

Deputation to Council

BITS AFL, BITS Cricket and BITS Soccer

Why are we here?

Background Context: Irrigation

July 2019 Council passed a resolution committing to undertaking a detailed design for the irrigation system at BITS golf course

5 October 2021 - Council decision to fund Stage 1 (Golf)

- \$3.2M 100% funded by GRC

5 October 2021 - Stage 2

- *“Proceed with the detailed design of the replacement irrigation system for the BITS sports fields and Dennis Park rugby league fields and that progress with construction be undertaken when sufficient funding or budget is obtained”*

[5 October 2021 Council Meeting recording](#)

<https://conversations.gladstone.qld.gov.au/bits-irrigation-works>

Gladstone Regional Council has prepared this Q&A factsheet for the Boyne Island, Tannum Sands (BITS) sporting club representatives and members who attended *Conversations with Council* on Tuesday 29 October at the Boyne Tannum Community Centre.

Genuine issues raised have been considered and this factsheet provide the responses sought from Council.

Leasing and Tenure

Q. Sporting clubs would like clarification regarding term of lease for land that will enable clubs to apply for funding.

A. In accordance to Council's policy on leasing land for sport and recreation purposes, by resolution of Council, a club can be offered a maximum lease term of 10 years. Council can offer a shorter term if it considers it appropriate.

Clubs are encouraged to contact Council if their leases are expired or about to expire. Officers will work with the Club Secretary on the renewal process.

Asset Management

Q. Has there been a full inspection of the BITS irrigation system?

A. Council is undertaking several investigations to determine a future asset management position on the BITS irrigation system. This body of work largely involves an operational review and condition assessment of asset/facilities.

Council is currently out to market seeking services of a qualified provider to undertake a holistic asset inspection and environmental assessment of the BITS precinct which includes:

- Condition assessment of the existing irrigation system and operating practice to identify improvements to current management.
- An environmental conditions assessment of

the irrigated land and cost of remediation (if required).

- Capital and operational expenditure for a redesign solution.

The BITS clubs are recognised key stakeholders to this work and will be engaged as part of the consultation process.

The outcomes of this investigation and that of others including Council's effluent reuse scheme, Sewerage Asset Growth Strategy and proposed Boyne Tannum Aquatic Recreation Centre will inform the future direction on land dealing and infrastructure management for the BITS precinct.

Environmental Obligations

Q. What is the quality of the water coming out of the Tannum Sands Wastewater Treatment Plant?

A. The Tannum Sands Wastewater Treatment Plant supplies treated water to the BITS Sport Grounds and Dennis Park for the purposes of irrigation and complies with the conditions authorised by Environmental Authority. This requires that Council takes all reasonable and practical measures to prevent and/or minimise the likelihood of environmental harm being caused.

Q. Where is the treated water pumped to QAL being discharged stored?

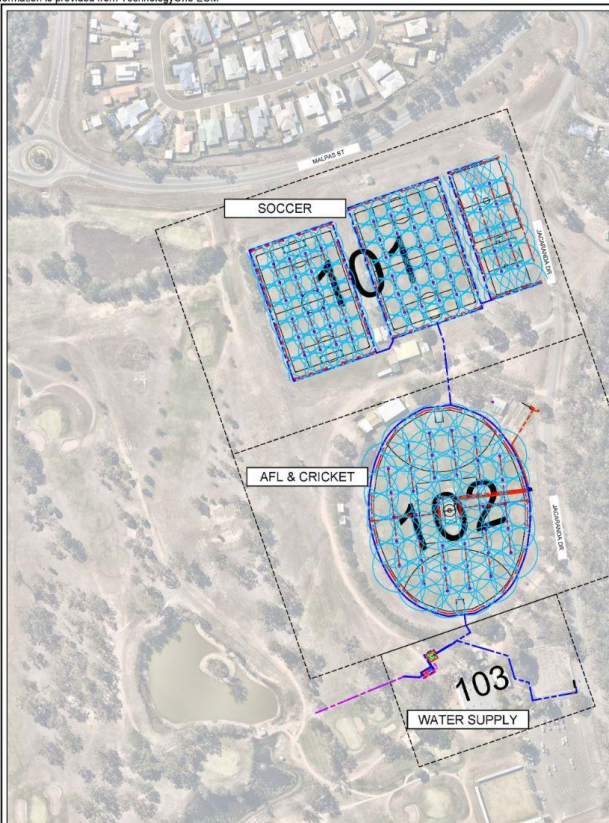
A. Council also supplies treated water to Queensland Alumina Limited (QAL) and is pumped directly to a purpose-built dam (the 'red mud dam') and utilised as part of the Parsons Point Refinery plant operations to offset raw water consumption.

Supply of treated water allows QAL to uphold sustainable efficiency practices that lessens the long-term impact on Lake Awoonga Dam, our region's main potable water resource.





Print Date: 21 September 2021, 4:39 PM



DESIGN NOTES
SCHEDULING COEFFICIENT - PERFORMANCE OPTIONS:
 DESIGN SPACING AND PATTERNS ARE MOSTLY DICTATED BY SHAPES AND OBSTACLES TO DETERMINE THE LAYOUT THAT BEST SUITS THE SITE, THEN A PRESSURE IS SELECTED FOR THE RESULTANT LAYOUT TO PROVIDE THE OPTIMUM PERFORMANCE IN TERMS OF DISTRIBUTION UNIFORMITY (%), COEFFICIENT OF UNIFORMITY - CHRISTIANSEN (%), AND SCHEDULING COEFFICIENT. THE PERFORMANCE IS LARGELY RELIANT ON THE PRODUCTS AVAILABLE TO MEET CRITERIA, AND THERE IS NO VALUE IN A SUBSTANDARD HYDRAULIC DESIGN AND STOCK LILAC PIPE IS GENERALLY LIMITED TO PN12.5. IN THIS CASE TWO MANUFACTURERS WITH THE BEST PERFORMANCE DATA TO COMPARE HAVE BEEN SELECTED ACROSS THE RANGE OF SPACINGS BEING USED IN THE DESIGN. IN THIS CASE OPTION 1 HAS THE BEST UNIFORMITY AND SCHEDULING COEFFICIENT (1.1), IN ALL FIELD LAYOUTS AND CAN BE RECOMMENDED FOR THIS APPLICATION. ROTOR COSTS WILL NOT BE SIGNIFICANTLY DIFFERENT IN THE SCALE OF PROJECT. OTHER FACTORS TO CONSIDER FOR SELECTING ROTOR OPTIONS INCLUDE THE CONTROL SYSTEM CAPABILITY. IN THIS CASE FOR A BLOCK SYSTEM THE ROTORS ARE NOT INTEGRAL WITH THE MANUFACTURERS CONTROL SYSTEM & SOFTWARE, HOWEVER A PACKAGED SYSTEM MAY HAVE EXTENDED WARRANTY ADVANTAGES.

CONTROL SYSTEM OPTIONS - OVERVIEW:

BOTH SYSTEMS HAVE THE CAPABILITY FOR REQUIRED PROGRAMMING WITH SENSOR INPUTS SUCH AS FLOW METERS AND ENVIRONMENTAL SENSORS FOR FLOW MANAGEMENT AND SEASONAL SCHEDULING.

OPTION 1 - RAIN BIRD

CENTRAL CONTROL SOFTWARE - IQ
 FIELD CONTROLLER - ESFLX-RM
 2 WIRE (2.5MM²) CONTROL SYSTEM & GROUNDING

OPTION 2 - TORO

CENTRAL CONTROL SOFTWARE - SENTINEL
 FIELD CONTROLLER - SENTINEL 2 WIRE DECODER
 2 WIRE (2.5MM²) CONTROL SYSTEM & GROUNDING

RECOMMENDATION

IN THE EARLY STAGES OF DETAILED DESIGN, OPERATORS RECEIVE AN INTERACTIVE DEMONSTRATION OF THE CENTRAL CONTROL SOFTWARE FROM EACH MANUFACTURER OF THE NOMINATED OPTIONS TO ACCESS SUGGESTED AGENDA 1 HOUR FOR HARDWARE & 1 HOUR FOR SOFTWARE. EVALUATION OF EACH OEM CONTROLS ALTERNATIVELY HYDROPLAN CAN PROVIDE A BRIEF EVALUATION OF THE TWO OPTIONS.



OPTION 1 - RAIN BIRD
 MODEL 800588-NP



OPTION 2 - TORO
 MODEL T7P-SS-52-E



NO.	REVISION	DESCRIPTION	DATE	BY	CHKD	APPD	REVISION DESCRIPTION
1	01	CONCEPTS - FOR COMMENT & APPROVAL					

HYDROPLAN
<http://hydroplan.com.au>
 PERTH ADELAIDE MELBOURNE SYDNEY BRISBANE BEIJING

COMMITTEE
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The arrangement and general details are shown on the drawings and any other documents and must be applied to the circumstances as based on site.

DESIGNED BY	EM	CHECKED BY	PH	PROJECT	GLADSTONE REGIONAL COUNCIL
DRAWN BY	SJ	PROJECT	182-21 BITS CLUB SITE & DENNIS PARK SPORTS COMPLEX	DATE	12/05/2021
DATE	12/05/2021	PROJECT	DETAILED DESIGN IRRIGATION SYSTEM	REVISION NO.	18885-100
DATE	12/05/2021	PROJECT	DETAILED DESIGN IRRIGATION SYSTEM	SHEET	1 OF 4
DATE	12/05/2021	PROJECT	DETAILED DESIGN IRRIGATION SYSTEM	REVISION	A

DRAWING NUMBER	TITLE	REV
18885-100	BITS SPORTS FIELDS - KEY PLAN	A
18885-101	BITS SOCCER FIELDS - LAYOUT 1	A
18885-102	BITS AFL & CRICKET FIELD - LAYOUT 2	A
18885-103	BITS WATER SUPPLY - LAYOUT 3	A

KEY DESIGN DATA - CONCEPT STAGE BITS SPORTS

SOCCER	2.01 HA
AREA	5 US
NOM. FLOW/VALVE	5 TO 10 US (UP TO 2 VALVES)
FLOW RANGE:	
AFL/CRICKET	1.78 HA
AREA	5 US
NOM. FLOW/VALVE	5 TO 10 US (UP TO 2 VALVES)
FLOW RANGE:	

COMMON - BITS SPORTS COMBINED (EXCLUDES GOLF)

TOTAL AREA	3.79 HA
SOIL, TYPICAL	LOAM
PLANT	SPORTS TURF - HIGH USE
PLANT FACTOR	0.8 (OPTIMUM GROWTH)
WINDOW	8.30PM TO 3.00AM
IRRIGATION TIME	6.5 HR/DAY
PEAK DEMAND	34 MMWK
PUMP DUTY CAPACITY	0-10 US @ 477MM (BITS SPORTS)
EXISTING PS POWER	22KW (40 FLA @ 415V)
NEW PUMP POWER	11KW (20 FLA @ 415V) VFD
VALVE GROUP CAPACITY	UP TO 2 @ 5 US (BITS SPORTS)
PEAK VOLUME, WEEK	1.3 MLWK
AVERAGE VOLUME, YEAR	22 ML/YR
ASSUMES YEAR ROUND FIELD USAGE & IRRIGATION PROGRAM	

KEY DESIGN DATA - CONCEPT STAGE - RW SUPPLY ALL SITES BITS SPORTS CLUBS, BITS GOLF & DENNIS PARK RL

ALL SITES ESTIMATED DEMAND SUMMARY *

AREA, TOTAL SITES	15.43 HA
FLOW PEAK DEMAND	42 US
VOLUME, PEAK WEEK	6.65 MLWK
AVERAGE VOLUME, YEAR	112 ML/YR

CURRENT RECYCLED WATER SUPPLY CAPACITY *

FLOW, IN/OUT BITS TANKS	30 TO 35 US
FLOW, IN/OUT DENNIS PARK TANKS	13 US
COMBINED FLOW, IN/OUT BITS & DP	43 US
PEAK VOLUME, WEEK	## MLWK (GRC-TBC)
AVERAGE VOLUME, YEAR	119 ML/YR (GRC-IMP)

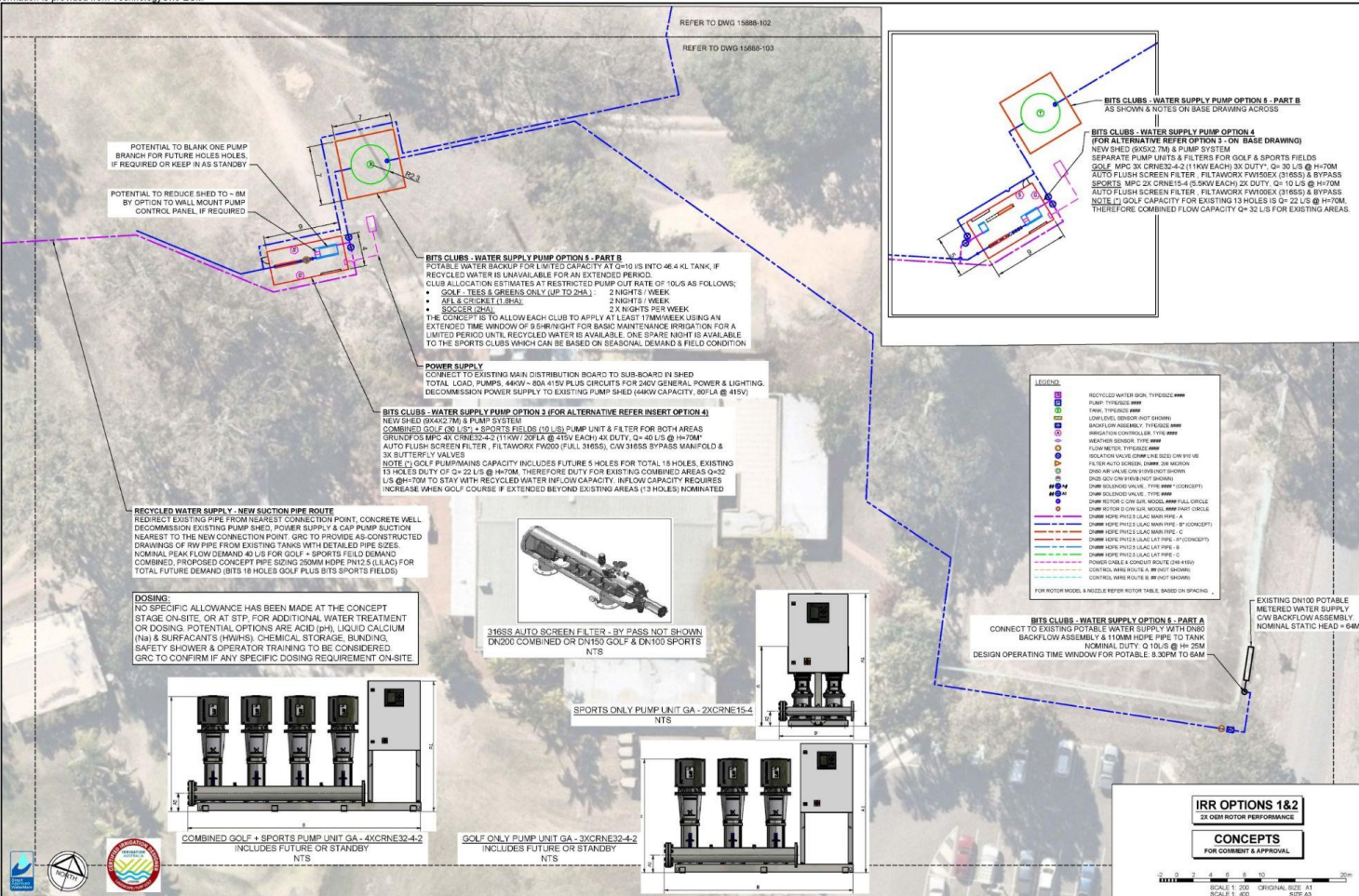
NOTES

- BASED ON AVERAGE BOM DATA, CURRENT SITE AREAS INCLUDE PROPOSED SPORTS FIELD EXTENSIONS WHERE SHOWN ON DRAWINGS DOES NOT INCLUDE POTENTIAL FUTURE 5 GOLF HOLES, WHICH WOULD INCREASE GOLF PUMP STATION FLOW FROM 22 US TO 30 US AND TOTAL FLOW DEMAND TO 50 US.
- IF BITS TANK IS LIMITED TO 30 US WHEN DENNIS PARK IS OPERATING AT THE SAME TIME (8.30PM TO 3AM) GRC WATER OPERATORS ADVISED DENNIS PARK USAGE TIMES ARE SIGNIFICANTLY LOWER THAN BITS, PERHAPS RELATED TO SEASONAL FIELD USAGE, WHICH MAY OFFER SOME ALLOCATION FLEXIBILITY. GOLF FLOWS 7PM-4AM.
- IF GOLF COURSE AREAS ARE SIGNIFICANTLY EXTENDED (EG. 5 HOLES - 4.4 HA) IN THE FUTURE THE STP CAPACITY, INCLUDING VOLUME, PIPE SIZE, TANKS AND IN FLOWS WILL REQUIRE REVIEW AS THE ESTIMATED GOLF DEMAND WILL INCREASE PROPORTIONALLY BY 38% AND THE SYSTEM DESIGN IS AT OR NEAR CAPACITY WITHIN THE AVAILABLE TIME WINDOWS, BASED ON THE INFORMATION PROVIDED BY GRC TO DATE.
- GRC TO CONFIRM RW SUPPLY CAPACITY TO BITS/DENNIS PARK, BTP MAY HAVE ALLOCATION SUPPLY OTHER SITES, EG. RED MUD DAM DURING DAY TIME HOURS.

IRR OPTIONS 1&2 23 GPM ROTOR PERFORMANCE

CONCEPTS FOR COMMENT & APPROVAL







CONSTRUCTION COST BUDGET ESTIMATE

Date: 2/08/2021

By: SJ

Client Ref #: 182-21

Contact Ph : 07 4975 8466

HP Ref #: 15888

Stage: CONCEPT

Rev: A

Client: Gladstone Regional Council

Attention: Farayi Kaisa

Project: BITS Clubs & Dennis Park Sports Complex - Detailed Design Irrigation System

Description: Concept Design - Constuction Cost Estimates - Dennis Park Sports Complex (RL)

Item	Description	Unit	Qty	Rate	Amount
	<u>DENNIS PARK SPORTS (RL) - OPTION 1.1 & 1.2 NEW IRRIGATION & PUMP SYSTEM</u>				
1.0	Irrigation System, Options 1.1 & 1.2 existing area only	m ²	33920	\$5.75	\$ 195,040.00
2.0	Irrigation system, proposed new area NE2 Junior RL field	m ²	8480	\$5.75	\$ 48,760.00
3.0	New Pump & Filter system - surface mounted pumps,	item	1	\$75,000.00	\$ 75,000.00
	disconnect existing submersible pumps				
4.0	New pump slab, shed & electrical	item	1	\$38,000.00	\$ 38,000.00
5.0	Tender assessment & Project management (~10%)	item	1	\$35,000.00	\$ 35,000.00
6.0	Contingency & price rises (~10%)	item	1	\$35,000.00	\$ 35,000.00
Total, excluding GST					\$ 426,800.00
GST payable					\$ 42,680.00
Total, including GST					\$ 469,480.00

Notes:

A	At concept stage option 1 & 2 will not vary significantly in price, in this case Option 1 & 2 has similar SC
B	Option 2 (Toro) has slightly better performance overall at lower pressure and with lower precipitation rates
C	Refer dwgs # 15888-200 to 212 & 1588-220 to 223 (A) for concept design and performance data
D	Item 4 (reroute RW suction pipe) has not been apportioned for BITS sports fields, and costed only in golf estimate

Exclusions, Options, Clarifications, unless otherwise noted:

i	Potential saving to consolidate BITS clubs pump station into one larger PS system, Golf savings \$25K (\$40K BITS total).
ii	Potable water supply is option included, and cost apportioned between BITS clubs to allow up to 2Ha/2days week each.
iii	Golf is 3x pump system is designed for 18 holes, by blanking 1 pump (future demand) on manifold savings \$20K.
iv	On-site dosing system cost not included in concept budget, may be added at STP or site (\$25-\$75K pend options)

Signed:



Scott Johnstone, Principal Consultant



Brianna Janson <Brianna.Janson@gladstone.qld.gov.au>
to me, Jeff, Jordan, Community, Libby, boyne, Natalia, Glenn, Matt ▼

Mon, 22 Dec 2025, 14:42 ☆ ☺ ↶ ⋮

Hi Robert

Thanks for your email – I will liaise internally and see when we can coordinate a whole of precinct meeting with the relevant council officers, elected members and clubs.

Last week we met with Golf and, pending rain, are meeting with Jeff from soccer tomorrow. Last correspondence I had from cricket (Anthony Hill) was that they wanted the irrigation reduced over the summer, which we have actioned. Is there anything else urgent that cricket requires in the meantime?

As of this week, we have introduced a new email address for any irrigation requests – this will ensure that whoever from our parks team is on shift at any given time will receive the request. I will be emailing clubs with more details shortly.

We are also developing a weekly report to be sent to all clubs showing the irrigation that has run for the past week – this report is being finalised and should be ready early in the New Year.

With regards to a replacement system, council has applied (unsuccessfully) for funding. We have been advised that a replacement irrigation system is unlikely to receive external funding moving forward, which leaves funding by council/ratepayers or the clubs. I imagine this would be focus of your advocacy to council. Council's stance has always been that they would proceed with the next stage of the project when external funding was sourced. Our councillors were made aware last month that as a result of feedback, we are unlikely to receive external funding moving forward, so this is on their radar.

Given the extensive number of people on this email trail, I have continued to reply via email but please feel free to contact me on my mobile below if you wish to discuss further or have any other concerns.

...

Thanks, Bri



Brianna Janson
Manager Community Partnerships
Community and Lifestyle

Summary

July 2019 - Projected initiated via a passed resolution

5 October 2021 - Stage 2

- CAPEX and OPEX quotes were presented
- *Proceed with the detailed design of the replacement irrigation system for the BITS sports fields and Dennis Park rugby league fields and that progress with construction be undertaken when sufficient funding or budget is obtained*

22 December 2025 - Email from GRC

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Actions taken by BITS since 5 October 2021

- 177 - club committee meeting updates on the Irrigation project
- 15 - annual discussions on allocating budget for a potable water tank
- 8 - requests for face-to-face meetings with GRC staff
 - 3 x meetings committed to by GRC staff
 - **0 x meetings attend by GRC staff**
- 5 - Club President changes
 - Contributing factor: lack of progress (and communication) from GRC on a GRC initiated project
- 3 - external funding opportunities identified and shared with GRC
 - 2 x (known) funding submissions
 - 0 x funding outcomes
- 1 - meeting with Councillor
- 1 - Community Information Session Question Raised
 - 1 x post session chat with Councillor
- **\$68,472 - estimated volunteer equivalent time (Cost of Volunteering Calculator)**
 - Excluding loss of wages for GRC discussions that only occur during business hours
 - Excluding hours upon hours writing emails and following up GRC staff

Precinct Usage since 2021

111 x Cricket participants

406 x AFL participants

520 x Soccer participants

1,027 x precinct participants

A 30%-37% growth in participants

Example 1:

Growth across the game and within our region has also been impressive over this period resulting in larger competitions and higher demand on our facility.

Example 2:

There are too many teams to conduct matches on the one day, hence the club is actively pursuing land for a junior field.

The growth of women's and girls participants, teams and competitions has significantly increased demand on the facilities for the purpose of training, games and carnivals

BITS Precinct since 2021

Infrastructure funding secured & delivered:

\$4,300,000

Lost investment due to lack of Irrigation:

\$175,000

Deferred Investment

\$180,000 (\$30,000 per year)

Co-contributions funded by sports:

\$600,000

Council costs (estimated):

\$300,000

The Irrigation Financial Impact on Precinct Participants

\$53.55

per precinct participant per year

Note: approx \$13,394 of volunteer equivalent time is invested each year seeking to progress the GRC initiated project.

Operational Questions that are Outstanding

- System is end of life with continuous issues
- Zero visibility on the system
- Zero control over the system except through 3rd party communication (Regular turnover in GRC), Ultimately fields either too dry or too wet.
- Improvement work often fails due to water issues, highly stressful, costly, and demanding on volunteers when things go wrong. Very limited flexibility in the application of water
 - a. High administration workload on Club volunteers and Council when trying to coordinate rehabilitation / seeding / fertilizing / or re-turfing.
- Puts a high demand on Council regarding maintenance and regulatory requirements, also presents an environmental and public risk requiring monitoring under its EA.

Next Steps

Council Decision

1. Not going to pursue the project
2. Commit to fully funding it
3. Not Decision Ready

Examples of fully funded irrigation projects:

- BITS Golf Club
 - \$3.2M
- Calliope Golf Club
 - \$5M

If Not Decision Ready:

- Which department and staff member is leading the project?
- When will GRC staff be willing to meet face-to-face with clubs?
- Will GRC commit to engaging Clubs on a good faith basis for the purpose of this project?
- Does the advice to Councillors that external funding is unlikely remain current?
- What is the process for a CAPEX/OPEX allocation?
- How many years does the project need to wait until GRC staff present it for a CAPEX/OPEX investment?

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