLIFFE
A00784871	Lint Basket	Suction gauge faulty	High	165	REDCLIFFE
A00784051	Pump	Slight leaks, running warm. *Extensive rusting on flanges (stainless steel to black steel)-required treatment. *No flow switches on pumps 1-4	High	6,800	REDCLIFFE
A00784052	Pump	Signs of rust on base frame, noisy bearings & some vibration. *Extensive rusting on flanges (stainless steel to black steel) _ Requires treatment *No flow switches on pumps 1-4	High	6,800	REDCLIFFE
A00784053	Pump	Signs of rust on base frame, noisy bearings & some vibration, mechanical seal leaking & running cold. *Extensive rusting on flanges (stainless steel to black steel) _	High	6,800	REDCLIFFE

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 66
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
		Requires treatment. *No flow switches on pumps 1-4			
A00784054	Pump	Signs of rust on base frame, noisy bearings & some vibration, mechanical seal leaking & running cold. *Extensive rusting on flanges (stainless steel to black steel) _ Requires treatment. *Water check valve failing (150mm). *No flow switches on pumps 1-4	High	6,800	REDCLIFFE
A00784119	Pump	Feature Pipework leaking at 25mm fittings Recommend repair	Med	2,698	WOODFORD
A00011533	Pool Equipment	Very slippery / dangerous needs non-slip attention asap. Lifting steel stopper failed-WHS- with no stopper can fall out and injury- High importance	Med	120,000	Albany Creek
A00036610	Pool Shell	Pool paint faded	High	0	Caboolture
A00170848	Pool Equipment	Damaged covers, reels bowed badly	Low	2,200	Woodford
A00179147	Pool Equipment	Damaged covers, reels bowed badly	Low	2,000	Albany Creek
A00188465	Pool Shell	Cracks in the pool shell	Low	2,000	Ferny Hill
A00189316	Pool Shell	Cracks in the pool shell	Med	0	Woodford
A00226199	Pool Equipment	Corrosion noted on external down pipe. Teat and paint if possible, otherwise replace at end of life. Estimate for treat and paint.	Low	25,000	Woodford
A00239694	Pool Shell	Chipped tiles and lane lines are faded and scum line	High	-	Caboolture
A00282599	Pool Equipment	Corrosion noted on external down pipe. Teat and paint if possible, otherwise replace at end of life. Estimate for treat and paint.	Low	8,000	Woodford
A00324348	Plant	Possible leak starting on top cover-Monitor	Med	100	Albany Creek
A00338284	Plant	* Flow switches on pumps 1 & 2 not present (may stop at ECB) but if not then no pump protection on no flow	High	1,200	Albany Creek
A00396300	Pool Shell	Chipped pebble concrete above the water line	High	-	Caboolture
A00478546	Filtration	*Pitting around air release required fixing	Med	800	Bribie Island
A00495600	Plant	Slight evidence of leakage - There are slight mineral deposits on the mechanical seal area - Dec 2018	High	2,650	Albany Creek
A00642990	Filtration	Hatch brackets badly rusted	Med	1,800	Lawnton

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 67
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00642993	Plant	*Recommend - Replace flow switch as pump has no protection from no flow situation with no flow switch. *General Service recommended. Due to unknown service history, we recommend a full workshop service including replacement of bearings, mechanical seals and coupling rubbers as applicable.	High	4,850	Lawnton
A00642994	Plant	Motor bearings are noisy and in need of replacement.	High	4,850	Lawnton
A00643007	Plant	Front Bearing Noise in pump & pump flow switch disconnected	High	3,500	Lawnton
A00645659	Plant	Some damage on motor cooling fins from mishandling or rough installation. Pump is less than a year old. Due to unknown service history, Better Pumps recommend a full workshop service including replacement of Bearings, mechanical seals and coupling rubbers as applicable.	High	3,500	Deception Bay
A00645670	Filtration	*Pressure gauge faulty	Med	450	Deception Bay
A00645685	Dosing	*Chlorine High, pH high, Alkalinity High, (operator needs to adjust chemical levels to protect equipment)	Med	450	Deception Bay
A00645698	Plant	Slight leak on discharge union	Med	200	Deception Bay
A00645718	Plant	*Slight cavitation present. *Check valve Failing (150mm check valve) * Motor bearings require replacement. *No Flow Switch present	Med	3,000	Albany Creek
A00646579	Plant	Pump running hot and requires a full service	Med	5,600	Ferny Hill
A00646582	Plant	Pump hasn't been serviced and requires new seals	Med	3,600	Ferny Hill
A00654314	Plant	150mm check valve not holding	High	1,700	Dayboro
A00783860	Heating	Damaged fins & rusted badly	High	100,000	Albany Creek
A00783861	Heating	Damaged fins & rusted badly	High	100,000	Albany Creek
A00783867	Filtration	Slight leak from strainer found - Depending on what is found- 'O ring' or leaking from actual strainer as bespoke. May increase in cost if strainer itself	Med	100	Albany Creek
A00783883	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Bribie Island
A00783884	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Bribie Island
A00783896	Plant	*Running Hot. *Rusted Cowling. *Broken leg	High	5,500	Bribie Island

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 68
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00783910	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Caboolture
A00783915	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Caboolture
A00783927	Filtration	Pressure gauge is faulty	Low	200	Caboolture
A00783928	Filtration	Pressure gauge is faulty	Low	200	Caboolture
A00783942	Plant	No foot valve so loss of prime issue this need to be completed ASAP	High	4,000	Caboolture
A00783951	Heating	*Unable to shut down without back washing pool (operator again) (Makes no sense). *Due to unknown service history, we recommend a full workshop service including replacement of bearings, mechanical seals and coupling rubbers as applicable.	High	2,500	Caboolture
A00783956	Plant	Signs of mechanical seal been leaking	High	1,200	Caboolture
A00783983	Plant	150mm check valve is faulty STILL from September report * Not dyna bolted down *Some minor vibrations *Possible cavitation.*Pump started running backwards on shut down (faulty check valve issue as reported) * Some air getting sucked in through the strainer lid after pump shut down (???? design or seal- added some washers to make it easier to get air tight seal)	High	650	Murrumba Downs
A00784013	Plant	*See Reports- Same as reported June 18	High	\$3,500	North Lakes
A00784014	Plant	*See Reports- Same as reported June 19	High	\$3,500	North Lakes
A00783910	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Caboolture
A00783915	Dosing	WHS- There is no tray / bund under / the units to collect both cleaning chemical waste &/or chemical spill	High	400	Caboolture
A00783927	Filtration	Pressure gauge is faulty	Low	200	Caboolture
A00783928	Filtration	Pressure gauge is faulty	Low	200	Caboolture
A00783942	Plant	No foot valve so loss of prime issue this need to be completed ASAP	High	4,000	Caboolture
A00783951	Heating	*Unable to shut down without back washing pool (operator again) (Makes no sense). *Due to unknown service history, we recommend a full	High	2,500	Caboolture

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 69
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
		workshop service including replacement of bearings, mechanical seals and coupling rubbers as applicable.			
A00783956	Plant	Signs of mechanical seal been leaking	High	1,200	Caboolture
A00783983	Plant	150mm check valve is faulty STILL from September report * Not dyna bolted down *Some minor vibrations *Possible cavitation.*Pump started running backwards on shut down (faulty check valve issue as reported) * Some air getting sucked in through the strainer lid after pump shut down (???? design or seal- added some washers to make it easier to get air tight seal)	High	650	Murrumba Downs
A00784013	Plant	*See Reports- Same as reported June 18	High	\$3,500	North Lakes
A00784014	Plant	*See Reports- Same as reported June 19	High	\$3,500	North Lakes
A00784028	Heating	Motor is running hot but mechanically the pump and motor are operating normally.	High	4,900	North Lakes
A00784034	Heating	*Full Service recommended. Due to unknown service history, we recommend a full workshop service including replacement of bearings, mechanical seals and coupling rubbers as applicable.	Med	3,700	North Lakes
A00784052	Plant	Slight leaks, running warm. *Extensive rusting on flanges (stainless steel to black steel)-required treatment. *No flow switches on pumps 1-4	Med	5,000	Settlement Cove
A00784053	Plant	Signs of rust on base frame, noisy bearings & some vibration. *Extensive rusting on flanges (stainless steel to black steel) _ Requires treatment *No flow switches on pumps 1-4	Med	5,000	Settlement Cove
A00784054	Plant	150mm check valve rattling- may fail and leave unable to prime pumps	Med	5,000	Settlement Cove
A00784071	Plant	Signs of rust on base frame, noisy bearings & some vibration, mechanical seal leaking & running cold. *Extensive rusting on flanges (stainless steel to black steel) _ Requires treatment. *Water check valve failing (150mm). *No flow switches on pumps 1-4	Med	5,000	Settlement Cove

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 70
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00784094	Plant	Pump not running as its controlled by chemical level – single phase pump. Due to unknown service history, we recommend a full workshop service including replacement of bearings, mechanical seals and coupling rubbers as applicable.	Med	1,400	Redcliffe
A00784095	Plant	*motor has no Id tags *motor has a ticking sound from the front bearing. *Suction side pipe work has no support and the pipe coming through the concrete wall is rusting *Recommend repairs to motor and pipe work.	High	4,800	Redcliffe
A00784106	Plant		High	300	Redcliffe
A00784107	Plant		Low	1,800	Woodford
A00784110	Plant		Low	2,400	Woodford
A00784131	Pool Equipment	Suction gauge faulty	Low	2,800	Woodford
A00784868	Pool Equipment	Suction gauge faulty	Med	2,400	Woodford
A00784869	Pool Equipment	Suction gauge faulty	Low	165	Settlement Cove
A00784870	Pool Equipment	Suction gauge faulty	Low	165	Settlement Cove
A00784871	Pool Equipment	Suction gauge faulty	Low	165	Settlement Cove
A00785547	Pool Equipment	Suction gauge faulty	Low	165	Settlement Cove
A00800905	Dosing	CO2 diffuser cracked	High	\$145.00	Ferny Hill
A00800940	Plant	Pump is very noisy, Motor is very noisy- recommend immediate attention to resolve this issue - Dec 2018	High	\$4,600	Albany Creek
A00800960	Plant	Pump is noisy – possibly due to cavitation – recommend further investigation. Due to an unknown service history, it is recommended that a full workshop service including replacement of bearings, mechanical seals, lip seals and coupling rubbers be performed on both pumps and motors.	High	\$4,600	Albany Creek
A00800961	Plant	Pump is cavitating when running.	Med	\$4,600	Albany Creek
A00800963	Plant	Recommend service	Med	\$1,000	Albany Creek
A00800964	Plant	No leaks on the pump but the check valve is failing (80mm Wafer check)	Med	\$1,200	Albany Creek
A00801391	Filtration	Valve very sticky & hard to manipulate	Med	\$800	Bribie Island
A00801418	Dosing	VERY DIRTY NOT SEEN TO BE CLEANED by operator between 3 monthly service by THS	Med	\$400	Ferny Hills

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 71
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Asset Number	Equipment Type	Details of Defect Work	Severity	Estimate (\$)	Suburb
A00801455	Heating	Pump requires services running hot and showing signs of a leak form mechanical seal	High	\$3,200	Dayboro
A00801456	Dosing	FILTHY Operator is not cleaning weekly as required (Expect failure and excessive wear on equipment needs to be addressed by council)	Med	\$400	Lawnton
*Total Estimated Cost				\$589,952	

*Total estimated cost excludes costs for pool shell defects which require quotes from Consultant

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix F. Pool Water Quality Test Measurement Guidelines

(Source: Guidelines for Safe Pool Operations (Royal Life Saving Society))

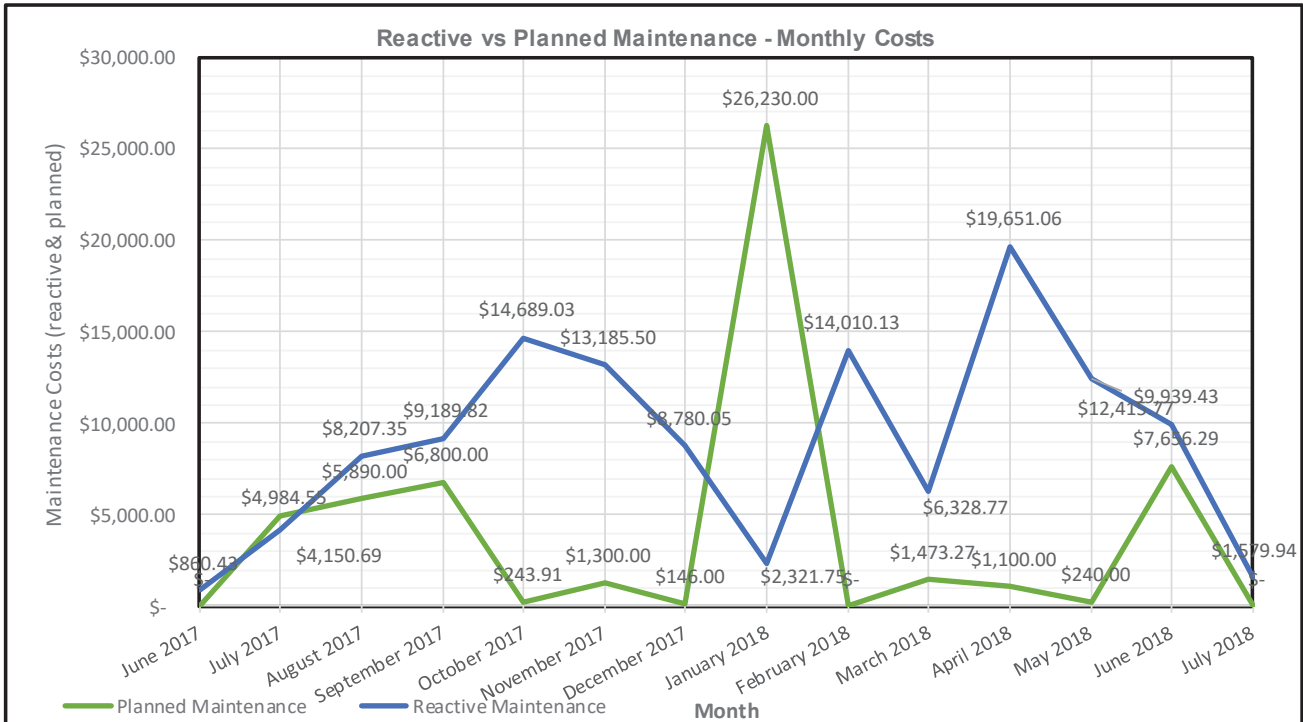
Water Quality Test	QLD State Government Guidelines Standard	Water Testing Frequency	Recommended Ideal Range for Water Quality Standards
Free Chlorine (mg/L) Minimum	1.5	3 hourly	1.5 to 3.0
Combined Chlorine (mg/L)	< 1.0	3 hourly	< 1.0
Total Chlorine (mg/L)	1mg/L (Max10)	3 hourly	1mg/L (Max10)
Ph	7.2 to 7.8	3 hourly	7.4 to 7.8
Total Alkalinity (mg/L)	80 to 200	Monthly	80 to 120
Cyanuric Acid (mg/L)	30 to 50	Monthly	30 to 50
Calcium Hardness (mg/L)	60 to 90	Monthly	60 to 90
Total Dissolved Solids	<3,000	Monthly	<3,000

Appendix G. Council and Lessee Agreed Maintenance Financial Limits

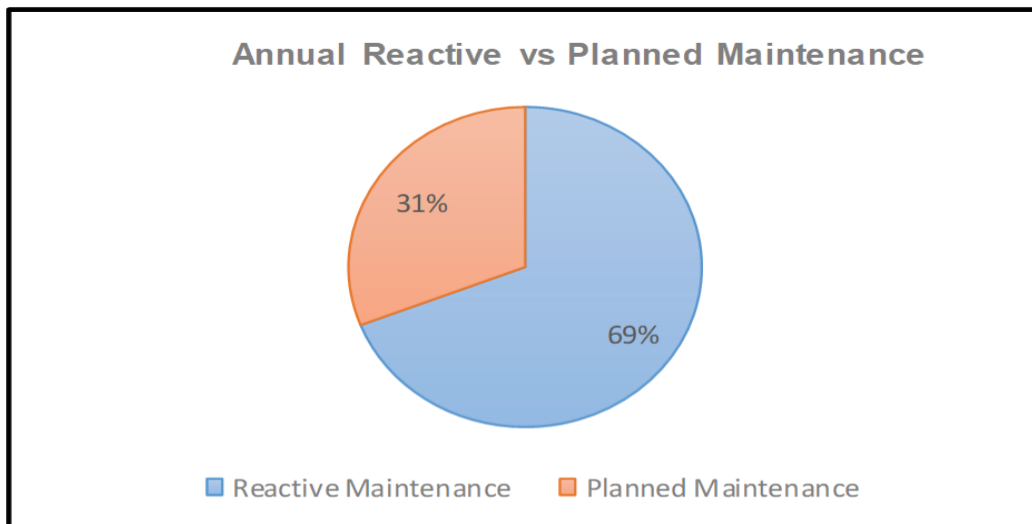
Class Category	Individual maintenance event limit	Annual combined maximum limit
Class A	\$1,200	\$35,000
Class B	\$800	\$25,000
Class C	\$500	\$15,000

Appendix H: Comparison of current planned versus reactive maintenance work

Monthly trend analysis of planned versus reactive maintenance costs



Annual percentage comparison of planned versus reactive maintenance



ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix I: Current Capital Renewal/Replacement Programs (ePIDS)

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 75
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Renewal Program	Year 1 2019/20	Year 2 2020/21	Year 3 2021/22
<u>Redcliffe Memorial Swimming Pool</u>			
1. Shell painting 105806	\$165,000		
2. Filtration Systems 102276	0	\$350,000	\$150,000
3. Mechanical & Electrical Equipment Renewal 106833	\$10,000	\$4,300	\$2,800
<u>Albany Creek Leisure Centre</u>			
1. Pool Shell Renewal 105811	\$60,000	0	0
2. Mechanical & Electrical Renewal 106771	\$9,000	\$1,500	\$60,000
3. Pool Shell Tiling 108433	\$350,000		
<u>Ferny Hills Aquatic Centre</u>			
1. Mechanical & Electrical Renewal 106830	\$2,500	\$38,000	\$8,000
<u>Dayboro Swimming Pool</u>			
1. Mechanical & Electrical Renewal 106827	\$2,500	\$12,000	\$15,000
2. Pool shell renewal 105805	0	\$21,000	0
<u>Lawnton Aquatic Centre</u>			
1. Pool Shell Renewal 105813	0	\$50,000	0
2. Pool shell Renewal 105810	0	0	\$140,000
3. Mechanical & Electrical Renewal 106829	\$1,000	\$1,000	\$19,000

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 76
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

<u>Deception Bay Aquatic & Fitness Centre</u>			
1. Pool shell Renewal 105802	\$130,000	0	0
2. Mechanical and Electrical Equipment Renewal 106828	\$8,000	\$8,500	\$76,000
<u>Settlement Cove Lagoon</u>			
1. Mechanical & Electrical Renewal 106835	\$42,500	\$58,000	\$16,500
2. Pool shell Renewal 106715	0	0	\$535,000
<u>Caboolture Regional Aquatic & Leisure Centre</u>			
1. Mechanical & Electrical Renewal 106823	\$14,800	\$25,060	\$53,750
2. Heat Bank Renewal 108129	\$490,000		

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 77
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Renewal Program	Year 1 2019/20	Year 2 2020/21	Year 3 2021/22
<u>North Lakes Aquatic Centre</u>			
1. Mechanical & Electrical Renewal 106832	\$7,000	\$30,000	0
<u>Murrumba Downs Swimming Pool</u>			
1. Mechanical & Electrical Renewal 106831	\$8,000	\$5,000	\$3,500
<u>Woodford Swimming Pool</u>			
1. Mechanical & Electrical Renewal 106834	\$10,000	\$20,000	\$2,000
<u>Caboolture Swimming Pool</u>			
1. Pool Shell Renewal 105808	0	0	\$33,000
2. Mechanical & Electrical Renewal 106822	\$12,000	\$26,000	\$30,000

Renewal Program	Year 1 2019/20	Year 2 2020/21	Year 3 2021/22
<u>Bribie Island Aquatic & Fitness Centre</u>			
1. Pool Shell Renewal - 105812	\$95,000	0	0
2. Mechanical & Electrical Renewal 106804	\$25,500	\$26,000	\$63,000
3. Rafters Repaint 106714	\$37,000		
Capital Totals	\$977,800	\$591,360	\$496,050
Operational Totals	\$502,000	\$85,000	\$711,500

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix J. Recommended Capital Renewal/Replacement Program

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Albany Creek	A00011533	Pool Equipment	Movable Pool Bulkhead	4	\$200,000.00	
Albany Creek	A00027803	Pool Equipment	Leisure Pool Covers	4	\$10,000.00	
Albany Creek	A00087177	Pool Shell	LTS Pool Shell	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Albany Creek	A00179147	Pool Equipment	Cover Rollers	4	\$2,800.00	
Albany Creek	A00179147	Pool Equipment	Cover Rollers	4	\$2,800.00	
Albany Creek	A00179147	Pool Equipment	Cover Rollers	4	\$2,800.00	
Albany Creek	A00239693	Pool Shell	Pool Shell 50m	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Albany Creek	A00290128	Pool Shell	Features/Splash Pad Pool Shell	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Albany Creek	A00294106	Pool Shell	AC05012 Slide Pool Shell - Albany Creek Swimming Pool - 34 Explorer Drive, Albany Creek	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Albany Creek	A00338284	Plant	LTS Circulation Pump 2	4	\$12,000.00	
Albany Creek	A00495600	Plant	LTS Circulation Pump 1	4	\$12,000.00	
Albany Creek	A00532426	Pool Equipment	Covers 50m pool	4	\$12,000.00	
Albany Creek	A00579213	Pool Equipment	Boom Lifter - Hyster-Pallet jack	4	\$50,000.00	
Albany Creek	A00645722	Pool Shell	AC05011 Leisure Pool - Albany Creek Swimming Pool - 34 Explorer Drive, Albany Creek	5	\$0.00	Engineer's Report Required to Obtain Full Quote

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 79
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Albany Creek	A00645725	Pool Equipment	Lane Ropes x 3 sets @ 25m lengths	4	\$3,600.00	
Albany Creek	A00645726	Plant	Flow Meter Main Backwash Line	4	\$1,500.00	
Albany Creek	A00645731	Plant	50M & Leisure Pool Heat Control Board	4	\$15,000.00	
Albany Creek	A00645733	Plant	Chemical Controller	5	\$8,000.00	
Albany Creek	A00645735	Plant	LTS Chemical Controller	5	\$8,000.00	
Albany Creek	A00783860	Heating	Heat Bank 50M - Slide - Leisure Pools - 1#	4	\$50,000.00	
Albany Creek	A00783861	Heating	Heat Bank 50M - Slide - Leisure Pools - 2#	4	\$50,000.00	
Albany Creek	A00783867	Filtration	Circulation Pump Strainer#1	4	\$15,000.00	
Albany Creek	A00800900	Plant	Heat Boost Pump	4	\$15,000.00	
Albany Creek	A00800902	Dosing	Probe Wash	5	\$1,200.00	
Albany Creek	A00800903	Plant	Chlorine Storage Tank	4	\$3,000.00	
Albany Creek Albany Creek	A00800904	Plant	Make Up System	5	\$1,200.00	
Albany Creek	A00800905	Plant	Balance Tank	4	\$3,000.00	
Albany Creek	A00800909	Filtration	Circulation Pump Strainer #2	4	\$15,000.00	
Albany Creek	A00800961	Plant	Air Pump	5	\$5,000.00	
Albany Creek	A00800965	Plant	Water Spouts Feature Pump	5	\$7,500.00	
Albany Creek	A00800966	Filtration	Water Curtain Cartridge Filter	5	\$1,200.00	
*Albany Creek Total					\$507,600.00	

* Total excludes pool shells

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 80
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Bribie Island	A00137399	Pool Shell	Pool Shell including hand rails x 6	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Bribie Island	A00291376	Pool Shell	Pool Shell including hand rails x 6	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Bribie Island	A00323699	Pool Equipment	Blankets	4	\$10,000.00	
Bribie Island	A00478546	Filtration	Filter/s	4	\$50,000.00	
Bribie Island	A00478546	Filtration	Filter/s	4	\$50,000.00	
Bribie Island	A00783877	Pool Equipment	Manual Vacuum	4	\$3,000.00	
Bribie Island	A00783880	Heating	Heat Bank x 2	4	\$80,000.00	
Bribie Island	A00783896	Plant	Circulation Pump	4	\$16,000.00	
Bribie Island	A00783899	Plant	Mushroom Circulation Pump	4	\$1,200.00	
Bribie Island	A00783900	Plant	Air Blower	5	\$4,500.00	
Bribie Island	A00783901	Plant	River Ride_ Circulation Pump (Not in Use)	4	\$1,200.00	
Bribie Island	A00783903	Plant	River Rapids Circulation Pump	4	\$4,500.00	
Bribie Island	A00783906	Plant	Valves 5 x 300mm	4	\$2,000.00	\$800 per Valve
Bribie Island	A00783907	Plant	Valves 12 x 150mm	4	\$4,800.00	\$400 per Valve
Bribie Island	A00785593	Dosing	Chemical Controller	5	\$8,000.00	
Bribie Island	A00785607	Dosing	Chemical Controller	5	\$8,000.00	
Bribie Island	A00801371	Filtration	Strainer	4	\$1,200.00	
*Bribie Island Total					\$244,400.00	

* Total excludes pool shells

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 81
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Caboolture	A00036610	Pool Shell	POOL SHELL	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Caboolture	A00230245	Pool Equipment	BLANKETS x 3	4	\$30,000.00	
Caboolture	A00239694	Pool Shell	50 M POOL SHELL	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Caboolture	A00396300	Pool Shell	POOL SHELL	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Caboolture	A00783913	Heating	HEAT BANK #1 (SOLARWISE) S/n251311-A MOD 355	4	\$35,000.00	
Caboolture	A00783914	Heating	HEAT BANK #2 (SOLARWISE) S/n251311-B MOD 356	4	\$35,000.00	
Caboolture	A00783921	Pool Equipment	DOLPHIN POOL VACUMN (1x1 PRO GYRO)	4	\$8,000.00	
Caboolture	A00783948	Plant	Circulation Pump 1	4	\$4,000.00	
Caboolture	A00783912	Plant	Pump Ser#CTXBA041 625077	4	\$12,000.00	
Caboolture	A00483383	Dosing	Chlorinator	4	\$1,500.00	
Caboolture	A00382054	Dosing	Tank	4	\$3,000.00	
Caboolture	A00783938	Plant	Temp Controller	4	\$8,500.00	
*Caboolture Total					\$137,000	

* Total excludes pool shells

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 82
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Dayboro	A00445318	Pool Shell	25M Pool Shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Dayboro	A00446827	Pool Shell	Toddlers Pool Shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Dayboro	A00783956	Dosing	Chemistry Controller	4	\$8,000.00	
Dayboro	A00783958	Plant	Filtration Flow Meter	5	\$1,500.00	
Dayboro	A00783966	Pool Equipment	Lane ropes x 4	5	\$1,200.00	
Dayboro	A00783967	Pool Equipment	Blanket Roller Frame	4	\$3,000.00	
Dayboro	A00783968	Pool Equipment	Lane Rope Reel x 1	4	\$1,200.00	
*Dayboro Total					\$14,900	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Deception Bay	A00087178	Pool Shell	POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Deception Bay	A00088198	Pool Shell	POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Deception Bay	A00445319	Pool Shell	POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Deception Bay	A00617063	Pool Shell	POOL SHELL	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Deception Bay	A00617111	Filtration	Sand Filter 1	4	\$30,000.00	

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 83
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Deception Bay	A00641650	Heating	HEATER BANK (AUSTRAL) (S/n1511012)	4	\$35,000.00	
Deception Bay	A00645649	Filtration	Sand Filter 2	4	\$30,000.00	
Deception Bay	A00645657	Plant	Pump Pit Sump Pump	4	\$600.00	
Deception Bay	A00645681	Filtration	Sand Filter 3	4	\$1,800.00	
Deception Bay	A00645685	Dosing	Chemistry Controller	5	\$3,400.00	
Deception Bay	A00801395	Dosing	Acid Tank	4	\$500.00	
Deception Bay	A00645667	Pool Equipment	Sensor Pressure	5	\$1,000.00	
*Deception Bay Total					\$102,300	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Ferny Hills	A00131950	Pool Equipment	Pool Vacuum Manual & trolley	4	\$2,000.00	
Ferny Hills	A00188465	Pool Shell	Pool Shell-Inc. Tiles, Expansions etc	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Ferny Hills	A00494444	Pool Shell	Pool Shell & tiles	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Ferny Hills	A00646573	Dosing	Chemical Controller	5	\$9,000.00	
Ferny Hills	A00646574	Heating	Heaters 1	4	\$50,000.00	
Ferny Hills	A00646575	Heating	Heaters 2	4	\$50,000.00	
Ferny Hills	A00646578	Plant	Pump pit sump pump	5	\$400.00	
Ferny Hills	A00646581	Plant	Chlorine Dosing Pump	5	\$3,300.00	
Ferny Hills	A00646581	Plant	Chlorinator Circulation Pump	5	\$1,000.00	
Ferny Hills	A00646592	Plant	Balance Tank	4	\$3,000.00	

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 84
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Ferny Hills	A00785548	Plant	Procal Boost Pump	5	\$1,000.00	
Ferny Hills	A00785549	Plant	Inline Procal Boost Pump	5	\$1,000.00	
Ferny Hills	A00787272	Pool Shell	Pool Shell / cement / Expansions	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Ferny Hills	A00798788	Dosing	C02 Control	5	\$1,400.00	
Ferny Hills	A00785523	Pool Equipment	Roller Frame	4	\$3,000.00	
Ferny Hills	A00646577	Plant	Circulation Pump - 25 M Pool	4	\$12,000.00	
Ferny Hills	A00646594	Plant	Circulation Pump - Wading Pool	4	\$12,000.00	
*Ferny Hills Total					\$149,100	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Lawnton	A00088199	Pool Shell	50m pool shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Lawnton	A00385117	Plant	Acid Dosing Pump - 50 M Pool	4	\$1,800.00	
Lawnton	A00579204	Pool Equipment	Lane Ropes	4	\$1,200.00	
Lawnton	A00579207	Pool Equipment	Hexagon Pool Vac	4	\$2,200.00	
Lawnton	A00642989	Dosing	Chemical Controller	4	\$8,000.00	
Lawnton	A00642990	Filtration	Sand Filter	4	\$10,000.00	
Lawnton	A00642993	Plant	Circulation Pump #1	4	\$20,000.00	
Lawnton	A00642994	Plant	Circulation Pump #2	4	\$20,000.00	
Lawnton	A00642998	Dosing	Chemical Controller	5	\$8,000.00	
Lawnton	A00642999	Pool Equipment	Lane rope reel	4	\$1,200.00	
Lawnton	A00643002	Pool Equipment	Blankets	4	\$10,000.00	

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 85
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Lawnton	A00643003	Pool Equipment	Blankets	4	\$10,000.00	
Lawnton	A00643007	Plant	Circulation Pump - Wading Pool	4	\$14,000.00	
Lawnton	A00801423	Dosing	CO2 Controller	5	\$1,400.00	
Lawnton	A00801430	Filtration	Pre-Pump Strainer	4	\$8,000.00	
Lawnton	A00801433	Plant	Chlorinator Circulation Pump	4	\$1,200.00	
Lawnton	A00324347	Pool Equipment	152 000L Storage	5	\$20,000	
Lawnton	A00643004	Pool Equipment	Mushroom	4	\$3,000	
Lawnton	A00643005	Pool Equipment	Mushroom	4	\$3,000	
Lawnton	A00643006	Pool Equipment	Mushroom	4	\$3,000	
Lawnton	A00642987	Plant	Circulation Pump - 25 M Pool	4	\$12,000.00	
Lawnton	A00382053	Pool Equipment	Water Bladder - Lawn	5	\$2,000	
*Lawnton Total					\$160,000	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Murrumba Downs	A00430792	Pool Shell	Pool Shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Murrumba Downs	A00783979	Dosing	Chemical Controller	5	\$8,000.00	
Murrumba Downs	A00783982	Plant	Circulation Pump	4	\$20,000.00	
Murrumba Downs	A00783983	Plant	Heat Boost Pump	4	\$8,000.00	
Murrumba Downs	A00801454	Dosing	CO2 Dosing Station	4	\$1,500.00	
*Murrumba Downs Total					\$37,500	

* Total excludes pool shells

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 86
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
North Lakes	A00781636	Pool Shell	POOL SHELL	4	\$0.00	Engineer's Report Required to Obtain Full Quote
North Lakes	A00781637	Pool Shell	POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
North Lakes	A00783996	Dosing	Chemistry Controller	4	\$8,500.00	
North Lakes	A00783997	Dosing	Chemistry Controller	4	\$8,500.00	
North Lakes	A00783998	Pool Equipment	Backwash Air Compressor	4	\$0.00	
North Lakes	A00784012	Plant	Circulation Pump 1	4	\$18,000.00	
North Lakes	A00784013	Plant	Circulation Pump 2	4	\$18,000.00	
North Lakes	A00784014	Plant	Circulation Pump 1	4	\$18,000.00	
North Lakes	A00784015	Plant	Circulation Pump 2	4	\$18,000.00	
North Lakes	A00784028	Plant	Heat Boost Pump	4	\$9,000.00	
*North Lakes Total					\$98,000	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Redcliffe	A00137400	Pool Shell	LTS POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Redcliffe	A00191391	Pool Shell	50M POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Redcliffe	A00230244	Heating	Heat Bank 1-EVO CS200 (S/n:24IRW150519 002)	4	\$35,000.00	

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 87
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Redcliffe	A00333882	Pool Equipment	LTS BLANKET #1	4	\$10,000.00	
Redcliffe	A00374148	Pool Equipment	LTS BLANKET #2	4	\$10,000.00	
Redcliffe	A00445229	Pool Shell	TODDLERS POOL SHELL	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Redcliffe	A00532423	Pool Equipment	BLANKET50M	4	\$10,000.00	
Redcliffe	A00532428	Pool Equipment	BLANKET50M	4	\$10,000.00	
Redcliffe	A00784067	Heating	Heat Bank 2-EVO CS200 (S/n:24IRW150519003)	4	\$35,000.00	
Redcliffe	A00784068	Heating	Heat Bank 3-EVO CS200 (S/n:24IRW150519005)	4	\$35,000.00	
Redcliffe	A00784071	Plant	Chemical Controller	4	\$8,500.00	
Redcliffe	A00784073	Pool Equipment	BLANKET50M	4	\$10,000.00	
Redcliffe	A00784074	Pool Equipment	STARTER BLOCKS (ANTI) X 6	4	\$1,500.00	\$250 Per Unit
Redcliffe	A00784076	Pool Equipment	BLANKET50M	4	\$10,000.00	
Redcliffe	A00784080	Pool Equipment	50M LANE ROPES X 8	4	\$9,600.00	
Redcliffe	A00784081	Pool Equipment	LTS LANE ROPE X 2	4	\$2,400.00	
Redcliffe	A00784082	Plant	Valves Air type x 7	4	\$2,800.00	\$400 per Valve
Redcliffe	A00784093	Plant	Acid Pump	4	\$1,800.00	
Redcliffe	A00784094	Plant	Circulation Pump - 50M Pool	4	\$12,000.00	

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 88
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Redcliffe	A00784096	Plant	Circulation Pump - 18 M Pool	4	\$12,000.00	
*Redcliffe Total					\$215,600	

* Total excludes pool shells

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Settlement Cove	A00394100	Pool Shell	lagoon pool shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Settlement Cove	A00394910	Pool Shell	Toddlers Pool Shell	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Settlement Cove	A00801456	Plant	Chlorinator Circulation Pump	4	\$1,200.00	
Settlement Cove	A00801458	Filtration	Strainer	4	\$1,200.00	
Settlement Cove	A00801459	Filtration	Strainer	4	\$1,200.00	
Settlement Cove	A00801460	Filtration	Strainer	4	\$1,200.00	
Settlement Cove	A00801461	Filtration	Strainer	4	\$1,200.00	
Settlement Cove	A00036611	Pool Shell	Wading Pool - Settle	5	\$0.00	Engineer's Report Required to Obtain Full Quote
*Settlement Cove Total					\$6,000	

* Total excludes pool shells

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 89
Supporting Information

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Suburb	Asset Number	Asset Type	Asset Description	Condition Rating	Replacement Cost	Comment
Woodford	A00037449	Pool Shell	Tiled kids pool shell (Round)	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Woodford	A00189316	Pool Shell	25 M pool Shell & tiles (MAIN)	4	\$0.00	Engineer's Report Required to Obtain Full Quote
Woodford	A00282599	Pool Equipment	Vacuum Auto	5	\$8,000.00	
Woodford	A00505788	Pool Shell	Toddlers pool shell (Rectangle)	5	\$0.00	Engineer's Report Required to Obtain Full Quote
Woodford	A00613106	Plant	Chlorine Dosing Pump	4	\$1,800.00	
Woodford	A00784121	Plant	Wading Pool Circulation Pump	5	\$8,000.00	
*Woodford Total					\$17,800	

* Total excludes pool shells

The above items amount to an average of \$350k p.a. in renewal expenditure for the next 5 years.

If it is determined that the pool shells require replacement (following the engineers report), the total replacement cost of all of the above mentioned pool shells amounts to approximately \$14 million. This is the worst case scenario where the pool shell requires full replacement. Alternative remediation actions such as pool shell repainting may be identified as the preferred action. The engineers report will advise if pool shell repainting / crack injection repairs are more appropriate than full replacement. Additionally, where Council does not own the facility the replacement responsibility should be determined to confirm if Council is responsible for the renewal expenditure.

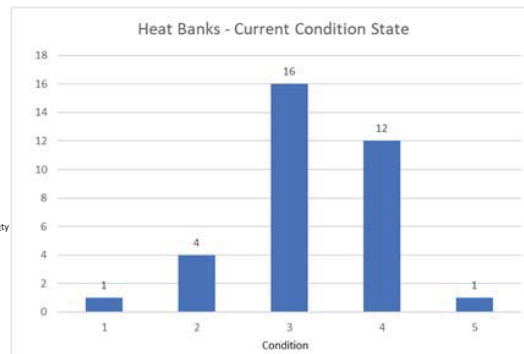
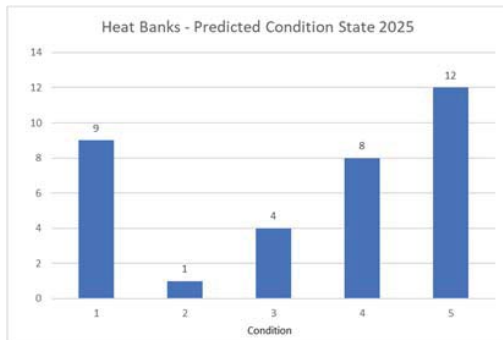
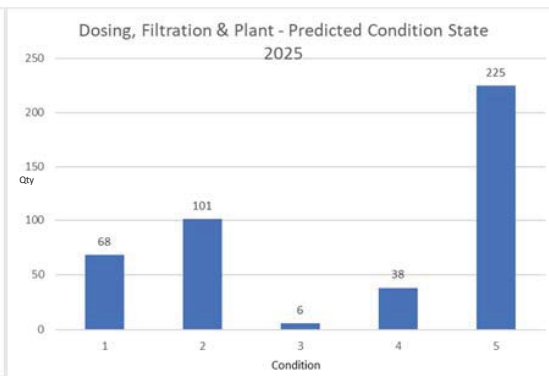
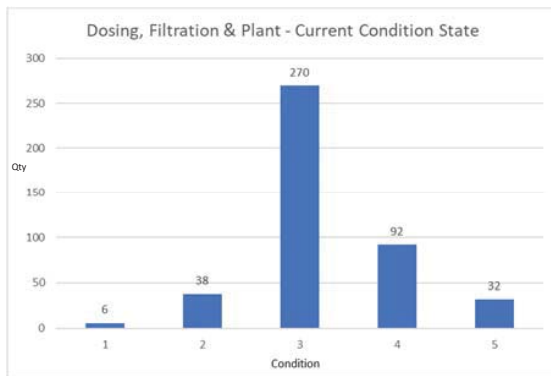
ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Appendix K. Predicted Deterioration of Assets under Current and Proposed Funding Allocations

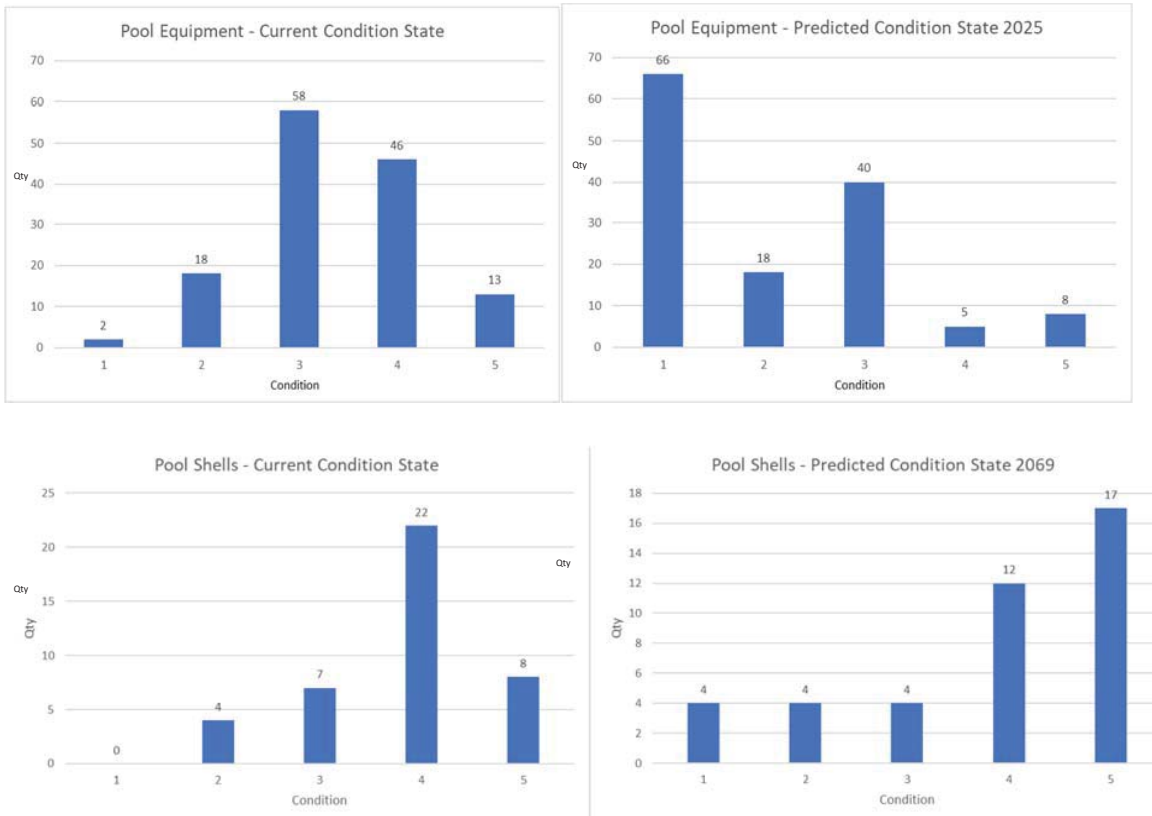
The current budget allocations are as follows:

- Maintenance \$334k p.a.
- Average renewals of \$1.2 million p.a. comprising of:
 - Dosing, Filtration & Plant \$450k p.a.
 - Heating \$150k p.a.
 - Pool Equipment \$100k p.a.
 - Pool Shell \$500k p.a.

Should these budget allocations continue, the condition profile of the aquatic equipment asset portfolio will deteriorate as follows over the next 5 years for dosing, filtration, plant, heat banks & pool equipment and over 50 years for pool shells.



ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)



The recommended budget allocations are outlined below:

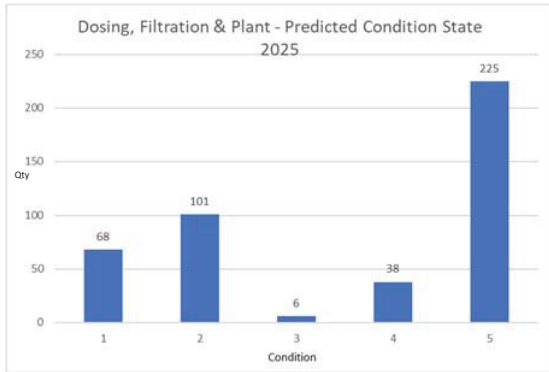
- Increase of maintenance budget to \$425k p.a. (extra \$91k: expected routine maintenance costs are \$362k p.a. leaving \$63k p.a. for reactive maintenance and addressing minor repairs of the defect backlog)
- Increase average renewal funding to \$2.1 million p.a. as follows:
 - Dosing, Filtration & Plant \$800k p.a.
 - Heating \$200k p.a.
 - Pool Equipment \$150k p.a.
 - Pool Shell Tiling/Replacement \$850k p.a.
 - Pool Shell Repainting \$100k p.a.

Should these recommended budget allocations be adopted into the next long term financial forecast, the condition profile of the aquatic equipment asset portfolio should deteriorate as follows over the next 5 and 50 year period. The recommended budget allocation results in a much improved position for the Council and will avoid the risk of future large cost shocks.

Moreton Bay Regional Council

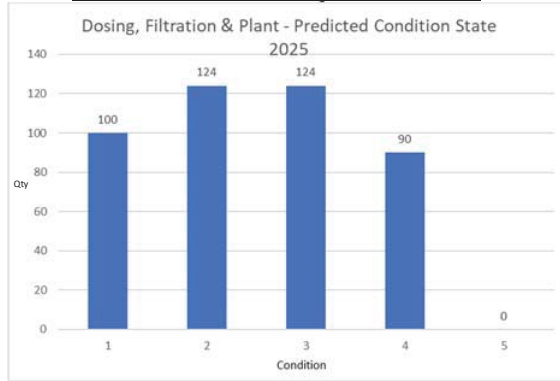
ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Current Budget Allocation



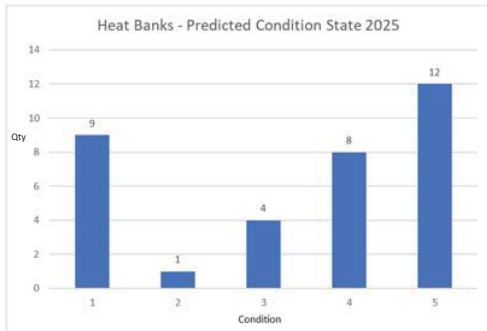
\$450k p.a.

Recommended Budget Allocation



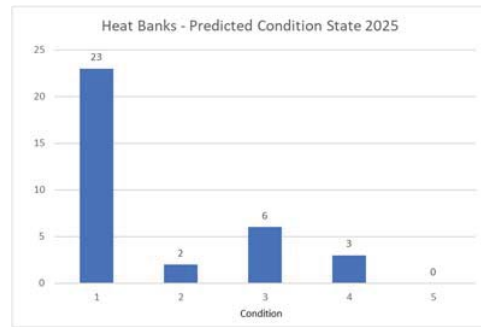
\$800k p.a. + ongoing servicing

Current Budget Allocation



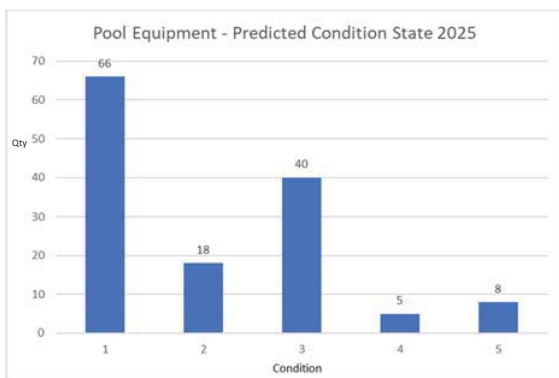
\$150k p.a.

Recommended Budget Allocation



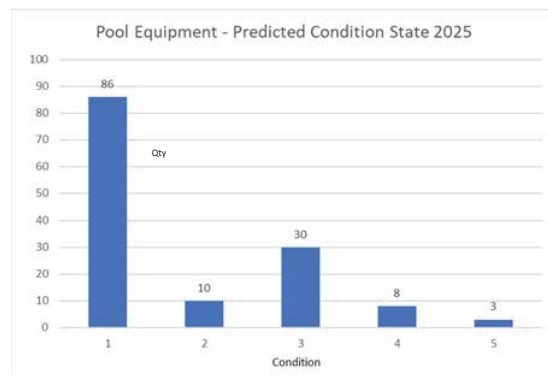
\$200k p.a. + ongoing servicing

Current Budget Allocation



\$100k p.a.

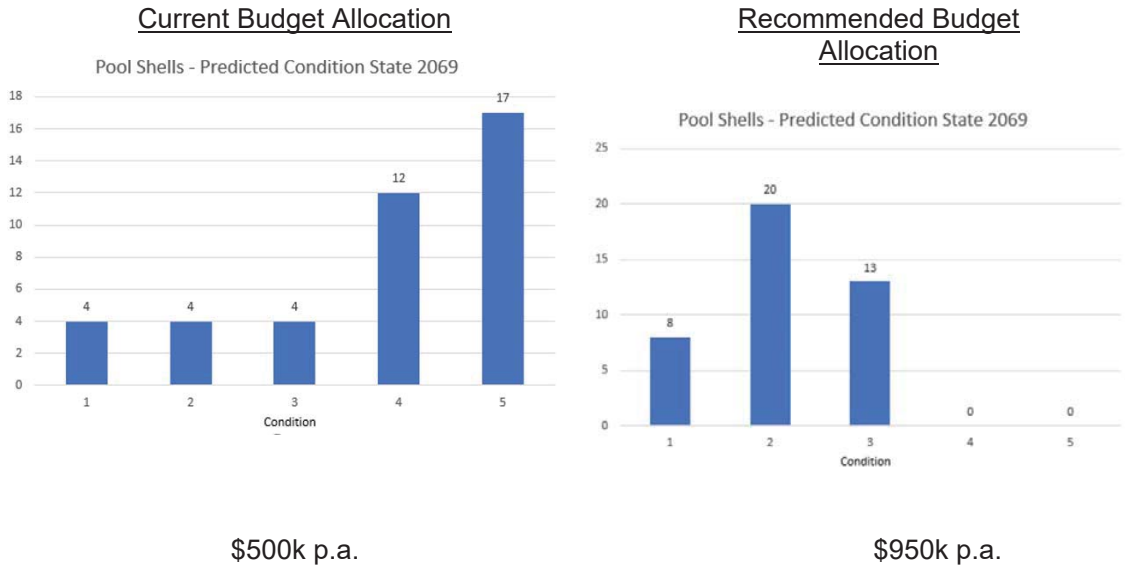
Recommended Budget Allocation



\$150k p.a.

ITEM 4.2 AQUATIC EQUIPMENT PORTFOLIO ASSET MANAGEMENT PLAN - REGIONAL - A19405460 (Cont.)

Longer term modelling over the next 50 years was undertaken on pool shells as they are the highest risk asset and have a longer life span. The graphs below compare the predicted deterioration using the current budget allocation vs the recommended budget allocation.



In 50 years' time, using today's dollars, a minimum \$20 million cash injection would be required, followed by a similar cash injection of \$15 million a few years later. This represents a significant risk to the Council's financial position, budget cashflow and service delivery.

SUPPORTING INFORMATION

Ref: A19089187

The following list of supporting information is provided for:

**ITEM 5.1
OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL**

#1 Outdoor Recreation Plan 2019-2013

Confidential #2 Draft Outdoor Recreation Plan 2019-2031: Actions for Internal Use

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

#1 Outdoor Recreation Plan 2019-2031

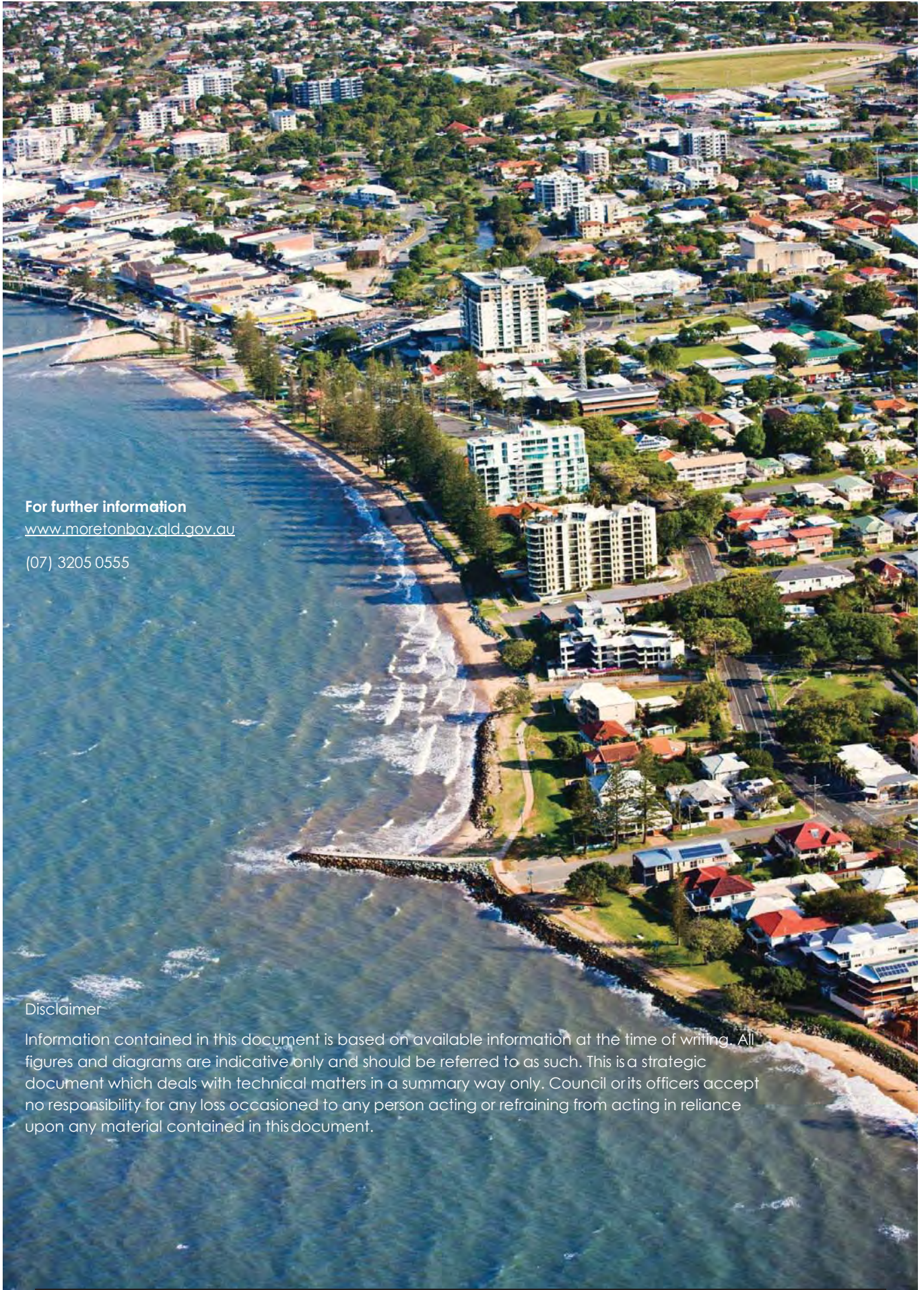


Outdoor Recreation Plan

2019-2031



ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)



For further information
www.moretonbay.qld.gov.au
(07) 3205 0555

Disclaimer

Information contained in this document is based on available information at the time of writing. All figures and diagrams are indicative only and should be referred to as such. This is a strategic document which deals with technical matters in a summary way only. Council or its officers accept no responsibility for any loss occasioned to any person acting or refraining from acting in reliance upon any material contained in this document.

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 97
Supporting Information

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

This page has intentionally been left blank

Acknowledgments

First Nation Peoples' connectivity to lands and waters within the Moreton Bay Region holds millennia-old spiritual connections, traditional law and customs, stories, and ways of life important to the protection, use and presentation of the area and outdoor recreation approaches.

Our partnerships with the Jinibara Peoples and Kabi Kabi First Nation Peoples recognise, respect and engage the right people for Country, traditional and contemporary knowledge systems, and the continual exercising of cultural and customary activities.

The Outdoor Recreation Plan 2019-2031 was commissioned by Moreton Bay Regional Council in 2017 with the intent to guide the future of Outdoor Recreation within the Region with a 20 year horizon.

This document has been strengthened by input from community recreation organisations and private landowners and managers. We would like to acknowledge the contribution made by all those who gave their time towards the development of this strategy.

DOCUMENT REGISTER

Project	Open Space Strategy 2012-2031 - Outdoor Recreation Plan
Report Title	Outdoor Recreation Plan 2019-2031
Document Status	Final Document - Outdoor Recreation Plan 2019-2031
Prepared for	Moreton Bay Regional Council
Authors	Ross Planning

Version	Date	Details of Revision
	5/06/2017	Community Consultation
V.1	11/01/2018	First Draft
V.2	13/06/2018	Revised Draft
V.3	26/08/2019	Community Consultation
V.4	12/11/2019	Final Document



Contents

1. Executive summary	1
2. Background	2
3. Current supply	6
4. Demand for outdoor recreation	31
5. Gap analysis	36
6. Future directions	38
7. Appendices	50

1. Executive summary

The benefits of recreation and physical activity including economic, social and environmental benefits are well documented. As a service provider in our community, Council has a significant role to play in providing access to recreation opportunities. Council has invested heavily in conventional recreation facilities such as coastal pathways, swimming pools and sporting facilities, however, as new trends emerge, it is important that Council adapts its planning to meet community expectations.

In relation to physical activity in Australia, the largest growing trend is outdoor recreation. Outdoor recreation activities fall outside the scope of traditional organised sport, and are typically undertaken in natural settings and require little built infrastructure. Specifically, this plan addresses popular outdoor recreational activities such as bushwalking, mountain biking, trail horse riding, birdwatching and canoeing. It does not address intensive motorised recreation.

The Outdoor Recreation Plan is Council's key policy document for the planning and development of outdoor recreation opportunities over the next 20 years.

2. Background

What is outdoor recreation?

Outdoor recreation is commonly defined as:

“recreation activities that are not recognised as a traditional organised sport, that take place in, or involve elements of, the urban and rural natural areas without, or minimal, site modification and/or infrastructure”

(adapted from Queensland Outdoor Recreation Federation, QORF)

Outdoor recreation activities are defined by QORF as those activities that:

- Do not involve organised competition or formal rules (however, this is evolving as outdoor recreation activities become more popular as events);
- Can be undertaken without the existence of built facilities or infrastructure (however, some facilities and/or infrastructure may be provided to manage access to, and the impacts of, the outdoor recreation activities);
- May require large areas of land, water and/or air; and
- May require outdoor areas of predominately unmodified natural landscape.

Council proposes a coordinated response to guide the future planning, development and management of outdoor recreation activities. This response will support the development of an outdoor recreation network to meet the current and future desires of our community and visitors to our region. The Outdoor Recreation Plan will identify:

- The extent of the existing outdoor recreation network in the region;
- The level of community involvement in outdoor recreation;
- Community expectations for outdoor recreation;
- Key sites and programs for investment;
- Opportunities for partnerships; and
- Ways to reduce 'red tape' for new outdoor recreation opportunities.

The Plan will consider non-motorised activities that have minimal impact to surrounding areas and other user groups, require minimal site modification and development of facilities. The activities have been divided into four categories: land-, climbing-, water- and aviation-based. (Glossary of Activities on page 3)

Land-based activities:

- Bushwalking
- Mountain biking
- Trail horse riding
- Nature study
- Bird watching
- Orienteering
- Geocaching
- Camping in national parks and reserves
- Picnicking in bushland areas

Climbing-based activities:

- Abseiling
- Rock climbing
- Bouldering

Water-based activities:

- Swimming in the sea, rivers and lakes
- Canoeing
- Kayaking
- Fishing
- Sailing
- Stand up paddle boarding (SUP)

Aviation-based activities:

- Gliding
- Paragliding
- Parachuting

Activity snapshot

There are many outdoor recreation opportunities located across the region from the hinterland to the coast. This activity snapshot gives an overview of the main outdoor recreation activities in the Moreton Bay region including locations, participation trends, consultation outcomes and potential impacts for the Moreton Bay region.

Glossary of outdoor recreation activities considered in this plan

Bushwalking	walking in natural areas (including urban) on either hard surfaced or natural trails
Trail Running	running and jogging in natural areas (including urban) on either hard surfaced or natural trails testing agility and speed
Mountain Biking	off road cycling including different styles of down-hill/ gravity fed, cross country and cycle cross trails
Stand Up Paddle (SUP)	paddling on a purpose-built board while standing up (in waves or calm water)
Trail Horse Riding	riding a horse on a trail for recreation
Nature Study	study or appreciation of nature including wildlife and plants in natural areas (includes photography)
Bird Watching	seeking out birds or wildlife to observe them in a natural setting
Orienteering	participants use a map and compass to navigate between checkpoints and complete circuits
Geo-caching	outdoor 'treasure hunting' using GPS enabled devices
Camping	overnight stays in a tent, caravan or motor home in national parks and/or recreational areas
Picnicking	an excursion or outing in which the participants carry food with them in a natural area
Abseiling	descending a rock face supported by a safety rope and specialist equipment
Rock Climbing	climbing a rock face supported by a safety rope and specialist equipment
Bouldering	climbing up and around low rock faces without safety ropes
Swimming	play or move along in the water for leisure
Canoeing	recreational paddling in a canoe
Kayaking	recreational paddling in a kayak
Fishing	catching fish for recreation purposes (either on land or from a non-powered paddle craft)
Sailing	boating powered by the wind in sails
Gliding	flying a non-powered aircraft
Paragliding	jumping from an aircraft or high land form wearing a modified parachute to glide and steer
Parachuting	jumping from an aircraft with a parachute

Note: This plan considers non-motorised recreational activities. However, some activities within the scope of the plan may have elements of motorised intervention as they require support from motorised craft to launch (the core activity will not be motorised).

About the Outdoor Recreation Plan project

Purpose

The purpose of the Outdoor Recreation Plan is to outline the future strategic direction and recommendations for outdoor recreation in the region. The plan aims to strike a balance that integrates community expectations, financial sustainability, environmental and cultural values and access to natural areas for outdoor recreation purposes. The plan will inform future council:

- Asset management plans;
- Park and open space planning;
- Capital works and operational budgets;
- Sport and recreation programs;
- Internal approval processes; and
- Ongoing community engagement.

Objectives

The objectives of the plan are to:

- Identify current participation levels and future trends influencing outdoor recreation infrastructure requirements;
- Identify and describe existing outdoor recreation opportunities in the Moreton Bay region;
- Identify specialist outdoor recreation activities which may have a broader catchment area and identify provision of these within South East Queensland (SEQ);
- Identify gaps in the existing and planned provision of outdoor recreation opportunities;
- Identify potential opportunities for partnerships in outdoor recreation provision;
- Identify solutions that resolve the provision gaps for outdoor recreation; and
- To minimise negative impact on rural, private and public areas from unregulated use.

Potential directions will be considered based on their ability to find the balance between community expectations, sustainability, environmental and cultural values and access to natural areas for recreation purposes.



Cedar Creek Swimming Hole, Samford

Project limitations

While consultation has occurred with major stakeholders including Unitywater, Seqwater and Scouts Qld who own land identified in the plan, where the plan recommends partnerships with private landholders, these are subject to future feasibility investigations and negotiations by council.

Information contained within the plan is based on an audit and assessment of existing outdoor recreation opportunities within the region, and is a snapshot in time only. This information is accurate as at October 2017.

Constraints

- Outdoor recreation activities are dependent on access to natural areas. Often these areas have a primary purpose other than outdoor recreation that may place some constraints on the opportunities able to be developed there.
Some examples relevant to the region include:
 - Seqwater lakes → quality and quantity of water storage
 - State forests → timber production
 - Bushland reserves → amenity
 - National parks → nature conservation and protection of cultural heritage.
- Unlike traditional sports, outdoor recreation opportunities cannot easily be created through the development of purpose-built facilities to increase supply. Opportunities are most-valued in highly-natural environments and often rely on landscape features such as terrain, mountains, rivers, creeks, habitats, and presence of wildlife. In many cases however, enabling infrastructure is required to facilitate the new activity in a manner which does not degrade the place (e.g. tracks and trails, parking and end-of-trip facilities).
- Planning for outdoor recreation, therefore, does not necessarily focus on developing opportunities close to where people live.
- Not all bushland reserves should be used for outdoor recreation as they may be unsuitable (e.g. difficult terrain, too small, too urban). These reserves may offer ecosystem services and amenity.
- The nature of outdoor recreation activities is that it is traditionally undertaken by individuals or small groups and are not organised - this makes it difficult to track where and how many people recreate or use a particular facility.
- The remote nature of locations for outdoor recreation is one of the key facets that attract many users. However, with this remoteness comes vast tracts of land often well away from general public view and passive surveillance. As a result, inappropriate uses can be common in outdoor recreation areas.
- For all proposed actions, an appropriate level of further investigation will be required and will incorporate environmental, cultural and social considerations. This will be detailed in an Implementation Plan to be led by Councils' Sport & Recreation Planning unit in consultation with relevant technical departments.

3. Current supply

Outdoor recreation in MBRC

There are a number of key natural areas around the region that offer high quality outdoor recreation experiences. The QSERSA¹ survey asked respondents where they participate in physical activity. Interestingly, outdoor settings were prominent in the North Coast² region, with:

- 27% of activities occurring at beaches/ocean/bay;
- 15% of activities occurring in local reserves;
- 14% of activities occurring in national parks;
- 10% of activities occurring in state forests;
- 9% of activities occurring in rivers/creeks; and
- 6% of activities occurring in dams/lakes.

Outdoor recreation is currently occurring across the region in a range of private and public natural areas. As identified in Table 1 below, council manages approximately 5% of the identified public natural areas that offer outdoor recreation. Department of National Parks, Sport and Racing and Department of Natural Resources Mines and Energy, HQ Plantations and Seqwater own and/or manage the remaining land areas. This is beneficial to council (as it reduces the demand on council as a provider) and highlights the need for partnerships in the provision and planning of outdoor recreation for the region.

Table 1: Management and area of public land that offers outdoor recreation

Land manager	Land area	Percentage of outdoor recreation network
Moreton Bay Regional Council	2,253ha	5%
Seqwater	5,003ha	11%
State Forests	15,387ha	33%
National Parks	23,297ha	51%
Total	45,940ha	

The Moreton Bay region has an extensive network of natural areas with a wide variety of natural areas such as bushland reserves (e.g. North Lakes Environmental Reserve), national parks (e.g. D'Aguilar National Park), state forests (e.g. Beerburrum State Forest), lakes (e.g. Lake Kurwongbah), creeks (e.g. Cedar Creek), rivers (e.g. Caboolture River) and beaches (e.g. Woorim Beach), creating many opportunities for residents and visitors to participate in outdoor recreation. The classification of an activity as an 'outdoor recreation activity', is often influenced by an individual's perception of their chosen activity. For example, walking along a trail through a bushland reserve in an urban area behind one's house, or swimming at the beach may be considered outdoor recreation to some participants, while others may simply define them as physical activity. Similarly, riding a mountain bike through a natural area to reach an alternative destination may not necessarily be perceived as an outdoor recreation activity, by all participants.

¹ Queensland Sport, Exercise and Recreation Survey Adults (QSERSA) 2010

² In QSERSA, the North Coast region refers to the local government areas of Moreton Bay, Sunshine Coast and Gympie

Natural areas network

A facility audit was undertaken to determine the current provision of outdoor recreation facilities across the region. It was used to determine the current supply of activities and ultimately inform future decision making for outdoor recreation opportunities.

269 potential sites for outdoor recreation were initially identified for the audit. Land Parcels that were currently 'untouched' (no current uses, embellishments or access) were excluded from the audit as these parcels 'theoretically' do not support outdoor recreation activities. Similarly, other land parcels were excluded from the audit for one, or more, of the following reasons:

- There were no existing facilities to support access or outdoor recreation activities;
- The site was deemed too small to provide for a meaningful outdoor recreation activity;
- The site had difficult terrain (i.e. too steep) which would make development costly and difficult to justify significant council investment; and
- The site was a wetland buffer meaning developing any sustainable activity was difficult, costly and activities had the potential to impact on the environmental values of the site (additionally, these parcels were quite often small).

Subsequently the number of sites included in the audit was reduced to 117. The facility audit focused on council-owned and -managed reserves where outdoor recreation is possible. The audit included a number of land parcels classified as conservation parks, environmental parks, bushland reserves, open space and constrained land.

Each facility was assigned a hierarchy that reflects the quality of the current experiences available and guides appropriate resource allocation. These hierarchies are described in more detail in Appendix C. Additionally, current (and future) hierarchies are listed in the facility audit table included within Appendix E.

It is also important to note that, unlike urban parks and sports facilities, recreation (in this instance outdoor recreation) is not always the primary purpose for the locations audited. Recreation tends to be a secondary function, with conservation most often the primary function of the land. Additionally, many parks have not had recreation infrastructure developed due to remoteness, lack of funding or timing. There may have been an intent to support recreation use when acquired/donated/transferred to council but this recreational purpose may not yet have been achieved.

Key facility audit outcomes include:

Land-based

- While the tracks and trails are generally well-maintained and quality links have been established, limited signage & mapping have resulted in a somewhat 'hidden' outdoor recreation network. In addition to limited directional signage, there are also very few trailheads and limited wayfinding and interpretive signage within facilities
- Mountain biking is concentrated at key locations (e.g. Bunyaville Conservation Park)
- A range of horse trail riding opportunities exist across the region (within council reserves, state forests and national parks). There are a number of areas where developers/ land holders have constructed horse step-overs (and therefore identified the open space as a horse-friendly area) yet council has not necessarily recognised the area as a key horse riding area. As a result, horse riding-related development has not been undertaken (e.g. Royston Street Reserve)

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Water-based

- A network of attractive waterways exists including ocean beaches, the Moreton Bay Ramsar site including the pumicestone passage, rivers, freshwater streams and two feature Seqwater lakes
- A range of formal paddle craft launch points have been established; and
- Need for a small number of additional launch points to establish water trails (particularly on the Caboolture River and South Pine River)

Aviation-based

- Caboolture Airfield is a growing facility that provides quality opportunities for gliding and parachuting. Multiple runways allow for glider launch alternatives to reflect winds and thermals

Climbing-based

- A small bouldering area is located within the D'Aguilar National Park (Cedar Creek) - this area is popular with climbers as its location adjoins swimming holes.

Additional Considerations

Picnicking

The Moreton Bay region provides a range of picnicking opportunities across its many landscapes including urban parks and more natural areas (such as Stony Creek Day use area). Picnicking is a highly popular activity. Unlike many outdoor recreation activities, picnicking can occur almost anywhere (including urban parks) and does not necessarily require facilities. As such, it is a complementary activity that can be accommodated at outdoor recreation facility trailheads. Picnic facilities can also be an attractive addition for outdoor recreation enthusiasts seeking a break from their core activities (mountain biking, horse riding etc).

Rail trails

Rail trails offer (mostly) a short or medium walk and ride trail opportunity through urban and natural landscapes. They are used for various activities including bushwalking, trail running, mountain biking (off-road cycling) and horse riding. They follow a previous transport corridor and are, therefore, always through more natural areas.

The 2007 Caboolture Shire Trails Strategy identified the Caboolture Wamuran Rail Trail as a major project that could be developed. At the time, council had previously investigated the possibility of converting the Caboolture to Wamuran Rail Corridor to a multi-use recreation trail. The strategy reported that there were significant benefits to be gained by developing the rail trail, both for local residents and potential visitors. It identified that the trail had significant potential to attract visitors to the area (the distance is attractive for day trippers). The trail will also provide walk and cycle opportunities in and around Caboolture, Wamuran and D'Aguilar for local residents. In 2010, Moreton Bay Regional Council commissioned a feasibility study of the trail including an extension to Woodford. Since that time, MBRC has undertaken further extensive planning work for the Caboolture Wamuran Rail Trail and is committed to building the trail to Wamuran in the short-term. Stages 1 and 2 of the trail have been completed, and stage 3 is expected to begin in 2020.

The Samford Valley Rail Trail (originally known as the Ferny Grove Rail Trail) is also listed as a rail trail on promotional websites (such as Must Do Brisbane and Visit Morten Bay Region).

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

The 'trail' in total is 8.3 kms. However, the rail trail itself (i.e. the traffic-free trail) is only a 1.8km sealed track connecting the Samford Valley foothills to Ferny Grove and does not have any of the 'trimmings' of a rail trail (such as bridges and stations). Road-based extensions can be found at either end of the actual rail trail. At the eastern end, Lanita Road connects Ferny Grove station to the start of the rail trail. At the western end, the trail is signposted as part of the cycling network and connects via roads into Samford.

Environmental education centres

Caboolture Region Environmental Education Centre (CREEC), Caboolture

CREEC is a learning centre that promotes the sustainable management of natural areas and waterways through displays, tours, workshops, talks and information about "Living with the Environment". The centre offers outdoor recreation activities including bushwalking and nature study, with self-guided walks through the rare lowland creek rainforest ecosystem.

Osprey House, Griffin

Osprey House offers outdoor recreation activities including nature study and bushwalking along a boardwalk through the mangroves on North Pine River. There is a particular focus on birdwatching, with multiple bird hides along the boardwalk and lookout areas to the river. The interpretive centre offers animal displays, live streaming of the osprey nest and creative activities to spark environmental curiosity.

Kumbartcho Sanctuary, Eatons Hill

The Kumbartcho Sanctuary is surrounded by rainforest, a freshwater lagoon, streams and open forest. Facilities on site include a community hall, barn, barbeque area, community nursery and playground. Visitors can observe wildlife in the sanctuary such as butterflies, turtles, frogs, ducks, herons and other birds. Kumbartcho is also home to its namesake the Hoop Pine and other native flora such as the Weeping Lilly Pilly and Native Holly.



Boardwalk at Osprey House Environmental Centre, Griffin

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Open space network

The open space network, including foreshore parks and urban parks, supports outdoor recreation activities through complementary supporting facilities such as parking, toilets, picnic areas and playground facilities. Additionally, a number of trails have been developed as co-located facilities at urban parks and sports facilities. Combining recreation hubs can help attract people to outdoor recreation with the offer of multiple experiences. For example, the playground and picnic facilities at Bullocky Rest (Lake Samsonvale, Joyner offer a well-rounded grouping of play and fishing experiences at Lake Samsonvale while the trail head for the bushwalking trails at John Oxley Reserve (Murrumba Downs has been developed near to sporting fields, public amenities and a play node.

The table below summarises the number of publicly-accessible areas available for each of the key outdoor recreation activities.

Table 2: Number of reserves offering outdoor recreation by activity

Activity	Publicly-accessible reserves ³
Bushwalking	91
Picnicking	49
Nature study	43
Mountain biking	43
Horse riding	28
Bird watching	28
Kayaking/canoeing	16
Swimming	14
Fishing	14
Stand up paddle boarding (SUP)	9
Sailing	5
Camping	4
Bouldering	1
Gliding	1

³ The number of reserves listed in the table is greater than the total number audited due to multiple activities offered within some reserves

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

World-class climbing on our doorstep: Glasshouse Mountains

While the Moreton Bay Regional Council area offers limited climbing opportunities, we are fortunate to have the Glasshouse Mountains just north of the region in the neighbouring Sunshine Coast. The climbing hot spot has over 700 routes recorded on thecrag.com with challenges for the beginner to expert climber. The Glasshouse Mountains offer residents in the Moreton Bay Region a world class climbing experience within a short drive.

The Moreton Bay Regional Council area contains three of the thirteen Glasshouse Mountains: Mt Elimbah (129m), Mt Tunbubudla or the Twins (312m and 293m), Mt Miketeebumilgrai (199m); however these mountains do not offer climbing opportunities.



Glasshouse Mountains - Rock Climbing

Participation considerations

Current participation rates

Due to the informal nature of outdoor recreation activities and vast land areas, it is often difficult to capture participation rates. As such, a variety of information sources have been employed in this plan to determine what types of activities residents (and SEQ and Queensland residents more widely) are currently participating in, and their future demand. These sources include:

- Moreton Bay Regional Council Outdoor Recreation Plan Community Survey 2017;
- Queensland Sport, Exercise and Recreation Survey Adults 2015 (North Coast region);
- Ausplay Data for the Sport Sector: summary of key national findings 2016;
- Statewide Recreational Fishing Survey 2013-2014;
- Seqwater Recreation Study 2013-2014;
- South East Queensland Outdoor Recreation Demand Study 2007; and
- Participation data from various stakeholders including Mountain Bike Australia, Queensland Parks and Wildlife Services, Seqwater, Queensland Rogaining Association and others.

The three most popular outdoor recreation activities in the region are bushwalking/ trail running, mountain biking and horse riding (Figure 1). This is consistent with state and national level participation trends.

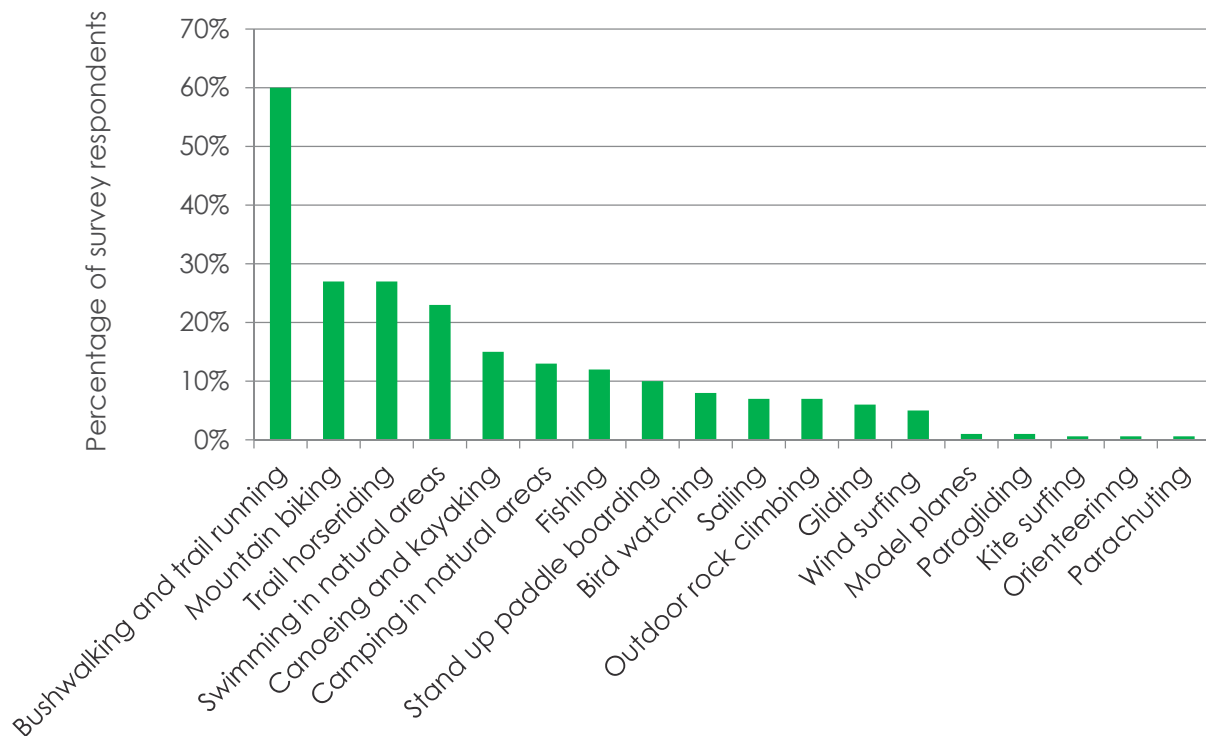


Figure 1: Participation rates in outdoor recreation ('MBRC Have Your Say', community survey results)

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

When compared to participation in traditional sports, participation in outdoor recreation is significant (refer to Figure 2). Queensland Sport, Exercise and Recreation Survey Adults (QSERSA) asked respondents about the frequency of participation in their chosen activity. Interestingly, 82% of the activities for high frequency participants in the North Coast region were not organised by a club, association or other organisation. This highlights the challenge of representing the needs of people not represented or organised by a club from a planning perspective. It also suggests notable participation rates in informal outdoor recreation activities.

QSERSA is focussed on physical activity and, therefore, did not include outdoor recreation activities of camping, nature study and picnicking. When these are taken into account, overall participation in outdoor recreation activities in Queensland is expected to far exceed that of traditional sports.

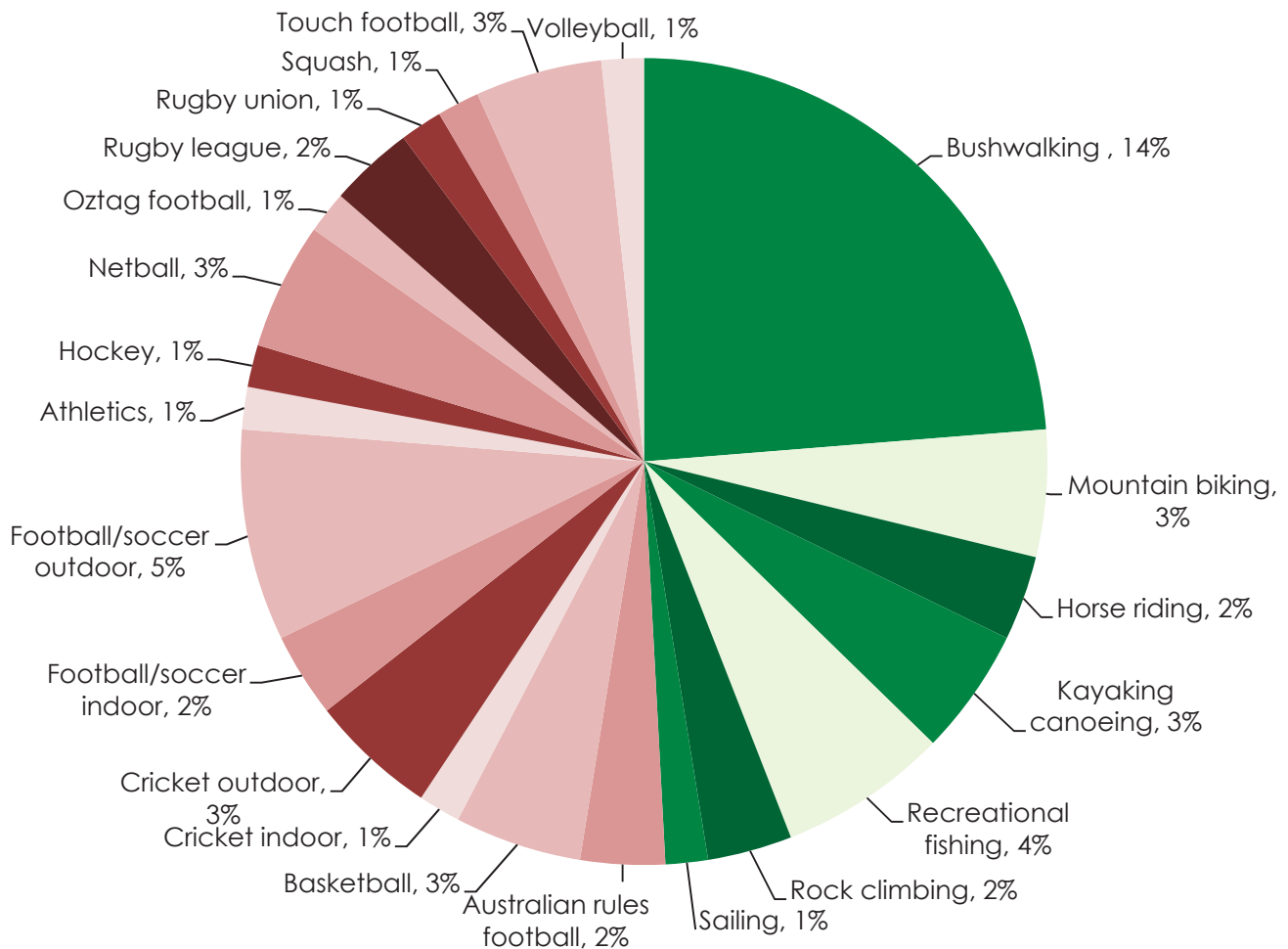


Figure 2: Comparisons between participation rates in traditional sports and outdoor recreation activities
Note: total of values is not equal to 100% due to participation in multiple activities and non-participation in physical activity. Swimming has been excluded due to the lack of differentiation between formal sport settings (swimming pools) and outdoor recreation settings (natural settings).

Residents are keen to participate in outdoor recreation activities. Council's programs run at capacity - many with notable waiting lists. Additionally, local event organisers report increasing numbers in outdoor recreation events held within the local government area (mountain bike races, canoe marathons, duathlons etc).

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Organised participation

Interviews with peak bodies for these activities presented a picture of growth for outdoor recreation. In many cases, peak bodies are relying on data such as participation in events and anecdotal evidence to determine participation trends. Growth captured by peak bodies may potentially be attributed to population growth rather than increased rates of participation. Population growth combined with stable overall participation rates will continue to result in growing demand.

Table 3: Perceived trends by peak bodies

Activity	Trend
Gliding	Steady
Trail horse riding	Steady
Rogaining	Slowly growing
Mountain biking	Growing
Bushwalking	Growing
Rock climbing	Growing
Orienteering	Growing
Canoeing	Growing
Trail running	Growing



ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Participation trends

Only the SEQ Outdoor Recreation Demand Study has presented longitudinal outdoor recreation participation data. These results are presented in the table below.

More recent studies include the QSERSA and Ausplay projects have been considered in the plan. The relevant data for these two projects is included below to provide a more recent point of reference. However, it is very difficult to compare results across these studies given the different methodologies used. For example, QSERSA specifically assessed mountain bike and bushwalking participation whilst the Outdoor Recreation Demand Study analysed bicycle riding and walking more generally. Additionally, there are marked differences in some results that make direct comparisons questionable (e.g. horse riding). Regardless, when the results are considered together, it is appropriate to note that bushwalking and water activities remain popular, participation in horse riding and climbing activities appears steady, while additional data for activities such as mountain biking are required to determine firm trends.

Table 4: SEQ participation trends (Outdoor Recreation Demand Study)

Activity	Percentage who participated in the previous 12 months		
	1998	2001	2007
Picnicking	65	67	58
Water activities	39	56	54
Walking or nature study	60	49	35
Camping	25	33	30
Bicycle riding	25	26	29
Riding on non-motorised water craft	17	19	17
Horse riding	7	7	7
Abseiling or rock climbing	7	6	6

Table 5: QSERSA and AUSPLAY participation data

Activity	QSERSA 2016 participation rates for adults North Coast (Moreton Bay, Gympie and Sunshine Coast)	AUSPLAY 2016 participation rate for adults in Queensland
Bushwalking	15%	6.5%
Mountain biking	4%	n/a
Recreational angling/fishing	4%	n/a
Kayaking/canoeing	3%	n/a
Horse riding	2%	1.6% *
Rock climbing	1%	n/a

*Australia-wide result

Bushwalking

15%

bushwalk

15% of people in the North Coast Region participate in bushwalking

~64,562

adults from the Moreton Bay region go bushwalking

60%

bushwalk or trail run

60% of community survey respondents participate in bushwalking or trail running



Hot spots

- Brian Burke Reserve, Samford
- Bribie Island National Park, Bribie Island
- Bunyaville Conservation Park, Bunya
- D'Aguilar National Park, Mt Mee, Mt Glorious and Mt Nebo
- Godwin Beach Environmental Reserve, Godwin Beach
- Grogan Road Park, Burpengary
- Lake Samsonvale trails, Joyner
- Samford Conservation Park, Samford

Participation

Bushwalking/Trail Running is the most popular outdoor recreation activity at a national, state and local level. Approximately 15% of people in the North Coast region (Moreton Bay, Gympie and the Sunshine Coast) participate in bushwalking. The SEQ Outdoor Recreation Demand Study combined bushwalking and nature study as these activities are often undertaken together, resulting in a participation rate of 35% in 2007. Of the community survey respondents, 60% participate in bushwalking or trail running.

“With the growing trend for people to live in high rise developments there is a need to allow people access to marked trails for bushwalking, running and mountain biking for fitness rather than them having to compete with motorised traffic and pollution in these built-up areas (survey respondent)”

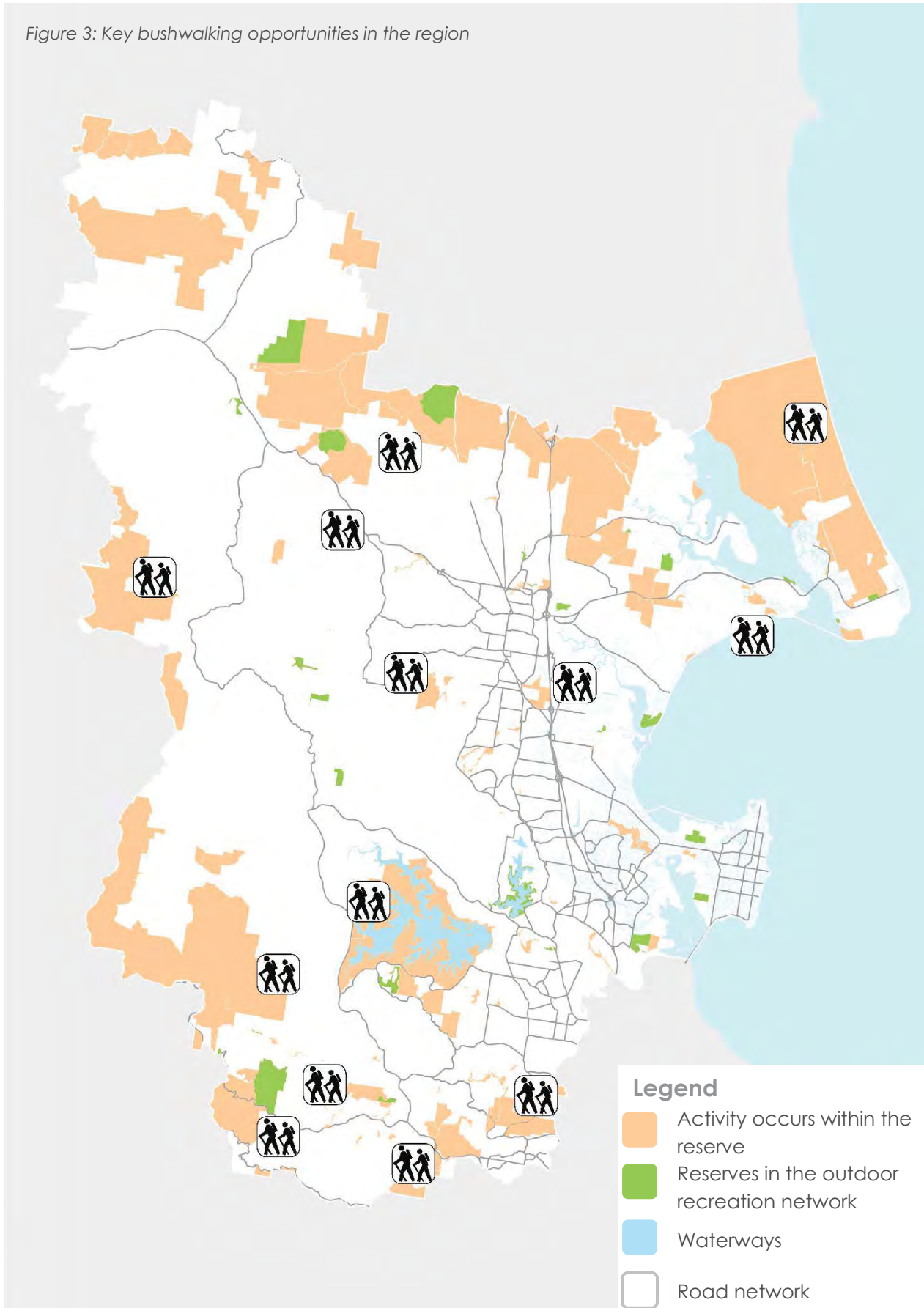
What does this mean for the Moreton Bay region?

Bushwalking opportunities in Moreton Bay are diverse and plentiful. Opportunities exist to develop a small number of additional trails and connect existing trails to create longer more attractive routes. Additionally, providing necessary ancillary facilities such as car parks, signage and more detailed mapping will help to meet demand and activate under-utilised sites.

Note: Bushwalking and Trail Running have been combined in this study as they have the same infrastructure outcomes.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Figure 3: Key bushwalking opportunities in the region



Mountain biking

4%

mountain bike

4% of people in the North Coast Region participate in mountain biking

~17,217

adults from the Moreton Bay region go mountain biking



27%

mountain bike

27% of community survey respondents participate in mountain biking

Bunyaville Conservation Park is a great venue for mountain biking and trail running. Facilities have been developed over time as the use and need has increased (survey respondent)

Hot spots

- Beerburrum State Forest, Beerburrum
- Bunyaville Conservation Park, Bunya
- Clear Mountain Conservation Park, Clear Mountain
- D'Aguilar National Park, Mt Mee, Mt Glorious and Mt Nebo
- Dawn Road Reserve, Albany Creek
- Grogan Road Park, Burpengary
- Samford Valley

Participation

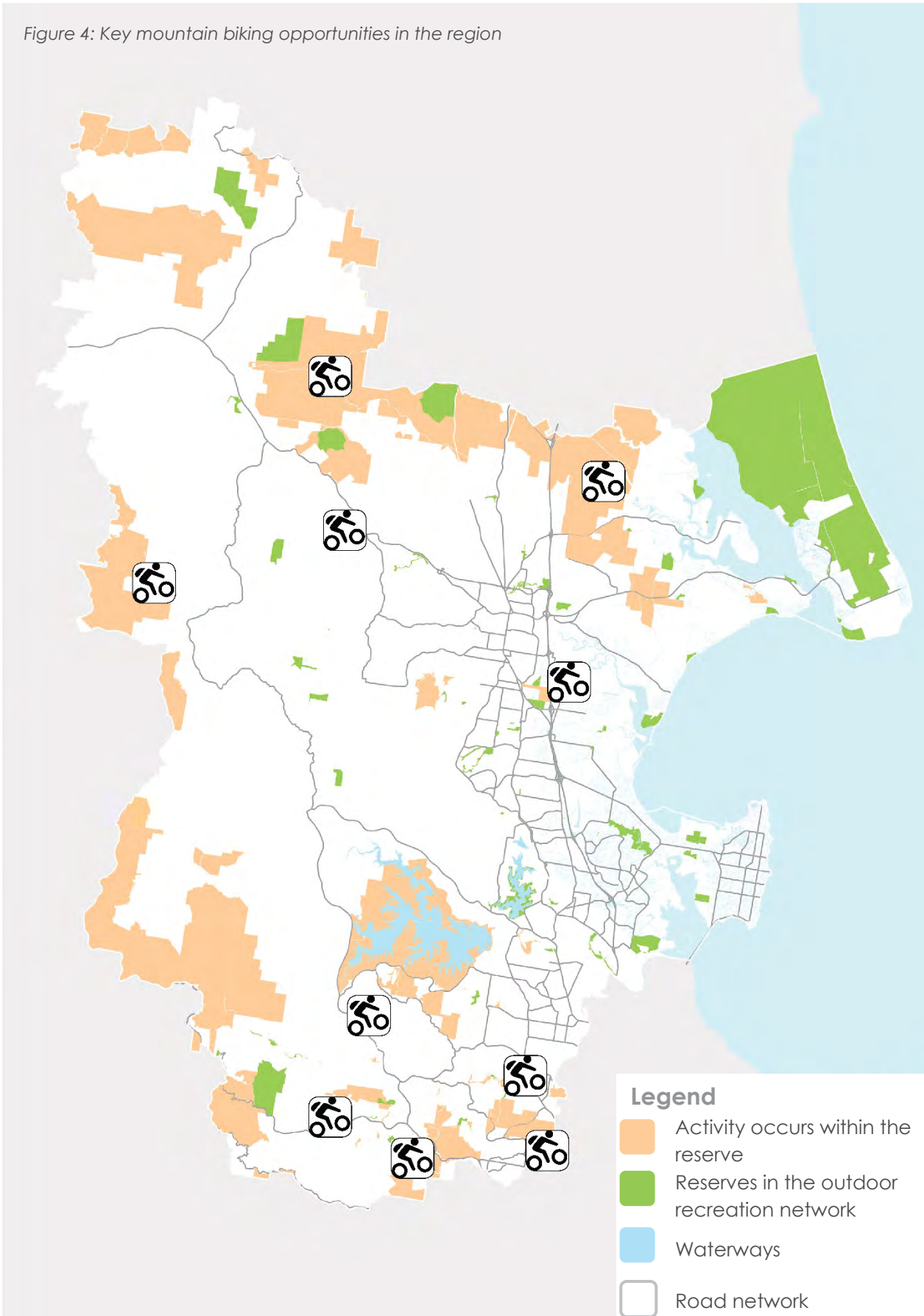
Mountain biking is the second most popular outdoor recreation activity in the Region, with approximately 4% of adults taking part. The popularity of mountain biking is highlighted when these results are compared to more traditional sports such as AFL (2%), cricket (3%), football/soccer (5%), netball (3%), and rugby league (2%).

What does this mean for the Moreton Bay region?

- Mountain biking in the Moreton Bay Region is concentrated at a few key hot spots such as Bunyaville Conservation Park. Opportunities exist in developing a limited number of alternate destinations to reduce pressure at these heavily used sites.
- Many other lesser known sites exist but lack promotion, adequate parking facilities and user information such as difficulty level or access information.
- Given the popularity of mountain biking and the propensity for many users to drive to the preferred venues, ancillary facilities such as car parks and trailheads are important. A number of QPWS-managed sites provide quality mountain biking experiences yet lack suitable ancillary facilities. Opportunity exists for Council to establish a partnership approach by developing trailhead and parking facilities (on Council land) that adjoin the QPWS-managed mountain bike sites.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Figure 4: Key mountain biking opportunities in the region



Horse riding

Participation

Horse riding is one of the more popular outdoor recreation activities; however, participation is typically concentrated in locations with acreage properties. 27% of survey respondents participate in horse trail riding. Participation is also limited by access to floats and float parking for rides not accessible without transportation.

Hot spots

- Beachmere foreshore, Beachmere
- Beerburrum West State Forest, Bracalba
- Brian Burke Reserve, Samford Valley
- Bunyaville Conservation Park, Bunya

~8,608

adults from the Moreton Bay region go horse riding



2%

horse ride

2% of people in the North Coast Region participate in horse riding

27%

trail ride

27% of community survey respondents participate in trail riding

“ We need safer trail options other than the roads... cars do not slow down and spook the horses. We just need safer options for those who want to ride and do not live on acreage (survey respondent) ”

What does this mean for the Moreton Bay region?

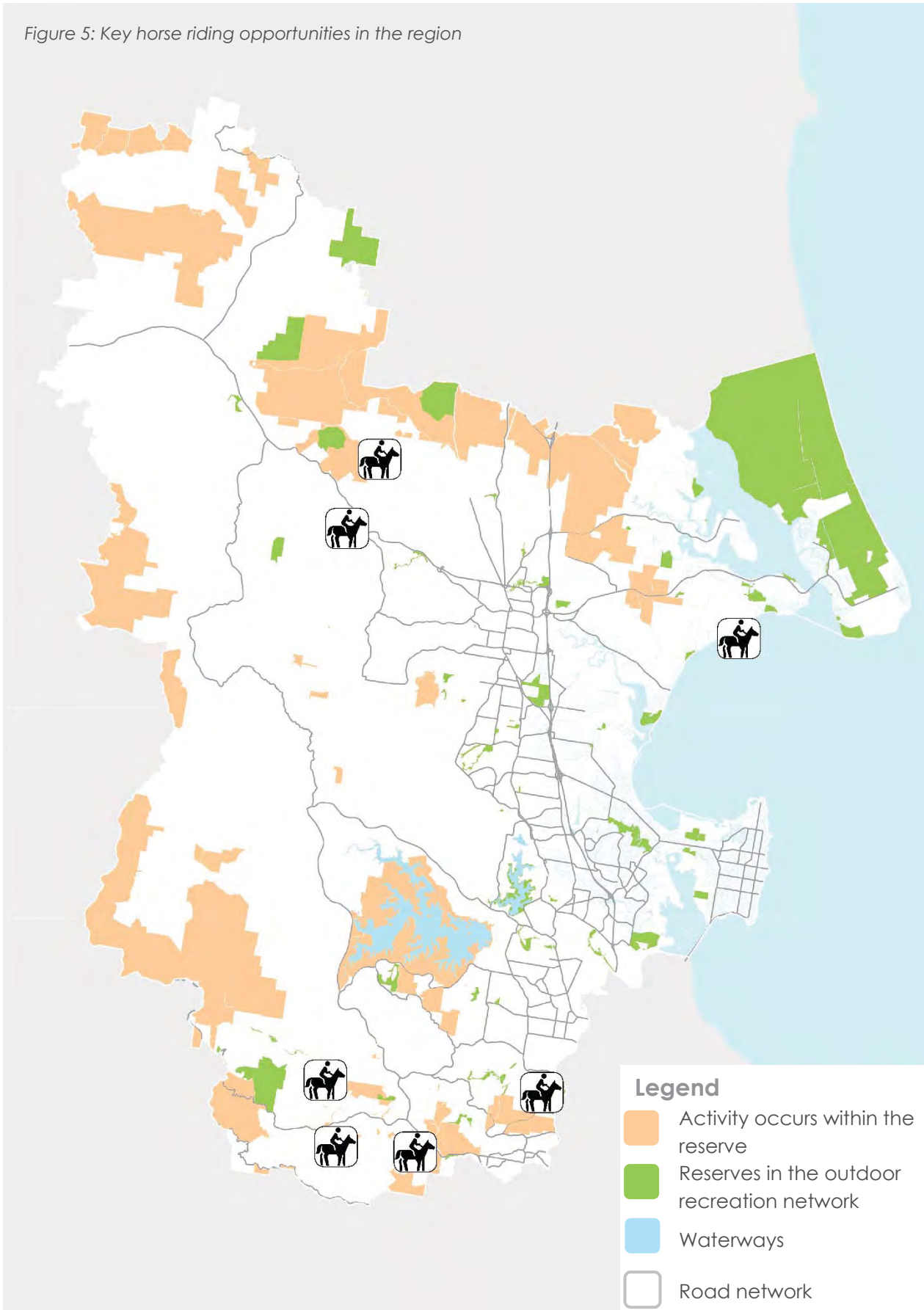
Moreton Bay offers very few long trail riding opportunities in natural areas and as a result, trail riding clubs organise private agreements with individual land holders to create long trails for club use. The risk in this approach is that the trails are not secured for future use and depend on individual agreements which may not hold over time with changing land ownership.

Some of the trails that are available to horses are not well used for horse activities due to unauthorised uses becoming a deterrent (e.g. increasing inappropriate mountain biking in Sheepstation Creek Conservation Park, Upper Caboolture). Other sites lack appropriate facilities such as float parking (e.g Beerburrum West State Forest (Bracalba)).

Other trails are located along the verge of busy roads and present safety risks to riders and their horses (e.g. Dayboro Road).

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Figure 5: Key horse riding opportunities in the region



Water-based activities

15%	<p>canoe or kayak</p> <p>15% of community survey respondents participate in canoeing or kayaking</p>	10%	<p>stand up paddle board</p> <p>10% of community survey respondents participate in stand up paddle boarding</p>
23%	<p>swim in natural areas</p> <p>23% of community survey respondents swim in seas, rivers, lakes, creeks or water holes</p>	15%	<p>fish</p> <p>15% of Queenslanders participate in recreational fishing</p>
14%	<p>wind sports</p> <p>14% of community survey respondents participate in sailing, wind surfing, kite surfing or paragliding</p>		

“We can only run smaller (canoe) events in MBRC due to the lack of parking (peak body interview)”

~12,912
adults from the Moreton Bay region canoe or kayak



Participation

Water activities such as non-motorised paddle craft, recreational fishing and swimming are popular activities in the region with many opportunities along the coastline and at lakes, rivers, creeks and waterholes. Participation in non-motorised watercraft based recreation is high at 19% for the North Coast region.

Hot spots

- Bribie Island
- Caboolture River
- Cedar Creek
- Deception Bay
- Hay's Inlet, Griffin
- Lake Kurwongbah, Kurwongbah
- Redcliffe foreshore
- South Pine River
- Stony Creek

Seqwater lakes in focus

Lake Samsonvale and Lake Kurwongbah both offer outdoor recreation opportunities; however, they primarily serve the purpose of water supply.

Lake Kurwongbah has been partially opened to the general public since 2015 and in December of 2018 the lake become available for 7 day use for paddling, motorised water sports and fishing.

	Lake Samsonvale	Lake Kurwongbah
Paddle craft	Club members only	Yes
Fishing	Yes, at designated areas	Yes, shoreline or paddle craft
Swimming	No	No
Camping	No	No

What does this mean for the Moreton Bay region?

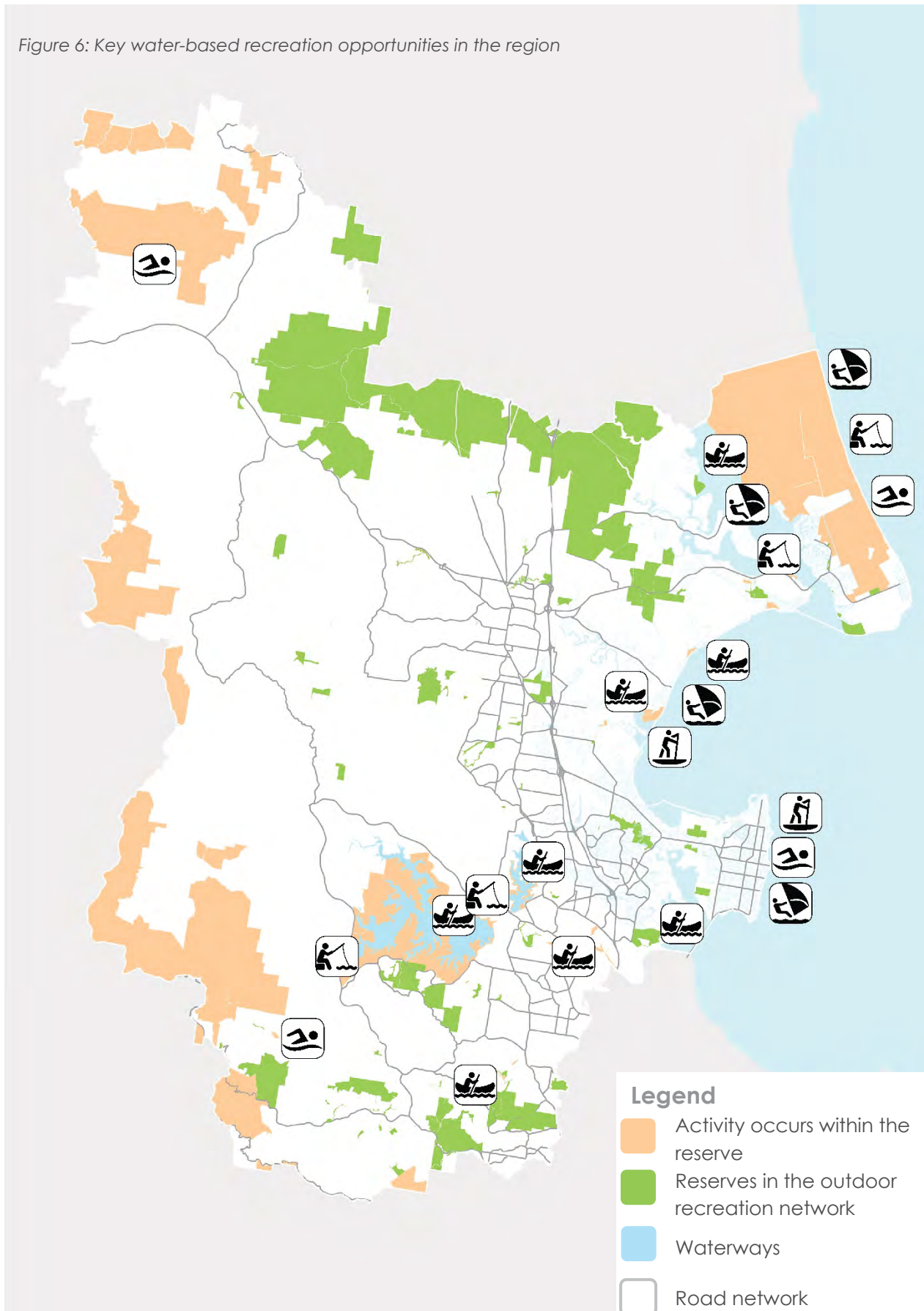
Many water-based recreation activities occur together and require similar infrastructure such as water entry points, wash down facilities, toilets and parking.

To provide for water-based outdoor recreation in the future, the focus should be on partnership approaches and providing necessary ancillary facilities.

Moreton Bay is home to two Seqwater lakes that offer varied recreation opportunities, limited by priority of providing a source of water. Seqwater has recently reviewed recreation access, introducing greater access to Lake Kurwongbah for paddle public use.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Figure 6: Key water-based recreation opportunities in the region



Other activities

58% **picnicking**
58% of people in the North Coast region participate in picnicking



13% **camp in natural areas**
13% of community survey respondents participate in camping in national parks and reserves

7% **rock climbing**
7% of community survey respondents participate in outdoor rock climbing

7% **birdwatching**
7% of community survey respondents participate in birdwatching

6% **gliding**
6% of community survey respondents participate in gliding

0.6% **orienteering**
0.6% of community survey respondents participate in orienteering

“For gliding, we want promotion of our clubs and events, protection from development pressure to secure the airfield for future use and infrastructure like parking (workshop discussions)”

Hot spots

- Bribie Island (birdwatching, camping)
- Caboolture Airfield (gliding)
- Cedar Creek (bouldering)
- Rothwell (birdwatching)
- Hay's Inlet (birdwatching)
- D'Aguilar National Park (camping and bird watching)

Participation

- Picnicking is a highly popular activity that is often combined with other outdoor recreation activities such as bushwalking or nature study
- Camping in national parks and reserves is somewhat popular at 13%
- Birdwatching is a less popular activity however devoted hobbyists are willing to travel to experience this activity
- Gliding is a niche activity with a regional base at the Caboolture Airfield

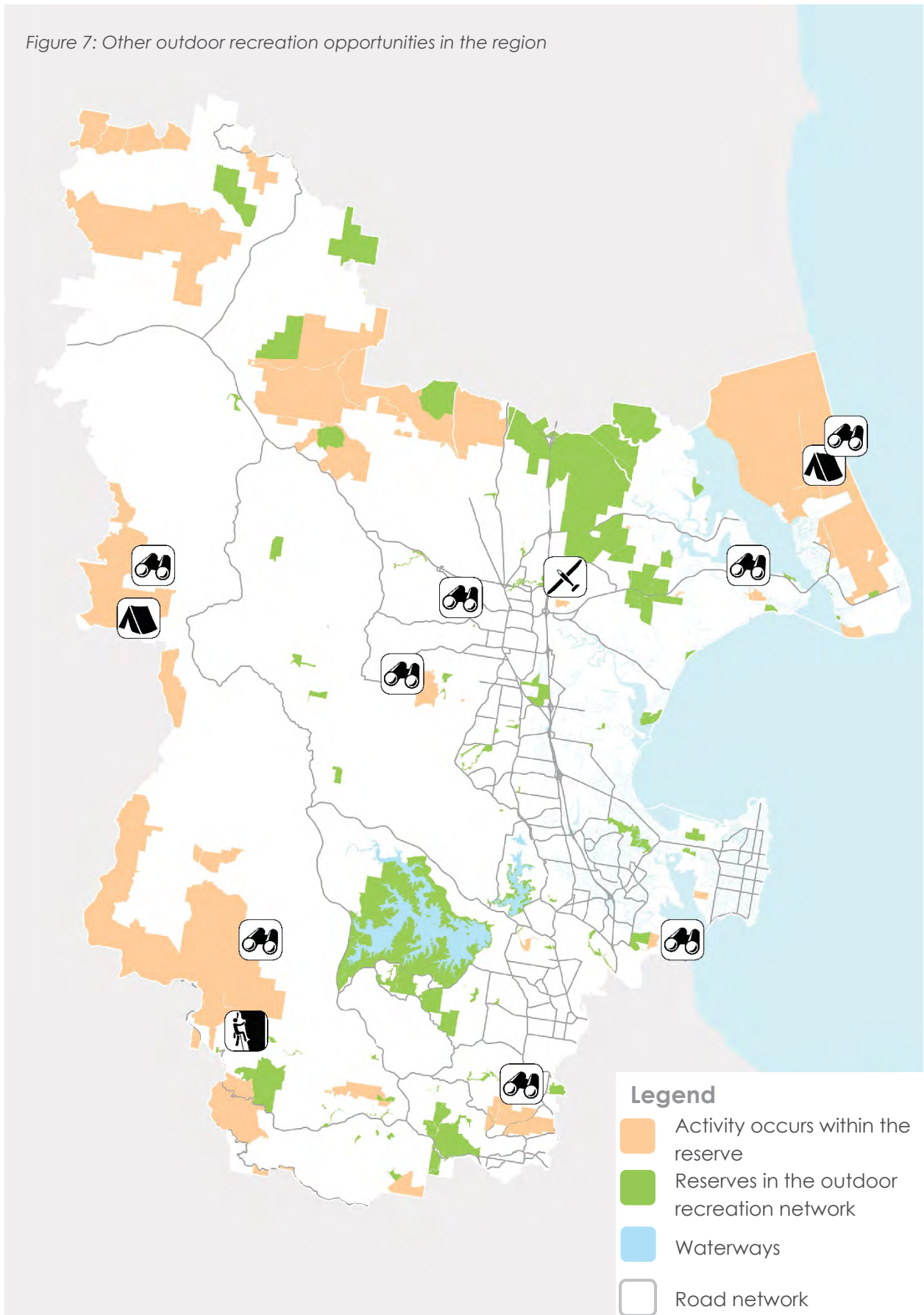
What does this mean for the Moreton Bay region?

A range of outdoor recreation opportunities are provided by surrounding state forests and national parks. Council can support these providers through partnerships to deliver facilities such as car parks and toilets on adjacent council land.

Clubs and private providers also make significant contributions in organising events and club activities. Council can support providers and clubs by partnering through their recreation programs, funding and promotion.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Figure 7: Other outdoor recreation opportunities in the region



Recreation programs and services

Council currently offers a range of free or low cost outdoor recreation opportunities through the delivery of Healthy & Active Moreton and Active Holidays. Participants can try outdoor recreation activities under the direction and supervision of qualified instructors. Participation figures and a feedback survey for Healthy & Active Moreton and Active Holidays for the 2018/19 period indicate that these programs have been highly successful.

95% of activities received a satisfaction rating of 'very high'. The feedback also indicated that the program introduced many participants to outdoor recreation activities that they had not been involved with previously.

Active Holidays Program

A school holiday program for children aged 3-17, that offers a range of outdoor recreation opportunities, for no/or low cost (up to \$5). Activities are delivered in the region in parks, state forests and private facilities.

Types of outdoor recreation activities within the program include:

- abseiling;
- canoeing;
- mountain biking;
- rock climbing (at the Glasshouse Mountains); and
- stand up paddle boarding.

Healthy & Active Moreton Program

Healthy & Active Moreton is an annual program offering outdoor recreation experiences for all residents, for no/or low cost (for up to \$20).

Types of outdoor recreation activities from the program include:

- canoeing;
- environmental education;
- kayaking;
- mountain biking;
- orienteering;
- rock climbing (at the Glasshouse Mountains);
- sailing; and
- stand up paddle boarding.

Healthy & Active
MORETON



ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Events in natural areas

Events in the region

The popularity of outdoor recreation events, particularly trail running and mountain biking, are increasing at a rapid rate. As council currently does not have any natural areas established to host large outdoor recreation events, many of the region's outdoor recreation events are occurring on private land (many with support/sponsorship from council).

Throughout 2017, the region hosted:

- 6 mountain biking events;
- 8 trail running events;
- 4 horse trail riding events;
- fishing events;
- Obstacle racing events; and
- Aviation-based events.

A detailed list of the events and where they were held is included in Appendix I.

Events in South East Queensland

In addition to those events held throughout the Moreton Bay region, at least another forty outdoor recreation events were spread across South East Queensland. Attracting local and visiting competitors, there is opportunity to host some of these events in the region given the appropriate facilities (on private land) and natural settings.

Overall, in 2017 South East Queensland (excluding the Moreton Bay region) hosted:

- 21 trail running events;
- 51 mountain biking events;
- 4 rogaining events;
- 4 water-based events;
- 2 bushwalking events;
- 2 climbing events; and
- 1 gliding event.



Trail running event, Mount Glorious



Queensland Canoeing event, Lake Samsonvale

Promotion of natural areas and activities

Council promotion

The remote nature of locations for outdoor recreation activities, means that the council needs to be proactive at promoting the region's outdoor recreation opportunities. Council currently advertise a number of recreation walks on their website. However, the site could be improved in the future and include consistency in the trail maps. In addition, the site only promotes bushwalking, mountain biking and horse riding trails.

Moreton Bay Region Industry and Tourism (MBRIT) is the region's official destination management organisation and the lead agency for the delivery of tourism development, visitor communication and regional brand development. MBRIT operates a number of print and online platforms that are able to support the promotion of outdoor recreation opportunities to the public and private sectors.

Visitors and residents to the region can also access information regarding outdoor recreation at council's visitor information centres located across the region.

Other methods of promotion include:

- Council's Healthy & Active Moreton eNewsletter – a monthly newsletter that promotes opportunities to stay healthy and active within the region. The eNewsletter includes information regarding outdoor recreation opportunities and is the platform for the promotion of council programs and activation of specific trails and reserves;
- Council's Sport and Recreation eNewsletter - a weekly newsletter for sport and recreation organisations with an overview of current funding, education and training opportunities, ways to improve club governance and upcoming recreation programs, events and awards;
- Council's Community Links eNewsletter – a fortnightly newsletter covering a range of information relating to funding and employment opportunities, professional development training, new initiatives and events for communities and community service organisations;
- Social media and chat sites (such as Meet Up) are being used by informal groups to organise outdoor recreation get-togethers;
and
- Visit Moreton Bay website, an on-line initiative to promote tourism within the region including recreation and active opportunities.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

State government recreation services

The Queensland State Government and Seqwater provide services to promote and manage outdoor recreation on non-council land within the region. These include:

- Queensland National Parks Visitor Guides – provide links to state government services such as species guides;
- Camping Permits;
- Queensland Outdoor Recreation Federation (QORF) - a state funded organisation that promotes the benefits of outdoor recreation and looks to increase opportunities. QORF is the peak body for outdoor recreation in Queensland and plays a major role in tracking trends and participation in outdoor recreation activities;
- Department of National Parks, Sport and Racing - provide funding assistance for planning and development of outdoor recreation. They also provide Get Started funding assistance to help children participate in club-based sport and outdoor recreation activities;
- Interactive Recreation Map - the Seqwater Interactive Recreation Map allows users to plan ahead and find the best lake for their recreation needs; and
- Recreation Guides - Seqwater Recreation Guides outline the facilities and permitted recreation activities for each lake and include download-able maps. The guides also offer information regarding environmental protection and recent recreation reviews



Moreton Bay Healthy & Active Program - Lake Kurwongbah

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Outdoor recreation in surrounding areas

Individual outdoor recreation activities require specific natural settings. According to the community survey, residents of Moreton Bay are prepared to drive significant distances to access an appropriate location for their preferred activity.

The community survey revealed that 36% of respondents typically travel between 30 minutes to 1 hour, while 21% typically travel more than 1 hour for their outdoor recreation experiences. These travel times support the finding that 60% of survey respondents undertake outdoor recreation activities in surrounding SEQ areas.

People from the Moreton Bay region are accessing opportunities in neighbouring council areas of:

- Sunshine Coast Regional Council;
- Somerset Regional Council; and
- Brisbane City Council.

Similarly, residents from surrounding LGAs are likely to contribute significantly to natural area visitation in the region.

Some key opportunities within a two hour radius of the Moreton Bay region include:

- Glasshouse Mountains;
- various beaches;
- Mt Coot-tha Reserve;
- Daisy Hill Conservation Park;
- Lake Wivenhoe; and
- Springbrook National Park.

How far do you typically travel for outdoor recreation?

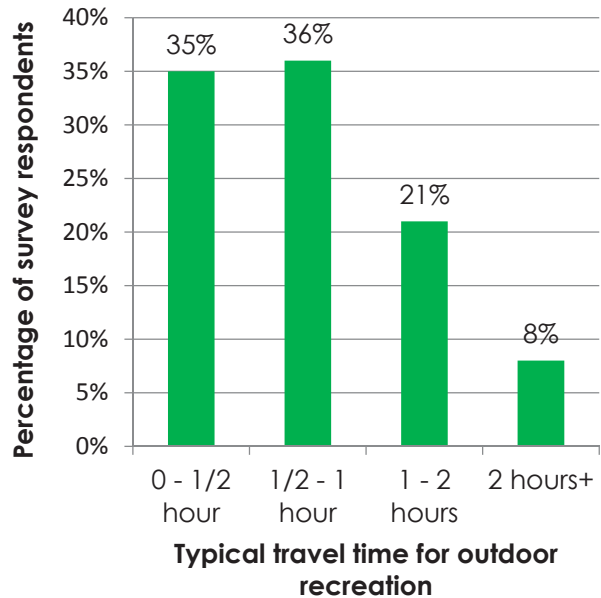


Figure 8: Willingness to travel

Where was outdoor recreation undertaken?

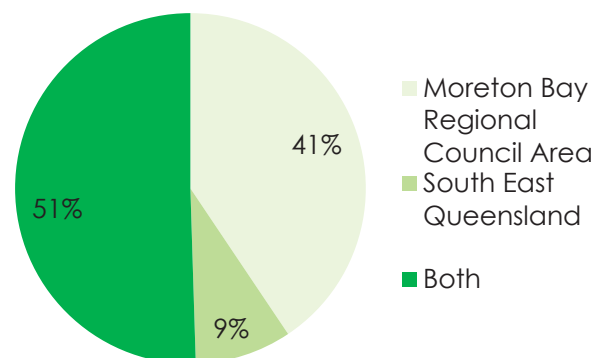


Figure 9: Participation location

4. Demand for outdoor recreation

Population considerations

Population growth

The Moreton Bay Region is one of the fastest growing urban areas in Australia. The population grew by 10.7% between 2011 and 2016 and is expected to be home to an additional 212,586 residents by 2036, an increase of almost 50% from 2016. This growing population means that the number of people seeking outdoor recreation opportunities will increase within the Moreton Bay region. If not managed properly, this demand could lead to degradation of protected land and an increase in inappropriate use of natural areas. Population growth in surrounding local government areas will also contribute to the number of people seeking outdoor recreation opportunities in the Moreton Bay region.

Changing population

Different age cohorts seek different outdoor recreation experiences. The proportion of persons 65 years and older in the Moreton Bay region is expected to reach 20.85% by 2036. The older generation has a tendency to prefer the more passive activities, such as bushwalking and nature appreciation. In contrast, younger residents and visitors are more likely to seek more adventurous and active types of activities, such as mountain biking.

Trends driving outdoor recreation

A number of trends are influencing the way people participate in outdoor recreation. These trends have been detailed below as they assist to articulate demand in the Moreton Bay region. Council will ensure it is strategic in identifying opportunities to best capitalise on these trends.

Shift in physical activity trends

Moreton Bay region and Queensland more widely are becoming a more convenience-oriented society. Shift work, increasing numbers in part-time and casual employment and family commitments influence participation as people:

- Do not have the time to commit as a regular participant or volunteer; and
- Seek facilities and participation opportunities with flexible hours.

It is becoming more common for people to desire the flexibility to do activities at their own leisure. This desire has contributed to an increasing trend in non-committal participants. These types of participants perceive that they do not have time to commit to organised sport and, therefore, seek less structured, non-organised sport and recreation activities that do not require training or competing to a schedule (such as many outdoor recreation activities).

More people are seeking 'competition' against themselves and are more concerned about personal performance than team performance (e.g. conquering a challenging rock climb rather than winning a football fixture).

Participation in organised physical activities is declining at a national, state and local level. Most outdoor recreation participants are not represented by club groups and prefer the convenience of participating in outdoor recreation activities spontaneously or at their discretion. This trend is consistent with the community survey, with less than half (46.9%) being a member of a club. The proportion of unaffiliated participants across the region is actually likely to be much higher due to the community survey being distributed among formal clubs.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Increasing affluence and expectations of recreation

As individuals become more affluent, the proportion of income spent on goods and leisure increases. As people spend more money on outdoor recreation and associated equipment, an increase in outdoor recreation activities, previously offered by commercial operators, has been observed. Despite cost being a barrier to participation in organised sport, participants appear more prepared to make a one-off investment in equipment for outdoor recreation that they can use at their convenience.

Loss of green space and smaller back yards

Over time, a gradual decline in lot sizes and an increase in house dwelling sizes has occurred in new residential developments across Australia's growing urban areas⁴⁵. It is now more common for the footprint of new dwellings to cover a larger share of the block (increasing house-to-block ratios). This has resulted in detached homes in greenfield developments having less private outdoor space than in the past. With densification, there is also an expectation that a park will offer more choice. Residents are demanding more diverse and comprehensive facilities within parks.

Anecdotal evidence indicates that this diminishing private open space has resulted in the community placing a higher value on open space. Formal parks, sporting fields and bushland areas ensure ready access to open space. Additionally, these open spaces assist to break-up the visual impact of higher-density development.

Tourism – cultural and nature appreciation

Australians are making increased 'lifestyle' choices associated with greater access and contact with the natural environment. This includes aspects of urban to rural residential drift ('sea change' and 'tree change'⁶), increased demand for open space in urban developments (parks, recreation trails etc.) and increasing demands for recreation time in the outdoors (changing work patterns and day trips from home).

It is estimated that the market for nature-based tourism is increasing at six times the rate of tourism itself. This growth corresponds to an increased demand for access and contact with the natural environment.

Clearly, the provision of a network of quality outdoor recreation opportunities further establishes an area as an attractive nature-based tourism destination.

Technology

Social media and smart phones/devices are also influencing recreation activities. Outdoor recreation enthusiasts can share, admire, encourage and compete with others on-line (meaning the social dimension for open space has grown beyond the site).

⁴ Australia – State of the Environment Report, 2016

⁵ The MBRC Planning Scheme outlines minimum lot sizes of between 222m² and 266m² depending on the residential zoning

⁶ Australian Bureau of Statistics – Internal migration 2016

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Additional considerations

The following key issues and requests were raised by the local community through the community survey, themed activity workshops, peak body interviews and additional stakeholder interviews. These considerations (demand) have been listed in their order of priority based on overall assessment of consultation outcomes.

Further opportunities

The most commonly cited barriers to participating in outdoor recreation in the community survey were a lack of appropriate locations (39%) and a lack of appropriate facilities (35%).

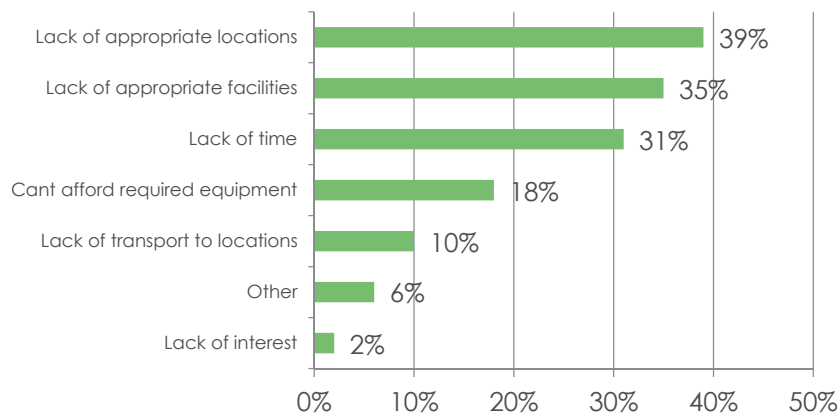


Figure 10: Barriers to participation

Further, the community survey asked 'in the future, what would you like to see offered or improved for outdoor recreation in the region?' Three of the top eight responses were more horse trails, more mountain bike tracks and more walking tracks. Here again, this highlights demand for additional opportunities.

Greater visibility of opportunities

Not knowing where to go (and what opportunities are available) was raised as an issue many times throughout the consultation. People requested maps of a higher quality for trails and other supporting resources (such as interpretive and wayfinding signage) to improve knowledge of opportunities. Members of the community have suggested that the region requires a comprehensive directory of information to promote outdoor recreation opportunities and the types of supporting facilities and access available.

A lack of directional signage was also highlighted as a key concern through the consultation processes (and confirmed through the facility audit). Many respondents note that they simply were not aware of where outdoor recreation opportunities existed.

Trails connectivity

The community would like to see greater connectivity between existing trails both within the Moreton Bay region and across the SEQ region. This would be beneficial in supporting a greater number of opportunities through potential trail routes and also assist to establish longer trails through connecting existing routes (rather than unnecessary development of complete new tracks and trails).

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Ancillary facilities

The provision of quality trailheads was noted as a key demand. Depending on the individual reserve and the popularity of the activities available, trailhead requests include suitable parking (for vehicles and for floats/trailers), wayfinding and interpretive signage, access to drinking water and toilets.

Trails maintenance

Increased levels of maintenance for existing trails has been requested to improve the user experience and to ensure safety where high levels of use are evident. A number of respondents indicated that maintenance tended to be undertaken once issues such as safety and erosion had become problematic (reactive maintenance), rather than as a proactive measure.

Safety near roads

The issue of safety has been raised where trails include unsafe road crossings or follow alongside busy roads (e.g. Dayboro Road horse riding trail). For future trails, there is a preference to avoid roads to improve safety and the natural experience. Road-free trails are also better equipped to host trail-based events due to fewer risks and requirements for road closures.

Accessibility

There is demand for more all-access opportunities across the natural area network with appropriate parking provided. The provision of at least one sealed path within feature reserves providing outdoor recreation would also enhance accessibility for all users.

Programming

Council's outdoor recreation programs have received extremely positive community feedback. There is a demonstrated demand to continue to offer this service and further increase the range of offerings and variety of times to suit a greater number of people.



Learning to fish program, Lake Kurwongbah

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Demand summary

Table 6 below considers participation data from the QSERSA survey and council population projections through to the year 2036 in order to provide an estimate of future participation in these key outdoor recreation activities. This assumes that participation rates will remain stable to 2036 and does not include activities with participation lower than 1% (nor activities not included in the survey). These figures should be used for illustrative purposes only.

Table 6: Estimated current and future participation

Activity	QSERSA participation rate for North Coast (Moreton Bay, Gympie and Sunshine Coast)	2016 estimated resident population (430,414) X participation rate based on QSERSA data	2036 projected population (643,000) X participation rate based on QSERSA data	Potential participation data trend	Estimated increase in participants in Moreton Bay LGA (assuming maintained participation rates)
Bushwalking	15%	64,562	96,450	Stable	+31,888
Horse riding	2%	8,608	12,860	Stable	+4,252
Mountain biking	4%	17,217	25,720	Growing	+8,503
Kayaking/canoeing	3%	12,912	19,290	Stable	+6,378
Recreational angling/fishing	4%	17,217	25,720	Stable	+8,503
Rock climbing	1%	4,304	6,430	Stable	+2,126

Where peak body, and SEQ demand study participation rate changes align it may be possible to predict an even greater increase in demand. In this regard, the increase in mountain bike participation may be beyond the additional 8,503 participants indicated in the table above.

5. Gap analysis

Understanding gaps in outdoor recreation

Whilst outdoor recreation planning is one type of open space planning, it is difficult to compare with more traditional open space planning for sports facilities and parks as there is currently clear standards and guidelines to support the planning and provision for traditional sporting models and recreational parks.

Assessing demand and provision gaps for formal sport is generally undertaken by considering a variety of factors including rate of land provision (i.e. number of playing fields/ courts to number of residents and place types), minimum requirements (dimensions, road frontage, flood immunity etc.) and standard facility embellishments (car parking, seating opportunities, multi-use activity space etc.). Similarly, the land required for each sport is readily articulated given that the vast majority of formal sports have designated field and court dimensions. Finally, accessibility and distribution of facilities is regularly considered in sports facility planning exercises with information on participation in individual sports readily accessible from state sporting organisations, peak bodies and local clubs.

In a similar vein, demand and gap assessment planning for parks is generally based on calculations relating to number of hectares of park type per residential place type. Councils tend to set a desired standard of service for each park type (that includes considerations such as quantity of land, quality of land characteristics and distribution) and then compare provision with population. As population increases are forecast, the council can then plan for additional park development as required.

In the formal sports facility and parks planning methods detailed above, gaps in provision are largely determined through a 'mathematical-style' quantitative process. Determining provision gaps for outdoor recreation is a different process.

At present there are no formalised regulations for outdoor recreation as there are for traditional sports and recreational parks. Council has the opportunity to create similar processes and service standards that are specific to the provision of outdoor recreation opportunities to assist in the planning for outdoor recreation. Consideration should be given to land requirements (terrain, land features, activity appropriateness etc.), connectivity (accessibility and linkages between recreational hot-spots) and community demand.

As a result, the gap analysis included in this plan has been undertaken to build upon existing opportunities and to embrace new endeavors where they align with demand.

The gap assessment has been developed by considering the range of outdoor recreation sites currently available (current supply) and comparing this with demand that has been derived by analysing outdoor recreation trends, community consultation outcomes, reviewing participation survey outcomes, peak body directives and key stakeholder feedback.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Current and future gaps in provision

The demand analysis has identified that bushwalking is by far the most popular outdoor recreation activity (at least three times more popular than mountain biking and fishing – the next most popular activities). It is exciting to note that the outdoor recreation network reflects these participation preferences with bushwalking available at the vast majority of developed locations. Similarly, more than one third of developed locations also offer opportunities for mountain biking, whilst boat ramps and fish cleaning tables are available across the region for fishing enthusiasts.

Participation in horse riding appears to be approximately half that of mountain biking. Here again, access to facilities appears reflective of these participation trends. There are currently 43 sites available for mountain biking and 28 for horse riding.

While rates of provision appear reflective of participation preferences, additional facilities are required to meet current and future demand across a number of key outdoor recreation activities. The need for new locations was the key outcome of community and peak body consultation. This reflects continued popularity in outdoor recreation pursuits combined with an increasing population base.

The table below summarises current and future gaps in outdoor recreation provision. Where gaps are identified, the table also indicates potential agencies to address provision.

Table 7: Summary of current and future outdoor recreation facility gaps

Activity	Current gap in provision? Yes/No	Future gap in provision? Yes/No	Opportunity to provide for gap? council/ Private/Other
Bushwalking/trail running	Yes	Yes	council and other (QPWS)
Mountain biking	Yes	Yes	council and other (QPWS)
Horse riding (trails)	Yes	Yes	council and other (QPWS)
Bird watching/nature study	No	No	n/a
Canoeing/kayaking/SUP	No	Yes	council
Swimming (in natural areas)	No	No	n/a
Fishing	No	No	n/a
Gliding	No	No	n/a
Outdoor rock climbing (abseiling, bouldering, climbing)	Yes (in MBRC)	Yes (in MBRC)	Other (surrounding LGAs)
Kite surfing/wind surfing	No	No	n/a
Parachuting	No	No	n/a
Orienteering/ rogaining/ geocaching/ adventure racing	No	No	n/a
Paragliding/hang gliding	Yes (in MBRC)	Yes (in MBRC)	Other (SEQ LGAs)

6. Future directions

Guiding principles

The guiding principles outlined below describe the over-arching intention for the provision and management of outdoor recreation opportunities for council. These principles have helped to guide and shape the individual recommendations presented in the plan.

Quality planning

Council will ensure a strategic approach to the provision of outdoor recreation opportunities. Facilities will be fit-for-purpose and, once developed, adaptive management practices (i.e. regular audits) will be undertaken.

When planning for outdoor recreation opportunities, consideration will be given to the range of opportunities from a regional perspective. Not all activities and expectations will be accommodated (nor need to be accommodated) in each reserve or locality.

Importantly, planning for outdoor recreation will be a collaborative council approach and will include input from different areas of Council including: sport and recreation planning, strategic planning, environment, cultural heritage and others as necessary on a site-specific nature.

Enhancing existing provision

Council has limited resources to maintain and upgrade the vast tracts of reserves it already manages. Rather than look to purchase and develop significant additional lands to meet demand, the focus will be on upgrading existing facilities and providing outdoor recreation opportunities in currently undeveloped or under-serviced land. Acquisition of new land will only be considered where it creates valuable new links that enhance existing facilities and opportunities.

Sustainable spaces

Council will encourage and enable the sustainable use of outdoor recreation areas within its social, cultural, environmental and economic capacity. Cultural landscapes and ecological processes are valued, protected and enhanced in outdoor recreation facilities managed by council. Sustainability will be assessed and managed through regular audits and evaluation.

Preference is for outdoor recreation development that does not involve vegetation clearing (particularly intact remnant vegetation). Where clearing for infrastructure is required, previously disturbed sites and locations should be sought as a priority.

Adequately resourced

Council will identify and allocate resources for the provision of outdoor recreation opportunities in a strategic, efficient, transparent and equitable manner in line with recreational participation rates and council's capacity to fund.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Partnerships

Council will work closely with other key land managers (e.g. Department of National Parks, Sport and Racing and Department of Natural Resources Mines and Energy, HQ Plantations and Seqwater) to ensure an integrated approach to outdoor recreation opportunity management.

Outdoor recreation infrastructure and services will be developed in consultation with various stakeholders (including, land holders, Traditional Owners, Peak Bodies and regulatory bodies) to identify the needs of, and reduce the risk and potential conflict between different activities, land purposes and users.

Attractive

Council will ensure that outdoor recreation areas are designed and effectively maintained to an appropriate quality to encourage the community to value them and to foster high levels of use.

Adaptable

Council will ensure that multi-use facilities offer a diversity of choices that reflect the varied needs of the community

Accessible and connected

Council will strive to develop well-linked and accessible locations that enhance opportunities for health and well-being for all while considering Council's Disability Access and Inclusion Plan 2018-2022.

Precautionary approach

Areas for outdoor recreation in Council estate are limited and (largely) non-renewable. To rehabilitate an area that has deteriorated due to the impacts of unsustainable outdoor recreation activities can be resource intensive and sometimes not possible. Precaution will be applied in instances where there is a doubt about the capacity of an area to environmentally sustain outdoor recreation activities.

Importantly, for all proposed actions, an appropriate level of investigation will be undertaken and will incorporate environmental, cultural and social considerations.

Traditional Owner Engagement

Council respectfully acknowledges the Traditional Owners of the land on which may be considered within the scope of this strategy. Council recognises that Aboriginal people are the guardians, keepers and knowledge holders of Aboriginal cultural heritage. As such, the Jinibara People and the Kabi Kabi First Nation Traditional Owners will be engaged and consulted to ensure any proposed activities that are located on land related to Native Title/ Cultural Heritage, are undertaken with their input and consent.

Undertaking meaningful engagement with the Traditional Owners of this land will incorporate assessing all aspects of Aboriginal cultural heritage, including the artifacts left behind, the spiritual connections to country, and respecting the ongoing connection to the land through traditional practices.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Facility objectives and priorities

In order to provide a planned approach to the provision of outdoor recreation opportunities across the region, actions have been presented for key outdoor recreation activities. These actions and priority reflect current and (predicted) future participation, trends and demand (e.g. high demand for the activity coupled with provision gaps would result in a high priority).

Some activities have been combined where the activities have similar infrastructure requirements (e.g. wind surfing and kite surfing).

Table 8: Summary of emerging activities, their current status within the region and proposed actions

Priority	Activity	Current status	Objectives
High	Bushwalking/trail running	<ul style="list-style-type: none"> Highest participation (by a large margin) Permitted on designated tracks and trails Wide range of existing opportunities Limited signage (directional and interpretive) Continuing pressure for trails in natural settings 	<ul style="list-style-type: none"> Continue to provide high quality walking tracks and trails in line with Australian Standards To plan and develop a range of new bushwalking opportunities
High	Mountain bike riding	<ul style="list-style-type: none"> Increasing participation trend Permitted on designated tracks and trails Highest levels of use not on council-managed land Limited signage Limited infrastructure (trailheads, car parking) 	<ul style="list-style-type: none"> To liaise with land managers of key sites (e.g. Bunyaville Conservation Park) and investigate opportunities for council to provide key infrastructure on adjoining council-managed land To plan and develop a range of new mountain bike opportunities

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Priority	Activity	Current status	Objectives
High	Horse riding (trails)	<ul style="list-style-type: none"> Permitted on designated tracks and trails Highest levels of use not on council-managed land Conflicts with mountain biking at Sheepstation Creek Conservation Park (Upper Caboolture) Limited signage Limited infrastructure (trailheads, car parking) Connectivity issues for longer distance trail riding throughout the western side of the region (potential safety issues with riding near to the road network) 	<ul style="list-style-type: none"> To liaise with land managers of key sites (e.g. Beerburum West State Forest (Bracalba)) and investigate opportunities for council to provide key infrastructure on adjoining council-managed land
Medium	Birdwatching/nature study	<ul style="list-style-type: none"> The region is home to a diversity of native animals and plants across a variety of habitats Pumicestone Passage is an internationally-recognised destination for migratory shorebirds Council has established bird hides in key viewing locations 	<ul style="list-style-type: none"> To continue to plan and develop bird hides (and viewing platforms) in key locations (e.g. Nathan Road wetlands/Morris Park)
Medium	Canoeing/kayaking/SUP	<ul style="list-style-type: none"> Range of existing launch points Limited signage and trailhead infrastructure Opportunity for further activation of Pumicestone Passage; Caboolture, North and South Pine Rivers through development of additional paddle craft launch areas 	<ul style="list-style-type: none"> To plan and develop additional non-motorised watercraft launch points
Medium	Swimming (in natural areas)	<ul style="list-style-type: none"> The region offers a range of natural areas for swimming (from a patrolled surf beach to free flowing creeks and water holes in natural areas) 	<ul style="list-style-type: none"> To continue to maintain existing embellishments at popular natural swimming locations (e.g. Woorim Beach and Andy Williams Park at Cedar Creek)
Low	Fishing	<ul style="list-style-type: none"> The region provides for a range of fishing alternatives Boat ramps (and fishing cleaning tables) have been developed at key locations 	<ul style="list-style-type: none"> To continue to maintain existing embellishments at popular fishing locations

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Priority	Activity	Current status	Objectives
Low	Gliding	<ul style="list-style-type: none"> The region is home to a high quality gliding facility based at the Caboolture Airfield (Crown land leased to the Caboolture Aero Club) 	<ul style="list-style-type: none"> To continue to support the Caboolture Aero Club (and Caboolture Gliding Club) in providing opportunities for outdoor recreation
Low	Outdoor rock climbing (abseiling, bouldering, climbing)	<ul style="list-style-type: none"> A small bouldering site is available at Cedar Creek (within the D'Aguiar National Park) The Glasshouse Mountains (immediately adjoining the council boundary to the north) is considered one of the country's premier outdoor rock climbing locations 	<ul style="list-style-type: none"> To investigate opportunities to support rock climbing in the Glasshouse Mountains area (in recognition of locals using this area and the limited opportunities within the council area)
Low	Kite surfing/wind surfing	<ul style="list-style-type: none"> Coastal areas such as Redcliffe, Scarborough, Beachmere and Bribie Island are popular locations 	<ul style="list-style-type: none"> To continue to maintain existing embellishments at popular foreshore parks
Low	Parachuting	<ul style="list-style-type: none"> Australia's largest parachuting operation (Skydive Australia) has commercial operations based at both the Caboolture Airfield and the Redcliffe Aerodrome 	<ul style="list-style-type: none"> To continue to support the Caboolture Aero Club and Redcliffe Aerodrome users in providing opportunities for outdoor recreation
Low	Orienteering/rogaining/geocaching/adventure racing	<ul style="list-style-type: none"> Given the vast tracts of bushland within the region, there are a wide range of opportunities for orienteering, rogaining, geocaching and adventure racing subject to approval from the land manager 	<ul style="list-style-type: none"> To continue to liaise with local user groups and event operators regarding access to sites to prevent the mapping and use of unsuitable sites (e.g. areas with high ecological values)
Low	Paragliding/hang gliding	<ul style="list-style-type: none"> There are no paragliding or hang gliding operations existing within the region Canungra is the 'local' focus for these forms of aviation-based outdoor recreation where suitable launch and landing sites have been established 	<ul style="list-style-type: none"> Nil

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)



North Lakes Environmental Reserve, North Lakes

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Management and Partnerships

Outdoor recreation management

The provision of increased outdoor recreation opportunities will require effective governance and management frameworks for managing opportunities, facilities and settings.

There are six key council roles relating to the provision of outdoor recreation opportunities across the region:

- Maintenance and conservation of Council's natural areas estate (i.e. cultural engagement, re-vegetation programs);
- Provision of locations and sites for outdoor recreation activities (i.e. development of tracks and trails, acquisition of land);
- Provision of purpose-built infrastructure for outdoor recreation activities (i.e. car parking, major trailheads, formal campgrounds);
- Provision of programs (i.e. Healthy & Active Moreton Bay Program);
- Promotion and activation (i.e. Healthy & Active Newsletters); and
- Discourage unauthorised / conflicting uses.

Each of these roles are currently delivered by a number of different council sections .

While on-ground outcomes are generally quite positive, there appears to be an opportunity to improve delivery by closer collaboration. The establishment of an internal Outdoor Recreation Working Group is a key recommendation to oversee the implementation of this plan.

In addition to a number of standard work group skills (leadership, community, business, entrepreneurial, administrative and government), the specialist skills required for the group include:

- environmental/scientific skills – understanding of native flora and fauna and wider environmental issues. The ability to communicate these to a wider audience is desirable;
- engineering skills – the capacity to understand design and construction of all manner of trail infrastructure; and
- community engagement and liaison - the ability to manage diverse or difficult stakeholder issues.

These 'selection criteria' need to be considered in identifying preferred members. Ideally, membership would include representatives responsible for each of the six key roles noted above. This would then encapsulate strategic, parks and recreation-specific planning roles; facility development and maintenance; environmental and conservation roles; user group liaison; program facilitation and regulatory services.

It is suggested that this group could meet formally 3-4 times each year. However, there may be instances where the group needs to meet to discuss key (high-priority) issues where quicker turnaround on decision-making may be required (e.g. if new grant opportunities become available).

To provide a single point of contact for outdoor recreation-related planning and provision and to lead this internal working group, it is appropriate for council to continue to support the Outdoor Recreation Officer role. This is discussed further in the following section – Resources and Funding.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Partnerships

Land manager partnerships

As noted throughout this plan, council is not the provider of the largest land areas for outdoor recreation across the local government area – there are far greater parcels of state forest and national parks. (Importantly, participants rarely have an interest in who the land manager is – only that suitable opportunities are available to meet their needs). These areas clearly offer a wide range of outdoor recreation experiences that are planned, provided and managed by key land managers other than council. However, it is important that a regional-approach to outdoor recreation provision is facilitated to avoid unnecessary duplication and competing land/activity interests. As a result, it is recommended that an Outdoor Recreation Land Manager forum be established (and facilitated by council).

There are a range of enthusiastic and committed officers currently overseeing outdoor recreation provision in the region across a number of land management agencies. The forum should include representatives from:

- Department of National Parks, Sport and Racing (Sport and Recreation, Queensland Parks and Wildlife Service);
- Department of Agriculture and Fisheries (Forestry);
- Seqwater; and
- HQ Plantations.

Additionally, representatives from neighbouring councils (Sunshine Coast Council, Somerset Regional Council and Brisbane City Council), should also be included in the forum given the desirability of planning and developing cross-border initiatives such as trails, outdoor climbing opportunities and other activities within the Inter-Urban Break. Council may also wish to invite representatives from Ipswich City Council and Toowoomba Regional Council given the clear outdoor recreation successes achieved in these SEQ councils.

Council's Outdoor Recreation Officer should establish and maintain close working relationships with other council officers delivering outdoor recreation across South East Queensland. Ipswich City Council appointed a Nature-Based Recreation Officer in 2015, Toowoomba Regional Council recently appointed a Trails and Outdoor Recreation Project Officer whilst other councils have sport and recreation development officer roles that oversee outdoor recreation provision.

Community partnerships

Council's Outdoor Recreation Officer will need to develop close ties with the outdoor recreation user groups across the region. In addition to regular liaison, it is recommended that an Annual Forum be established with representation from outdoor recreation user groups and providers, promoters and event operators. This forum will provide an opportunity to share thoughts on key outdoor recreation locations, avoid activity duplication and event clashes and for networking.

Council has established a number of voluntary conservation programs (e.g. Bushcare) that provide opportunities for participants to have a hands-on approach to conservation activities. This program has proven successful with at least forty Bushcare groups and projects active across the region. While community volunteer recreation trail construction and management has been established in State-controlled facilities, council is yet to consider this approach (other than to consider it as a potential management arrangement in the longer-term). Additionally, in the longer-term, council may investigate volunteer agreements (or easements) to facilitate tracks and trails through private property where quality network links can be established.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Commercial use of open space for outdoor recreation

Open spaces are increasingly in demand for outdoor recreation-related commercial activities, particularly for conducting events. Councils across the country are regularly reviewing their policies on these commercial activities given the opportunities they provide for physical activity and contribution toward health and well-being. Councils have an obligation to preserve open space and natural areas for the community but they are increasingly recognising that commercial use of open space can enhance its use and provide a benefit to the community.

Council has established an online event approvals process to ensure a stream-lined approach for applicants. A range of resources, checklists, templates and an online application form are provided at the site to guide event organisers.

Assessing commercial use

In order to assess whether a commercial use is appropriate and not in conflict with the primary purpose of the land, guiding principles have been established to assess the broader community benefits of the commercial activity. The guiding principles include:

- community use takes precedence - the commercial activity cannot conflict with or cannot be accommodated at the detriment of the reserve designation and the primary purpose of the land;
- alignment with council's vision - the use and its purpose must align with council's vision and strategic direction as articulated in its community plan;
- community benefit - the use must provide community benefits; and
- limited impact - the commercial use must not unduly impact on the environmental values or the land and water, primary users of the land, local residents or businesses, council assets and maintenance.

It is important to recognise that commercial use of reserve land triggers the need for Land Management Plans. Commercial uses must be consistent with the designated reserve purpose.

Considerations for council

- The outcomes of supporting the use of public open space and natural areas for such activities is a more active population and increased activation of council's parks and natural areas, both positive outcomes.
- Council does not have the resources to monitor the behaviour of individual providers and, thus, adherence to the permit may be complaint-driven.
- The conditions of commercial use of public open space, included in the permit, will be subject to the satisfaction of council's Chief Executive Officer.
- Some parks/natural areas may be considered by staff and/ or elected members as not suitable for such activity (e.g. natural areas with high conservation or cultural heritage values, limited access or insufficient areas for establishment of the event 'hub').

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Seqwater recreation review

A study of recreation conducted by Seqwater in 2013-14 found that all Seqwater-managed dams, lakes and parks together draw more than 2.7 million visitors annually.

Significant community consultation regarding the recreational use of lakes and surrounding land led to a number of upgrades to the Seqwater facilities. This includes the opening of over 7km of multi-use trails at Lake Samsonvale, a new paddle craft entry point at Mick Hanfling Park (Lake Kurwongbah), permitting of fishing from paddle craft and signage of permitted uses at Lake Kurwongbah.

The provision of additional infrastructure for water-based outdoor recreation at Seqwater-managed sites within the Moreton Bay region indicates that the demand and participation warranted additional investment into supporting these activities.



Picnic area, Lake Kurwongbah

Activation and promotion

Activation is largely related to providing quality outdoor recreation facilities and legitimate activities for residents and visitors to participate in. Ultimately, these activities can lead to education and appreciation of the natural environment. The sustainability of the activity should ensure that the natural environment is not adversely impacted.

Activation of the outdoor recreation network can include:

- education and awareness;
- facilitation and programming; and
- provision of facilities and services.

Education and awareness

At the core of activation of natural areas for outdoor recreation is the need to provide visitors with an increased awareness of cultural & environmental processes and an understanding of the importance of nature conservation. Education and awareness can be undertaken in a number of ways, including:

- On-site management presence (e.g. council staff);
- Interpretive and regulatory information (e.g. signage, information huts and interactive displays);
- Environmental education or interpretive centers and bird hides (e.g. Osprey House);
- Interpretive themed trails providing users with information at key points along the trail including the environment, culture and heritage, supported by mapping and brochures;
- Tailored environmental programs with community and school groups on key themes including recycling, planting of native species, native wildlife etc;
- Community and school group competitions with outdoor recreation-based themes (i.e. photography, drawing or colouring-in); and
- Interpretive signage including historical and cultural information.

Facilitation and programming

A way to manage access to sensitive natural areas is through facilitation and programming. This approach allows council to lead (and guide) how people interact with the natural areas through outdoor recreation. Facilitation and programming opportunities include:

- Continued incorporation of outdoor recreation activities in council's existing Healthy and Active Moreton suite of programs. This program has proven very successful with most participants noting high levels of satisfaction and many activities being over-subscribed;
- Partner in the promotion of existing nature-based programs such as QORF's Nature Play QLD, and host a local event within the region to encourage children and their families to be active in nature; and
- Continue to support appropriate outdoor recreation events identified by Sports Marketing Australia and through direct requests.



ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Provision of facilities and services

The provision of supporting facilities and services within some natural areas can allow residents and visitors to participate in sustainable outdoor recreation activities. Examples of relevant facilities and services include:

- facilities that support outdoor recreation facilities (and activities) such as car and float parking and major trailheads. Opportunities may also exist to support land managers such as QPWS by developing parking and trailhead facilities on council-land where it adjoins QPWS-managed land in need of such facilities;
- supporting other land managers (e.g. council could assist with car parking or playground development at Seqwater's Lakes Kurwongbah and Samsonvale); and
- enabling commercial operators to establish equipment hire businesses (e.g. canoes, kayaks and mountain bikes).



Signage at John Oxley Reserve, Murrumba Downs

Activation guidelines

In order to ensure activation of outdoor recreation is appropriate and sustainable, it is useful to consider the following guidelines:

- built facilities should be restricted to already disturbed areas;
- clear delineation of where activities can and cannot occur should be established (e.g. through signage);
- activities chosen need to be appropriate for the natural area and selected to preserve the most sensitivity value (e.g. bird watching in bird hot spots, mountain biking in appropriate terrain); and
- ensure organised activities occur in line with the Queensland Adventure Activity Standards⁷ developed by the Department of National Parks, Sport and Racing to enhance participant safety.



SUP, Pumicestone Passage

7 minimum voluntary guidelines for organisations conducting outdoor recreation activities where the participants are dependent on the activity provider

7. Appendices

- Appendix A: Benefits of outdoor recreation**
- Appendix B: Explaining trailheads**
- Appendix C: Facility audit**
- Appendix D: Community survey outcomes**
- Appendix E: Community workshop outcomes**
- Appendix F: Peak Body Interviews**
- Appendix G: Events in the region and SEQ**

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Appendix A: Benefits of outdoor recreation

Outdoor recreation offers a range of economic, social, educational and environmental benefits while contributing to liveability and the outdoors lifestyle of the region. It is important to identify and articulate these benefits so that outdoor recreation is recognised as an area worthy of investment and resourcing.

Economic benefits

Outdoor recreation can provide various economic benefits to the local and surrounding communities. Worth an estimated \$1 billion to South East Queensland, residents undertake approximately 170 million outdoor recreation activities annually⁸. As participation increases, so too does the demand for equipment and/or commercial providers of activities, creating an outdoor recreation niche market.

High quality outdoor recreation opportunities, such as trails and natural areas with complimentary infrastructure (picnic facilities) encourage residents and tourists to visit and stay longer, increasing expenditure in the local community and region.

Large outdoor recreation events are increasing in popularity and draw visitors from outside the local government area, and potentially South East Queensland (depending on the event). State- and national-level competitions also draw wide visitation and have the capacity to encourage repeat tourism.

Physical inactivity has been estimated to cost 0.15% of Australia's gross domestic product⁹. Participation in outdoor recreation is often free, or requires a one-off purchase of equipment (e.g. kayak, mountain bike), and does not require an ongoing commitment, thus removing the common barriers for physical activity. Physical activity is one of the greatest sources of economic benefit through cost-savings from health benefits. As such, the increased provision of outdoor recreation has clear potential to encourage increased participation in regular physical activity and, thus, reduce the economic burden.

Economic benefits in focus: Blue Derby Mountain Bike Trails

The development of mountain bike trails at Blue Derby, Tasmania has transformed the economic profile of the town and brought a significant boost to the local economy through tourism and jobs. This example highlights the potential for a high quality outdoor recreation experience to draw visitors.

⁸ South East Queensland Regional Outdoor Recreation Strategy, 2010

⁹ Economic costs of obesity and inactivity, Medical Science Sport Journal, 1999

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Social benefits

Outdoor recreation offers many social benefits related to time spent in nature and physical activity. It also contributes to the lifestyle and liveability of a region, and encourages community cohesion.

Mental health benefits of regular participation in physical activity include the prevention and treatment of anxiety¹⁰, the prevention and treatment of depression¹¹, reduction in stress¹², improved mood and sense of wellbeing¹³, reduced fatigue¹⁴, improved concentration and enhanced memory and learning¹⁴.

Physical health benefits of regular participation in physical activity are well documented and include reduced all-cause mortality¹⁵, reduced risk of disease¹⁶, prevention of weight gain (when coupled with healthy nutrition) and improved weight management¹⁷.

Accessible outdoor recreation opportunities increase the liveability of the region and are attractive to both existing and new residents alike. Some outdoor recreation corridors have the potential to double as active transport routes, further improving opportunities for residents to stay active and healthy. There is consistent evidence showing that increased social cohesion¹⁸, improved community networks, social capital and improved family and community connectedness¹⁹ are benefits resulting from participation in physical activity such as outdoor recreation activities.

Forward thinking health: NHS Scotland funds open space and recreation

The National Health Service Scotland has recognised the benefits for patients and hospital staff who participate in physical activity and recreation outdoors. NHS Scotland partnered with the Forestry Commission to deliver The Green Exercise Partnership and the Branching Out initiatives to invest in greening areas around hospitals and provide trails for patients to use for recreation, and physical activity for patient recovery programs. Feedback from patients and hospital staff showed that the greenspace provided relaxation, recreation and mental health benefits.

¹⁰ Physical activity dose-response effects on outcomes of depression and anxiety. *Medicine and Science in Sports and Exercise*, 2001

¹¹ Physical activity in the prevention and treatment of depression and anxiety. *Nordic Journal of Psychiatry*, 2008

¹² The relationship between organised physical recreation and mental health. *Health Promotion Journal of Australia*, 2007

¹³ Exercise and mental health: many reasons to move. *Neuropsychobiology*, 2009

¹⁴ Be smart exercise your heart: exercise effects on brain and cognitions. *Nature Reviews*, 2008

¹⁵ The relationship of physical activity and body weight with all-cause mortality: Results from The Puerto Rico Heart Health Program. *Annals of Epidemiology*, 2002

¹⁶ Association of physical activity with all cause and cardiovascular mortality: a systematic review and meta-analysis. *European Journal of Cardiovascular Prevention and Rehabilitation*, 2008

¹⁷ Physical activity, adiposity, and body weight: an epidemiologic perspective. *Exercise Sport Science Review*, 1995

¹⁸ Social environment and physical activity: a review of concepts and evidence. *Social Science and Medicine*, 2006

¹⁹ Social influence and exercise: a meta-analysis. *Essential readings in sport and exercise psychology*, 2007

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Education benefits

Outdoor recreation activities are beneficial for formal and informal learning. School groups utilise outdoor recreation opportunities to combine with learning activities, challenge students and expose them to new experiences. In early childhood education, spending time in nature has been recognised as beneficial for children's behaviour and learning outcomes²⁰.

Just as important to recognise are the informal learning opportunities to be gained from outdoor recreation activities. Mountain biking can help to develop navigation, balance, positive risk taking, independence and safety skills. Nature study such as birdwatching can inspire a curiosity for the natural environment and appreciation for environmental sustainability.

Providing outdoor recreation opportunities aligns well with the goals of Nature Play Queensland, which aims to get Queensland kids outdoors, more often. Nature Play Queensland has partnered with education providers and councils to run programs and provide classroom resources to support the organisations goals. Some development areas identified in participants of Nature Play include environmental connection, positive relationship development, resilience, sensory awareness and initiative.

Nature play and outdoor education are increasingly recognised for the benefits they offer to child development²¹. Outdoor recreation ties in well with these fields and offers an attraction for children to spend more time outdoors.

Nature Play Queensland in schools

Nature Play Queensland is encouraging outdoor learning in schools by running events such as outdoor classroom day and providing lesson plans and other resources to school teachers. Outdoor classroom day is focussed on celebrating outdoor learning in the school yard and natural areas.

Environmental benefits

Outdoor recreation is an enjoyable way to experience and appreciate natural areas and offers an opportunity to co-fund conservation acquisitions, securing environmental areas as part of the conservation estate for ongoing environmental and recreation co-benefits and promote environmental awareness and stewardship²².

Outdoor recreation activities cause varying levels of environmental impact; however anecdotal evidence demonstrates that many outdoor recreation groups have a focus on minimising these impacts and act as advocates for the environment.

Developing outdoor recreation facilities such as trails and access points can reduce the overall environmental impact by actively managing and concentrating the impacts. In the absence of authorised opportunities, unauthorised use can have greater impacts.

20 At Home with Nature: Effects of 'Greenness' on Children's Cognitive Functioning, 2005
21 Outdoor learning in the early years management and innovation, 2010
22 QORF Outdoor Recreation Benefits, 2008

Appendix B: Explaining trailheads

The facility audit has acknowledged those sites with minor and major trail heads.

Minor trailhead

A minor trailhead is usually defined by the existence of:

- a small car parking area (10-20 spaces);
- single set of picnic facilities;
- water point (bubbler);
- rubbish bin;
- interpretive signage; and
- a simple map panel of the trail showing sites of interest and distances to features along the trail and regulatory information.

A minor trailhead is the point where a trail begins (or ends).

Major trailhead

A major trailhead is usually defined by the existence of:

- a larger car parking area (20+ spaces);
- significant picnic facilities;
- toilets;
- water point (bubblers);
- rubbish bins;
- interpretive signage (or suite of signage); and
- an extensive map panel of the trail showing sites of interest and distances to features along the trail, regulatory information and a Code of Conduct for trail users.

A major trailhead is the point where a trail begins (or ends).

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Appendix C: Facility Audit

Reserve name	Suburb	Land manager	Open space classification	Size (ha)	Facilities					Activities																	
					Toilets	Picnic facilities	Carpark	Major trailhead	Minor trailhead	All access paths	Picnicking	Bushwalking	Mountain biking	Horse-riding	Nature study	Birdwatching	Camping	Swimming	Canoe / kayak	Fishing	Sailing	SUP	Bouldering	Gliding			
Acacia Park	Murrumba Downs	council	Bushland Recreation	24.24		✓	✓			✓	✓	✓				✓	✓										
Alexandra Parade Park	Moodlu	council	Bushland Recreation	22.66		✓					✓	✓				✓	✓										
Alice Mawson Reserve	Kallangur	council	Bushland Recreation	7.28								✓															
Andy Williams Park	Cedar Creek	council	Bushland Recreation	10.43	✓	✓	✓				✓	✓				✓			✓								
Annie Hedge Court Reserve	Closeburn	council	Bushland Recreation	6.83								✓	✓	✓													
Bayside Drive Park (West)	Beachmere	council	Urban OS	5.10										✓													
Beachmere Boat Ramp	Beachmere	council	Conservation	14.06	✓	✓	✓	✓			✓						✓	✓	✓	✓	✓						
Beachmere South Reserve	Beachmere	council	Conservation	65.54	✓	✓	✓				✓						✓	✓									
Beerburum East State Forest	Ningi	State Forests	State Forest	5,204.96							✓	✓	✓	✓	✓												
Beerburum West State Forest	Elimbah	State Forests	State Forest	6,377.41	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											
Bellthorpe Conservation Park	Bellthorpe	National Park	National Park	10.47	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓										
Bellthorpe National Park	Bellthorpe	National Park	National Park	4,967.21	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Bellthorpe State Forest	Stanmore	State Forests	State Forest	480.49	✓	✓	✓				✓	✓	✓	✓	✓		✓										
Bramwell Court Reserve	Cashmere	council	Conservation	1.04		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓											
Brian Burke Reserve	Samford Valley	council	Conservation	270.94			✓		✓			✓	✓	✓													
Brian Daley Reserve	Samford Valley	council	Bushland Recreation	5.26								✓	✓	✓													
Bribie Island National Park	Welsby	National Park	National Park	5,948.94							✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Bribie Island State Forest	Welsby	State Forests	State Forest	2,016.98							✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Buckleys Hole Conservation Park	Bongaree	council	National Park	92.28		✓	✓				✓	✓			✓	✓											
Bullock Creek Conservation Park	Donnybrook	National Park	National Park	47.82								✓															
Bunya Crossing Reserve	Bunya	council	Reserve	5.70	✓	✓	✓				✓	✓	✓			✓											
Bunyaville Conservation Park	Bunya	National Park	National Park	634.03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓												
Burgundy Drive Park	Morayfield	council	Bushland Recreation	6.53								✓															
Burpengary Environmental Park	Burpengary	council	Conservation	39.89			✓					✓															

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

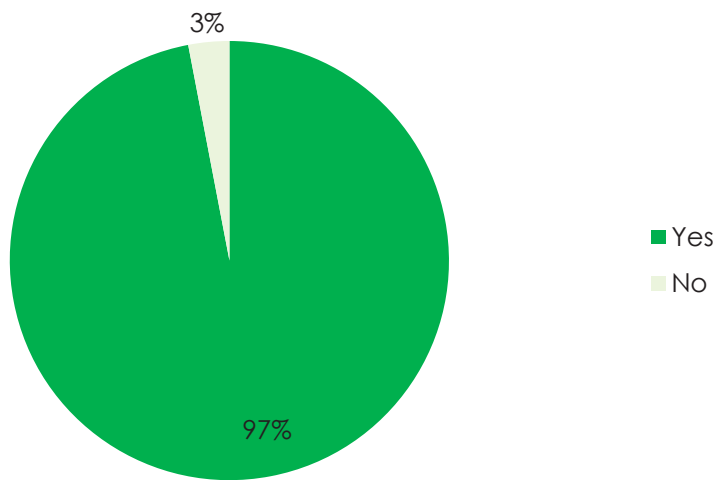
This page has been left blank intentionally

Appendix D: Community survey outcomes

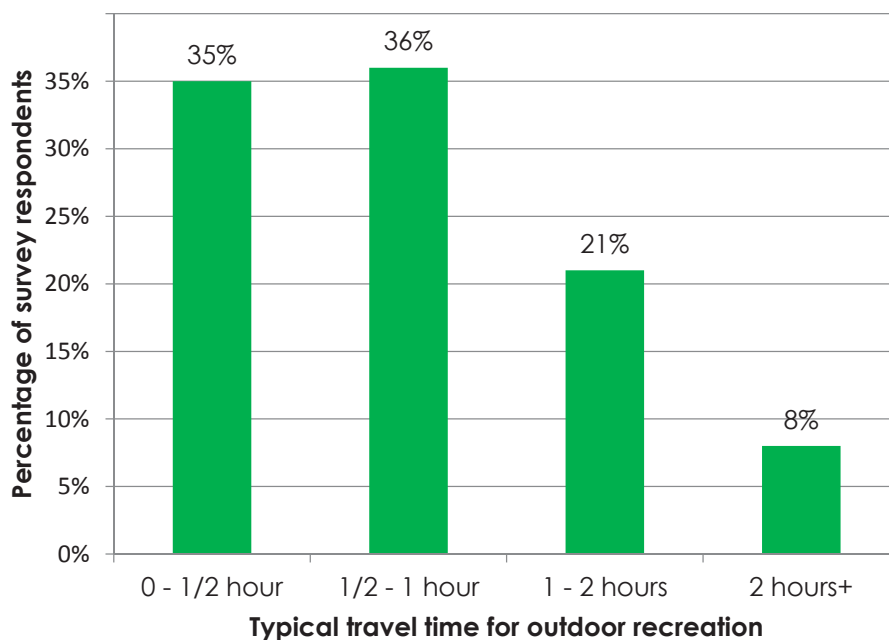
Community survey outcomes

Total surveys completed	159
Total dropped pins	161
Total contributing users	196

Do you participate in outdoor recreation?

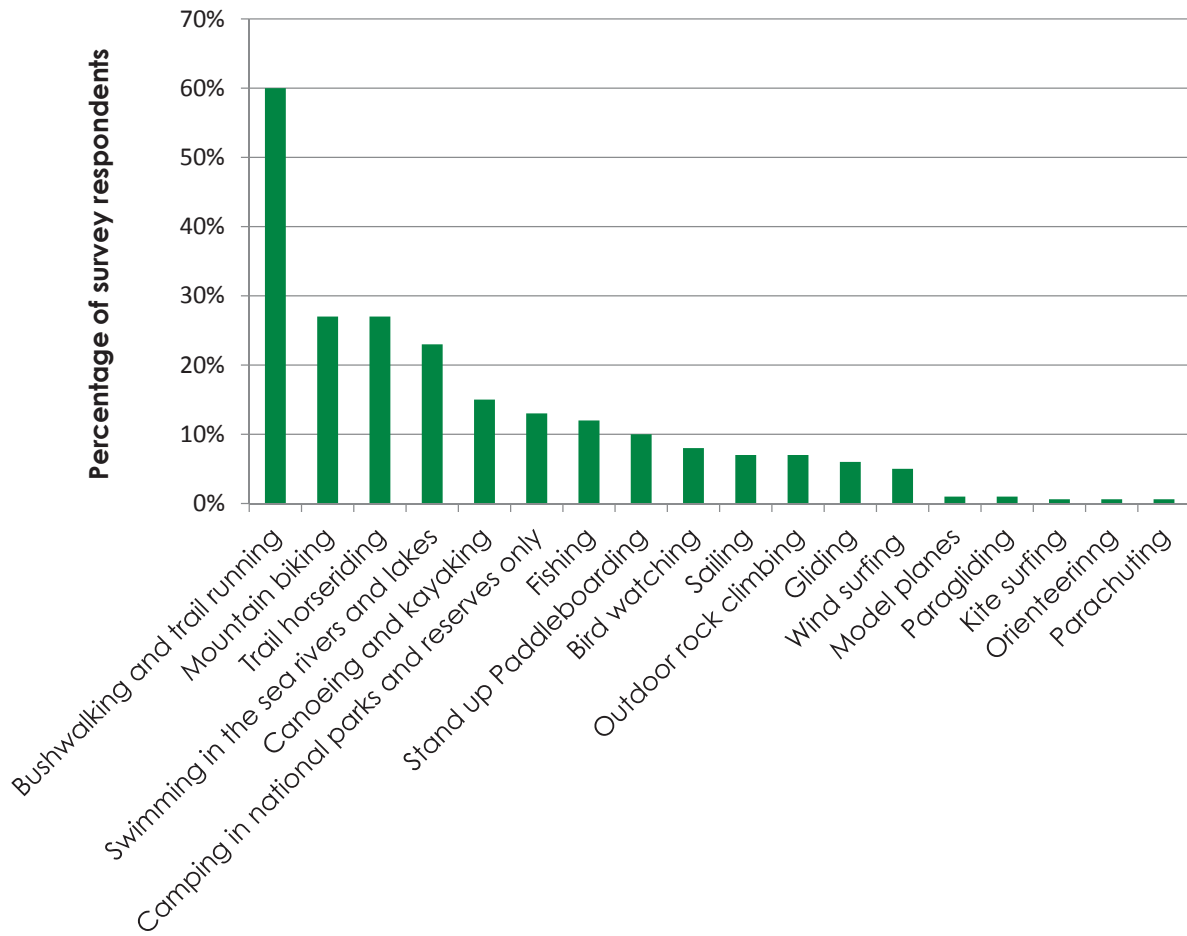


How far do you typically travel for outdoor recreation?

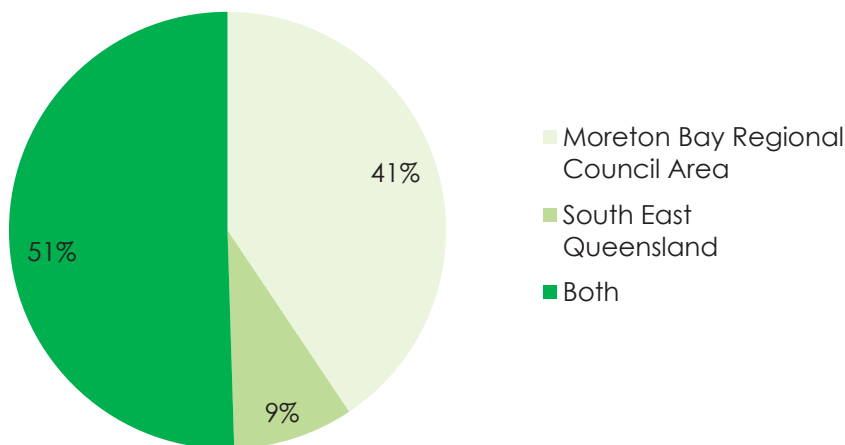


ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Participation by activity

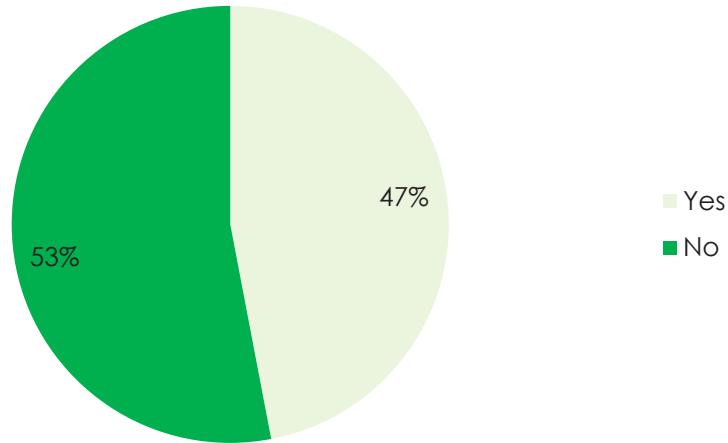


Where was outdoor recreation undertaken?

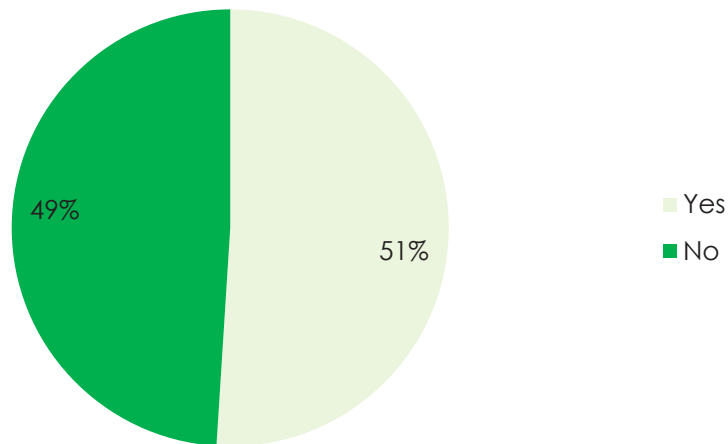


ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Are any of the outdoor recreation activities you participate in club based?



Do you attend outdoor recreation events?

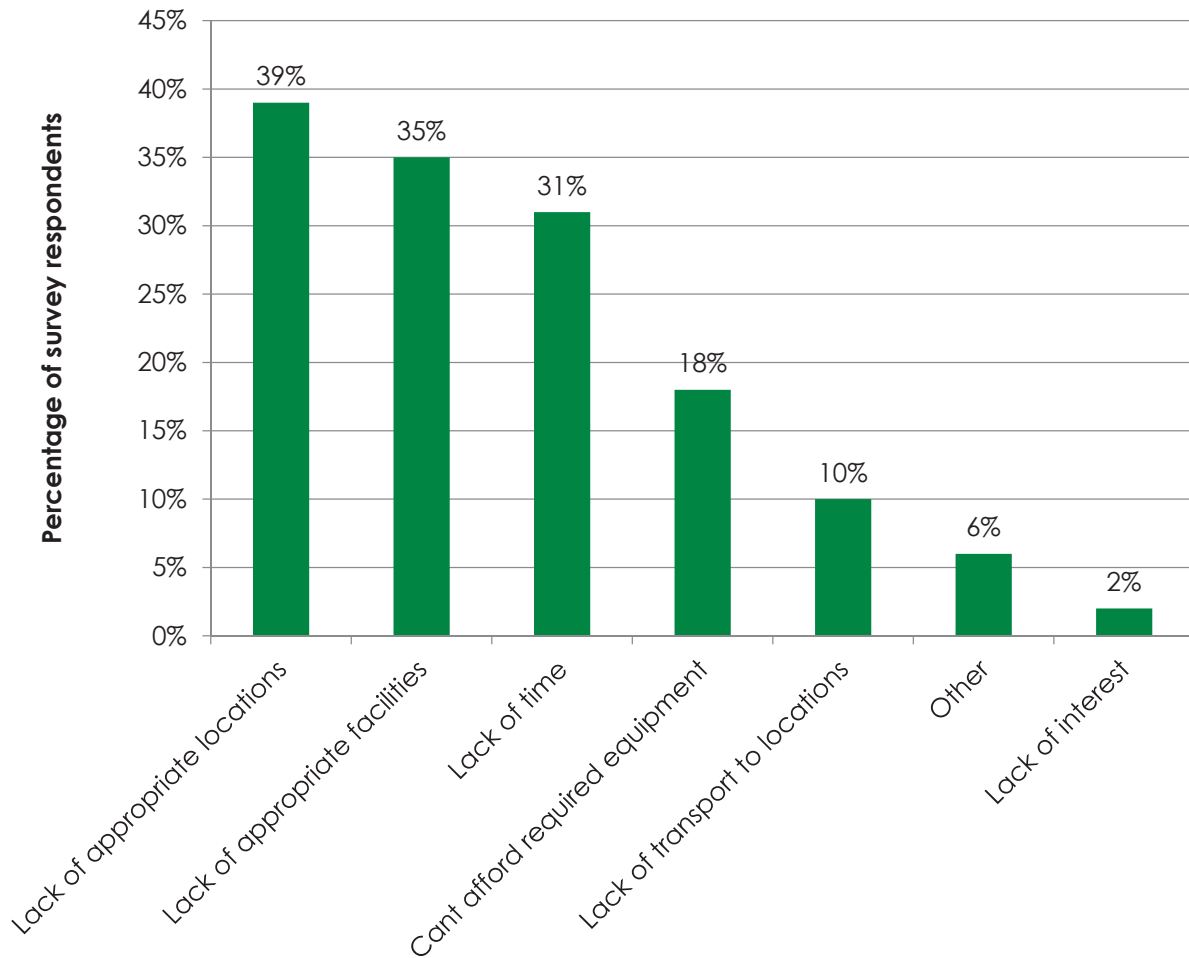


Examples of events include:

- National Tree Day;
- Kumbartcho Festival;
- CREEC Festival; and
- Lowlands Festival.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Barriers to participation

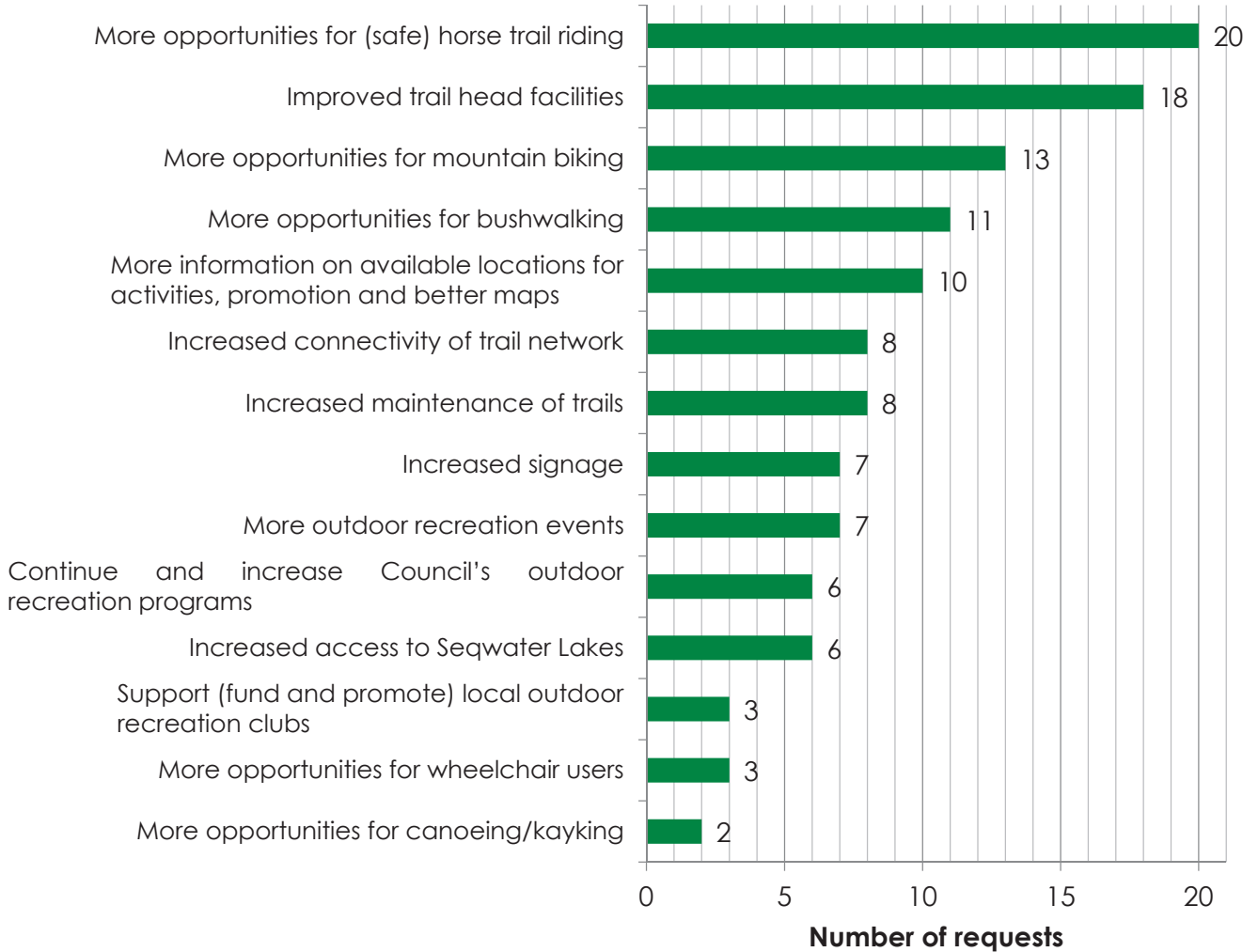


Examples of 'Other' include:

- birdwatching is disrupted by development;
- not enough bushwalking opportunities; and
- little awareness of opportunities.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

In future, what would you like to see offered for outdoor recreation in the region?



Appendix E: Community workshop outcomes

Information gathered from peak bodies and community workshop outcomes have been filtered throughout the document.

Aviation and climbing workshop

- Caboolture Airfield is a key destination for aviation activities and is well-located just 30-40 minutes from Brisbane
- The facility includes a flying war craft collection that attracts aviation enthusiasts from as far as Perth
- The Gliding Club is largely self-sufficient in the running of their club activities and facility management
- Users of the Caboolture Airfield would appreciate additional council support through:
 - promotion of their clubs and events
 - protection from development pressure
 - infrastructure (additional parking, bins and signs)
 - assistance during large events (e.g. traffic management obligations and operations).

Tracks and trails workshop

Bushwalking

- Bushwalkers and trail runners are separate user 'groups'
- There are many locations, however, user-conflicts are an issue
- Accessing information regarding locations can be tricky for newcomers
- Many sites lack supporting facilities (e.g. carparks, toilets and signage)
- A number of links are desired by trail runners:
 - between Bracalba State Forest and Caboolture to Woodford rail trail
 - between Wamuran (Caboolture to Wamuran Rail Trail) and Woodford
 - between Wamuran (Caboolture to Wamuran Rail Trail), Beerburrum, Bracalba State Forest and connecting on to the Glasshouse Mountains
 - any routes connecting these areas should not use Newlands Road
- Hardwood logging is an issue for planning trail running events and logging schedules are difficult to acquire
- A number of issues and requests were raised that are specific to Bribie Island
- There are not enough trails with directional signage
- More walking trails and signage to embellish existing walks is desired
- There is a perceived attitude recreation trails having a very low priority on National Parks land
- People are looking for walks ranging from 20 minutes to 2 hours
- There was discussion around a walking trail behind the beach at Woorim. Sand mining was identified as a barrier between the 2nd and 3rd lagoon

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Mountain biking

- People not involved in mountain biking struggle to find information on where are the good areas to go. Much of this knowledge is kept among those 'in the know' and is not easily accessible online
- The main issues for mountain bikers are the conflicts between motorised track users including trail bikes and 4WDs
- Council has an opportunity to make their local trails more obvious on their website (good maps with more detail and contours would also be helpful)
- Bunyaville Conservation Park is a key spot for mountain biking – however it requires more looping trail opportunities, separation of users and access to water
- More links with other trails are desirable with safe access without roads, e.g. an underpass.
- Online maps of mountain biking trails are desired
- Facility nodes at rail trails are desired
- A regional Sunshine Coast to Brisbane trail would be appealing
- Bike lanes linking to mountain biking tracks are desired for active transport opportunities
- Council could also host information on riding safety and the riding code of conduct
- There is preference for downhill riding. Elevated rides provide variety, are flowy and can offer opportunities for all levels of rider.

Horse riding

- Participants are generally happy with the range of opportunities for horse riding
- However, parking is a big issue for horse riders
- Beachmere is the only place to ride on the beach (excluding commercial operations) up to Rainbow Beach and should be promoted more widely
- Beachmere currently has no float parking access
- Beerburrum State Forest has 4-5 different rides on the eastern side of the highway. Horse riders tend to avoid the western side of the highway due to trail bike activity
- Horse riding is not permitted on Bribie Island (however it is a desired location)
- Bracalba is a preferred location for trail rides, however, float parking is an issue
- Sheepstation Creek was previously a popular location however it is too busy with bushwalkers and mountain biking and the facility lacks parking
- Horse riding trails are desired west of the Woodford Folk Festival site.

Water workshop

No attendance

Appendix F: Peak Body Interviews

In stage one consultation, a selection of peak body organisations were invited to participate in interviews aimed at identifying current and emerging trends in the industry within and around the Moreton Bay Area.

The following peak bodies were invited to provide input into the development of the Plan:

- Australian Climbing Association Queensland
- Bicycle Queensland
- Bushwalking Queensland
- Dragon Boating Queensland
- Trail Running Association of Queensland
- Windsurfing Queensland
- Mountain Biking Australia
- The Boys Brigade Queensland
- Orienteering Queensland
- Queensland Canoeing
- Queensland Rogaine Association
- Girl Guides Australia
- Scouts Queensland
- Queensland Horse Council

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Appendix G: Events in the region and SEQ Events in the Moreton Bay region

A range of outdoor recreation events have been conducted in the Moreton Bay region, demonstrating the existing capacity to host.

Event	Activity	Location
Land-based		
Tough Mudder Full	Obstacle Racing	Woodford
TreX Cross Triathlon Series	Mountain biking, trail running	Kurwongbah
Moreton Bay MTB Series Race 1: LunarC 8hr XC	Mountain biking	Murrenbong Camp, Kurwongbah
Moreton Bay MTB Series Race 2: Back 2 Back	Mountain biking	Murrenbong Camp, Kurwongbah
Moreton Bay MTB Series Race 3: Back Stage Tripple	Mountain biking	Murrenbong Camp, Kurwongbah
MBRC Adventure Bike-O	Mountain biking	Pine Rivers Park
Glasshouse 50 or Cook's Tour	Trail running	Glasshouse Mountains and Woodford
Mt Mee Classic	Trail running	Mt Mee
Walkabout Creek Run	Trail running	Enoggera Reservoir
Mt Glorious Mountain Trails	Trail running	Mt Glorious
Brisbane Trail Marathon	Trail running	Enoggera Reservoir
Hares & Hounds Trail Run	Trail running	Woodford
Qld Mountain Running Championships	Trail running	Bellbird Grove, Camp Mountain
World War I Queenslander Challenge	Trail running	The Gap to Woodford
Murrumba Magic	Horse trail riding	Woodford Showgrounds and Beerburrum Forest
Dayboro Trail Riders Club Big October Ride	Horse trail riding	Dayboro Showgrounds
Trail Riding Australia Easter Camp	Horse trail riding	Dayboro in 2016, varies annually
Wild West #3	Mountain biking	Samford
SEQ Trail Running Series	Horse trail riding	Bunyaville
Water-based		
Pine Rivers Rowing Club Regatta	Rowing	Lake Kurwongbah
Aviation Based		
Tavas Great War Flying Display	Aviation-based	Caboolture Airfield

A rogaining event will be conducted from Lake Samsonvale in 2018.

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Events in SEQ

The SEQ Region is host to a number of outdoor recreation events attracting a range of locals and visitors. The events listed below demonstrate the range of event-based outdoor recreation opportunities available to residents in the surrounding SEQ Region, and the types of events that may be possible in the Moreton Bay region given the appropriate facilities and natural settings.

Event	Activity	Location
Track-based		
Oxfam Trailwalker Brisbane	Bushwalking	D'Aguilar National Park, Brisbane
Griffith Sport Toohey Trail Run	Trail running	Toohey Forest
In2Adventure TreX Cross Triathlon Queensland Series	Swimming, mountain biking and trail running	<ul style="list-style-type: none"> • Mt Cotton • Landsborough • Sunshine Coast Various others
Giant 3PLIS3 A Mountain Bikers Christmas in July	Mountain biking	Grandchester
Sunshine Coastrek	Coastal trekking	Sunshine Coast
The Blackall 100 Miler	Trail running	Blackall Range
Lamington Eco Challenge	Trail running	O'Reilly's Rainforest Retreat
Flinders Tour	Trail running	Beerburum
Nerang Short Course	Trail running	Nerang Cycling Velodrome
Nerang 100 Miler	Trail running	Nerang State Forest
Coastal High 50	Trail running	Gold Coast Hinterland
Glasshouse 100	Trail running	Beerburum
The Kokoda Challenge Gold Coast	Trail running	Numbinbah
The Kokoda Challenge Brisbane	Trail running	Brookfield Showgrounds
Brisbane Trail Marathon	Trail running	Gold Creek Reservoir
The Straddie Salute Adventure Run	Trail running	Stradbroke Island
Pinnacles Classic	Trail running	Gold Creek Reservoir
Up The Bluff Trail Race	Trail running	Currumbin Valley
SE Qld Trail Running Series	Trail running	Various
Tour de Tamborine Trail Run	Trail running	Tamborine National Park
Dingo Dash Run	Trail running	Hidden Vale Adventure Park
Balmy Palmy Beach Run	Trail running	Palm Beach
The Kokoda Challenge Toowoomba	Trail running	Webb Park
Ipswich Trail Run Series	Trail running	Old Hidden Vale, White Conservation Park
Hells Bells 24 Hour Adventure Race	Trail running	Sunshine Coast

Moreton Bay Regional Council

GENERAL MEETING
12 December 2019

PAGE 170
Supporting Information

ITEM 5.1 OUTDOOR RECREATION PLAN 2019-2031 - REGIONAL - A19354725 (Cont.)

Cyclegain by Queensland Rogaine Association	Rogaining	Beerburrum
Beerburrum Bush Bash	Orienteering	Beerburrum
Rogue Raid	Rogaining	Lake Wivenhoe
Sunny Coast Scramble – Metrogain	Rogaining	Sunshine Coast
MOJO Raid	Rogaining	Somerset
Merida HV24HR	Mountain biking	Grandchester
Climbing-based		
Queensland Boulder Titles	Bouldering	TBC
Riverlife Abseiling	Abseiling	Kangaroo Point Cliffs
Water-based		
Women on Water	Stand up paddle boarding	Currimundi
Dragon Boat Regatta	Dragon boating	Gold Coast
Mitsubishi Motors Rainbow Beach Family Fishing Classic	Fishing	Rainbow Beach
Immerse SUP and Surf Paddle Festival	Stand up paddle boarding	Gold Coast
Aviation-based		
Queensland State Gliding Competition	Gliding	Bowenville
Other		
Gold Coast 2018 Commonwealth Games	Cycling – mountain bike	Nerang Mountain Bike Trails, Gold Coast

SUPPORTING INFORMATION

Ref: [A19088028](#)

The following list of supporting information is provided for:

ITEM 5.3

**NEW LEASE (MORAYFIELD) - THE SCOUT ASSOCIATION OF AUSTRALIA QUEENSLAND BRANCH
INC - DIVISION 3**

***#1 The Scout Association of Australia Queensland Branch Inc. - Morayfield branch - Current and
Proposed Lease Area***

ITEM 5.3 - NEW LEASE (MORAYFIELD) - THE SCOUT ASSOCIATION OF AUSTRALIA QUEENSLAND BRANCH INC. (Cont.)

#1 The Scout Association of Australia Queensland Branch Inc. - Morayfield branch - Current and Proposed Lease Area



SUPPORTING INFORMATION

Ref: [A18874012](#)

The following list of supporting information is provided for:

ITEM 5.4

**NEW LEASE (NARANGBA) - THE SCOUT ASSOCIATION OF AUSTRALIA QUEENSLAND BRANCH
INC - DIVISION 11**

***#1 The Scout Association of Australia Queensland Branch Inc. - Narangba branch - Current and
proposed lease area***

ITEM 5.4 NEW LEASE (NARANGBA) - THE SCOUT ASSOCIATION OF AUSTRALIA QUEENSLAND BRANCH INC.
(Cont.)

#1 The Scout Association of Australia Queensland Branch Inc. - Narangba branch - Current and proposed lease area



SUPPORTING INFORMATION

Ref: [A19161034](#)

The following list of supporting information is provided for:

ITEM 5.6

NEW LEASE - ALBANY CREEK EXCELSIOR FOOTBALL CLUB INC - DIVISION 9

#1 Albany Creek Excelsior Football Club - existing lease areas and untenured area of occupation

#2 Albany Creek Excelsior Football Club - proposed new lease areas

ITEM 5.6 NEW LEASE - ALBANY CREEK EXCELSIOR FOOTBALL CLUB INC. (Cont.)

#1 Albany Creek Excelsior Football Club - existing lease areas and untenured area of occupation



ITEM 5.6 NEW LEASE - ALBANY CREEK EXCELSIOR FOOTBALL CLUB INC. (Cont.)

#2 Albany Creek Excelsior Football Club - proposed new lease areas

