

ORDINARY MEETING

AGENDA

13 MAY 2014

Your attendance is required at an Ordinary meeting of Council to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 13 May 2014 commencing at 10:00am for transaction of the enclosed business.

1 1.

CHIEF EXECUTIVE OFFICER 6 May 2014

Next Meeting Date: 10.06.14

Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

TABLE OF CONTENTS

ITEM	SUBJECT	PAGE NO
1	OPENING	1
2	PRESENT	1
3	APOLOGIES AND LEAVE OF ABSENCE	1
4	CONFIRMATION OF MINUTES	1
5	DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA	1
6	BUSINESS OUTSTANDING	2
	6.1 BUSINESS OUTSTANDING TABLE FOR ORDINARY COUN MEETING	
7	PUBLIC FORUMS/DEPUTATIONS	6
	NIL	6
8	PRESENTATION OF PETITIONS	7
	NIL	7
9	COMMITTEE REPORTS	
	 9.1 COMMUNITIES COMMITTEE MEETING - 29 APRIL 2014 9.2 HEALTH AND COMPLIANCE COMMITTEE MEETING - 29 A 2014 9.3 PARKS AND RECREATION COMMITTEE MEETING - 30 AF 2014 9.4 WATER COMMITTEE MEETING - 30 APRIL 2014 9.5 INFRASTRUCTURE COMMITTEE MEETING - 30 APRIL 207 9.6 BUSINESS ENTERPRISE COMMITTEE MEETING - 30 APRIL 	APRIL 15 PRIL 19
10	COUNCILLOR/DELEGATE REPORTS	
	NIL	
11	OFFICERS' REPORTS	
	 11.1 REVIEW OF THE FITZROY BARRAGE FISHWAY AND OPT FOR IMPROVED OPERATION	
12	STRATEGIC REPORTS	59
	NIL	59
13	NOTICES OF MOTION	60
	NIL	60
14	QUESTIONS ON NOTICE	61

	NIL		61
15	URGE	NT BUSINESS/QUESTIONS	62
16	CLOS	ED SESSION	63
	17.1	UPDATE ON DE-AMALGAMATION MATTER	63
17	CONF	IDENTIAL REPORTS	64
	17.1	UPDATE ON DE-AMALGAMATION MATTER	64
18	CLOS	URE OF MEETING	65

1 OPENING

The opening prayer will be presented by Reverend Jamie Maclean of the Gracemere Baptist Fellowship.

2 PRESENT

Members Present:

Councillor C E Smith Councillor C R Rutherford Councillor G A Belz Councillor S J Schwarten Councillor A P Williams Councillor R A Swadling Councillor N K Fisher

In Attendance:

Mr E Pardon – Chief Executive Officer

3 APOLOGIES AND LEAVE OF ABSENCE

The Mayor, Councillor Margaret Strelow, has tendered her apology and will not be in attendance.

4 CONFIRMATION OF MINUTES

Minutes of the Ordinary Meeting held 8 April 2014

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

6 BUSINESS OUTSTANDING

6.1 BUSINESS OUTSTANDING TABLE FOR ORDINARY COUNCIL MEETING

File No:	10097
Attachments:	1. Business Outstanding Table for Ordinary Council
Responsible Officer:	Evan Pardon - Chief Executive Officer
Author:	Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Ordinary Council Meeting is presented for Councillors' information.

OFFICER'S RECOMMENDATION

THAT the Business Outstanding table for the Ordinary Council Meeting be received.

BUSINESS OUTSTANDING TABLE FOR ORDINARY COUNCIL MEETING

Business Outstanding Table for Ordinary Council

Meeting Date: 13 May 2014

Attachment No: 1

Meeting Date	Report Title	Resolution	Responsible Officer	Due Date	Comments
10 April 2013	Notice of Motion - Councillor Ellen Smith - Footpath Survey in Gracemere	THAT Council officers conduct a footpath survey in Gracemere to identify "missing links" in pathways and prepare a short and long term strategy to indentify same, and consider costings in the present and future budgets. That a report on a framework for a footpath strategy relating to the Rockhampton Regional Council area be brought back to the table.	Martin Crow	31/12/2013	Approximately 20 footpath projects to a combined value of \$2.5M listed in the Forward works program for Gracemere. 1 project to a value of \$230K in 13/14 budget. Overall footpath strategy being addressed as part of active transport strategy.
24 September 2013	Mayoral Minute - Camping at Woolwash	 That in recognition of the economic value of the contribution that Motorhome, Caravans and Campervan owners make to communities when they visit – 1.Council initiate a six month trial period in which 24 hour free parking is allowed at the Woolwash and that 	Michael Rowe	1/10/2013	Trial underway and Options report being prepared.
		signage be amended accordingly.2.That at the end of March 2014 Council review the benefits or otherwise of the trial.			
13 November 2013	Review of Community Banner Pole System	That a further report be provided on alternative banner pole locations at Stapleton Park and other localities and the type of banner pole.	Shane Turner	27/11/2013	Have requested information from Infrastructure on possible relocation of Stapleton Park Pole and the associated costs. Have also requested some suggestions for additional
					locations to site Banner Poles in Gracemere Mt Morgan etc. Expect to bring report back to the March Council meeting.

Meeting Date	Report Title	Resolution	Responsible Officer	Due Date	Comments
13 November 2013	Theatre - Lot 20 on SP217271.	 Under s236 (1)(c)(iii) of the Local Government Regulation 2012, approve the renewal of the lease over part of Lot 20 on SP217271 (known as Lease Area D) to John Cornwell and Gianni De Luca (Delizi's Restaurant) located at the Pilbeam Theatre, 62 Victoria Parade Rockhampton; and Renew the lease under the current lease conditions, 	Drew Stevenson	27/11/2013	Meeting to be held with developer of adjacent property to discuss impacts for Art Gallery and Theatre
		excluding Lease Area C, for a further term of three (3) years, increasing annually by CPI;3. That a further report on options for Lease Area C to			
10 December 2013	Capricorn Enterprise Funding Agreement	be brought to the table. That the matter lay on the table to return to the Council Meeting on 28 January 2014.	Rick Palmer	24/12/2013	

7 PUBLIC FORUMS/DEPUTATIONS

Nil

8 **PRESENTATION OF PETITIONS**

Nil

9 COMMITTEE REPORTS

9.1 COMMUNITIES COMMITTEE MEETING - 29 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Communities Committee meeting, held on 29 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

9.1.1	MONTHLY	OPERATIONAL	REPORT	FOR	MARCH	2014	-	FACILITIES
	MANAGEM	ENT UNIT						

File No:	1464
Attachments:	1. Facilities Operational Report for March 2014
Responsible Officer:	Cheryl Haughton - Manager Community Services Michael Rowe - General Manager Community Services
Author:	Sharon Sommerville - Coordinator Facilities

SUMMARY

This report provides information for Councillors on the operational activities of the Facilities Management Unit during March 2014.

COMMITTEE RECOMMENDATION

THAT the Facilities Management Unit Monthly Operational Report be received.

9.1.2 COMMUNITY ASSISTANCE PROGRAM

File No:	7822
Attachments:	1. Community Assistance Program - Attachment to report to Communities Committee 29 April 2014
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Cheryl Haughton - Manager Community Services

SUMMARY

Applications to the Community Assistance Program have been received from QSquash Central Region and AM Media Consultants Pty Ltd t/a Special Children's Christmas Party. The applications were assessed and both are recommended for funding for a total amount of \$6,000.

COMMITTEE RECOMMENDATION

THAT Council approves the following applications for funding from the Community Assistance Program:

Applicant	Purpose of Grant/Sponsorship	Grant/sponsorship Recommended
QSquash Central Region	2014 Queensland Junior Squash Championships	\$3,000
AM Media Consultants Pty Ltd t/a Special Children's Christmas Party	2014 Central Queensland Special Children's Christmas Party	\$3,000

9.1.3 INFORMATION BULLETIN COMMUNITIES AND FACILITIES

File No:	1464
Attachments:	1. Information Bulletin Communities and Facilities
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Cheryl Haughton - Manager Community Services

SUMMARY

This report provides information on the activities of the Communities and Facilities section for the month of March 2014.

COMMITTEE RECOMMENDATION

THAT the Information Bulletin reporting on the activities of the Communities and Facilities section for the month of March be received.

9.1.4 INFORMATION BULLETIN FOR ARTS AND HERITAGE FOR MARCH 2014

File No:	1464
Attachments:	1. Information Bulletin Arts and Heritage for March 2014
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Peter Owens - Manager Arts and Heritage

SUMMARY

The report provides information on the programs and activities of the Arts and Heritage section for March 2014

COMMITTEE RECOMMENDATION

THAT the information bulletin reporting on the programs and activities of the Arts and Heritage section for March 2014 be received.

9.1.5 TENDER 11100 - CATERING FOR ROBERT SCHWARTEN PAVILION

File No:	11100
Attachments:	1. Testimonial Letter from Beef Australia for Olive Catering
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Peter Owens - Manager Arts and Heritage

SUMMARY

Tender 11100 for exclusive catering rights in the Robert Schwarten and James Lawrence pavilions at the Rockhampton Showgrounds has now closed. Council's approval to award the contract is now required.

COMMITTEE RECOMMENDATION

That Council resolve to:

- (a) not to enter into an exclusive tender for catering in the Robert Schwarten and James Lawrence Pavilions; and
- (b) establish a hire fee for the use of the Robert Schwarten and James Lawrence Pavilions subject to users providing their own catering utensils.

9.1.6 PROPOSED TERM LEASE OF RESERVE LOT 6 ON R26251 AND LOT 2 ON R2616 (CITY CHILD CARE AND ROCKHAMPTON REGIONAL COUNCIL)

File No:	374
Attachments:	1. Drawing 11/024A/CEN
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Cheryl Haughton - Manager Community Services

SUMMARY

Council direction is sought in relation to correspondence received from the Department of Natural Resources and Mines regarding a proposed term lease for the land on which the Library and part of the Child Care Centre sit.

COMMITTEE RECOMMENDATION

THAT Council make representation to State Government regarding dealing with part of Reserve Lot 6 on R26251 and Lot 2 on R2616 (Childcare Centre) prior to formalising any action.

9.2 HEALTH AND COMPLIANCE COMMITTEE MEETING - 29 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Health & Compliance Committee meeting, held on 29 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

Recommendation of the Health & Compliance Committee, 29 April 2014

9.2.1 BUSINESS OUTSTANDING TABLE FOR HEALTH AND COMPLIANCE COMMITTEE

File No:	10097
Attachments:	1. Business Outstanding Table for Health and Compliance
Responsible Officer:	Evan Pardon - Chief Executive Officer
Author:	Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Health and Compliance Committee is presented for Councillors' information.

COMMITTEE RECOMMENDATION

THAT the Business Outstanding Table for the Health and Compliance Committee be received.

Recommendation of the Health & Compliance Committee, 29 April 2014

9.2.2 HEALTH AND ENVIRONMENT ACTIVITY STATEMENT FOR MARCH 2014

File No:	1464
Attachments:	Nil
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Catherine Hayes - Manager Health & Environment

SUMMARY

This report provides information about the activities of Rockhampton Regional Council's Environment and Health Section for the month of March 2014. The Section consists of three units namely Environment and Public Health, Pest Management and Vector Management.

COMMITTEE RECOMMENDATION

THAT the Health and Environment Activity Statement for March 2014 be received.

Recommendation of the Health & Compliance Committee, 29 April 2014

9.2.3 LOCAL LAWS MONTHLY STATISTICS FOR MARCH 2014

File No:	1464
Attachments:	1. Local Laws Monthly Statistics for March 2014
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Steve Best - Manager Local Laws

SUMMARY

The Local Laws Monthly Statistics for March 2014 is submitted for consideration of the Health and Compliance Committee.

COMMITTEE RECOMMENDATION

THAT the Local Laws Monthly Statistics for March 2014 be received.

9.3 PARKS AND RECREATION COMMITTEE MEETING - 30 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Parks & Recreation Committee meeting, held on 30 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

9.3.1 BUSINESS OUTSTANDING TABLE FOR PARKS AND RECREATION COMMITTEE

File No:	10097
Attachments:	1. Business Outstanding Table for Parks and Recreation Committee Meeting
Responsible Officer:	Evan Pardon - Chief Executive Officer
Author:	Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Parks and Recreation Committee is presented for Councillors information.

COMMITTEE RECOMMENDATION

THAT the Business Outstanding Table for the Parks and Recreation Committee be received.

9.3.2 COMMUNITY SERVICES CAPITAL WORKS MONTHLY REPORT – APRIL 2014 – PARKS AND RECREATION COMMITTEE

File No:	1464
Attachments:	1. Project Summary Report - Parks and Recreation Committee
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Andrew Collins - Special Projects Officer

SUMMARY

Project summary report for Capital Projects currently being delivered by Community Services Department on behalf of the Parks and Open Spaces section.

COMMITTEE RECOMMENDATION

- 1. THAT the Community Services Capital Works monthly report for April 2014 for Parks and Recreation be received.
- 2. THAT an update on the status of the road works component and implications of time variation on the World War II Memorial Pool project be presented to the next Council meeting on 13 May 2014.

9.3.3 MARCH CAPITAL PROGRESS REPORT FOR PARKS AND RECREATION - FACILITIES MANAGEMENT UNIT

File No:	1484
Attachments:	1. Facilities Capital Progress Report for March 2014
Responsible Officer:	Cheryl Haughton - Manager Community Services Michael Rowe - General Manager Community Services
Author:	Sharon Sommerville - Coordinator Facilities

SUMMARY

This report provides information on progress of Parks and Recreation capital projects being undertaken by the Facilities Management Unit during March 2014.

COMMITTEE RECOMMENDATION

THAT the March Progress Report from the Facilities Management Unit in relation to Parks and Recreation capital projects be received.

9.3.4 REQUEST FOR TENURE FOR ROCKHAMPTON DOG OBEDIENCE CLUB INC AT DUTHIE PARK

File No:	1464
Attachments:	 Map indicating proposed Trustee Permit area for Rockhampton Dog Obedience Club Inc Request for reduction in fees and charges letter from Rockhampton Dog Obedience Club Inc
Authorising Officer:	Margaret Barrett - Manager Parks Michael Rowe - General Manager Community Services
Author:	Sophia Czarkowski - Sports & Education Officer

SUMMARY

Rockhampton Dog Obedience Club Inc currently Leases the building and utilises associated land at Duthie Park, Mills Avenue, North Rockhampton (Lot 202 LN2700). The Club does not have tenure over the land it uses and requires tenure to formalise its usage for insurance and security purposes. Additionally, the Club is currently being charged the incorrect Lease fee for the building which needs to be addressed.

COMMITTEE RECOMMENDATION

THAT:

- 1. Council grant Rockhampton Dog Obedience Club Inc a Trustee Permit over part of Duthie Park (Lot 202 LN2700) for the purposes of dog training and related activities for a period of three (3) years from 1 January 2014.
- 2. Council accede to the request for a reduction in Lease and Permit fees and charges from \$2,970 per annum to \$600 per annum for the initial year to be reviewed on expiry of that initial period.

9.3.5 PARKS AND OPEN SPACE REPORT

File No:	1464
Attachments:	1. Parks Monthly Report March 2014
Authorising Officer:	Michael Rowe - General Manager Community Services
Author:	Margaret Barrett - Manager Parks

SUMMARY

This report provides information on the activities and services of Parks and Open Space Unit for the month of March 2014.

COMMITTEE RECOMMENDATION

THAT the report on the activities and services of Parks and Open Space Unit for March 2014 be received.

9.4 WATER COMMITTEE MEETING - 30 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Water Committee meeting, held on 30 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

Recommendation of the Water Committee, 30 April 2014

9.4.1 FRW FINANCE AND STRATEGIC MATTERS REPORT - MARCH 2014

File No:	1466
Attachments:	Nil
Authorising Officer:	Robert Holmes - General Manager Regional Services
Author:	Nimish Chand - Manager FRW

SUMMARY

This report details Fitzroy River Water's financial position and other operational matters for the Council's information as at 31 March 2014.

COMMITTEE RECOMMENDATION

THAT the FRW Finance and Strategic Matters Report for March 2014 be received.

Recommendation of the Water Committee, 30 April 2014

9.4.2 ACKNOWLEDGEMENT TO FITZROY RIVER WATER FOR REMOVAL OF GRAFFITI ON PUMP STATION ON PILBEAM DRIVE

File No:	8181
Attachments:	Nil
Responsible Officer:	Robert Holmes - General Manager Regional Services

SUMMARY

Councillor Fisher, on behalf of residents of Division 10, asked that Fitzroy River Water be thanked for their prompt action to remove graffiti on the pump station on Pilbeam Drive just before the Easter break.

COMMITTEE RECOMMENDATION

THAT, on behalf of the residents of Division 10, Fitzroy River Water be thanked for their prompt action regarding the removal of graffiti on the pump station on Pilbeam Drive before Easter.

9.5 INFRASTRUCTURE COMMITTEE MEETING - 30 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Infrastructure Committee meeting, held on 30 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

9.5.1 BUSINESS OUTSTANDING TABLE FOR INFRASTRUCTURE COMMITTEE

File No:	10097
Attachments:	1. Business Outstanding Table for Infrastructure Committee Meeting
Responsible Officer:	Evan Pardon - Chief Executive Officer
Author:	Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Infrastructure Committee is presented for Councillors' information.

COMMITTEE RECOMMENDATION

THAT the Business Outstanding Table for the Infrastructure Committee be received.

9.5.2 LAWRIE STREET FOOTPATH CONDITION

File No:	1963, 8054
Attachments:	1. Lawrie St Footpath Photo's
Authorising Officer:	Robert Holmes - General Manager Regional Services
Author:	Martin Crow - Manager Engineering Services

SUMMARY

A condition assessment has been carried out on the footpath in front of the commercial area along Lawrie Street, Gracemere.

COMMITTEE RECOMMENDATION

- 1. THAT the renewal of the footpath in Lawrie Street, Gracemere be placed in the future works program for consideration during budget deliberations;
- 2. THAT the Department of Transport and Main Roads be consulted with regards to impacts on streetscaping plans as a result of the future upgrade planning for Lawrie Street between the Capricorn Highway and Ranger Street.

9.5.3 CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR MAY 2014

File No:	7028
Attachments:	 Civil Operation Section's Works Program April - May 2014 Customer Requests received by Civil Operations and Engineering Services Sections - March 2014 Urban and Rural Capital Projects Report - Financial Year to Date - March 2014
Authorising Officer: Author:	Robert Holmes - General Manager Regional Services Russell Collins - Manager Civil Operations

SUMMARY

The Civil Operations Section submits a monthly report outlining the details of the programmed works for the upcoming month to assist Council's Executives and Councillors when they receive enquiries from their constituents in relation to road and associated road reserve works.

COMMITTEE RECOMMENDATION

THAT the Civil Operations Section's Works Program for May 2014 report be received.

9.5.4 NOTICE OF MOTION STREET DRAINAGE	N - COUNCILLOR STEPHEN SCHWARTEN - KERSHAW ISSUE
File No:	8246
Attachments:	Nil
Responsible Officer:	Evan Pardon - Chief Executive Officer

SUMMARY

Councillor Stephen Schwarten has indicated his intention to move the following Notice of Motion at the next Infrastructure Committee Meeting.

COMMITTEE RECOMMENDATION

- 1. That a report on the drainage issues, and an update on previously proposed solutions for the Caribea Estate, be presented to the next Infrastructure Committee Meeting.
- 2. That the existing stormwater system be investigated to ensure that there are no blockages and that it is operating at design capacity.

9.6 BUSINESS ENTERPRISE COMMITTEE MEETING - 30 APRIL 2014

RECOMMENDATION

THAT the Minutes of the Business Enterprise Committee meeting, held on 30 April 2014 as circulated, be received and that the recommendations contained within these minutes be adopted.

(Note: The complete minutes are contained in the separate Minutes document)

Recommendation of the Business Enterprise Committee, 30 April 2014

9.6.1 RRWR FINANCE AND STRATEGIC MATTERS REPORT - MARCH 2014

File No:	7927
Attachments:	 Operational Budget Report - March 2014 Capital Budget Report - March 2014
Authorising Officer:	Robert Holmes - General Manager Regional Services
Author:	Craig Dunglison - Manager RRWR

SUMMARY

This report details Rockhampton Regional Waste and Recycling's financial position and other significant operational matters as at 31 March 2014.

COMMITTEE RECOMMENDATION

THAT the Rockhampton Regional Waste and Recycling's Finance and Strategic Matters Report as at 31 March 2014 be received.

Recommendation of the Business	Enterprise	Committee,	30 April 2014

File No:	7927
Attachments:	 Airport Income Statement 13/14 - March 2014 Airport Capital Management Report 13/14 - March 2014 Customer Service Statistics - March 2014
Authorising Officer:	Ross Cheesman – General Manager Corporate Services

9.6.2 RRWR FINANCE AND STRATEGIC MATTERS REPORT - MARCH 2014

SUMMARY

Author:

The report details the financial position and other strategic matters for Rockhampton Airport.

Trevor Heard – Manager Rockhampton Airport

COMMITTEE RECOMMENDATION

THAT the Airport, Finance and Strategic Matters report for March 2014 be "received".

10 COUNCILLOR/DELEGATE REPORTS

11 OFFICERS' REPORTS

11.1 REVIEW OF THE FITZROY BARRAGE FISHWAY AND OPTIONS FOR IMPROVED OPERATION

File No:	7687
Attachments:	1. Fitzroy Barrage Fishway - Background, Effectiveness, Options
Authorising Officer:	Nimish Chand - Manager FRW Robert Holmes - General Manager Regional Services
Author:	Jason Plumb - Coordinator Treatment and Supply

SUMMARY

The Fitzroy Barrage fishway is a vertical-slot fishway that is part of the Fitzroy Barrage infrastructure operated by Fitzroy River Water. The purpose of the fishway is to facilitate the passage of fish species from the downstream side of Fitzroy Barrage to the upstream freshwater environment. Achieving successful passage is important for many aquatic species to help ensure long-term sustainable population within the Fitzroy River ecosystem. The effectiveness of the fishway has been reviewed and a number of options for improved design and performance identified. This report provides a summary of the current fishway structure, its effectiveness and the opportunities for improving its design and performance.

OFFICER'S RECOMMENDATION

- 1. THAT the Review of the Fitzroy Barrage Fishway and Options for Approved Operation be received.
- 2. THAT the reallocation of \$40,000 from available funds within the Barrage Crane Restoration project allocation to allow completion of the upgrade works to install rocks on the fishway floor to provide a cost-effective improvement to the effectiveness of the fishway be approved.

BACKGROUND

With the Fitzroy Barrage providing an effective barrier to separate the downstream tidal part of the Fitzroy River from the upstream freshwater impoundment, the Fitzroy Barrage fishway is an important part of the Barrage structure to assist the passage of fish between the two separated waterways.

The Fitzroy Barrage fishway has been through a number of changes since the original structure was built in 1970. These changes have been made mostly to improve the design and effectiveness of the fishway but also to protect it from being destroyed during moderate and major flood events. Details of these changes to the fishway are provided in the attached report.

The most significant change in the design of the fishway was made in 1994 to change it to a full vertical-slot fishway. This upgrade to the fishway was considered at the time to provide a highly effective means of facilitating fish passage, however, subsequent advances in the knowledge of fish migration and fishway design have highlighted some deficiencies in the design of the current fishway (see attached report). The deficiencies in the current design relate mainly to the limited ability to enable passage by very small fish and species of crabs and other crustaceans due to the unfavourable flow velocity or limited accessibility posed by the current fishway design.

In order to improve the effectiveness of the Fitzroy Barrage fishway, further upgrading of the design of the structure or indeed the construction of a new fishway, is required to deliver the improved performance required.

OPTIONS FOR UPGRADING THE FITZROY BARRAGE FISHWAY

In 2007 a report by EarthTech Engineering Pty Ltd outlined a number of options that could be considered in order to upgrade the Fitzroy Barrage fishway to improve its effectiveness over a broader range of tidal conditions, and for passing small fish and other migratory aquatic species. The options identified in this report vary considerably with respect to their complexity, extent to which they improve the fishway and also their cost. Table 1 provides a summary of these options.

 Table 1. Upgrade options, the likely improvements to fish passage and the associated construction costs

Upgrade Option	Improvement/s Gained	Estimated Cost
Construct New Fishway	Increased tidal range for access	\$600k-\$2M
	Lower flow velocity for small fish	
	Improved attraction flows	
Construct New Fish Lock	Increased tidal range for access	\$1.5M-\$2.5M
	Lower flow velocity for small fish	
	Improved attraction flows	
Construct New Elver Pipe	Provides passage for elvers	\$50k-\$200k
Extend Current Fishway	Increased tidal range for access	\$200k-\$800k
Reduce Vertical-Slot Width	Lower flow velocity for small fish	\$30k-\$70k
Install Additional Baffles	Lower flow velocity for small fish	\$30k-\$70k
Install Rocks on Floor	Lower flow velocity for small fish	\$15k-\$40k
	Improved passage of elvers, crabs	
Raise walls and step mesh	Improved attraction flows	\$200k-\$500k
	Improved entry to fishway	

The first two options listed in Table 1 would deliver all the desired improvements to the passage of fish and other aquatic species, however, they are very expensive options to consider. Extending the current fishway to improve the tidal range for access would provide improved fish passage but not for small fish and other aquatic species. Given the high estimated cost, this option is not particularly favourable. The construction of an elver pipe would greatly enhance the ability to passage elvers, although this option could also prove quite costly to construct.

Modification of the existing fishway structure represents the most cost-effective means of delivering improved performance of the fishway. The option to install rocks on the floor of the existing fishway would deliver a cost-effective means of improving the passage of small fish and other non-fish species, whilst retaining the existing functionality of the fishway. This option would not improve the access to the fishway over a broader range of tidal conditions, however, it represents a good first step to improve the effectiveness of the existing structure. If this project does go ahead it is recommended that further work be done to identify a cost-effective means of improving the access to the fishway over a broader tidal range.

LEGISLATIVE IMPLICATIONS

The operation and maintenance of the Fitzroy Barrage fishway is listed as part of the operating rules for the Fitzroy Barrage in the current Fitzroy Basin Resource Operations Plan. Council has a legislative obligation under the *Water Act 2000* to abide by this and other operating rules relating to the Fitzroy Barrage Water Supply Scheme.

BUDGET IMPLICATIONS

The current budget does not contain any specific allocations for the upgrading of the Fitzroy Barrage fishway, as this project was not included in any prior budget planning for this financial year. It is likely though that part of the capital allocation in project number C0581085 will remain unspent due to the completion of the Barrage Crane Restoration at a cost less than that originally estimated.

Given this possible option, funding (\$40k) could be reallocated from C0581085 to fund the completion of the works to install rocks on the floor of the existing fishway.

CONCLUSION

Although the Fitzroy Barrage fishway provides the means for passage of some fish species around the physical barrier created by the Fitzroy Barrage, its overall performance is somewhat limited with respect to the size and type of species that can pass through the fishway and tidal "window" over which passage can be achieved. This report outlines some options for improving fish passage around the Barrage, and recommends that one of these pursued. Upon adoption of the recommendation, this upgrade work can commence in time for completion during the coming winter.

REVIEW OF THE FITZROY BARRAGE FISHWAY AND OPTIONS FOR IMPROVED OPERATION

Fitzroy Barrage Fishway - Background, Effectiveness, Options

Meeting Date: 13 May 2014

Attachment No: 1



FITZROY BARRAGE FISHWAY -

Background Effectiveness Options

Report

Fitzroy River Water

February 2014

EXECUTIVE SUMMARY

This report aims to provide a brief overview of the Fitzroy Barrage Fishway and its effectiveness and also provide a high level examination of some possible options for its improvement

The current Fitzroy Barrage Fishway was rated as a top performer in 1997. Since 1997 improvements in the understanding of fish migration and the design of fishways has meant that it now falls short of best practice design. A number of options could be implemented to improve fish passage past the Fitzroy Barrage, most of which require significant capital investment ranging from moderate to major levels of expenditure. A more detailed study by experts in fish migration may be required to examine in detail the benefits and costs of most of the options identified in this report. The option of installing rocks onto the floor of the existing fishway would appear to provide significant improvements in passage to the species that are poorly served by the current fishway, by reducing flow velocity. This upgrade option is able to be completed for a comparatively modest capital cost.

Prepared by

Endorsed by

Paul Dean Senior Environmental Scientist Jason Plumb Coordinator Treatment and Supply

TABLE OF CONTENTS

<u>EXE</u>	CUTIVE SUMMARY	ii
<u>1.</u>	BACKGROUND	1
<u>2.</u>	EFFECTIVENESS	1
	General Findings	1
	Access and Velocity	
	Attraction	3
	Untargeted Fauna	4
	Illegal Fishing	5
	Legislative requirements	5
<u>3.</u>	OPTIONS	5
	1. Increasing the downstream length of the current vertical slot fishway:	6
	2. Installing a new vertical slot fishway.	
	3. Installing a fish lock.	6
	4. Installing a passage for elvers, small fish, and crustaceans.	7
	5. Sloped trash rack.	
	6. Improved fishway attraction and entry.	8
<u>4.</u>	CONCLUSIONS	8
	Recommendations:	9
<u>5.</u>	REFERENCES	10
APP	PENDIX A	11

1. BACKGROUND

The Fitzroy Barrage was constructed between 1966 and 1970 and is located 65 km from the mouth of the Fitzroy River within the city of Rockhampton and is the interface between two different fish habitats, being the brackish or saline estuary and the freshwater river and upstream impoundment. The 340 m wide gated structure currently forms a 55 km long freshwater impoundment upstream, and artificially reduces the original tidal limit. The initial pool and weir design fishway from 1970 was modified in 1987 to include baffles, and modified again in 1994 to a full vertical-slot design. The fishway was again modified in November 2012 following almost complete destruction of the vertical baffles in the 2011 flood, to rebuild the vertical baffles and strengthen them to provide protection against flood damage. This construction work was completed at a total cost of \$110,000. The fishway flood damage protection was tested in floods in February 2013, and survived with no damage.

The fishway at the Barrage is essential to allow the migration of fish past the Barrage. Many fish species are diadromous and move from the estuarine salt water environment to freshwater and / or vice versa. The movement up or down river past the Barrage can be an essential requirement to their breeding cycle. Even potamodromous fish, those that only migrate within the fresh water, often need to make their way back up past the Barrage after they have been washed downstream during floods. Additionally, other non-fish fauna such as crustaceans and turtles may also need to pass the Barrage for various reasons.

2. EFFECTIVENESS

General Findings

In 1981 an assessment was made of the original pool and weir system with a finding that the system was relatively ineffective (Kowarsky & Ross 1981). In 1997, a practical fishway effectiveness study of the new vertical-slot fishway was undertaken by Queensland Department of Primary Industries (Stuart 1997). The structure currently in place is essentially the same as the structure assessed in 1997, apart from minor changes to materials and dimensions and the inclusion of a top debris screen, to protect the fishway from damage caused by large rocks entering through the top of the fishway during major flood events.

One measure of the success of a fishway is the ability to pass fish of a wide size range. The 1997 study found that the Fitzroy Barrage Fishway successfully allowed the migratory passage of fish of a wide size range, ranging from 22 mm in length to 650 mm in length. However, it was found that the water velocities were too great to allow the small size classes of fish below 40 mm in length to adequately pass the fishway (Stuart 1997). Overall the 1997 assessment was that the fishway was very successful and at the time passed more fish of a greater diversity than any other fishway in Australia (Stuart 1997).

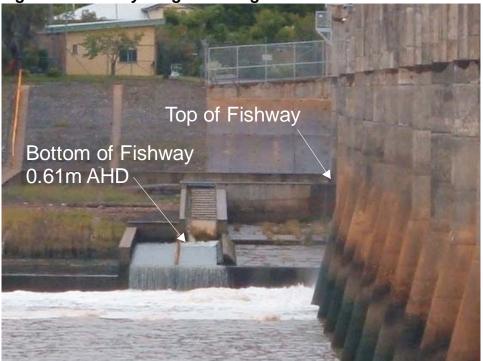
In 2007 FRW commissioned EarthTech to assess the implications of raising the Barrage on the passage of fish past the Barrage. Part of this study required assessing the current effectiveness of the Barrage fishway. The EarthTech study found that since the construction of the vertical-slot fishway in 1994, advances in the understanding of fish migration and improvements in fishway design have occurred that now leave the current fishway falling below best practice design. With small slow-moving species not being adequately passed by the fishway, and crowding of

larger species occurring at times when access to the fishway is limited to certain periods of the tidal cycle, the overall effectiveness of the fishway is somewhat limited.

Access and Velocity

The Barrage fishway is only accessible for upstream migration for fish when the tide level is above the bottom of the fishway at 0.61 m AHD, see Figure 1. Additionally the flow velocity of the water in the fishway needs to be less than 1.4 m/s for effective passage by most species (EarthTech 2007). Engineering calculations show that for the current fishway design, the height differential between each cell must be less than 100 mm to achieve a velocity less than 1.4 m/s (EarthTech 2007).

Figure 1. Fishway image showing 0.61 m AHD level.



The EarthTech report obtained a model output from CSIRO providing a time-level duration curve for the tidal level at the Fitzroy Barrage, see Figure 2. EarthTech calculated the percentage of time that the tidal level on the estuary side of the barrage was above 0.61 m, i.e. when the fish could access the fishway, as 32.8% of the time, or on average approximately eight hours per day.

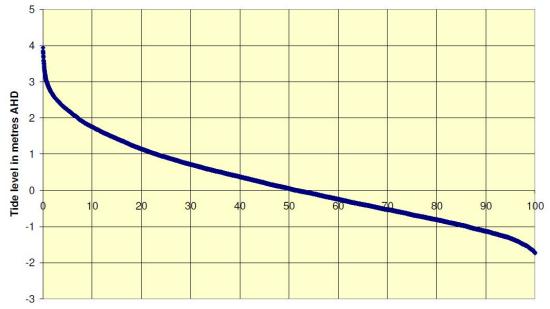


Figure 2. CSIRO modelled tide level duration curve.

% of time stated Tide level is exceeded

The report also calculated the percentage of time that the velocity in the fishway would be below the design level of 1.4 m/s. For this the EarthTech report used a freshwater level in the Barrage of 3.2 m AHD to calculate when the height differential between each cell gave a velocity below 1.4 m/s. EarthTech determined that the velocity would be less than 1.4 m/s for 8.9% of the time. As the full supply level for the Barrage is 3.78 m AHD and the water level often remains at or close to this level, 3.78 m AHD would be a more appropriate freshwater level to use to determine the amount of time the velocity is below 1.4 m/s in the fishway. This gives a rough estimate of the percentage of time that the fishway is operating at or below design velocity of only approximately 4% of the time. Or on average approximately one hour per day. When the flow in the fishway is above the design level, smaller fish are unlikely to be able to successfully negotiate the fishway.

Attraction

Migrating fish often use chemical cues in the water flowing downstream to navigate their way upstream. At the Barrage the freshwater released into the estuary provides this cue. One concern raised by the 1997 study was the fact that fish could be attracted away from the fishway by releases from gates along the Barrage. This concern is reduced by the operation of the Barrage so that Gate One, closest to the fishway, is the first gate to open and last gate to close when the Barrage gates are raised or lowered. The more recent EarthTech report still raised concerns that the 8 m distance between the fishway and Gate One may still hinder fish locating the fishway by attracting them away from the fishway. Additionally, as the tidal level rises, the distance from Gate One to the where the freshwater from the fishway meets the estuarine water increases. The rising tidal level also moves the point of attraction up the fishway this could confuse some fish that are too large to pass through the mesh, preventing them from finding the fishway entrance.

Untargeted Fauna

The EarthTech report also briefly discusses other fauna that were not actively investigated or discussed by the 1997 study. The conclusion they reached was that the fishway provided inadequate passage for crabs, other crustaceans, and small eels (elvers / glass eels). Juvenile eels are good at climbing, and can scale high dam walls, but generally require a trickle of water to follow (Wohlsen *et al* 2002). The water velocities in the fishway are generally too great for these fauna to migrate through the fishway, and gentle flowing water over the structure that they could climb is absent.

Turtles are also not represented in the species findings caught in the fishway. Data on turtles in the Burnett River suggests that turtles of greater width than the vertical slots in the fishway, are restricted in their passage up vertical slot fishways (Hamann *et al* 2007). This would mean that turtles greater than 150 mm in width would have difficulty passing through the fishway. Turtles are able to climb minor obstacles in their path and different species can often be seen climbing rocks and logs in streams. Larger obstacles with steep sides or requiring longer travel paths can provide a barrier (Hamann *et al* 2007).

The Tartrus Weir, on the McKenzie River is identified as a barrier to turtle migration, and a project (currently on hold) was set up by SunWater to design and install a turtleway past the weir. The Tartrus Weir (Figure 1 of Appendix A) presents a much greater challenge to turtles than the Fitzroy Barrage, as the traversable sides are steep to vertical and 4 to 6 m high, compared to the gentle slope and only 0.5 to 1.5 m climb required at high tide over the overflow crests on the Fitzroy Barrage (Figure 2 of Appendix A). Turtles have been observed passing over the overflow bypass section at the Kolan River Barrage (Hamann *et al* 2007), which is of comparable size and slope to the Fitzroy Barrage overflow next to the fishway. Turtles have also been observed on the overflow structure of the Fitzroy Barrage. Hence it is likely that turtles are able to negotiate past the Fitzroy Barrage, although to what extent on a population basis is still unknown.

In 2010, Greening Australia contacted FRW to gain access to the fishway to take turtles waiting below the fishway. This action was not a "rescue", but was done so that they could take Fitzroy River turtles (Rheodytes leukops) and relocate them to protected nesting sites up river that Greening Australia had prepared.

Illegal Fishing

The *Fisheries Regulations 2008* prohibit fishing within 400 m upstream or downstream of the Fitzroy Barrage. Rockhampton Regional Council Subordinate Local law No. 4 also prohibits access on to and swimming within 200 m upstream and 400 m downstream of the Barrage. FRW has signage on and around the Barrage indicating the restricted area.

Fishing in or near the fishway can significantly impact the effectiveness of the fishway. FRW has remotely operated CCTV cameras on the Barrage monitored by the FRW Duty Operator who is on duty 24 hours a day. If illegal fishing is observed by the operator they are able to operate the warning system on the Barrage which consists of sirens, flashing lights, and a voice message instructing the offenders to leave and that relevant enforcement agencies have been alerted. If the illegal fishing continues the Duty Operator contacts and informs Queensland Fisheries.

Queensland Fisheries officers attend if staffing levels permit, but often logistical factors such as travel time or prior commitments preclude this.

Legislative requirements

A Barrage across a waterway would be classed as a "waterway barrier works" under the *Fisheries Act 1994*. Section 76G of the act essentially states that approval for the construction or raising of a waterway barrier works can only be given by the chief executive if they are reasonably satisfied that the waterway barrier works will include, a fishway that adequately provides for the movement of fish across the barrier works. This is likely to require designing and constructing a fishway that meets current best practice as determined by the regulating authority. This requirement to meet current best practice is not triggered for the Fitzroy Barrage unless the barrage height is raised.

The current Fitzroy Basin Resource Operations Plan authorises Council as the operator of the Fitzroy Barrage Water Supply Scheme to operate the Fitzroy Barrage fishway when the Barrage storage level is above 3.2 m AHD. Fitzroy River Water acts accordingly to ensure that this legislative obligation is fulfilled.

3. OPTIONS

The EarthTech report concluded that the fishway should be improved to ensure that the fish passage:

i) operates over a wider range of flow conditions;

ii) passes a larger biomass of fish¹;

iii) passes smaller fish species more effectively, and

iv) passes climbing species such as crustaceans, elvers, and climbing fish species.

The report then provided a number of options that could be undertaken to try to achieve the improvements suggested. The current literature was also assessed to examine possible options that have emerged in recent years. In the Central Queensland and Mackay Regions, the Fitzroy Basin Association (FBA) and Reef Catchments (Mackay) have been extensively involved with the development of fishways in many of the region's natural waterways. The FBA and Reef Catchments were also contacted to obtain their initial thoughts on options available to bring the fishway up to current best practice.

The range of options available include:

1. Increasing the downstream length of the current vertical-slot fishway:

This option would increase the time that the fishway is accessible to fish over the tidal cycle instead of being restricted to tidal periods greater than 0.61 m AHD. This would improve access, but would not decrease flow velocities. This would mean that the faster swimming and larger fish size classes would be advantaged by this action (increased time of access), but no improvement for smaller or slower swimming fish would be likely (flow still too fast to utilise fishway at these times). The cost for this option would likely be in the range \$200k to \$800k depending on how far down the vertical-slot fishway is extended.

¹means pass a greater total aggregate mass of fish through the fishway. This statement is concerned with large fish being restricted in their movement through the fishway as evidenced by observation of overcrowding near the fishway when tidal levels restrict access to the fishway

2. Installing a new vertical-slot fishway.

An additional new vertical-slot fishway could be designed to allow more effective passage of the fish that are not as effectively assisted by the current fishway. The best target would be small and slow moving fish species. Additionally a new fishway could be designed to optimise attraction flows, and to operate over a larger period of the tidal cycle. As the Barrage is a wide structure, to maximise attraction the best site would be on the opposite bank from the current fishway. Any new vertical slot fishway would be constructed parallel to the flow so as to minimise the engineering required to reduce flood impact damage. The cost for this option would likely be in the range \$600K to \$2M.

3. Installing a fish lock.

Fish locks are enclosed channels that have an attraction flow that brings fish into the channel, which is then blocked off on the downstream end, opened up on the upstream end and filled with water to the upstream level so that the fish can then swim up and out into the upstream water body (see Appendix A Figure 3.). Fish locks are very effective at passing a wide range of life stages and size classes of fish, and they can operate effectively over the full range of tidal and flow conditions seen at the Fitzroy Barrage. Due to their small foot print fish locks if designed correctly are not significantly at risk from flood damage. Fish locks have many moving parts and require active control of these parts to operate. This is usually performed by a programmable logic controller (PLC). Because of the greater complexity, routine maintenance and repair is required to ensure a fish lock is able to function. The cost for this option would likely be in the range \$1.5M to \$2.5M, with possibly \$50K to \$100K per annum operating and maintenance costs. Reef Catchments informed us that at the current time none of the ten fishlocks, that they are aware of in Australia, were operating due to outstanding maintenance issues.

4. Installing a passage for elvers, small fish, and crustaceans.

This option is targeted at the classes of fauna that are least assisted by the current vertical slot fishway. Within this option several sub options are available.

i. A typical elver passage can be set up with small pipes that contain roughened materials such as course brush bristles, providing a surface for the elvers to wriggle up. The cost for an elver pipe is likely to be in the range of \$50K to \$200K depending on configuration.

ii. The baffles within the vertical-slot fishway can be changed from continuous vertical-slots to keyhole slots. Keyhole slots have slots of different width at different heights so that areas within the vertical slot have different flow velocities. This allows smaller fish to pass through the smaller slots which have lower velocities. The velocities through the larger slots would increase, possibly impacting some species, hence careful calculations and knowledge of the species targeted is needed. The cost for this work including design costs is likely to be in the range \$30K to \$70K.

iii. Multiple smaller baffles between the larger baffles forming a mini fishway within each cell of the fishway can be constructed. This provides smaller fish with a passage of lower velocity and more numerous areas to shelter in. The cost to retrofit this is likely \$30K to \$70K iv. Since the EarthTech report in 2007, work has been undertaken examining the use of rock placed on the base of vertical-slot fishways (see Appendix A Figure 4) to provide areas of slower moving water and shelter at the bottom of the fishway that will allow smaller fish, elvers, and crustaceans to make their way up vertical-slot fishways that previously were a barrier due to the higher water velocities. Many vertical-slot fishways now incorporate the addition of rocks on the bottom of the fishway, and it has become a standard recommendation in fishway design manuals. The cost to retrofit rock to the base of the current vertical slot fishway is likely to be in the range \$15K to \$40K.

5. Sloped trash rack.

The current fishway has a vertical trash rack at the upstream end of the fishway. Vertical trash racks clog up with debris and need constant manual attention to clear them to allow the fishway to operate optimally. Sloped trash racks are essentially self-cleaning and require minimal attention and are recommended in current design manuals. FRW has designed a sloped trash rack that could be constructed and installed in-house by FRW. The construction and installation is likely to cost \$20K to \$40K. This addition to the fishway would not improve the ability of the fishway to pass fish and other species that are limited by high velocity flows or the restricted width of the openings in the vertical-slot baffles.

6. Improved fishway attraction and entry.

Attraction is a major aspect of fishway design. The current fishway entrance is often overtopped and drowned out at high tides, diffusing and reducing the strength of the attraction flow. The protective mesh may prevent some larger fish from entering the fishway as at high tide the attraction flow exits through the mesh. Two changes could be made to the fishway to alleviate these issues. The side walls of the fishway could be raised so that the fishway is not overtopped and the attraction flow passes out the fishway channel. This would also allow the protective mesh to be stepped with 200mm gaps, providing multiple entrances for large fish close to the tide and fishway junction. Unfortunately as the majority of the fishway is constructed perpendicular to the river flow, any increase in height dramatically increases the risk of significant damage during flood flows. Performing these changes would likely cost \$200k to \$500k.

4. CONCLUSIONS

The main limitations of the current vertical-slot fishway are the poor passage through the fishway of small and slow moving species such as elvers, crustaceans, and small fish, due to water velocities that are too great for these species; and the crowding at times of larger fish due to access to the fishway being restricted to a small part of the tidal cycle. The passage of small fish issue could be significantly improved by retrofitting rock to the base of the current fishway, with a capital investment of less than \$40k, with most work able to be performed by Council staff. The overcrowding of larger fish issue is likely to be most cost effectively improved by extending the downstream end of the current vertical slot fishway. This option has a more significant cost implication, and would need a detailed study completed to determine what can physically be done with the current structure and the actual costs involved.

The Fitzroy Basin Association (FBA) have recently received \$2 Million to undertake fish access improvements in the Fitzroy River catchment. This money is required to cover all aspects including further scientific studies, design of any improvements to

be undertaken in the catchment, and the construction costs for any improvements undertaken. FBA currently have no plans to spend this money on any works at the Fitzroy Barrage to improve the effectiveness of the existing fishway. A check of Federal and State government funding programs has not revealed any current funding initiatives that would be able to provide funding for fishway improvement.

Recommendations:

1. It is recommended that a short report specifically on the use of rock on the base of the current vertical slot fishway be undertaken by FRW. And that if the full cost of retrofitting the rock is less than \$40k, and significant benefits to the passage of small or slow moving species will result, then the retrofitting of rock by FRW be undertaken.

2. It is recommended that the accumulation of debris on the vertical trash rack and cost of maintaining the current rack be monitored and assessed and a NPV assessment undertaken to determine if installation of a sloped rack provides a positive cost benefit.

3. It is recommended that a study into the potential for the extension of the downstream end of the current vertical slot fishway be undertaken. This study is to look at the engineering requirements and costs involved to provide an extension that allows significantly greater access to species that have been identified as suffering from crowding during peak times.

4. It is recommended that high level discussions with FBA are undertaken to identify any potential for collaboration between FRW and FBA in regards to future Fitzroy River fish passage projects and opportunities to make use of the significant funding recently received by the FBA.

The short report on retrofitting rock to the base of the vertical slot fishway should cost under \$2K of officer's time. The study into the extension of the downstream end of the vertical slot fishway may involve \$8K of officer's time and likely require external input from fishway experts and minor input from external engineering consultants. By limiting the scope of external input to only those items unable to be addressed by council officers, the costs should be able to be kept below \$30K. It should be noted that this study is not to provide a detailed design for the works, but to allow costing estimates to be determined.

5. REFERENCES

EarthTech 2007. Assessment of potential Implications of Modified Water Infrastructure on Fitzroy River Fish Passage and the Fishway. *Part of the Fitzroy River Water – Modified Infrastructure Environmental Impact Statement (Fish passage)*. EarthTech Engineering Pty Ltd.

Hamann, M., Schauble, C.S., Limpus, D.J., Emerick, S.P., and Limpus, C.J., 2007. *Management plan for the conservation of Elseya sp. [Burnett River] in the Burnett River Catchment*. Queensland Environmental Protection Agency.

Kowarsky, J., and Ross, A.H., 1981. Fish movement upstream through a central Queensland (Fitzroy River) coastal fishway. *Australian Journal of Marine and Freshwater Research*. V 32 pp93-109.

Stuart, I.G., 1997. Assessment of a Modified Vertical-Slot Fishway, Fitzroy River, Queensland. Department of Primary Industries, Queensland Government.

Wohlsen, A.L., Hoyle, S.d., and Duckworth, G., 2002. *Ecological Assessment, Queensland Eel Fishery*. Department of Primary Industries, Queensland Government.

APPENDIX A

Figure 1. Tartrus Weir



Figure 2. Fitzroy River Barrage ogee overflow



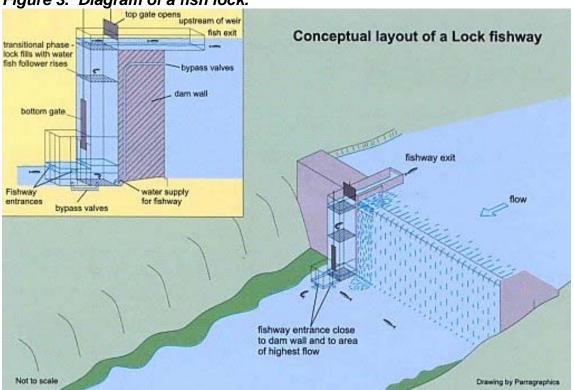


Figure 3. Diagram of a fish lock.

Figure 4. Rock at bottom of a Fishway to provide small fish passage.



11.2 SCHEDULE OF MEETINGS - JULY TO DECEMBER 2014

File No:	1460
Attachments:	1. Proposed Schedule of Meetings July - December 2014
Responsible Officer:	Evan Pardon - Chief Executive Officer
Author:	Shane Turner - Manager Governance Support

SUMMARY

Chief Executive Officer presenting the Schedule of Council and Committee meetings for the period July to December 2014.

OFFICER'S RECOMMENDATION

THAT the Schedule of Council and Committee meetings for the period July to December 2014 be adopted.

BACKGROUND

The Schedule of Council and Committee meetings for the period July to December 2014 has been reviewed and is presented for consideration by Council.

The following points are brought to Councillor's attention:

- The Parks and Recreation and Business Enterprise Committee meetings have been changed to commence at 9am to give extra time for the larger Committees.
- The Performance and Service and Planning and Development Committee meetings in July have been moved to the 5th week of the month so Councillors can attend QME from 22-25 July.
- Meetings have been condensed in December, to allow for the Christmas recess.
- As the meeting schedule is based on a four weekly cycle, when there are five (5) Tuesdays in a month, no meetings have been scheduled on the Tuesday or Wednesday of that week.
- The Audit and Business Improvement, Resource Industry and South Rockhampton Flood Levee Advisory Committee meeting dates for this period have not been included in the meeting schedule.

SCHEDULE OF MEETINGS - JULY TO DECEMBER 2014

Proposed Schedule of Meetings July -December 2014

Meeting Date: 13 May 2014

Attachment No: 1

SCHEDULE OF COUNCIL AND COMMITTEE MEETINGS JULY TO DECEMBER 2014

<u>JULY 2014</u>

MONDA	IDAY TUESDAY				WEDN	ESDAY		THURSDAY		FRIDAY			
30 JUNE		1 JULY	Parks & Recreation (9am)	Communities (12.30pm)	Health & Compliance (3pm)	2 JULY	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	3 JULY		4 JULY	
7 JULY		8 JULY	Council (9am)	Planning & Development (1.30pm)		9 JULY				10 JULY		11 JULY	
14 JULY		15 JULY				16 JULY				17 JULY		18 JULY	
21 JULY		22 JULY				23 JULY				24 JULY		25 JULY	
28 JULY		29 JULY	Performance & Service (9am)	Planning & Development (1.30pm)		30 JULY				1 AUG		2 AUG	

AUGUST 2014

MOND	ONDAY TUESDAY						WEDN	IESDAY		THURSDAY		FRIDAY	
4 AUG		5 AUG	Parks & Recreation (9am)	Communities (12.30pm)	Health & Compliance (3pm)	6 AUG	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	7 AUG		8 AUG	
11 AUG		12 AUG	Council (9am)	Planning & Development (1.30pm)		13 AUG				14 AUG		15 AUG	
18 AUG		19 AUG				20 AUG				21 AUG		22 AUG	
25 AUG		26 AUG	Performance & Service (9am)	Planning & Development (1.30pm)		27 AUG				28 AUG		29 AUG	

SEPTEMBER 2014

MONDAY	MONDAY TUESDAY				WEDN	ESDAY		THURSDAY		FRIDAY		
1 SEPT	2 SEPT	Parks & Recreation (9am)	Communities (12.30pm)	Health & Compliance (3pm)	3 SEPT	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	4 SEPT		5 SEPT	
8 SEPT	9 SEPT	Council (9am)	Planning & Development (1.30pm)		10 SEPT				11 SEPT		12 SEPT	
15 SEPT	16 SEPT				17 SEPT				18 SEPT		19 SEPT	
22 SEPT	23 SEPT	Performance & Service (9am)	Planning & Development (1.30pm)		24 SEPT				25 SEPT		26 SEPT	

OCTOBER 2014

MON	MONDAY TUESDAY					WEDN	IESDAY		THURSDAY		FRIDAY		
29 SEPT		30 SEPT	Parks & Recreation (9am)	Communities (12.30pm)	Water (3pm)	1 OCT	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	2 OCT		3 OCT	
6 OCT	QUEEN'S BIRTHDAY	7 OCT	Council (9am)	Planning & Development (1.30pm)		8 OCT				9 OCT		10 OCT	
13 OCT		14 OCT				15 OCT				16 OCT		17 OCT	
20 OCT		21 OCT	Performance & Service (9am)	Planning & Development (1.30pm)		22 OCT				23 OCT		24 OCT	
27 OCT		28 OCT				29 OCT				30 OCT		31 OCT	

NOVEMBER 2014

MON	MONDAY TUESDAY						WEDN	IESDAY		THURSDAY		FRIDAY	
3 NOV		4 NOV	Parks & Recreation (9am)	Communities (12.30pm)	Water (3pm)	5 NOV	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	6 NOV		7 NOV	
10 NOV		11 NOV	Council (9am)	Planning & Development (1.30pm)		12 NOV				13 NOV		14 NOV	
17 NOV		18 NOV				19 NOV				20 NOV		21 NOV	
24 NOV		25 NOV	Performance & Service (9am)	Planning & Development (1.30pm)		26 NOV				27 NOV		28 NOV	

DECEMBER 2014

MONDAY		TUESDAY				WEDNESDAY				THURSDAY		FRIDAY	
1 DEC		2 DEC	Parks & Recreation (9am)	Communities (12.30pm)	Water (3pm)	3 DEC	Business Enterprise (9am)	Infrastructure (12.30pm)	Water (3pm)	4 DEC		5 DEC	
8 DEC		9 DEC	Council (9am)	Planning & Development (1.30pm)		10 DEC				11 DEC		12 DEC	
15 DEC		16 DEC				17 DEC				18 DEC		19 DEC	
22 DEC		23 DEC				24 DEC				25 DEC		26 DEC	
29 DEC		30 DEC				31 DEC				1 JAN		2 JAN	

12 STRATEGIC REPORTS

13 NOTICES OF MOTION

14 QUESTIONS ON NOTICE

15 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting.

16 CLOSED SESSION

In accordance with the provisions of section 275 of the *Local Government Regulation 2012*, a local government may resolve to close a meeting to the public to discuss confidential items, such that its Councillors or members consider it necessary to close the meeting.

COMMITTEE RECOMMENDATION

THAT the meeting be closed to the public to discuss the following items, which are considered confidential in accordance with section 275 of the *Local Government Regulation* 2012, for the reasons indicated.

17.1 Update on De-Amalgamation Matter

This report is considered confidential in accordance with section 275(1)(h), of the *Local Government Regulation 2012*, as it contains information relating to other business for which a public discussion would be likely to prejudice the interests of the local government or someone else, or enable a person to gain a financial advantage.

17 CONFIDENTIAL REPORTS

17.1 UPDATE ON DE-AMALGAMATION MATTER

File No:	10321/8782
Attachments:	Nil
Authorising Officer:	Evan Pardon - Chief Executive Officer
Author:	Evan Pardon - Chief Executive Officer

This report is considered confidential in accordance with section 275(1)(h), of the *Local Government Regulation 2012*, as it contains information relating to other business for which a public discussion would be likely to prejudice the interests of the local government or someone else, or enable a person to gain a financial advantage.

SUMMARY

Chief Executive Officer will provide a verbal update on de-amalgamation matter.

18 CLOSURE OF MEETING