

5th December 2017

NOTICE OF MEETING OF THE COUNCIL

The meeting of the Council will be held at

RIVERINA WATER COUNTY COUNCIL CHAMBERS, 91 HAMMOND AVENUE, WAGGA WAGGA

on

WEDNESDAY, 15TH DECEMBER 2017 at 9.30 am

and your attendance is requested accordingly.

Followed by Lunch at The Pavillion

Yours faithfully

G J Haley

GENERAL MANAGER



* AGENDA *

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GENERAL MANAGER'S REPORT TO THE COUNCIL

8th December 2017

The Chairperson and Councillors:

1. FINANCIAL STATEMENTS - LIST OF INVESTMENTS

RECOMMENDED that the report detailing Council's external investments for the months of October and November 2017 be received.

- List of Investments October 2017
- List of Investments November 2017

Monthly Investment Report as at 31/10/17

a) Council's Investments as at 31/10/17

		Term	Maturity	S&P	Interest	Performance	Benchmark	Percentage of		
Investment	Inception Date	(Days)	Date	Rating	Rate (%)	Benchmark	Rate (%)	Portfolio	Principal Value	Market Value
Term Deposits										
ME Bank	21/09/2017	90	20/12/17	A-2	2.40	BBSW	1.60	4.245%	\$1,000,000.00	\$1,000,000.00
Defence Bank	31/10/2017	91	30/01/18	A-2	2.45	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
ANZ	12/10/2017	90	10/01/18	A-I+	2.40	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
ANZ	10/10/2017	92	10/01/18	A-I+	2.40	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
ME Bank	5/09/2017	91	05/12/17	A-2	2.40	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
ME Bank	18/09/2017	87	14/12/17	A-2	2.40	BBSW	1.60	4.245%	\$1,000,000.00	\$1,000,000.00
ME Bank	22/09/2017	89	20/12/17	A-2	2.40	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
National Australia Bank	10/10/2017	92	10/01/18	A-I+	2.47	BBSW	1.60	4.245%	\$1,000,000.00	\$1,000,000.00
National Australia Bank	20/09/2017	90	19/12/17	A-I+	2.51	BBSW	1.60	8.490%	\$2,000,000.00	\$2,000,000.00
National Australia Bank	22/09/2017	89	20/12/17	A-I+	2.49	BBSW	1.60	6.368%	\$1,500,000.00	\$1,500,000.00
National Australia Bank	5/10/2017	96	09/01/18	A-I+	2.48	BBSW	1.60	8.490%	\$2,000,000.00	\$2,000,000.00
								67.92%	\$16,000,000.00	\$16,000,000.00
Cash Deposit Account										
T Corp				A-I+	2.28	Cash Rate	1.50	17.16%	\$4,042,091.15	\$4,042,091.15
AMP				A-I	2.05	Cash Rate	1.50	14.919%	\$3,514,319.72	\$3,514,319.72
								32.08%	\$7,556,410.87	\$7,556,410.87
TOTAL INVESTMENTS								100.00%	\$23,556,410.87	\$23,556,410.87
Cash at Bank										\$312,895.26
TOTAL FUNDS										\$23,869,306.13

b) Application of Investment Funds

Restricted Funds	Description	Value
Externally Restricted	LIRS Loan Funds	\$0.00
		\$0.00
Internally Restricted		
	Employee Leave Entitlements (30% of ELE)	\$1,158,264.28
	Asset Replacement	\$1,949,860.96
	Loan Funds	\$0.00
	Sales Fluctuation	\$5,000,000.00
		\$8,108,125.24
Unrestricted Funds		\$15,761,180.89
TOTAL FUNDS		\$23,869,306.13

^{*} Externally & Internally Restricted Reserve figures are subject to final adjustment and external audit at 30 June each year.

CERTIFICATE

I hereby certify that all the above investments have been made in accordance with the provision of Section 625 of the Local Government Act 1993 and the regulations thereunder.

M.C. Cura.

M Curran

MANAGER CORPORATE SERVICES

Monthly Investment Report as at 30/11/17

a) Council's Investments as at 30/11/17

		Term	Maturity	S&P	Interest	Performance	Benchmark	Percentage of		
Investment	Inception Date	(Days)	Date	Rating	Rate (%)	Benchmark	Rate (%)	Portfolio	Principal Value	Market Value
Term Deposits										
ME Bank	21/09/2017	90	20/12/17	A-2	2.40	BBSW	1.61	4.502%	\$1,000,000.00	\$1,000,000.00
Defence Bank	31/10/2017	91	30/01/18	A-2	2.45	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
ANZ	12/10/2017	90	10/01/18	A-I+	2.40	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
ANZ	10/10/2017	92	10/01/18	A-I+	2.40	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
ME Bank	5/09/2017	91	05/12/17	A-2	2.40	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
ME Bank	18/09/2017	87	14/12/17	A-2	2.40	BBSW	1.61	4.502%	\$1,000,000.00	\$1,000,000.00
ME Bank	22/09/2017	89	20/12/17	A-2	2.40	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
National Australia Bank	10/10/2017	92	10/01/18	A-I+	2.47	BBSW	1.61	4.502%	\$1,000,000.00	\$1,000,000.00
National Australia Bank	20/09/2017	90	19/12/17	A-I+	2.51	BBSW	1.61	9.004%	\$2,000,000.00	\$2,000,000.00
National Australia Bank	22/09/2017	89	20/12/17	A-I+	2.49	BBSW	1.61	6.753%	\$1,500,000.00	\$1,500,000.00
National Australia Bank	5/10/2017	96	09/01/18	A-I+	2.48	BBSW	1.61	9.004%	\$2,000,000.00	\$2,000,000.00
								72.03%	\$16,000,000.00	\$16,000,000.00
Cash Deposit Account										
T Corp				A-I+	2.30	Cash Rate	1.50	13.95%	\$3,098,023.78	\$3,098,023.78
AMP				A-I	2.05	Cash Rate	1.50	14.021%	\$3,114,319.72	\$3,114,319.72
								27.97%	\$6,212,343.50	\$6,212,343.50
TOTAL INVESTMENTS								100.00%	\$22,212,343.50	\$22,212,343.50
Cash at Bank										\$670,978.08
TOTAL FUNDS										\$22,883,321.58

b) Application of Investment Funds

Restricted Funds	Description	Value
Externally Restricted	LIRS Loan Funds	\$0.00
		\$0.00
Internally Restricted		
	Employee Leave Entitlements (30% of ELE)	\$1,158,264.28
	Asset Replacement	\$1,949,860.96
	Loan Funds	\$0.00
	Sales Fluctuation	\$5,000,000.00
		\$8,108,125.24
Unrestricted Funds		\$14,775,196.34
TOTAL FUNDS		\$22,883,321.58

^{*} Externally & Internally Restricted Reserve figures are subject to final adjustment and external audit at 30 June each year.

CERTIFICATE

I hereby certify that all the above investments have been made in accordance with the provision of Section 625 of the Local Government Act 1993 and the regulations thereunder.

M.C. Cura.

M Curran

MANAGER CORPORATE SERVICES

2. AUDIT AND RISK COMMITTEE MINUTES

RECOMMENDATION: That Council receive and note the Minutes of the Audit and Risk Committee Meeting held on 20 November 2017 and endorse the recommendations contained therein.

MINUTES of the MEETING of AUDIT & RISK COMMITTEE held at 91 HAMMOND AVENUE, WAGGA WAGGA, on MONDAY, 20 NOVEMBER 2017 at 9.30 am

PRESENT:

Mr. David Maxwell (Chairperson)

Clr. Greg Verdon Mr. Bryce McNair

IN ATTENDANCE:

General Manager Graeme Haley
Manager Corporate Services Michele Curran

Internal Audit Contractor Phillip Swaffield (CountPlus)

The meeting of the Audit and Risk Committee commenced at 9.30 am

Apologies for non-attendance were received from Clrs. Yvonne Braid and Tim Koschel, together with Mr Steve Prowse of CountPlus, with the Chairperson of Riverina Water County Council, Clr. Greg Verdon, attending on Council's behalf.

Chairperson welcomed Clr. Verdon and Internal Auditor, Phillip Swaffield, to the Audit and Risk Committee.

2. DECLARATIONS OF PECUNIARY INTEREST

Declaration by David Maxwell. Has an insignificant pecuniary interest in that he supplies software, handbooks and training to Councils.

3. MINUTES OF PREVIOUS MEETING - 31ST JULY 2017

Recommendation:

On the motion of Bryce McNair and David Maxwell that the minutes of the proceedings of the Audit and Risk Committee meetings held 31st July 2017 be confirmed as true and accurate records.

CARRIED

4. MINUTES OF EXTRAORDINARY MEETING – 25TH SEPTEMBER 2017

On the motion of Bryce McNair and David Maxwell that the minutes of the proceedings of the Audit and Risk Committee Extraordinary meetings held 25th September 2017 be confirmed as true and accurate records.

CARRIED

5. AUDIT & RISK COMMITTEE ACTIONS REGISTER

Recommendation:

On the motion of Bryce McNair and Clr. Verdon that the Audit and Risk Committee receive and note the report.

CARRIED

6. LEAD ORGANISATIONAL CRITICAL ISSUES

On the motion of Bryce McNair and Clr. Verdon that the Audit and Risk Committee receive and note the report.

CARRIED

7. INTERNAL AUDIT PROGRESS REPORT

On the motion of Clr. Verdon and Bryce McNair that the Audit and Risk Committee receive and note the report.

CARRIED

8. WATER TREATMENT PLANT CAPITALISATION AND DECOMMISSIONING

On the motion of Bryce McNair and Clr. Verdon that the Audit and Risk Committee receive and note the report on the proposed treatment of the new and old water treatment plants.

CARRIED

9. COMPLYING WATER ACCOUNTS

On the motion of Bryce McNair and Clr. Verdon that the Audit and Risk Committee receive and note the report on the Riverina Water County Council's water account compliance and that representations be made to the Office of Local Government in its review of the Rating Sections of the Local Government Regulations to remove obsolete requirements in the regulations, as they apply to charges for water and sewerage services.

CARRIED

10. REPORT AUDIT AND RISK COMMITTEE CHARTER

Recommendation:

On the motion of David Maxwell and Bryce McNair that the Audit and Risk Committee recommend to Council that the revised Audit and Risk Committee Charter be adopted

CARRIED

11. CHAIRPERSON'S REPORT - SUPPLEMENTARY PURCHASES / PROCUREMENT TESTING

On the motion of Bryce McNair and Clr. Verdon that the Committee recommends that Council authorise the resources necessary to undertake additional purchasing / procurement testing on an approximately annual basis by the internal auditors; such resources would not necessarily be in addition to the existing tender, but in any case are estimated not to exceed \$1,500 per annum.

CARRIED

12. NSW AUDIT OFFICE -MANAGEMENT LETTER FINAL AUDIT 2016/2017

Recommendation:

On the motion of Bryce McNair and David Maxwell that:

- (a) The Audit and Risk Committee receive and note the contents of the Final Management letter from the NSW Audit Office.
- (b) Item 1.2, Audit Logs, be pursued through the Civica Users Group, in the first instance.
- (c) Management response to items raised in Management letter items 1.1, 1.2 and 1.6, be copied to the Audit and Risk Committee members.

CARRIED

13. GENERAL BUSINESS

Recommendation:

On the motion of Bryce McNair and David Maxwell that there be an agenda item at the February Meeting of the Audit and Risk Committee relating to planned meeting dates for the remainder of 2018.

CARRIED

A vote of thanks to the General Manager for his support and assistance to the Audit and Risk Committee was carried by acclamation.

Next Meeting:	Monday 26 th February 2018 at 9.30 am
	Meeting Closed 11.30am

3. AUDIT AND RISK COMMITTEE CHARTER

RECOMMENDATION: That the revised Audit and Risk Committee Charter be adopted

The Audit and Risk Committee, at its meeting held 20 November 2017, reviewed the Audit and Risk Committee Charter and has recommended a number of minor changes.

Attached is a copy of the revised RWCC Audit and Risk Committee Charter, with the suggested changes highlighted.

RWCC Audit & Risk Committee Charter



Riverina Water County Council

AUDIT AND RISK COMMITTEE

CHARTER

Version History

Version	Date	Person(s)	Change
V. 1		Manager Internal Audit Services	Original version
V.2	13 Dec 2017	General Manager	Review 2017

1. Status and Name:

- (1) The Committee shall be known as "Riverina Water County Council Audit and Risk Committee" (hereinafter referred to as "The Committee").
- (2) This Committee is an advisory Committee to Riverina Water County Council (hereinafter referred to as "the Council") pursuant to and in accordance with provisions contained in Section 355 the Local Government Act 1993, and the Local Government (General) Regulations 2005.

2. Established:

The Committee was established by Council Res 12/08 on 22 February 2012.

3. Objective:

The objective of the Committee is to provide independent assurance and assistance to the Council on risk management, control, governance, and external accountability responsibilities.

4. Authority:

Council authorises the Committee, within the scope of its role and responsibilities, to:

- Obtain any information it needs from any employee or external party (subject to their legal obligations to protect information).
- Discuss any matters with the external auditor or other external parties (subject to confidentiality considerations).
- Request the attendance of any employee or councillor at Committee meetings.
- Obtain external legal or other professional advice considered necessary to meet its responsibilities following consultation with Council.
- In relation to any matter under active consideration by the committee the release of information to committee members does not constitute a breach of professional privilege.

5. Composition and Tenure:

5.1 The Committee will consist of a majority of independent external members:

a) Members (voting)

- Not fewer than one (1) nor more than two (2) Councillor of Riverina Water County Council (with an alternate to be appointed)
- Not fewer than two (2) nor more than three (3) independent external members (one of whom to be elected Chairperson)

b) Attendee (non-voting)

- Chairperson (ex officio)
- General Manager
- Internal Audit Services Contractor
- Manager Corporate Services

c) Invitees (non-voting) for specific Agenda items

- External Auditor (or representative) to attend at the discretion of the Committee but must attend meetings considering the draft financial statements and external audit opinion.
- Other officers may attend by invitation as requested by the Committee.
- 5.2 The General Manager or his/her delegate shall be entirely responsible for:
 - (a) the appointment or removal of all staff (either permanent or temporary) appointed as non-voting members to the Committee,
 - (b) Direction of any staff member attending the Committee.

5.3 Selection of Members of the Committee

- (a) Councillor members shall be elected by the Council.
- (b) External independent persons will be appointed by way of a public advertisement. The members of the Committee, taken collectively, will have a broad range of skills and experience relevant to the operations of Riverina Water County Council including accounting, internal or external auditing, strategic risk management, insurance, senior business experience, legal or financial management. At least one member of the Committee shall have accounting or related financial management experience, with understanding of accounting and auditing standards in a public sector environment.

The evaluation of potential members will be undertaken by the Council Chairperson and the General Manager taking account of the experience of

candidates and their likely ability to apply appropriate analytical and strategic management skills, and a recommendation will be put to Council.

5.4. Term of Office:

- (a) The Committee may be dissolved by resolution of the Council at any time but otherwise shall cease to hold office at the next general election of the Council following its appointment.
- (b) A Committee may be re-appointed with amendment or otherwise, by the Council following a general election.
- (c) The Council reserves the right to determine the appointment of all members of the Committee.

5.4. Vacation of Office:

- (1) The office of an elected, appointed or representative member of the Committee shall become vacant:-
 - (a) Upon his/her death.
 - (b) If she/he becomes bankrupt, applies to take the benefit of any law for the relief of bankrupt or insolvent debtors, compounds with his or her creditors or makes an assignment of his or her remuneration for their benefit,
 - (c) If she/he becomes mentally incapacitated person
 - (d) If he/she resigns his/her membership by notice in writing to the Committee.
 - (d) If he/she is absent for more than three (3) consecutive meetings without prior leave of the Committee.
 - (e) If she/he ceases to be a member of the organisation which he/she represents.
 - (f) If he/she holds any office of profit with the Council.
 - (g) If she/he commits any breach of this Charter or the Code of Conduct.
 - (h) If he/she is convicted of any indictable offence or of any summary offence related to dishonesty.
 - (i) If he/she is disqualified or dismissed from holding civic office.
 - (j) If the Committee is dissolved by the Council.
 - (k) If the position is used for any pecuniary interest of the individual.
 - (k) On 31st March next following the retirement of the Council.
- (2) Where such person was directly appointed by the Council, the vacancy shall be filled by the Council.

5.5 Responsibilities of Members

Members of the Committee are expected to:

Understand the relevant legislative and regulatory requirements appropriate to Riverina Water County Council.

Contribute the time needed to study and understand the papers provided.

Apply good analytical skills, objectivity and good judgment.

Express opinions frankly, ask questions that go to the fundamental core of issues, and pursue independent lines of enquiry.

Complete and lodge disclosure by Councillors and Designated Person Return

6. Role and Responsibilities:

The Committee has no executive powers, except those expressly provided by the Council.

In carrying out its responsibilities, the Committee must at all times recognise that primary responsibility for management of Council rests with the Council and the General Manager as defined by the Local Government Act.

The responsibilities of the Committee may be revised or expanded by the Council from time to time. The Committee's responsibilities are:

6.1 Risk Management

Review whether management has in place a current and comprehensive risk management framework, and associated procedures for effective identification and management of business and financial risks, including fraud;

Review whether a sound and effective approach has been followed in developing strategic risk management plans for major projects or undertakings;

Review the impact of the risk management framework on its control environment and insurance arrangements; and

Review whether a sound and effective approach has been followed in establishing business continuity planning arrangements, including whether plans have been tested periodically.

6.2 Control Framework

Review whether management has adequate internal controls in place, including over external parties such as contractors and advisors;

Review whether management has in place relevant policies and procedures, and these are periodically reviewed and updated;

Progressively review whether appropriate processes are in place to assess whether policies and procedures are complied with;

Review whether appropriate policies and procedures are in place for the management and exercise of delegations; and

Review whether management has taken steps to embed a culture which is committed to ethical and lawful behaviour.

6.3 External Accountability

Satisfy itself the annual financial reports comply with applicable Australian Accounting Standards and supported by appropriate management sign-off on the statements and the adequacy of internal controls.

Review the external audit opinion, including whether appropriate action has been taken in response to audit recommendations and adjustments.

To consider contentious financial reporting matters in conjunction with council's management and external auditors.

Review the processes in place designed to ensure financial information included in the annual report is consistent with the signed financial statements.

Satisfy itself there are appropriate mechanisms in place to review and implement, where appropriate, relevant State Government reports and recommendations.

Satisfy itself there is a performance management framework linked to organisational objectives and outcomes.

Guidelines under section 23A of the Local Government Act 1993 September 2010 55

6.4 Legislative Compliance

Determine whether management has appropriately considered legal and compliance risks as part of risk assessment and management arrangements.

Review the effectiveness of the system for monitoring compliance with relevant laws, regulations and associated government policies.

6.5 Internal Audit

Act as a forum for communication between the Council, General Manager, senior management, internal audit and external audit.

Review the internal audit coverage and Internal Audit Plan, ensure the plan has considered the Risk Management Plan, and approve the plan.

Consider the adequacy of internal audit resources to carry out its responsibilities, including completion of the approved Internal Audit Plan.

Review all audit reports and consider significant issues identified in audit reports and action taken on issues raised, including identification and dissemination of better practices.

Monitor the implementation of internal audit recommendations by management.

Periodically review the Internal Audit Charter to ensure appropriate organisational structures, authority, access and reporting arrangements are in place.

Periodically review the performance of Internal Audit.

6.6 External Audit

Act as a forum for communication between the Council, General Manager, senior management, internal audit and external audit.

Provide input and feedback on the financial statement and performance audit coverage proposed by external audit, and provide feedback on the external audit services provided.

Review all external plans and reports in respect of planned or completed external audits, and monitor the implementation of audit recommendations by management.

Consider significant issues raised in relevant external audit reports and better practice guides, and ensure appropriate action is taken.

6.7 References from Council and the General Manager

To consider, investigate and report on any matter referred to the Committee by Council or the General Manager.

6.8 Other Matters

The Committee may, at any time, consider any other matter related to risk management or good governance it deems of sufficient importance to do so. In addition, at any time an individual Committee member may request a meeting with the Chairperson of the Committee.

7. Administrative arrangements:

7.1 Meetings

The Committee will meet four (4) times per year, with one of these meetings to include review and endorsement of the annual audited financial reports and external audit opinion.

An extraordinary or special meeting of the Committee may be convened at the discretion of the Chairperson, or at a written request of any member of the Committee, internal or external auditor. All the provisions of this Constitution concerning the conduct of the Committee shall apply to an extraordinary or special meeting of the Committee.

A scheduled meeting of the Committee cannot be cancelled or postponed to another time and or date except;

- (a) Where a quorum is not, or will not be, present; or
- (b) Where the General Manager, after consultation with, and the agreement of, the Chairperson determines that there is no or insufficient information, reports or correspondence available for submission to the Committee.

A meeting of the Committee may be called by the General Manager where information or material is to hand which, for legislative, policy or emergency reasons, requires the consideration of the Committee prior to the Committee's next scheduled meeting.

7.2 Voting at meetings

- a) Voting on all matters shall be on the voices except where the Chairperson otherwise determines or a challenge to voting is made, in which case the voting shall be by show of hands
- b) Each member of the Committee entitled to vote, shall have one vote, provided that in the event of an equality of votes, the Chairperson presiding at the meeting shall have a casting vote as well as an original vote.
- c) A proposition which receives a majority of votes (i.e. more than half) of the voting members present shall be a decision of the Committee.
- d) It shall be the duty of the Chairperson at a meeting of the Committee to receive and put to the meeting any lawful motion or amendment brought before the Committee.
- e) The Minutes of the Committee meeting shall record all decisions of the Committee and shall record all decisions which are determined upon the casting vote of the Chairperson.
- f) Any voting member of the Committee may request that their name be recorded in the Minutes of a meeting as having voted against a recommendation of the Committee, and such shall be recorded in the Minutes.

7.3 Attendance at Meetings and Quorums

A quorum shall comprise a majority of the appointed voting members of the Committee, providing always that the Councillor member of the Committee shall be present throughout the conduct of the meeting. Meetings can be held in person, by telephone or by video conference.

Should a quorum not be present at the start of, or during, any meeting, the voting members present may decide that the Agenda items continue to be discussed, however any agreement or decision so made shall be recorded in the Minutes as "No quorum - decision of the members present", and not as a recommendation of the Committee.

The names of the Committee members present, whenever a quorum is not present, shall be recorded in the Committee minutes, and the reason as to why a quorum was not present.

The Committee may request any employees to participate for certain agenda items, as well as the external auditor.

The General Manager may attend each meeting but will permit the Committee to meet separately with each of the Internal Auditor and the External Auditor in the absence of management at the discretion of the chairperson.

7.4 Secretariat

The Secretariat will ensure the agenda for each meeting and supporting papers are circulated, at least one week before the meeting, and ensure minutes of the meetings are prepared and maintained. Minutes shall be approved by the Chairperson and circulated to each member within three weeks of the meeting being held.

Minutes of the Committee meeting should be submitted to a meeting of Council before the next meeting of the Committee.

7.5 Conflict of Interests

Councillors, council staff and members of council committees must comply with the applicable provisions of Council's code of conduct in carrying out the functions as council officials. It is the personal responsibility of council officials to comply with the standards in the code of conduct and regularly review their personal circumstances with this in mind. Guidelines under section 23A of the Local Government Act 1993 September 2010 57

Committee members must declare any conflict of interests at the start of each meeting or before discussion of a relevant agenda item or topic. Details of any conflicts of interest should be appropriately minuted.

Where members or invitees at Committee meetings are deemed to have a real or perceived conflict of interest, it may be appropriate they be excused from Committee deliberations on the issue where the conflict of interest may exist. The final arbiter of such a decision is the Chair of the Committee.

7.6 Induction

New members will receive relevant information and briefings on their appointment to assist them to meet their Committee responsibilities.

7.7 Assessment Arrangements

The Chairperson of the Committee will initiate a review of the performance of the Committee at least once every two (2) years. The review will be conducted on a self-assessment basis (unless otherwise determined by the Chairperson), with appropriate input from management and any other relevant stakeholders, as determined by the Chairperson.

7.8 Review of Audit Committee Charter

At least once every two years the Audit and Risk Committee will review this Audit and Risk Committee Charter and recommend any changes to Council.

4. WORKSHOP OPERATIONAL PLAN 2017/2018

RECOMMENDATION that Council hold a workshop to discuss key aspects of the 2018/2019 Operational Plan, following Council's February Meeting.

In the preparation of the Draft Operational Plans for the past four years, Council held a workshop in conjunction with the February Council Meeting.

It is suggested to again hold a workshop adjacent to Council's February Meeting.

5. GENERAL MANAGER FAREWELL

RECOMMENDED that Council approve meeting the cost of the General Manager's Farewell.

Riverina Water's General Manager of seven years, Graeme Haley, is retiring on 16 January 2018, after 44 years of service in Local Government. An official farewell function is being organised in December 2017, involving the General Manager's immediate family, staff and other officials from the local government industry. It would be appropriate for Council to contribute towards hosting this event.

6. DELEGATION OF AUTHORITY TO NEW GENERAL MANAGER

RECOMMENDED that in accordance with Section 377 Local Government Act 1993, Council ratify and grant the delegations as set out in the Delegations of Authority Register to the General Manager Mr Andrew Crakanthorp, commencing 10 January 2018.

With the appointment of Mr Andrew Crakanthorp as the new General manager of Riverina water County Council, commencing 10 January 2018, it is appropriate for the Council to formally resolve the General Manager Delegations in his name. The delegations for the Chairperson and General Manager have been summarised in the attached Draft Register, and are submitted for Council's consideration.

• Draft Delegations of Authority Register

Delegations of Authority

Riverina Water County Council

Adoption date: 13 December 2017

Resolution: 18/??

Introduction

In accordance with Section 377 Local Government Act 1993 the Riverina County Council at a Meeting held on 26 October 2016 ratified and granted the delegations as set out in this Delegations of Authority Register to the Chairperson and General Manager.

THE CHAIRPERSON

1. General

That the Chairperson (being Cr Greg Verdon), or Deputy Chairperson (being Cr Paul Funnell) when acting for the Chairperson, be delegated authority under section 377 of the Act to exercise and/perform on behalf of the Council the powers, authorities, duties and functions as prescribed for the position of Chairperson under the Act, Schedules, Regulations, cognate Legislation, related Legislation, Councils own adopted Policies, Codes and Resolutions, provided that such delegations are not to be sub-delegated without specific approval by Council or as prescribed under the Act.

If, under any other Act, a function is conferred or imposed on the Chairperson of a County Council, the function is taken to be conferred or imposed on the Council and the Chairperson of the County Council will exercise and/or perform on behalf of the Council the powers, authorities, duties and functions as prescribed under that other Act.

2. Specific Delegations-Chairman

(a) Conferring Powers or Duties

To give effect to the provisions of the Act, including but not limited to Sections 225-231 of the Act and any other Act conferring powers or duties upon the Chairperson and to any resolution of direction given to the Chairperson by Council.

(b) Preside at Meetings of Council

To preside at all meetings of the Council, Committees, Community Committees and Public Meetings convened by the Council at which the Chairperson is present unless the Chairperson otherwise appoints another Councillor or person to perform this function.

(c) Negotiations on behalf of Council

The Chairperson in conjunction with the General Manager, to participate in negotiations on behalf of the Council with third parties in relation with any significant matter associated with the operations of Riverina Water County Council.

(d) Code of Conduct

To give direction to the Council, following consultation with the General Manager, in the application of the Code of Conduct as adopted by Council.

(e) Represent Council-Government and Other Forums

To represent the Council, in conjunction with the General Manager in deputations to government enquiries and other forums where it is appropriate that the Chairperson should present the Councils position.

(f) Sign and Execute Documents

To sign and execute documents under the Seal of Council in conjunction with the General Manager.

(g) Media Releases

To make Media Statements and issue Press Releases in respect of Councils Resolutions/Recommendations and decisions.

(h) Approval of Urgent Works

To authorise expenditure outside the Council approved budget and in consultation with the General Manager ,to undertake urgent works in order to reduce or eliminate a significant safety hazard or critical matter affecting the operation of the water supply system up to an amount of \$150,000 subject to the action being reported to the next meeting of Council.

End of Delegation

DELEGATIONS – THE GENERAL MANAGER

- 1. That, Commencing 10 January 2018, the General Manager of Riverina Water County Council (being Andrew Crakanthorp) be delegated authority under section 377 of the Local Government Act 1993 ("Act") to exercise and /or perform on behalf of Council the powers, authorities, duties and functions of Council as prescribed under the Act, Schedules Regulations, Cognate Legislation, and related legislation, and including those powers, authorities, duties, and functions as listed in the addendum to this delegation excepting those powers, authorities, duties, and functions of the Council that are expressly prohibited from delegation as listed under Section 377 of the Act.
- 2. If, under any other Act a function is conferred or imposed on the General Manager of Council, the function is taken to be conferred or imposed on the Council and the General manager of the Council will exercise and /or perform on behalf of the Council, powers, authorities duties and functions as prescribed under the other Act pursuant to Section 381 of the Act.
- 3. For the purposes of Section 381 of the Act, the General Manager's delegated authority to act on behalf of Council includes all functions and powers conferred or imposed by any legislation set out from time to time in Section 22 of the Act, including but not limited to the following:

Conveyancing Act 1919	placing covenants on council land
Fluoridation of Public Water Supplies Act 1957	fluoridation of water supply by council
Public Health Act 1991	inspection of systems for purposes of microbial control
Roads Act 1993	roads

The exercise by a council of its functions under this Act may also be modified by the provisions of another Act. Some of those Acts and some of the modifications they affect include:

Government Information (Public Access) Act 2009	council required to publish certain information and to grant access to certain documents
Privacy and Personal Information Protection Act 1998	council required to amend certain records that are shown to be incomplete, incorrect, out of date or misleading

unclaimed money to be paid to the Chief Commissioner of Unclaimed Money

- 4. That in the absence of the General Manager that his nominee as Acting General Manager assume all power and delegations of the General Manager for the period only of his absence.
- 5. In addition to the delegated authority conferred or imposed upon the General Manager by legislation, the General Manager is empowered to carry out his functions in reliance upon Section 335 of the Act and in accordance, with the following delegated authorities, subject to any express limitations contained within this Register or restrictions imposed by Section 377 of the Act:

General Manager-Delegated Authorities

In accordance with section 5 of this delegation of authority the General Manager is also delegated the following functions and powers:

Part A Operational

- 1. To establish, review and authorise operational and management policies and procedures in line with strategic directions set by Council.
- 2. To implement any work , service or action provided for in the adopted budget without further reference to Council except for ;
 - (a) The acceptance of tenders which are required under the Local Government Act 1993 to be invited by the Council, and
 - (b) The determination of priorities where lump sum funding only has been provided.
- 3. To authorise destruction or disposal of any records of Riverina Water County Council, after the expiration of six (6) years from the last transaction thereon, other than those defined in the Regulation and Local Government Records Disposal schedule.
- 4. To negotiate arrangements for agencies and financial institution to collect payments relating to the operation of Riverina Water County Council.
- 5. To write proposals or submissions to other levels of government on behalf of Riverina Water County Council.
- 6. To deal with and determine applications for access to information under the Government Information (Public Access) Act and Regulation 2009.
- 7. To execute any form of instrument necessary for the creation of easements that will benefit Riverina Water County Council for access services, pipelines, structures and/or any other form of assistance essential in the performance of its objectives.
- 8. To sign all correspondence relating to Riverina Water County Council.
- 9. To approve the loan of Riverina Water County Council equipment to community groups in accordance with Council's Policy.

- 10. To impose water restrictions on fixed hoses and sprinklers and lift such restrictions when appropriate.
- 11. To restrict or cut off supply of water to a property due to non payment of water charges as provided under Clause 144 of the Local Government (General) Regulation 2005.
- 12. To sign certificates issued in accordance with the provisions of Sections 603 (Certificate as to Rates and Charges) & 735A (Certificate as to Notices) of the Local Government Act 1993.

Part B Finance

- 1. Obtain quotations and to authorise the purchase of and issue official orders for goods, works and services requiring the functioning of Council and to incur expenditure for such goods, works and services up to \$150,000 provided that provision has been made in the approved Budget for incurring of such expenditure. The delegation is limited in accordance with Section 377(1)(i) of the Act.
- 2. To certify that the prices and computations on vouchers have been checked and are correct in as far as he has been able to ascertain, are fair and reasonable and are in accordance with any quotation /contract under which the goods /services were supplied.
- 3. Authorise the payment of Councils Salaries and Wages
- 4. Approve final payment to contractors and/or direct creditors
- 5. To sign or countersign cheques drawn on Council's Bank accounts
- 6. Approve changes in Plant Hire Rate Charges for all council plant.
- 7. To authorise expenditure outside the approved Council budget to enable urgent works to be undertaken to reduce or eliminate a significant safety hazard or critical matter affecting the operation of the water supply system up to an amount of \$100,000 subject to the action being reported to the next meeting of Council.
- 8. The authority to require the lodgement of a cash bond or bank guarantee for work outstanding.
- 9. To negotiate Council overdraft limit.
- 10. To sell old materials, spoilt or obsolete equipment.
- 11. To authorise the writing off of uncollectible debts up to a maximum amount for a single debtor of \$2,000.
- 12. To arrange the investment of money that is not, for the time being, required by Council for any other purpose. Funds may only be invested in the following:
 - (a) In any security authorised by the Trustee Act;
 - (b) In the form of investment notified by order of the Minister published in the Gazette.

(c) Investments shall also be managed in accordance with Councils Policy (Number 1.16)

Part C Legal

- 1. To approve and settle statements of claim and insurance matters up to the level of Riverina Water's excess amounts payable under the respective insurance policies.
- **2.** To determine a response to approvals sought under Part 1, Division 3-making and determination of applications for approval-generally, under the Local Government Act 1993.
- 3. To issue Orders under Chapter 7, Part 2 (Orders) of the Local Government Act 1993.
- **4.** To affix the Common Seal of the Council and execute any documents requiring the signature of the General Manager in the company of the Chairperson , Deputy Chairperson , or other Councillor where Council has approved the documents intent
- **5.** To authorise the institution of legal proceedings for the recovery of outstanding charges and other debts due to Riverina Water County Council and to take all necessary action to recover such charges and debts.
- **6.** Under Section 687 (Appearance in Local Court) of the Local Government Act 1993, as amended, be authorised to represent Riverina Water County Council in all proceedings in any Local Court or before any justice in all respects as though he were the party concerned and to institute and carry on proceedings which Riverina Water is authorised to institute and carry out under the said Act and shall extend to any proceedings under all other Acts.
- 7. To accept service of legal documents on behalf of Riverina Water County Council.
- 8. Contracts;
 - (a) To terminate a contract where the conditions of the contract have been breached and provide for such action.
 - (b) To approve extensions of time to contractor schedules except contracts subject to a tendering arrangement.
 - (c) To issue Site instructions to the contractor and/or their staff.
 - (d) To call for an audit of a contract using either internal or external audit staff.
 - (e) To issue a Practical Completion Certificate for works or part thereof under a contract.
 - (f) To sign contracts that have been approved by Council.
- **9.** To approve Power of Entry under the provisions of Sections 191-201 of the Local Government Act 1993 for the purpose of inspections, works, and other functions permitted under these sections. The power of entry is also granted for the purposes of inspecting premises under the Public Health Act 1991.
- **10.** To approve closure of roads or parts thereof, temporarily for repairs or construction and to approve applications to install pipelines within road reserves.
- **11.** To authorise action in regard to any complaints or requests received under Councils Internal Reporting Policy.

Part D Environmental / Planning Matters

- 1. To authorise all functions pursuant to Riverina Water County Council powers under the Environmental Planning & Assessment Act 1979 as amended in relation to development proposals including subdivisions.
- 2. In relation to subdivision proposals;
 - (a) To approve designs, plans and specifications for water supply works in subdivisions, subject to those designs, specifications and plans being in accordance with Council subdivision policies.
 - (b) To certify that bonded works have been completed to Riverina Water County Council's satisfaction and then release the relevant bond.
 - (c) To authorise the release of Certificates of Compliance for a subdivision when all conditions of relevant approvals relating to water supply have been met.
 - (d) To authorise signing of linen plans of subdivisions when all water supply conditions have been met.

Part E Staff

- **1.** To authorise the appointment of new staff within the adopted organisation's staff structure.
- 2. To negotiate with staff and Unions in relation to all staffing matters.
- **3.** Reclassify staff and adjust salaries in accordance with Riverina Water County Council Enterprise Award.
- **4.** To determine all leave applications for all staff having regard to the proper functioning of the Council and maintenance of appropriate levels of service to customers.

End of Delegation

7. DARYL MAGUIRE MP - PROPOSAL TO INCREASE TARIFF STEP

RECOMMENDATION that Council consider a proposal by Daryl Maguire MP to increase the Tariff step for residential blocks above 3 acres at the workshop examining the 2018/2019 Operational Plan, following Council's February Meeting.

Council has received a proposal from the Member for Wagga Wagga, Mr Daryl Maguire MP, that it consider having a higher step in its tariff for residential properties above 3 acres. Mr Maguire suggests an initial step of 200kl or more, before the step up to a higher tariff.

A copy of Mr Maguire's letter is attached.

It is pointed out that customers classified as primary producers do not have a stepped tariff. All water consumed is charged at the lowest tariff, currently \$1.44 per kl.

The reasoning behind this request is that Wagga Wagga City Council places a requirement on owners of these rural residential block to establish and care for an amount of vegetation and trees. It has been suggested that this requirement results in the landholder using additional water.

• Letter from Daryl Maguire MP Proposal to increase tariff step

Daryl Maguire MP



Member for Wagga Wagga Parliamentary Secretary for the Centenary of ANZAC, Counter Terrorism, Corrections and Veterans.

> 76 Morgan Street (PO Box 2184) Wagga Wagga 2650 : Tel: 02 6921 1622 or 1300 768 378

Fax: 02 6921 4424 Email: waggawagga@parliament.nsw.gov.au Web: www.maguireriverinamedia.com.au

> Parliament House Macquarie Street Sydney NSW 2000 Tel: 02 9230 2155

Mr Graeme Haley Riverina Water County Council P.O. Box 456 WAGGA WAGGA 2650

Dear Graeme

I have been approached by M.F. and K.O. Brennan who reside at 26 Peppermint Drive Wagga Wagga concerning charges for water.

As you will appreciate, there are development application guidelines/requirements on residential blocks in this area placed by Council concerning the care of vegetation and trees.

It would be appreciated if consideration can be given to placing a higher base tariff (ie 200kl) to assist those residential blocks of 3 acres or more.

I look forward to your response.

Thank you.

200kl or pact

GM

8. TENDER W.223 FOR LEVEE MATERIAL SUPPLY

RECOMMENDATION: That Council consider the report "Tender W.223 for Levee Material Supply", whilst the meeting is closed to the public, as it relates to commercial information the disclosure of which would prejudice the commercial position of the person who supplied it, as prescribed by Section 10A(2)(c) of the Local Government Act 1993.

9. PURCHASE OF PORTABLE DEVICES ON RETIREMENT

RECOMMENDATION that Council agree to sell used iPad Pro and iPhone SE to the General Manager for \$583 and \$418 respectively.

RWCC has provided an iPad Pro and iPhone to the General Manager for Council use. With the forthcoming retirement of the General Manager, the Manager of Corporate Services and IT Coordinator were requested to provide a realistic valuation of this used equipment, should the retiring General Manager desire to purchase them.

Attached is a memo from the IT Coordinator summarising the valuation of the items, together with his reasoning.

I now seek approval from Council to purchase the used iPad Pro and iPhone SE for \$583 and \$418 respectively.

• Memo valuation used equipment



TO: Manager Corporate Services

FROM: IT Coordinator

DATE: 13 November 2017

RE: General Managers portable devices

Message

Please find following a reasonable value estimation of the following assets:

- iPad Pro 9.7 128Gb Charcoal, Wi-Fi, with accessories
- iPhone SE 64Gb Space Grey

Purchased for \$1,017.18 (ex GST) on the 6th of October, 2016 and based on average use, the life expectancy of an iPad Pro is estimated at 3 years before iOS upgrades and battery degeneration make it obsolete. Though of course this depends on the treatment and use of the device.

Given the above and research on Ebay and Gumtree of similar devices (Wi-Fi only) the estimated value of the iPad pro is;

iPad Pro - current value: \$583 (ex GST)

Purchased for \$676.36 (ex GST) on the 24th of November 2016 and based on average use, Apple estimate the life expectancy of an iPhone SE is 3 years.

Given the above and research on Ebay and Gumtree of similar devices the estimated value of the iPhone SE is;

iPhone SE -- Current Value: \$418 (ex GST)

The above estimates reflect a reasonable value for the devices, though given the variables of second hand devices you will find some more expensive and less expensive.

Regards

Pat Dwyer

IT Coordinator

Riverina Water County Council

10. COUNCIL RESOLUTION SHEET

RECOMMENDATION that Riverina Water County Council note Council's Resolution Sheet.

Report Ref	Subject	Responsible Officer	Council Decision	Action Taken
Meeting h	neld 12 December 2014			
14/190	Purchase of Land for Alternative Access to Hammond Ave	GM	That Council: 1) Purchase land for operational and access requirements in accordance with Section 187 of the Local Government Act 1993. 2) Delegate authority to the General Manager to negotiate the land purchase and sign the relevant sale documents. 3) Affix Council's Common Seal to documentation as required.	Negotiations continuing. Business Valuation completed. Additional investigations underway.
Meeting h	neld 26 October 2016			
16/208	Replacement of Low Level Reservoir Land Matters	DoE	That Council: 1) Purchase the land on Lot 22 DP 835331 for the replacement of Low Level reservoir (10MG) at Willans Hill. The area to acquire is approximately 11,250m2. Compensation estimated by OPTEON property group \$130,000.00 ex GST. 2) Lease the land on Lot 22 DP 835331 (adjacent to proposed acquisition area) for Low Level reservoir (10MG) replacement earthworks (for material storage) at Willans Hill. Lease on Approximate area of 9600m2 for 2 years. Lease amount per year estimated by OPTEON property group \$14,400.00 ex GST. 3) Delegate authority to the General Manager to negotiate the land purchase, lease, establishment of easements for the pipeline and access. 4) Affix Council's Common Seal to documents as required.	Proceeding with Council Resolution. Legal process ongoing. Earthworks commenced.

Meeting h	neld 28 June 2017			
17/92	Local Government NSW 2017 Annual Conference	GM	That: a) Council be represented the Local Government NSW 2017 Annual Conference; b) Council delegate be the Chairman and the General Manager (observer); c) Nominations be invited from any other Councillor to attend as an observer. d) Council determine motions that it believes are of concern and should be discussed at the Conference. Clrs. Braid OAM and Keenan nominated to attend the Local Government NSW 2017 Annual Conference	Accommodation booked. Registrations made for Chairperson, GM, Cr Keenan and Cr Braid.
17/108	Contract W221 – 1in100 Levee Review of Environmental Factors (REF)	DoE	That Council: 1) Adopt the updated REF completed by Hunter Water Australia and Nghenvironmental and, 2) Determine to proceed with the construction of 1 in 100 Levee	Noted. Levee to commence following completion of new WTP
17/109	Investigation into the Incorporation of GHSC Water Function into RWCC	DoE	That Council continue to investigate the option of incorporating all or part of GHSC's water operations into RWCC's operations	Matter considered at Councils Meeting on 25 October 2017.
	held 25 October 2017			
17/159	Election of Chairperson	GM	There was only nomination for the office of Chairperson for the ensuing year that of Clr. Verdon.	OLG, LGNSW & REROC notified
17/160	Election of Deputy Chairperson	GM	There was only one nomination for the office of Deputy Chairperson for the ensuing year, that of Clr. Funnell.	OLG, LGNSW & REROC notified
17/161	Delegation of Authority to Chairperson and General Manager	GM	That, in accordance with Section 377 Local Government Act 1993, Council ratify and grant the delegations as set out in the Delegations of Authority Register to the Chairperson and General Manager.	Noted, included in register
17/162	Financial Statements 2016/17	GM	That the 2016/2017 Audited Financial Statements be received and that Council's appreciation be extended to staff that prepared the Annual Financial Statements.	Appreciation passed onto appropriate staff
17/168	Request for a Refund of Water Connection Charges – Australian Clay Target Association	GM	That Council make a one-off contribution of \$53,516 to the Australian Clay Target Association.	Contribution made.
17/170	Draft Health and Safety Committee Constitution	GM	That the draft constitution of the Health and Safety Committee be adopted.	Noted, included on intranet.

17/171	Policy 2.1 – Backflow Prevention	MW	That Riverina Water County Council adopt Policy 2.1 – Backflow Prevention.	Noted, included on Council's web page.
17/177	Feasibility of Incorporating the GHSC Water Function into RWCC Operations	DoE	That Riverina Water County Council advise Greater Hume Shire Council that it: 1) Would not support a proposal to incorporate the GHSC village water scheme into RWCC's existing operations 2) Would not support a proposal to incorporate the entire water supply operations of GHSC into RWCC's existing operations on the basis of postage stamp pricing 3) Would support a proposal to incorporate the Culcairn town water system into RWCC's existing operations. 4) The matter lay on the table until the constituent Council has had an opportunity to consider the report.	GHSC advised, awaiting response.
17/181	W.221 – Tender for Supply and Delivery of Water Supply Pressure Pipes	DoE	That the tender received from IPLEX Pipelines for the supply of 22,500m of oPVC pipe in the amount of \$518,175, be accepted.	Contract let.
17/184	Confidential Chairperson's Minute – Recruitment and Appointment of General Manager	Chairperson	That: 1. The Chairperson's Minute to the Council Meeting on 25 October 2017 in Closed Council in relation to the recruitment and appointment of a General Manager be received and noted. 2. Mr. Andrew Crakanthorp, the preferred candidate selected at the conclusion of the meeting on 25 October 2017, be offered the position of General Manager and the Chairperson and Deputy Chairperson be authorised, with advice from the Recruitment Consultants, to finalise negotiations based on the following: (a) A five-year performance-based Contract; (b) A total remuneration package of \$220,000 (c) The contract of employment being in accordance with the standard contract required by the Division of Local Government. 3. No public announcement of the name of the successful candidate be made until the Chairperson has obtained a written acceptance of the offer from the preferred candidate.	 Noted Offer accepted, Chairperson prepared media release at the appropriate time. Employment Contract completed & executed under seal.

	4. The Employment Contract between the Appointee	
	and the Council be executed under the Common Seal	
	of the Council.	

Meeting he	eld 25 October 2017	
Clr Quinn	Attended the LGNSW Water Management Conference in Dubbo in September. Got the impression that there may be movement on amalgamating local water utilities in the Future. Also attended the Annual Conference of the Murray Darling Association in Renmark SA earlier in October. Believes that some environmental water flows are being misused in that region.	
CIr Conkey OAM	Attended the launch of 'Choose Tap' last week. This was a joint initiative of WWCC and RWCC promoting the use of tap water over bottled water. Congratulated the staff from both councils that were involved.	Congratulations passed onto relevant staff.
CIr Verdon	Congratulated staff on the outcome of the recent audit of Council's Annual Financial Statements.	Congratulations passed onto relevant staff.

11. SEASONS GREETINGS

I would like to take this opportunity to wish the Councillors a Merry Christmas and Happy New Year.

Graeme J. Haley

GENERAL MANAGER



DIRECTOR OF ENGINEERING'S REPORTS TO COUNCIL MEETING

1. WORKS REPORT COVERING OCTOBER 2017

RECOMMENDATION That this report be received and noted.

• Works Report for October 2017



DIRECTOR OF ENGINEERING'S REPORTS TO OCTOBER 2017 COUNCIL MEETING

15th November 2017

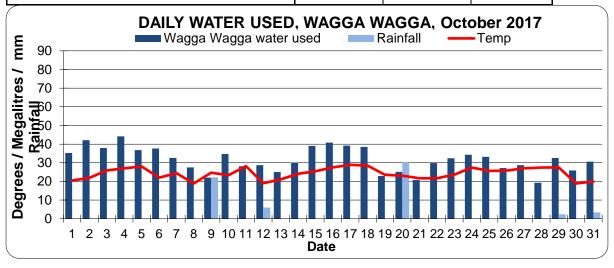
1 WORKS REPORT COVERING OCTOBER 2017

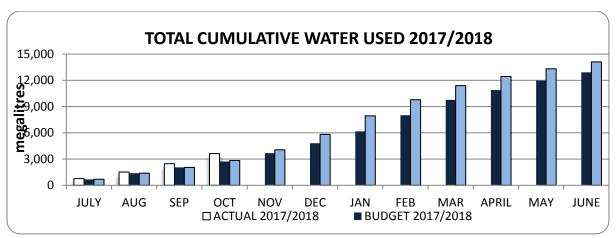
RECOMMENDATION: That this report be received and noted.

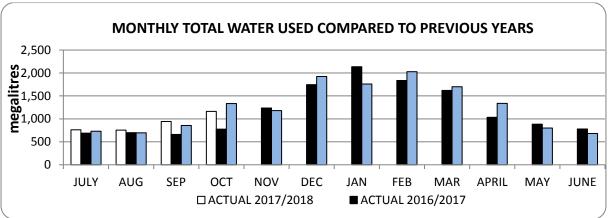
1.1 WATER SOURCED AND USED

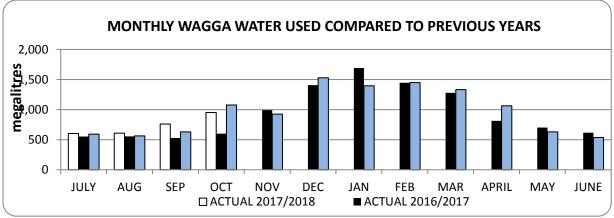
October	2015	2016	2017
Rainfall	100.0	83.4	64.8
Wet Days	8	20	8
WATER SOURCED O	ctober 201	7 (MI)	
North Wagga bores	161.11	125.69	213.89
West Wagga bores	107.68	187.95	592.29
East Wagga bores	438.96	313.90	324.34
Murrumbidgee River	0.00	0.00	0.00
SUB-TOTAL	707.75	627.54	1,130.52
Bulgary Bores	25.52	32.60	35.00
Urana Source	0.00	0.00	0.00
Ralvona Bores	16.31	12.40	19.50
Walla Walla Bores	0.00	0.00	7.32
Goldenfields Water Supply System	2.21	6.09	3.89
SUB-TOTAL	44.04	51.09	65.71
Woomargama	0.77	1.02	1.61
Humula	0.52	0.51	0.38
Tarcutta	2.18	1.90	3.03
Oura	1.54	1.79	3.16
Walbundrie/Rand	2.26	2.20	2.55
Morundah	0.50	0.41	0.66
Collingullie	3.84	4.23	5.33
SUB-TOTAL	11.61	12.06	16.72
TOTALS	763.40	690.69	1,212.95

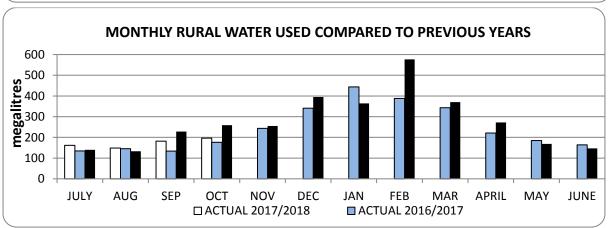
WATER USED Octo	ober 2017	(MI)	
	2015	2016	2017
East Bomen	19.83	19.33	27.75
Estella	33.91	35.28	88.62
North Wagga	90.40	53.00	68.65
Wagga Wagga – Low Level	125.86	113.12	158.56
Wagga Wagga – High Level	313.13	282.58	552.22
Wagga Wagga – Bellevue Level	31.58	32.23	55.67
SUB-TOTAL	614.71	535.54	951.47
Ladysmith System	2.09	2.63	5.84
Brucedale Scheme	12.30	14.65	23.30
Currawarna Scheme	9.19	7.59	12.31
Rural south from Wagga Wagga	71.93	64.76	92.52
Rural from Walla Walla Bore	0.00	0.00	7.32
Bulgary, Lockhart and Boree Creek	13.55	24.34	18.11
From Boree Crk to Urana and Oaklands	11.95	8.84	17.52
Holbrook	16.31	12.40	19.50
SUB-TOTAL	137.32	135.21	196.42
Woomargama	0.77	1.02	1.61
Humula	0.52	0.51	0.38
Tarcutta	2.18	1.90	3.03
Oura	1.54	1.79	3.16
Walbundrie/Rand	2.26	2.20	2.55
Morundah	0.50	0.41	0.66
Collingullie	3.84	4.23	5.33
SUB-TOTAL	11.61	12.06	16.72
TOTALS	763.64	682.81	1,164.61











1.2 NEW SERVICE CONNECTIONS, REPAIRS, METERS, LOCATIONS & COMPLAINTS FOR THE MONTH OF OCTOBER 2017

Location	New Connect., Residential	New connect., Non Residential	Services Renewed	Services Repaired	Quality Complaints	Supply Complaints *	Customer dealings complaints	Other Complaints	Frost damage	Meter or Metercock fault	Leaking valves or hydrants	Locations
Wagga Wagga	29	1		16	8	4				31	3	7
Brucedale				2		1						
Currawarna												
Euberta												
Humula										1		
Ladysmith				1						1		1
Oura					1	1						
San Isidore												
Tarcutta										1		
The Gap				1		1						
Bulgary				1								
Collingullie										1		
French Park												
Lockhart	1			1					1	1		
Mangoplah												
Milbrulong												
Pleasant Hills												
The Rock	1		1	3								
Uranquinty			1							1		
Yerong Creek									2			
Culcairn												
Henty	2		1	3	1	1			1	3		
Holbrook	1		1	1					1	2		
Morven												
Walbundrie												
Walla Walla												
Woomargama				1								
Boree Creek	1											
Morundah												
Oaklands												
Rand												
Urana				1								
TOTAL	35	1	4	31	10	8	0	0	5	42	3	8

				RURAL				
Date	Location	Town	Main Type	Cause	Live Repair	Outage Duration Time	Customers Affected (no supply)	Water Lost Kl
11	Olympic Highway	Henty	200 AC	Pipe Failure - Ground Movement	No	4.45HRS	23	54
11	7 Linton st	Collingullie	100 WPVC	Pipe Failure - Ground Movement	No	1HR	20	14
12	Olympic hwy	Henty	200 AC	Pipe Failure - Ground Movement	No	2.5HRS	0	30
17	The rock-narrendera Rd	Bulgary	50PE	Pipe Failure - Ground Movement	No	2HRS	0	12
10	Orange St	Milbrulong	100 AC	Pipe Failure (not specified)	Yes		0	30
24	Chaplins Ine	The Rock	50PE	Pipe Failure - Ground Movement	Yes		0	4
17	Yerong st	The Rock	100 AC	Pipe Failure - Ground Movement	Yes		0	9
				T	OTALS	9.95HRS	43	153
				Breaks needing			Breaks affecting	
	Total Breaks –	7		shut off -	4		customers –	2

1.3 WATER SYSTEM REPAIRS

			,	WAGGA WAGGA				
Date	Location	Town	Main Type	Cause	Live Repair	Outage Duration Time	Customers Affected (no supply)	Water Lost KI
11	Billigha St	Wagga Wagga	100 AC	Pipe Failure (not specified)	Yes		0	0
20	13 Plumpton Road	Wagga Wagga	100 AC	Pipe Failure (not specified)	No		0	0
25	Cnr Mason / Longergen	Wagga Wagga	100 CI	Pipe Failure (not specified)	No	4.40HRS	0	0
25	Hillis Ford Mason St	Wagga Wagga	100 CI	Pipe Failure (not specified)	No	4.10HRS	0	0
				7	TOTALS	8.1HRS	0	0
		,		Breaks needing			Breaks affecting	•
	Total Breaks –	4		shut off -	3		customers –	0

1.4 WATER QUALITY COMPLAINTS

Water quality complaints received during October 2017 were:

Date	Location	Problem	Action Taken
2/10/2017	28 Indigo Dr, Springvale	Dirty water	Flushed
3/10/2017	18 Wagga St, Oura	Orange water	Flushed
3/10/2017	74 Raye St, Tolland	Dirty water	Flushed service
3/10/2017	16 Barrima Dr, Glenfield	Dirty water	Flushed meter
3/10/2017	18 Indigo Dr, Springvale	Dirty water	Flushed service
5/10/2017	2 McCoullough Rd, Tolland	Deposits on taps	WQ within ADWG. Due to leaking tap & evap leaving Ca scale
11/10/2017	22 First St, Henty	Dirty water	Flushed main & service
16/10/2017	50 Johnston St, Wagga	Dirty water	Flushed service. Gal pipes
24/10/2017	5 Yirribin PI, Glenfield	Water giving customer sore throat	WQ within ADWG. Maint to flush dead end
27/10/2017	48 Kimberly Dr, Tatton	Dirty water	Dirty HWS

1.4 MAINS CONSTRUCTIONS

1.4.1 MAINS EXTENSIONS AND NEW WORKS

New water mains laid during October 2017 include:

LOCATION	PROJECT	63	100	1	50	200	
		PE	OPVC	DICL	OPVC	OPVC	
Lloyd stage 7	New Subdivision			78			
Coolamon Road	New Service	287	360				
Pine Gully Rd St 2	New Subdivision		234		240	54	
	TOTAL	287	594	78	240	54	

1.4.2 REPLACEMENT OF EXISTING MAINS

Mains replaced during October 2017 include:

LOCATION	PROJECT	100		600
		OPVC DICL		DICL
Essential Energy	Low level main			42
Simmons Street	Mains Replacement		40	
The Gap	Mains Replacement	216	48	
	TOTAL	216	88	42

1.5 OTHER CONSTRUCTION

Other construction works during October 2017 include:

LOCATION OR PROJECT	WORK DONE
Uranquinty Reservoir	Move magflow meter
Gregadoo Reservoir	Remove and install new magflow Meter
Rural Trunk Main	Cut-in on rural main

1.6 MAJOR REPAIRS / OVERHAULS

Major repairs/overhauls during October 2017 include:

LOCATION OR PROJECT	WORK DONE		
Woomargama Reservoir	Replace inlet & outlet pipework		
Woomargama Reservoir	Drain, clean and recommission		
Tarcutta WTP	Clean & add media to iron filter		
Tarcutta WTP	Air scour manganese filters		
Walbundrie Reservoirs	Drain & clean		
West Wagga WTP	Air scour service water mains		

1.7 WATER FILLING STATION ACTIVITY

Water Filling Station activity during October 2017 include:

LOCATION	NUMBER OF FILLS
Bomen Hereford Street	105
Estella Farrer Road	100
Forest Hill Elizabeth Avenue	29
Glenfield Red Hill Road	78
Henty Olympic Way	6
Holbrook Millswood Road	13
Lake Albert Plumpton Road	34
Lockhart Napier Road	74
Pleasant Hills Manson Street	1
The Rock	72
Yerong Creek Finlayson Street	16

1.8 STAFF TRAINING & SAFETY

The following training and/or safety activities were undertaken during October 2017:

Training or Programme	Number of Staff
First Aid Practical	8
HR Truck License	2
Advanced Diploma LPG	1
Rail safety worker	8
Work cover License Dogging	1
Autodesk Conference	1

1.9 **FLEET DISPOSALS**

Fleet disposals made during October 2017 are:

Vehicle Details							
Vehicle No Description Vehicle Type Make & Model Year kms							
		Extra cab with					
291	Carpenters	tray	Nissan Navara D40	2012	96137		
204	Carpenters	Extra cab with	Ford Ranger Supercab	2007			
		tray	3ltd 2wd				
301	Electrician	Dual cab tray	PX Ford RANGER	2013	62,500		

Disposal Details					
Vehicle No Method Price exc GST					
291	Auctions	\$19,090.91			
204	Auctions	\$0			
301	Accident	\$28,182			

1.9.1 FLEET ACQUISITIONS

Fleet acquisitions made during October 2017 are:

	New Vehicle Details								
Vehicle No	Tenders Received	Accepted Tenderer	Make & Model	Price exc GST					
381	3	Hillis Ford	Extra cab with tray	Ford Ranger	\$30,691				



1.6 MAJOR PROJECTS 2016/17 (> Over \$100,000) - October 2017

Description	2017/18 Budget	Actual & Commited to Date	Comments
MANAGEMENT			
Land & Buildings for Admin, Depot & Workshops			
Access, Parking and Landscaping			
Levee protection stage 2 Hammond Ave - Urban	\$1,597,658	\$130,369	Linked to WTP construction, so delayed. Tender recommendation for supply of sheet piling to December Council meeting.
PLANT & EQUIPMENT			
IT Equipment			
Corporate IT software upgrade/improvements - Urban	\$162,500	\$85,278	
Working Plant & Vehicle Purchases			
Routine plant & vehicle replacements	\$769,000	\$218,598	
Telemetry & Control Systems Upgrade			
West Wagga WTP & Bores Control System Upgrade	\$106,965	\$107,764	
Radio Telemetry SCADA Upgrade	\$168,648	\$3,648	
Radio Communications Upgrade/Replacements/Improvements			
Radio Communication	\$388,225	\$45,116	
SOURCES			
Bores-renew/refurbish/decommission			
Bores-renew/refurbish/decommission - Urban	\$61,504	\$61,748	

TREATMENT PLANTS			
Aeration Tower Covers			
East Wagga Aeration Basin cover - Urban	\$160,000	\$0	Project deferred until WTP complete and site handed back to RWCC
Treatment Plant Refurbishments			
WTP Stage 1 - Urban	\$9,929,062	\$3,230,173	Commissioning anticipated in November 2017.
Urana WTP replacement - Non-Urban	\$1,500,000	\$21,379	Design underway.
Woomagama WTP - Non-Urban			
RESERVOIRS			
New/Replacement Reservoirs			
Shires Reservoir Relocation - Non-Urban	\$2,560,333	\$124,835	Design drawings reviewed by RWCC. Contractor to commence onsite in November.
MAINS, SERVICES & METERS			
MAINS			
System Improvements			
System Improvements - Non Urban	\$20,000	\$13,992	On-going On-going
Reticulation for Developers (including other extensions)			
Reticulation for Developers - Urban	\$800,000	\$364,420	On-going
Renew Reticulation Mains			
Renew Reticulation Mains - Non-Urban	\$200,000	\$0	
Renew Reticulation Mains - Urban	\$400,000	\$31,271	On-going
Lake Albert Rd Replacement	\$0	\$2,163	Completed
The Gap / Brucedale System - Non-Urban	\$100,000	\$15,639	Underway
Main St, Lake Albert - Urban	\$100,000	\$159,141	Completed
Angel St, Lake Albert - Urban	\$0	\$693	Completed
Beckwith St - Urban	\$0	\$0	Completed
Renew Trunk Mains			
Bomen Trunk Main B (north of river) - Urban	\$0	\$318	Completed

Southern Trunk - Highway to New Reservoir 1.8km 450mm DICL	\$400,000	\$245,240	Completed
Low & high Rising Mains from CWS	\$2,911	\$38,573	Underway
SERVICES			
Service Connections, new including Meters			
Service Connections, new - Urban	\$500,000	\$191,517	On-going
Renew Services			
Renew Services - Urban	\$30,000	\$17,175	On-going
METERS			
Water Meters Replacement			
Water meters replacement - Urban	\$150,000	\$32,799	On-going
Remote Metering			
Remote metering - Urban	\$250,000	\$0	



Bede Spannagle DIRECTOR OF ENGINEERING

2. WORKS REPORT COVERING NOVEMBER 2017

RECOMMENDATION That this report be received and noted.

• Works Report for November 2017



DIRECTOR OF ENGINEERING'S REPORTS TO DECEMBER 2017 COUNCIL MEETING

7th December 2017

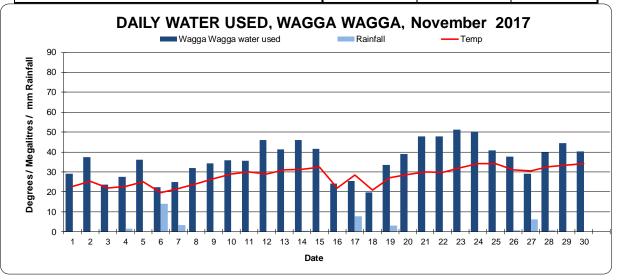
1 WORKS REPORT COVERING NOVEMBER 2017

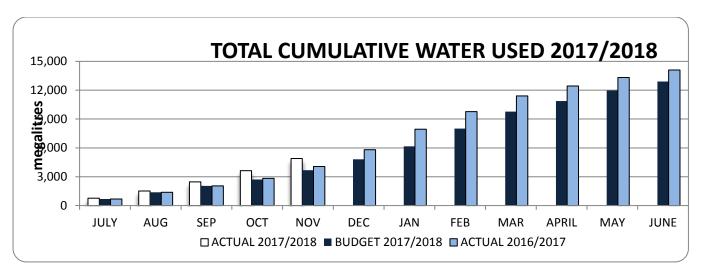
RECOMMENDATION: That this report be received and noted.

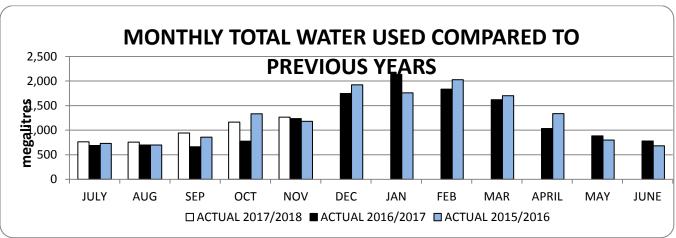
1.1 WATER SOURCED AND USED

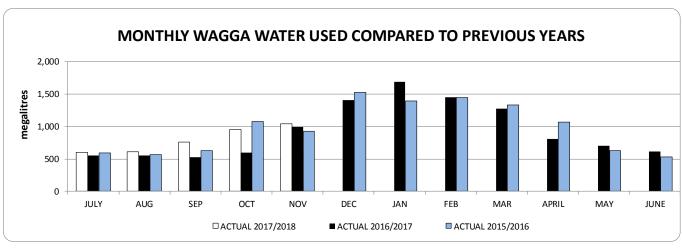
November	2015	2016	2017
Rainfall	100.0	83.4	37.2
Wet Days	8	20	10
WATER SOURCED Nov	vember 20	17 (MI)	
North Wagga bores	161.11	125.69	227.08
West Wagga bores	107.68	187.95	607.90
East Wagga bores	438.96	313.90	380.76
Murrumbidgee River	0.00	0.00	0.00
SUB-TOTAL	707.75	627.54	1,215.74
Bulgary Bores	25.52	32.60	35.58
Urana Source	0.00	0.00	0.93
Ralvona Bores	16.31	12.40	20.22
Walla Walla Bores	0.00	0.00	6.83
Goldenfields Water Supply System	2.21	6.09	6.56
SUB-TOTAL	44.04	51.09	70.12
Woomargama	0.77	1.02	1.29
Humula	0.52	0.51	0.45
Tarcutta	2.18	1.90	3.30
Oura	1.54	1.79	3.21
Walbundrie/Rand	2.26	2.20	2.60
Morundah	0.50	0.41	0.70
Collingullie	3.84	4.23	5.92
SUB-TOTAL	11.61	12.06	17.47
TOTALS	763.40	690.69	1,303.33

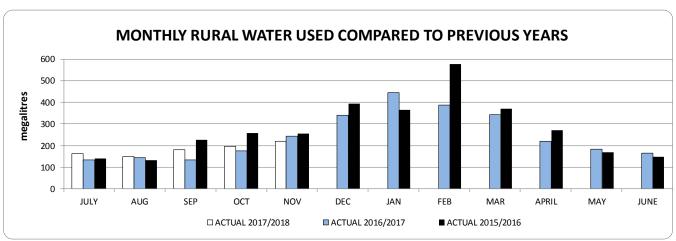
WATER USED Nove	mber 2017	(MI)	
	2015	2016	2017
East Bomen	19.83	19.33	26.66
Estella	33.91	35.28	87.48
North Wagga	90.40	53.00	81.31
Wagga Wagga – Low Level	125.86	113.12	153.23
Wagga Wagga – High Level	313.13	282.58	648.10
Wagga Wagga – Bellevue Level	31.58	32.23	48.16
SUB-TOTAL	614.71	535.54	1,044.94
Ladysmith System	2.09	2.63	5.57
Brucedale Scheme	12.30	14.65	26.75
Currawarna Scheme	9.19	7.59	14.78
Rural south from Wagga Wagga	71.93	64.76	92.52
Rural from Walla Walla Bore	0.00	0.00	6.83
Bulgary, Lockhart and Boree Creek	13.55	24.34	19.77
From Boree Crk to Urana and Oaklands	11.95	8.84	17.48
Holbrook	16.31	12.40	20.22
SUB-TOTAL	137.32	135.21	203.92
Woomargama	0.77	1.02	1.29
Humula	0.52	0.51	0.45
Tarcutta	2.18	1.90	3.30
Oura	1.54	1.79	3.21
Walbundrie/Rand	2.26	2.20	2.60
Morundah	0.50	0.41	0.70
Collingullie	3.84	4.23	5.92
SUB-TOTAL	11.61	12.06	17.47
TOTALS	763.64	682.81	1,266.33











1.2 <u>NEW SERVICE CONNECTIONS, REPAIRS, METERS, LOCATIONS & COMPLAINTS FOR THE MONTH OF NOVEMBER 2017</u>

Location	New Connect., Residential	New connect., Non Residential	Services Renewed	Services Repaired	Quality Complaints	Supply Complaints *	Customer dealings complaints	Other Complaints	Frost damage	Meter or Metercock fault	Leaking valves or hydrants	Locations
Wagga	26	1		24	3	8				36	2	7
Wagga Brucedale						1						
Currawarna												
Euberta												
Humula				1								
Ladysmith												
Oura						1						
San Isidore												
Tarcutta				1								
The Gap				2								
Bulgary												
Collingullie					1							
French Park				1								
Lockhart												
Mangoplah												
Milbrulong												1
Pleasant Hills												
The Rock				2						1	1	
Uranquinty				1						1		
Yerong Creek												
Culcairn												
Henty										1	3	
Holbrook			1	1						1		
Morven				1								
Walbundrie												
Walla Walla										1		
Woomargama										1		
Boree Creek												
Morundah												
Oaklands			1									
Rand												
Urana												

1.3 WATER SYSTEM REPAIRS

No water system repairs in Wagga Wagga.

	RURAL							
						Outage	Customers	Water
Date	Location	Town	Main	Cause	Live	Duration Affected		Lost
			Type		Repair	Time	(no supply)	KI
3	24 Benedict Drive	San Isidore	Pipe	Pipe Failure (not	No	3:30	50	0
10	7 Linton st	Collingullie	Pipe	Pipe Failure -	No	1:00	20	14
14	Sturt hwy	Collingullie	Pipe	Pipe Failure -	No	2:00	30	2
16	Uranquinty Street	Uranquinty	Pipe	Pipe Failure (not	No	8:30	50	167
20	Napier rd	Lockhart	Pipe	Pipe Failure -	No	4:00	0	46
23	Napier rd	The Rock	Pipe	Pipe Failure -	No	3:00	0	38
27	Baker st	Uranquinty	Pipe	Pipe Failure -	No	2:00	5	7
29	Anna st	Urana	Pipe	Pipe Failure -	No	3:00	10	9
7	Doigs Ine	Pleasant Hills	Pipe	Pipe Failure -	Yes		0	6
20	557 Mangoplah rd	The Rock	Pipe	Pipe Failure -	Yes		0	7
				7	OTALS	0:00	165	296
				Breaks needing		Е	Breaks affecting	
	Total Breaks –	10		shut off -	8		customers –	6

1.4 WATER QUALITY COMPLAINTS

Water quality complaints received during November 2017 were:

Date	Location	Problem	Action Taken
1/11/2017	IS VITTIBLE DI L'HONTIOLE	Flushing following Oct WQ test work	Flushed main. Turb=4.6NTU
9/11/2017	2463 Sturt Hwy, Collingullie	Dirty water	Flushed main & service
10/11/2017	54 Elizabeth Dr, Forest Hill	Strong CI taste	CI & turb within ADWG. No further action
17/11/2017	68 Simkin Cr, Kooringal	Cl smell, abdominal pain	CI & turb within ADWG. No further action

1.5 MAINS CONSTRUCTIONS

1.5.1 MAINS EXTENSIONS AND NEW WORKS

New water mains laid during November 2017 include:

LOCATION	PROJECT	63	100		150		200
		PE	DICL	OPVC	DICL	OPVC	OPVC
Lloyd stage 7	New Subdivision		28				
Pine Gully Rd	New Subdivision						108
Lloyd West	New Subdivision		18				
	TOTAL	287		0	78	240	108

1.5.2 REPLACEMENT OF EXISTING MAINS

Mains replaced during November 2017 include:

LOCATION	PROJECT	50	10	100		00
		Poly	OPVC	DICL		DICL
Essential Energy	Low level main					117
Kooringal Road	Mains Replacement	210	69	18		
The Gap	Mains Replacement		3654	30		
	TOTAL	210	3723	48		117

1.6 OTHER CONSTRUCTION

Other construction works during November 2017 include:

LOCATION OR PROJECT	WORK DONE
Clay Target Range	Install 100mm Fire Service
Mount Austin Resivour	Replace 150mm Magflow Meter
Plumpton Road Wagga	Install100mm meter to Community title Block

1.7 MAJOR REPAIRS / OVERHAULS

Major repairs/overhauls during November 2017 include:

LOCATION OR PROJECT	WORK DONE
Ralvona Bore #1	Remove stage from pump and reinstall.
Ralvona Bore #3	Test run for water quality and commission.
Ralvona Aeration	Drain and clean steel basin.
Bulgary bores	Repairs and replacement to electrical equipment after power
	surge.
Collingullie filters	Air scour filters
Tarcutta WTP	Repair hypochlorite dosing pump

1.8 WATER FILLING STATION ACTIVITY

Water Filling Station activity during November 2017 include:

LOCATION	NUMBER OF FILLS
Bomen Hereford Street	41
Estella Farrer Road	201
Forest Hill Elizabeth Avenue	84
Glenfield Red Hill Road	71
Henty Olympic Way	3
Holbrook Millswood Road	25
Lake Albert Plumpton Road	25
Lockhart Napier Road	36
Pleasant Hills Manson Street	0
The Rock	54
Yerong Creek Finlayson Street	27

1.9 STAFF TRAINING & SAFETY

The following training and/or safety activities were undertaken during November 2017:

Training or Programme	Number of Staff
Hunter Valley IPWEA - Conference	1
NSW Interest Day - Jugiong	6
MR Truck	1
Scada & Telemetry	1
Skid Steer/Loader	1
Shoring Refresher	9
Shoring Full Course	6

1.10 FLEET DISPOSALS

Fleet disposals made during November 2017 are:

	Vehicle Details						
Vehicle No	Description	Vehicle Type	Make & Model	Year	kms		
342	The Rock	Extra cab with tray	ISUZU D-MAX	2015			
291	Carpenters	Extra cab with tray	Nissan Narvara D40	2012	96137		
319	Fitters	Extra cab with tray	ISUZU D-MAX	2013	94370		
312	Plumbing	Dual cab ute, hard co	PX Ford Ranger	2013	104,574		
204	Carpenters	Extra cab ute with car	Ford Ranger Supercab	2007	72,946		
301	Electrician	Dual cab with tray	PX Ford Ranger	2013	62,500		
347	Engineering	Wagon	Holden Captiva Wagor	2015			
326	Meters	Dual cab ute	ISUZU D-MAX	2014			
302	Engineering	Dual cab ute	Hyundai Santafe	2012			
345	Works	Wagon	Subaru Outback Wago	2015			
349	Admin	Sedan	Ford Mondeo	2015			
New	Admin	S.Thompson					
101	Works	Truck	lveco70 c21 truck with	2004			

Disposal Details				
Vehicle No	Method	Price exc GST		
342	Auctions	\$22,727.27		
291	Auctions	\$19,090.91		
319	Auctions	\$19,772.73		
312	Auctions	\$22,727		
204	Auctions	\$9,000		
301	Accident			

1.11 FLEET ACQUISITIONS

Fleet acquisitions made during November 2017 are:

New Vehicle Details							
Vehicle No	Tenders Received	Accepted Tenderer	Vehicle Type	Make & Model	Price exc GST		
375	8	Lieschke Motors	Extra cab with tray	Holden Colorado	\$30,248		
376	8	Lieschke Motors	Extra cab with tray	Holden Colorado	\$30,248		
377	8	Lieschke Motors	Extra cab with tray	Holden Colorado	\$30,248		
378	7	Lieschke Motors	Dual cab ute, hard cover	Holden Colorado	\$33,279		
379	9	Lieschke Motors	Extra cab ute with canopy	Holden Colorado	\$36,897		
380	3	Hillis Ford	Extra cab with tray	Ford Ranger	\$30,691		
381	4	Wagga Motors	Wagon	Captiva LTZ	\$29,057		
382		Wagga Motors	Dual cab ute	Holden Colorado LS	\$30,918		
383		Wagga Motors	Dual cab ute	Holden Colorado LTZ	\$34,912		
384		Jupiter Motors	Wagon	Subaru Outback Wagon	\$33,709		
385		Wagga Motors	Sedan	Holden Calais V	\$35,194		
386		Jupiter Motors	Wagon	Subaru Outback Wagon	\$31,450		
387		Thomas Brothers	Truck	Iveco 70C21	\$82,223		

1.12 MAJOR CAPITAL PROJECTS PROGRESS

- On track
- Behind Schedule
- Unlikely this Financial Year

MAJOR PROJECTS 2016/17 (> Over \$100,000) - November 2017

Description	2017/18 - Budget	Actual & Commited to Date	Comments
MANAGEMENT			
Land & Buildings for Admin, Depot & Workshops			
Administration Office	10,000	\$0	
Replace Airconditioning	27,600	\$2,797	Completed
Access, Parking and Landscaping			
Levee protection stage 2 Hammond Ave - Urban	\$1,597,658	\$137,868	Tender recommendation for supply of sheet piling to December Council Meeting
PLANT & EQUIPMENT			
IT Equipment			
Corporate IT software upgrade/improvements - Urban	\$162,500	\$87,716	
Working Plant & Vehicle Purchases			
Routine plant & vehicle replacements	\$769,000	\$497,179	
Telemetry & Control Systems Upgrade			
West Wagga WTP & Bores Control System Upgrade	\$106,695	\$108,085	
Radio Telemetry SCADA Upgrade	\$168,648	\$0	
Radio Communications Upgrade/Replacements/Improvements			
Radio Communication	\$388,225	\$50,995	

SOURCES			
Bores-renew/refurbish/decommission			
Bores-renew/refurbish/decommission - Urban	\$61,504	\$83,884	
TREATMENT PLANTS			
Aeration Tower Covers			
East Wagga Aeration Basin cover - Urban	\$160,000	\$0	Project deferred until WTP complete and site handed back to RWCC
Treatment Plant Refurbishments			
WTP Stage 1 - Urban	\$9,929,062	\$3,194,152	See detailed report
Urana WTP replacement - Non-Urban	\$1,500,000	\$24,528	Plant layout developed
Woomagama WTP - Non-Urban			
RESERVOIRS			
New/Replacement Reservoirs			
Shires Reservoir Relocation - Non-Urban	\$2,560,333	\$153,359	Contractor has commenced on-site.
Main Low Level Reservoir 2x11ML Investigation & Design - Urban	\$5,004,000	\$408,877	Earthworks underway, completion of pads expected early next year.
Glenoak Res 2 x 4.5 ML - Investigate, design, land matters	\$100,000	\$13,352	Negotiating land acquisition with WWCC. Consultant engaged who has commenced REF.
MAINS, SERVICES & METERS			
MAINS			
System Improvements			
System Improvements - Non Urban	\$20,000	\$14,517	

Reticulation for Developers (including other extensions)			
Reticulation for Developers - Urban	\$800,000	\$419,080	ĺ
Renew Reticulation Mains			
Renew Reticulation Mains - Non-Urban	\$200,000	\$0	Ī
Renew Reticulation Mains - Urban	\$400,000	\$124,572	I
Lake Albert Rd Replacement	\$0	\$2,163	I
The Gap / Brucedale System - Non-Urban	\$100,000	\$107,696	I
Main St, Lake Albert - Urban	\$100,000	\$158,797	I
Angel St, Lake Albert - Urban	\$0	\$693	I
Simmons Street	\$90,000	\$91,166	
Broad Street	\$120,000	\$564	
McDonnell St, Collingullie	\$60,000	\$24,348	
Renew Trunk Mains			Ī
Renew Trunk Mains - Urban	\$200,000	\$0	1
Renew Trunk Mains - Non - Urban	\$200,000	\$0	
Bomen Trunk Main B (north of river) - Urban	\$0	-\$13,589	ľ
Southern Trunk - Highway to New Reservoir 1.8km 450mm DICL	\$400,000	\$312,301	
Low & high Rising Mains from CWS	\$2,911	\$146,740	ľ
The Rock - Milrulong BT Trunk Mains Replacement	\$1,000,000	\$6,933	
Renew Rail Crossings	\$25,000	\$0	ĺ
New Low Level Reservoir Connection Main Refurbishment	\$400,000	\$0	Ì
			Ī

SERVICES		
Service Connections, new including Meters		
Service Connections, new - Urban	\$500,000	\$234,800
Renew Services		
Renew Services - Urban	\$100,000	\$18,055
METERS		
Water Meters Replacement		
Water meters replacement - Urban	\$150,000	\$54,141
Remote Metering		
Remote metering - Urban	\$250,000	\$0



Bede Spannagle
DIRECTOR OF ENGINEERING

3. CONTRACT W195 - WATER TREATMENT PLANT (WTP) PROGRESS REPORT

RECOMMENDATION: that Council receive and note this report.

UGL have run the WTP using the temporary pipeline from the existing raw water pumps. The final water quality testing has being undertaken and we have commenced providing potable water into our system.

Construction of the concrete structure for the Raw Water Intake has been completed. The program for completion of the remaining works has been outlined in section 7 of UGL's November report.

The recent heavy rains increased the river level inundated the coffer dam on Monday 4 December. UGL prepared for the event and removed equipment and materials from the work area prior to inundation. The clean-up is expected to delay construction by 2 weeks.

RWCC have awarded a conditional EOT to UGL. The EOT is subject to UGL supplying a minimum 25ML/day of potable water during the summer periods. If UGL fail to provide minimum quantity of potable water and RWCC are need to impose water restrictions, liquidated damages will apply.

Contract issues and variations

The RWCC and UGL project managers continue to meet weekly and are work through contractual issues.

Since the last Council meeting there have been two variations approved through Change management process outlined in the Project Management Framework.

	CMR #	Description	Value \$ (ex GST)
1	10	Clear Water Pumps - Installation of Mechanical Seals	64,000
2	11	Provide forklift access ramps to Machinery & Polymer rooms	11,610

The UGL project status reports issued since the last Council meeting are attached.

- UGL Project Status report October 2017
- UGL Project Status report November 2017



PROJECT STATUS REPORT



October 2017

PROJECT: Wagga Wagga WTP Upgrade

CLIENT: Riverina Water County Council

CONTRACT NO.: W195

UGL PROJECT NO.: 3200-0485

REPORT DATE: 9th October 2017

REPORT NO.: 27

PROJECT MANAGER: Doug Anderson

PREPARED BY: Doug Anderson



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1.0 SUMMARY

Project progress in October was focussed on the following activities:

Electrical works - punchlist items within the filter, raw water MCC & lamella area; street light poles; clearwater pump station cabling; clearwater storage lighting; test and quality documentation.

Raw Water Intake – Base slab completed, wall formwork & reo installed, wall pours starting 6/11/17, preparation for draft tube installation.

Temporary Raw Water Pipe – pipe has delivered water to lamella clarifier and no leaks have been detected.

Clearwater Pump Station Building – Erection of structure 40%.

Lamella roof structure – additional support brackets being manufactured, installation scheduled week starting 13/11/17, roof installation scheduled week starting 20/11/17.

Filters – Coal installed and washed in filters 4, 5 & 6. Issue with supply of remaining coal, coal proposed is non-conforming, UGL is in discussions with Sibelco

Civil/plumbing - Civil has focussed on various drainage works; lab services drain to filter backwash, installation of RPZs at various locations, installation of hose reels.

Safety performance across the site continues to be well managed.

2.0 SCOPE OF WORK

The project scope of works is to replace the Wagga Wagga Water Treatment Plant (WTP) to provide additional process capacity and asset reliability to produce up to 55ML/day of water for the residents of Wagga Wagga.

3.0 HSSE

The total hours worked on the project this month were 8709 hours. Subcontractor hours recorded on site were 6800. Total hours worked on the project to date is 219,707.

One lost time injury (LTI) was recorded for the month. A subcontractor sustained a serious finger injury on the 28/9/17 and still in recovery.

One damage report concerning an empty conduit which was being excavated for concrete encasement, minimal damage, conduit repaired and encasement completed.

Site inductions of 22 individuals have been undertaken with current total of 679 inductions completed not including visitor inductions and UGL HSSE pre-start meetings were conducted on all working days, also individual subcontractor pre-start meetings occurred on site daily.

Looking towards Nov/Dec we will be focussed on the following:

- UGL Isolation procedure
- SWMS development by subcontractors
- Continuing training site personnel in UGL Utake 5 and HAZOB



- UGL Critical Risk Protocols all site personnel
- Continuing with Project Manager Monthly Safety Awards

The Safety Report for this month is contained in Appendix B.

4.0 RISK / CRITICAL ACTION AREAS

Summary of Top Risks at October: -

Risk Description	Potential Impact	Control Measures
Quality and specification issues	Impact to project efficiency and rate of completion Additional resources required	Ensure incoming inspections are completed with due diligence
	for investigation and remedy. Subcontractor Impact to Client Relations and Perceptions	Engage with subcontractors & suppliers about prompt rectification of issues
Commissioning Program Overrun	Plant not ready for performance trial by the required date.	Install temporary raw water supply to lamella clarifier to provide a supplemental supply for summer demand
Raw Water Works Construction overrun	Constraint on commissioning activities	Plan and execute a temporary raw water supply utilizing the existing RWCC river pumps
Exceptional Inclement Weather	Delays associated with site inundation due to additional rainfall on site and rise in river levels.	Use construction methodologies which mitigate impacts. Inlet structure works completed during low flows in the river. Insurance policies in place Ensure familiarity with RWCC flood response plan



5.0 CONTRACT/COMMERCIAL

5.1 Progress Claim

The table below summarises the progress to the 31st October.

WAGGA WAGGA WATER TREATMENT PLANT Month

Oct-17

Item No.	Schedule of Prices	Total Cla	im to date
1	Provision of Preconstruction Activities	% complete	Claim Value
	Preconstruction Activities subtotal (1)	100%	
	Provision of Project Management and Site Running		
2	Activities		
	Prooject Management Activities subtotal (2)	96%	
3	Complete all additional designs, where required		
	Design and Documentation subtotal (2)	100%	
-			
4	Intake Works		
	Intake Works - General subtotal (3)	34%	
_			
5	Raw Water Piping System		
	Raw Water Piping subtotal (4)	57%	
•	Lawalla O David Mir Taul		
6	Lamella & Rapid Mix Tank	000/	
	Lamella & Rapid Mix Tank subtotal (5)	98%	
7	Filters		
<u> </u>	Filters subtotal (7)	99%	
	· ····································	30,0	
8	Filter Water Tank & Backwash		
	Filter Water Tank & Backwash subtotal (8)	100%	
9	Machinery Room		
	Machinery Room subtotal (9)	96%	
10	Clear Water Storage & Pumping System		
	Clear Water subtotal (10)	92%	
11	Aluminuium Dosing Plant		
	Aluminium Dosing Plant subtotal (11)	98%	



12	PACL Dosing Plant		
	PACL Dosing Plant subtotal (12)	95%	
13	Caustic Soda Dosing Plant Facilities		
	Caustic Soda Dosing Plant subtotal (13)	97%	
14	Sodium Hydrochlorite Dosing Plant		
	Sodium Hydrochlorite Dosing Subtotal (14)	98%	
15	Polymer Dosing Plant		
	Polymer Dosing Plant subtotal (15)	98%	
16	Fluoride Dosing Plant		
	Fluoride Dosing subtotal (16)	99%	
17	Other Items		
	Other Items subtotal (17)	81%	
18	Electrical Items		
	Electrical subtotal (18)	95%	
19	Testing Demonstration Commissioning		
	Testing Demonstation and Commissioning (19)	14%	
20	D 1 D D		
20	Post Process Proving	00/	
	Post Process Proving (20)	0%	
21	Cludge Handling & Dowstoring System		
21	Sludge Handling & Dewatering System Sludge Handling subtotal (19)	97%	
	Siduge Hailuling Subtotal (15)	37%	
22	Other Options Accepted		
	Options subtotal (20)	95%	
	Optionio diacotti (20)	3370	
23	Variations		
	Variations Subtotal	87%	
		2.75	



5.2 Variations

The table below provides a summary of the <u>approved</u> variations against the contract.

Variation No.	Title	Amount (\$ 000) Excl. GST	Status
VO01	Control System Design for fully networked plant	15	Approved
VO02	AC Road Surface	101	Approved
VO03	Future UV	21	Approved
VO04	Disabled Access	278	Approved
VO05	Aggressive Water Response	79	Approved
VO06	NSC02 – removal of Gyprock	5	Approved
VO07	Transformer supplied by principle	- 244	Approved
VO09	Chemical Dosing – Alum Storage	81	Approved
VO10	Switchboards additional spare capacity	8	Approved
VO11	Lamella plate capacity	45	Approved
VO12	Sewer pump station	5	Approved
VO13	Manual Penstocks on Clarifier Inlet	9	Approved
VO14	Increased bearing capacity in the filters	31	Approved
VO15	Waste in excavation NSC04 & NSC06	10	Approved
VO16	Asbestos in Levee	26	Approved
VO17	Warehouse Facility	- 18	Approved
VO18	Filter Gallery Trenches	41	Approved
VO19	Additional 25mm cover to Slab	8	Approved
VO20	Raw Water Intake	105 260	20A Approved 20B Approved
VO21	Material Compatibility Changes	- 17	Approved
VO23	Pits under existing centrifuge building - NSC10	8	Approved
VO24	Clear Water Pumps Mechanical Seal	1.5	Approved
VO25	Bomen Line	80	Approved
VO26	NSC11 Material Excavated under UGL Carpark	27	Approved
VO27	NSC12 Asbestos at Wash Water Holding Tank	3	Approved
VO29	Filter Water Overflow Changes	-80	Approved
VO30	Site Road Realignment	17	Approved
VO31	Roof Access Ladder to Centrifuge Building	14	Approved
VO33	Flowmeter Modbus Communications	22	Approved
VO34	Caustic Building Lighting Changes	3	Approved
VO36	Sludge Thickener Infill Slab	90	Approved
VO40	Street Light Fittings	9	Approved



VO43	S&I 4.8 to 9.6 Garnet Filter Media	86	Approved
VO44	Lamella Corrosion	-300	Approved
VO45	Concrete slab between filters and Lamella	1	Approved
VO46	NSC16 Remove Concrete Slab	4	Approved
VO49	Bore Water Pressure Line Changes	9	Approved
VO50	Filter Building Pop out Power Outlets	2	Approved
VO53	NSC17 Asbestos at A2 to A203	4	Approved
VO56	Rework External Chemical Delivery Pipework	15	Approved
VO140	Power Failure Alarm Modification	5	Approved

There are number of unresolved commercial issues some of which may have to be resolved by senior management

6.0 FINANCE

The table below summarises the invoices and payment status.

Claim Description	Invoice no.	Amount	Claim/Invoice Status
W195 Progress Claim 1	Invoice # 1	\$ 879,128.59	Paid
W195 Progress Claim 2	Invoice # 2	\$ 1,428,346.00	Paid
W195 Progress Claim 3	Invoice # 3	\$ 1,246,918.00	Paid
W195 Progress Claim 4	Invoice # 4	\$ 2,341,562.00	Paid
W195 Progress Claim 5	Invoice # 5	\$ 2,269,089.00	Paid
W195 Progress Claim 6	Invoice #6	\$ 1,652,403.00	Paid
W195 Progress Claim 7	Invoice #7	\$ 2,039,696.00	Paid
W195 Progress Claim 8	Invoice #8	\$ 1,764,615.00	Paid
W195 Progress Claim 9	Invoice #9	\$ 2,037,494.00	Paid
W195 Progress Claim 10	Invoice #10	\$ 2,540,706.00	Paid
W195 Progress Claim 11	Invoice #11	\$ 3,296,966.00	Paid
W195 Progress Claim 12	Invoice #12	\$1,309,013.00	Paid
W195 Progress Claim 13	Invoice #13	\$1,208,270.00	Paid
W195 Progress Claim 14	Invoice #14	\$ 967,609.00	Paid
W195 Progress Claim 15	Invoice #15	\$ 714,741.00	Paid
W195 Progress Claim 16	Invoice #16	\$ 582,416.00	Paid
W195 Progress Claim 17	Invoice #17	\$ 723,083.00	Paid
W195 Progress Claim 18	Invoice #18	\$ 614,612.00	Paid
W195 Progress Claim 19	Invoice #19	\$ 502,532.00	Paid
W195 Progress Claim 20	Invoice #20	\$ 480,610.00	Paid
W195 Progress Claim 21	Invoice #21	\$ 327,361.10	Paid
W195 Progress Claim 22	Invoice #22	\$ 170,888.00	Paid
W195 Progress Claim 23	Invoice #23	\$ 304,322.00	Paid
W195 Progress Claim 24	Invoice #24	\$ 0.00	Paid
W195 Progress Claim 25	Invoice #25	\$ 0.00	Paid
W195 Progress Claim 26	Invoice #26	\$ 55,051.00	Paid
W195 Progress Claim 27	Invoice #27	\$ 303,036.00	Approved
W195 Progress Claim 28	Invoice #28	\$ 380,348.00	Pending



7.0 PROGRAMME

A revised programme has been produced which encompasses the remaining works and the most recent version is included in App C.

The version attached to this report (3/11/17) reflects the most recent change.

The programme has been constructed with Microsoft Project and will be managed by site, it will remain a live document which will be continually updated as circumstances dictate.

Key revised target construction dates for the month ahead are as follows:-

Activity	Target
Filter Media Loading and Washing	Late Oct 2017
Completion Lamella Installation	Late Oct 2017
Plant operational with temporary RW	End of Nov 2017
supply	
Road Works Stage Two Completion	Late Dec 2017
Raw Water Intake Works	Jan 2018

8.0 QUALITY

Production of Inspection and Test Reports (ITPs) continues for civil/structural, mechanical and electrical works across the site.

We continue to work through finalising the quality issues with some of fabricated equipment with many of the issues now closed out. In some instances, remedial works have been required to meet the aspects of the specification and we are working with suppliers as needed to remedy these.

9.0 ENVIRONMENTAL

Project Construction Environmental Management Plan continues to be implemented.

Application to vary the CEMP for RWI works during summer has been approved by DPE

10.0 INDUSTRIAL RELATIONS

No issues

11.0 DESIGN AND TECHNICAL

Design is 97% complete, misc mech & elec remain e.g. brackets & supports.



12.0 COMMISSIONING

Temporary raw water supply & flowmeter 100%
Lamella Clarifier – Train one 75%, train two 50%
Lamella Sludge Pumps 90%
PLC sequencing 30%
Instrument Wet Rack 75%
Sample Pumps 85%
Filters 75%
Backwash Pumps 80%
Washwater Pumps 80%
Process Water Pumps 25%
Chemical Dosing 70%
Clearwater Storage 75%
Clearwater Pumps 25%

The continuing focus of commissioning in the next month will be to achieve production of spec water.

13.0 STAKEHOLDERS

The UGL site have continued to engage with other contractors on site as well RWCC staff and construction teams and no issues arising.

Outside of the interactions with Department of Planning and EPA, no other significant issues to report with External Stakeholders in the month.



14.0 SITE PROGRESS



Photo 1: RWI Base Pour

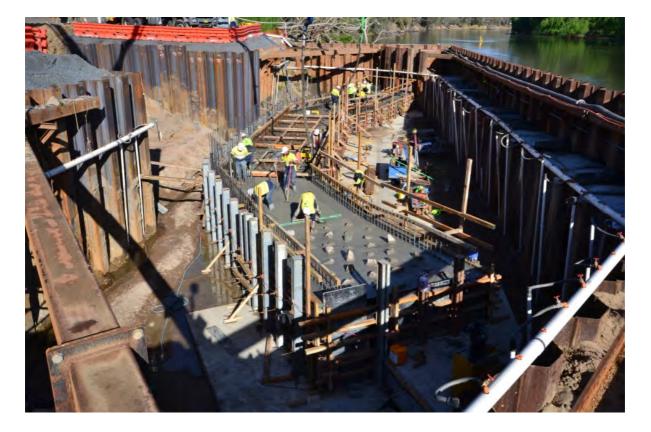


Photo 2: RWI Base Pour



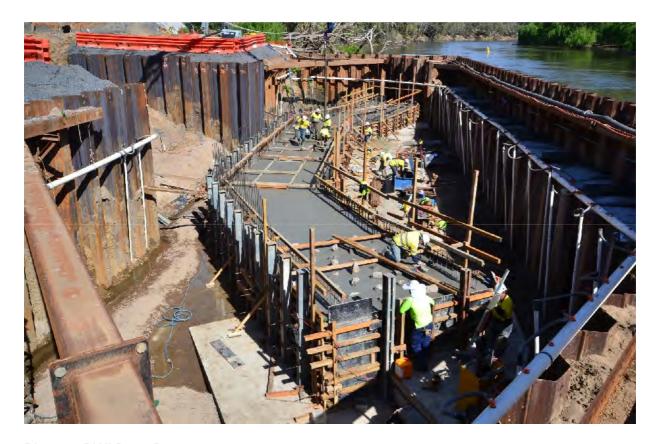


Photo 3: RWI Base Pour



Photo 4: Installation of reinforcement and wall formwork





Photo 5: Installation of reinforcement and wall formwork



Photo 6: Installation of reinforcement and wall formwork





Photo 7: Lamella Clarifier (Train 1) in Operation During Commissioning

APPENDIX A - SCOPE OF WORKS SUMMARY

The project scope of works is to replace the Wagga Wagga Water Treatment Plant (WTP) to provide additional process capacity and asset reliability to produce up to 55ML/day of water for the residents of Wagga Wagga.

The WTP shall be designed to operate at a treated water production rate anywhere between 60 ML/d (695 L/s) and 22 ML/d (255 L/s).

The main treatment process of the WTP shall include coagulation and flocculation, inclined plate clarification, dual media filtration, chlorination, and fluoridation. Process wastewater shall be managed using gravity thickening and mechanical dewatering.

Product water shall be produced to meet the quality requirements of the specification and shall treat the required quality. The project target completion periods are for a design and construction period of 60 weeks, followed by a 10 week commissioning and proving period.

The scope of on-site works for UGL Engineering and its subcontractors as described in the contract are limited to the following;

The new water treatment facility shall consist of the following elements for a new 60ML/d Water Treatment Plant:

- Raw water intake and pumping station. The intake would be constructed within the river. The
 pumping station would be built on Crown Land adjacent to the WTP on the bank of the
 Murrumbidgee River to supply raw water to the plant;
- Alum and polymer dosing systems;



- Inclined plate clarifiers (Lamella clarifiers);
- Six dual media filters including backwash pumps and air scour blowers;
- Chlorine storage and dosing system and channel-type static mixer for clear water storage;
- Fluoride dosing system;
- pH correction dosing systems;
- Dewatering building with two new centrifuges to dewater sludge material produced from clarification and filtration during the water treatment process.
- Backwash wastewater collection tank and pumping station for the wastewater produced from the clarification and filtration process;
- Clear water system upgrade including a new 3 ML clear water storage tank and low level and high level pumping stations each fitted with three pumps;
- Electrical works including switch-rooms, automation and control infrastructure, electrical substations and two new 1500kVA transformers;
- Filter wastewater collection sump and transfer pumps;
- · Pipework and valves;
- Control room, water testing and analysing facilities;
- Internal access roads:

UGL is responsible for undertaking the detailed design, construction, commissioning, training and handover for aspects of the scope of works above.

UGL will also provide post completion technical support comprising, where necessary some site visits, to assist RWCC in operating and optimising the plant.



APPENDIX B - MONTHLY SAFETY REPORT





HSSE Monthly Safety Report -October 2017

1.0 Overview Statistics

	October 2017	Total to Date
UGL Hours	1909	62,758
Subcontractor hours	6800	150,949
Total Site Hours	8709	219,707
LTIFR: Target <.50	4.55	4.55
TRIFR: Target 2.70	0	0
MTIFR:	0	0
Lost Time Injuries (LTI)	1	1
Days lost to LTI	20	20
Medical Treatment Injuries (MTI)	0	0
1 st Aid Injuries	0	5
Incidents:		
Injury	0	6
Damage/ Loss	1	22
Near Miss	0	46
Hazard	8	117
Report Only	1	10
Journey Incident	0	1
Non-work related injury	0	0
Environmental	0	11
Safety Initiatives:	0	13
Workplace Safety Inspections	19	670
Environmental Inspections	4	80
Safety Conversations (UGL)	16	1,063

Utake 5 (UGL)	140	5608
Hazobs	8	503
Site audit (e.g. Plant pre-start)	4	87
SWMS reviews	13	340
Site inductions	22	679
Tool box meetings	4	80
Training hours	0	133
Plant delivery inspections	9	175
Checkit compliance (UGL)	100%	100%
UGL/ External Audits	0	3
Alcohol Breath tests	133	3441
Drug tests	0	176

2.0 Incident Summary

The following incidents occurred on site in October 2017.

Damage: During excavation to lower & concrete in case underground conduits under new site road an empty conduit was clipped by a rock which fell between the 3-ton excavator bucket and the one of the empty underground conduits with the rock becoming stuck between the bucket & conduit causing a crack and small hole (20 cent piece) in the empty conduit. Incident reported by PCT Plumbing

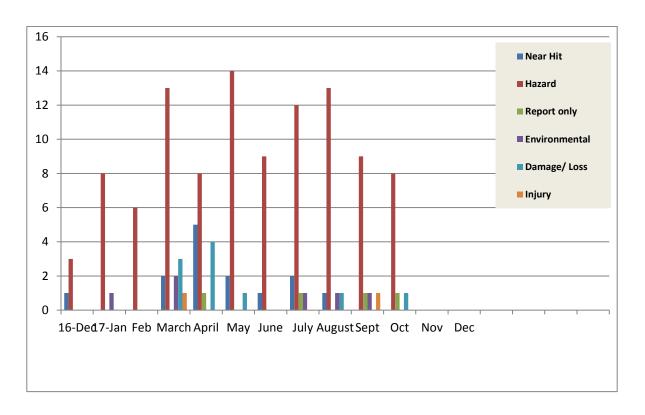
Actions: Work stopped in area, conduit inspected by electrical supervisor and repairs to the conduit occurred and work continued. Spotter in place at the time of incident and spotter was reminded to be more observant during excavation near conduits and excavator instructed to be more than 300mm from an underground conduit to avoid rocks getting stuck between the excavator bucket and the conduits

Report only: Safe Work NSW Inspection Jason Manyard rang UGL HSSE at 1.50pm 27-10-2017 and inform he of his intention to attend Wagga WTP site regarding an alleged breach. Safe Work NSW received an anonymous report regarding UGL and tramy line attached to a concrete boom pump used by UGL & SPS on the 19-10-2017. Safe Work NSW inspector attended site with copy of report and photos of the alleged breach on the 19-10-2017

Actions: Safe Work NSW Inspection Jason Manyard Wagga office attended UGL Wagga WTP site office at 2.10pm and discussed a report of an alleged breach with UGL Civil supervisor, Project Manager, Construction Manager, Civil Engineer & HSSE. Concrete boom pump SWMS, Plant delivery inspection, Concrete pump operator HRW ticket and Safe Work registration of concrete boom pump reviewed by

Safe Work inspector and all documentation are appropriate. No evidence of a breach was identified by Safe Work Inspector and no additional action will be taken by Safe Work NSW. Safe Work NSW Inspector Jason Maynard also inspected the coffer dam location where the alleged breach occurred and was satisfied with safety standard of the site. Safe Work inspector will email copy of his report next week to UGL HSSE.

Wagga Wagga WTP Incident trends



- October 2017 22 Site inductions not including visitor's inductions
- Site wide training in UGL Isolation procedure
- Continuing education of local subcontractors in regards to SWMS & Safety Culture Development/ Awareness
- Safety Award October 2017 Steve Crowhurst Kirk Industrial

3.0 Project Safety Initiatives for November 2017

Training:

- UGL Isolation procedure
- SWMS development by subcontractors
- Continuing training site personnel in UGL Utake 5 and HAZOB
- UGL new Critical Risk Protocols all site personnel
- Continuing with Project Manager Monthly Safety Awards

➤ UGL Daily Pre-start meetings:

Daily site hazards, site hazard board updates, continuing discussion of subcontractor interfacing requirement to, site personnel consultation

Subcontractor individual pre-start meetings conducted after site pre-start. Subcontractor individual work tasks & hazards involved

> UGL Weekly Toolbox meeting:

- Site incidents / actions, industry safety alerts, continuing discussion of site safety hazards,
 site personnel consultation. Update of the site notice board.
- Weekly supervisor/subcontractor HSE meeting discussing HSE initiatives for the project as well as subcontractor interfaces.

> Site Safety Inspections:

Continuing compliance with UGL WWWTP Project Safety Management Plan via:

- ✓ Site safety inspections
- ✓ UGL Safety conversations
- ✓ UGL UTake 5
- ✓ UGL Hazobs
- ✓ Plant operator pre-start inspection audits
- ✓ SWMS reviews, work permit audits

> Fitness for Work:

- Continuing Alcohol testing at pre-start meetings
- Drug testing as per Project Safety Management Plan
- Continuing Site Environmental inspections and education to subcontractors regarding environmental compliance.

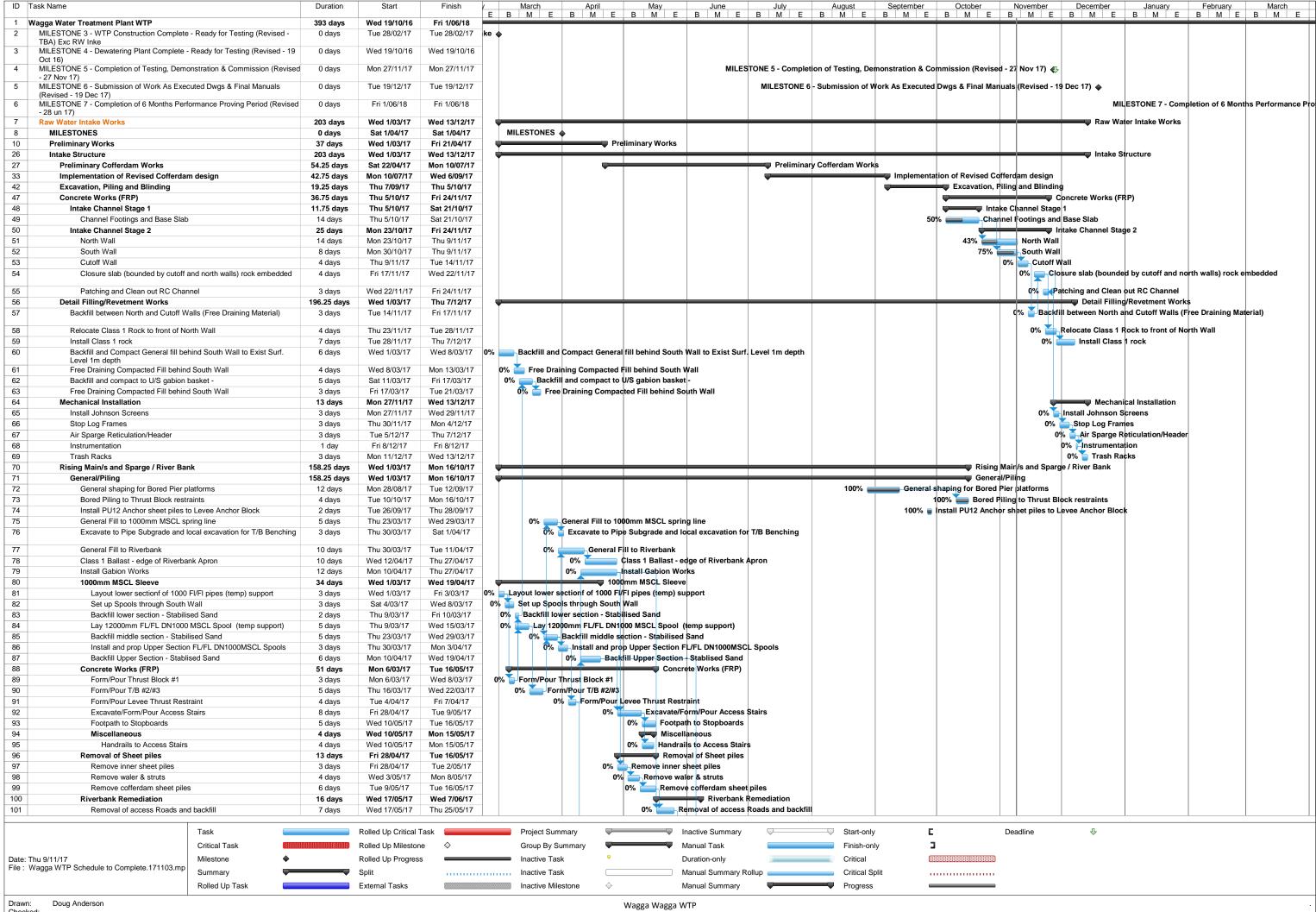
Mark Hunter

UGL Safety Advisor

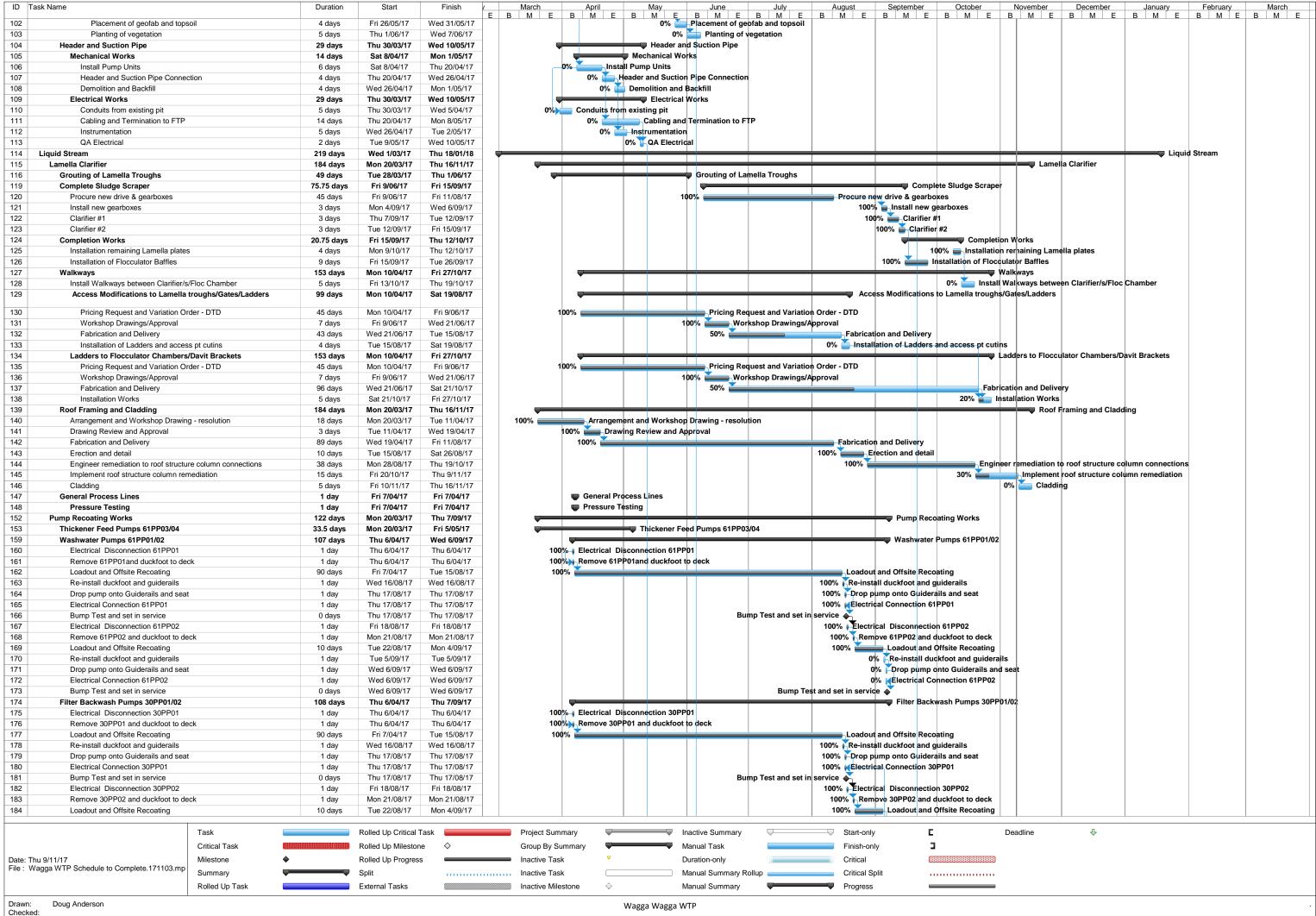


APPENDIX C - PROJECT PROGRAMME

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Checked: Authorised

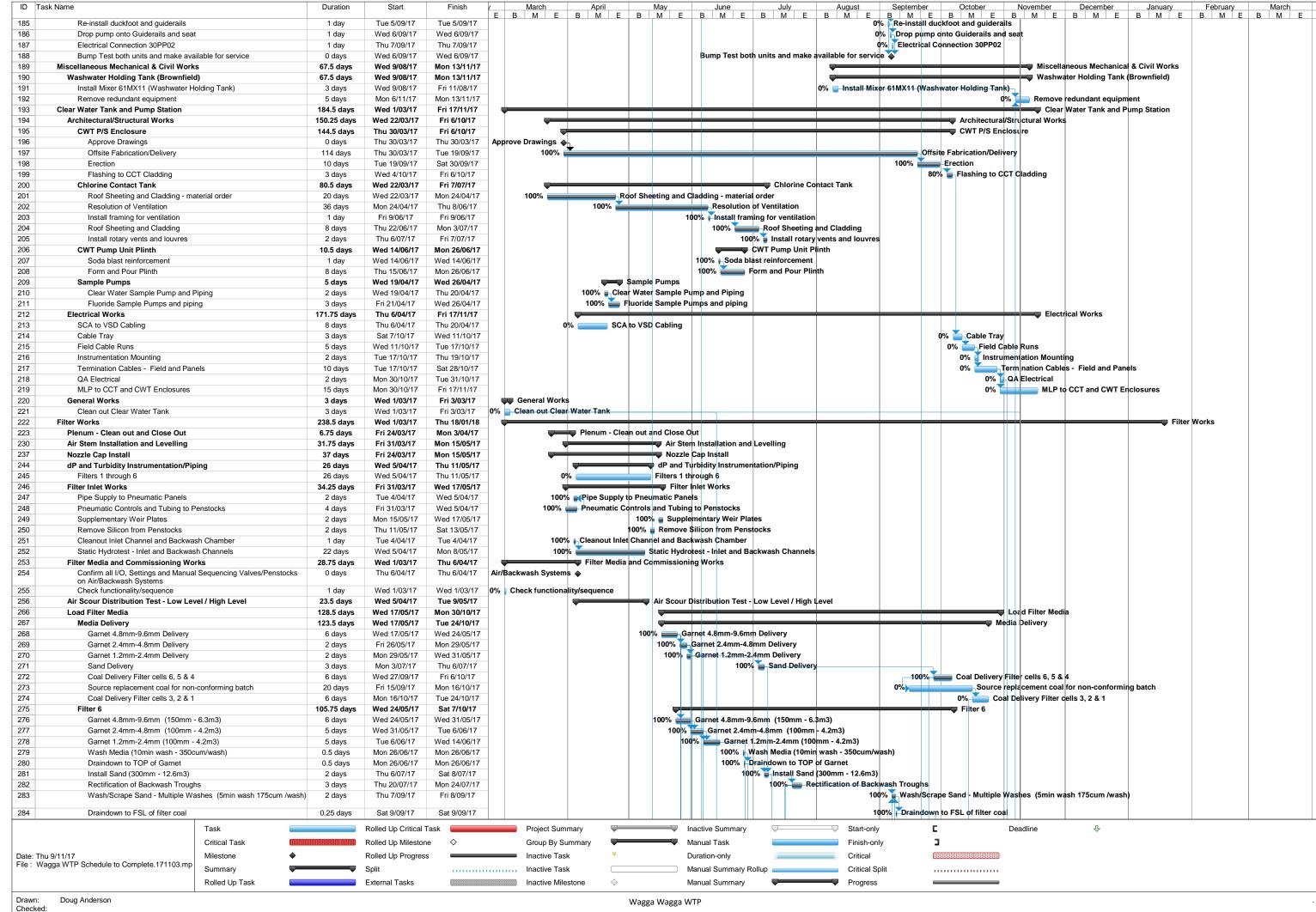


Authorised

ID Task Name

Duration

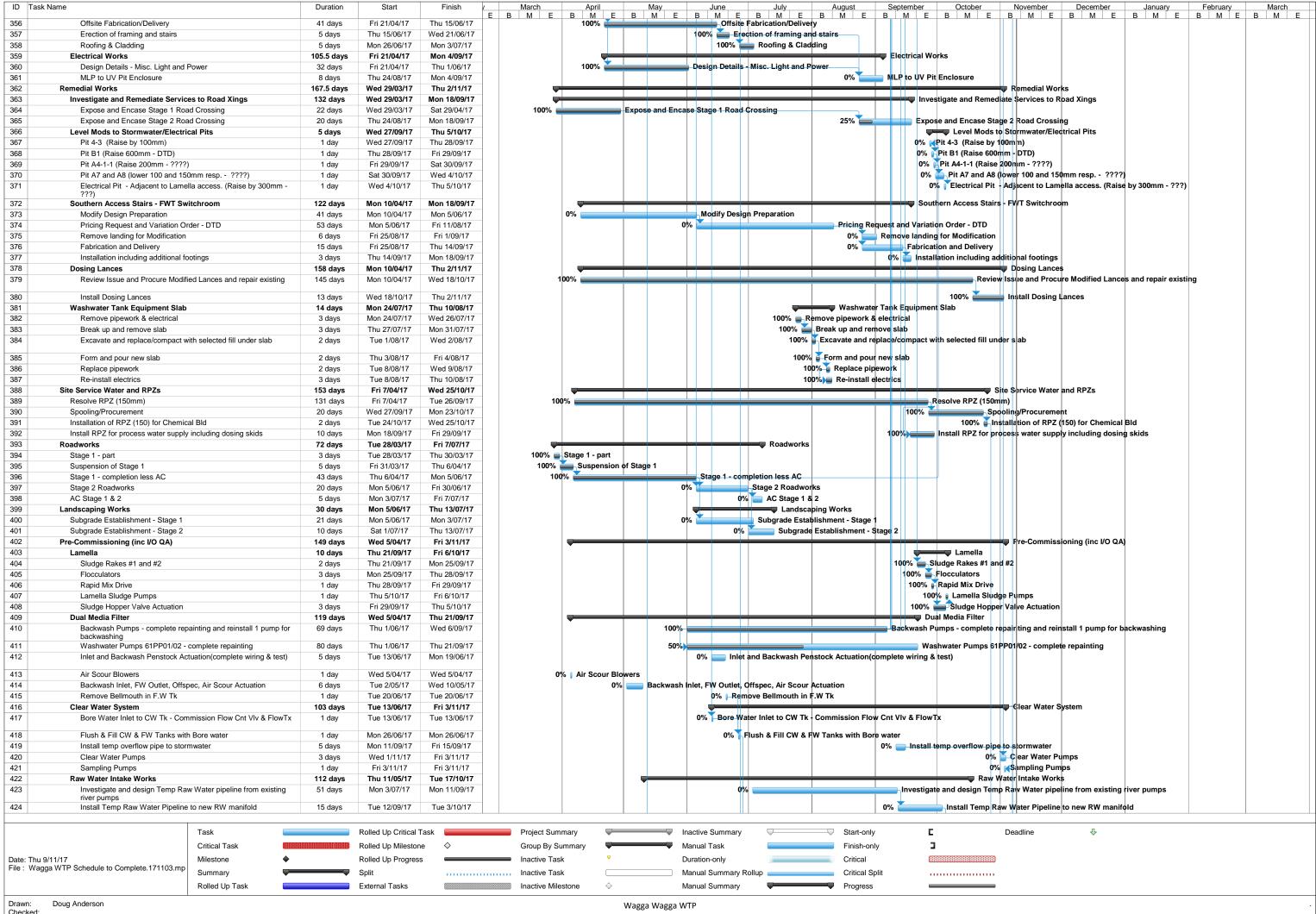
Start



Authorised

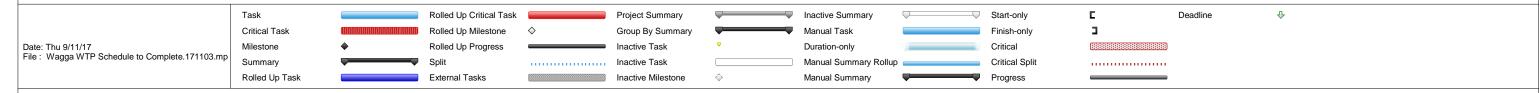
Task Na	me	Duration	Start	Finish /	March April May June July August September October November December January February N
	Install filter coal (1400mm - 58.8m3)	3 days	Thu 28/09/17	Wed 4/10/17	B M E B M E
	Fill and Soak filter coal	1 day	Wed 4/10/17	Thu 5/10/17	100% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days	Thu 5/10/17	Sat 7/10/17	100% Wash filter coal (5min wash 175cum /wash)
	Filter 5	109 days		Wed 11/10/17	Filter 5
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days	Tue 6/06/17	Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days	Tue 27/06/17	Tue 27/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days	Tue 27/06/17	Tue 27/06/17	100% Draindown to TOP of Garnet
	Install Sand (300mm - 12.6m3)	1 day	Sat 8/07/17	Mon 10/07/17	100% install Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	4 days	Thu 20/07/17	Tue 25/07/17	100% Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Thu 7/09/17	Fri 8/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	· · · · · · · · · · · · · · · · · · ·				
	Draindown to FSL of filter coal	0.25 days	Sat 9/09/17	Sat 9/09/17	100% FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	3 days	Wed 4/10/17	Sat 7/10/17	100% install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day	Mon 9/10/17	Mon 9/10/17	100% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Wed 11/10/17	100% Wash filter coa (5min wash)
	Filter 4	111 days	Wed 24/05/17	Fri 13/10/17	Filter 4
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days		Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days		Wed 28/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days		Wed 28/06/17	100% HDraindown to TOP of Garnet
	Install Sand (300mm - 12.6m3)	1 day	Mon 10/07/17	Tue 11/07/17	100% KInstall Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	5 days		Wed 26/07/17	100%) Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Sat 9/09/17	Wed 13/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Wed 13/09/17	Wed 13/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days	Sat 7/10/17	Tue 10/10/17	100% Install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day		Wed 11/10/17	100% Fill-and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days	Thu 12/10/17	Fri 13/10/17	100% Wash filter coal (5min wash 175cum /wash)
	Filter 3	119.75 days		Wed 25/10/17	Filter 3
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm -2.4mm (100mm - 4.2m3)	5 days	Tue 6/06/17	Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days		Wed 28/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days	Thu 29/06/17	Thu 29/06/17	100% Paraindown to TOP of Garnet
	Install Sand (300mm - 12.6m3)	1 day		Wed 12/07/17	100% Install Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	5 days	Thu 20/07/17	Wed 26/07/17	100%) Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days		Wed 13/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	, , , , , , , , , , , , , , , , , , ,				
	Draindown to FSL of filter coal	0.25 days		Wed 13/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days	Wed 18/10/17	Fri 20/10/17	0%) Install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day	Fri 20/10/17	Mon 23/10/17	0% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Wed 25/10/17	0% Wash filter coal (5min wash 175cum /wash)
	Filter 2	121.75 days	Wed 24/05/17	Fri 27/10/17	Filter 2
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days	Wed 24/05/17	Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days	Tue 6/06/17	Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days	Thu 29/06/17	Thu 29/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days	Fri 30/06/17	Fri 30/06/17	100% Praindown to TOP of Garnet
	Install Sand (300mm - 12.6m3)	1 day	Wed 12/07/17	Thu 13/07/17	100% Install Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	6 days	Thu 20/07/17	Thu 27/07/17	100% Rectification of Backwash Troughs 100% Wash/Sprane Sand Multiple Washes (Emin wash 175sum (wash)
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Wed 13/09/17	Fri 15/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Fri 15/09/17	Fri 15/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days	Fri 20/10/17	Mon 23/10/17	0% install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day	Mon 23/10/17	Tue 24/10/17	0% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days	Wed 25/10/17	Fri 27/10/17	0% Wash filter coal (5min wash 175cum /wash)
	Filter 1	123.75 days	Wed 24/05/17	Mon 30/10/17	Filter 1
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days	Wed 24/05/17	Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days	Tue 6/06/17	Wed 14/06/17	100% Garnet 1 2mm-2 4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days	Fri 30/06/17	Fri 30/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days	Sat 1/07/17	Sat 1/07/17	100% Draindown to TQP of Garnet
	Install Sand (300mm - 12.6m3)	1 day	Thu 13/07/17	Fri 14/07/17	100% Tinstall Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	7 days	Thu 20/07/17	Fri 28/07/17	100% Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Fri 15/09/17	Mon 18/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	· · · · · · · · · · · · · · · · · · ·	<u> </u>			
	Draindown to FSL of filter coal	0.25 days	Mon 18/09/17	Mon 18/09/17	100% Draindown to FSL of filter cdal
	Install filter coal (1400mm - 58.8m3)	2 days	Mon 23/10/17	Wed 25/10/17	0% install (liter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day	Wed 25/10/17	Thu 26/10/17	0% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days	Fri 27/10/17	Mon 30/10/17	0% Wash filter coal (5min wash 175cum /wash)
	UV Chamber Pit	121.5 days	Wed 29/03/17	Mon 4/09/17	UV Chamber Pit
	Structural Enclosure and Access Stairs	71.5 days	Wed 29/03/17	Mon 3/07/17	Structural Enclosure and Access Stairs
	Drawing Approval (inc Door Modifications)	16 days	Wed 29/03/17	Fri 21/04/17	100% Drawing Approval (inc Door Modifications)
	Task		Rolled Up Critical Ta	sk	Project Summary Inactive Summary Start-only L Deadline
		8888888888888		^	
	Critical Task		Rolled Up Milestone	\Diamond	Group By Summary Manual Task Finish-only
hu 9/11			Rolled Up Progress		■ Inactive Task Duration-only Critical © SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
/agga	WTP Schedule to Complete.171103.mp Summary		Split		Inactive Task Manual Summary Rollup Critical Split
	Rolled Up Task		External Tasks		Inactive Milestone Manual Summary Progress

Checked: Authorised



Checked: Authorised

ID Task Nam	e	Duration	Start	Finish	Naich April	Iviay	June	July -	August	September	October November December January February Marc B M E D M E D M E D M E D M E D M E D M E D M E D M E D M
425	Connect R.W Pumps 5+6 to new PLC & test run	5 days	Wed 4/10/17	Tue 10/10/17	B M E B M E	B W E	R W I	<u> </u>	B M E	R W E	B M E B M E B M E B M E B M E B M B M B M B M B M B M B M B M M
26	Commission new RW Instruments & dosing connections	2 days	Wed 4/10/17	Thu 5/10/17							% Commission new RW Instruments & dosing connections
27	Run Temp RW Pumps - flush and fill temp RW Pipeline	1 day	Tue 17/10/17	Tue 17/10/17							0% Run Temp RW Pumps - flush and fill temp RW Pipeline
8	Install new Raw Water Lift Pumps	3 days	Thu 11/05/17	Mon 15/05/17		0% Install n	ew Raw Water	Lift Pumns			Train Form and an complete reposition
9	Air Sparge and Flushing Actuation	1 day	Tue 16/05/17	Tue 16/05/17		0% Air Spar					
0	Chemical Dosing Systems	7 days	Fri 2/06/17	Tue 13/06/17		7.0 7.11 Opul	ge and i laoin	J Totalion			
31	Final Clean & Inspect all Chem Storage Tanks	2 days	Fri 2/06/17	Mon 5/06/17		100%	Final Clear	n & Inspect all Cher	n Storage Tanks		
32	Install manholes and final 'box-up' all Chem tanks	3 days	Fri 23/06/17	Tue 27/06/17		10070		Install manholes		II Chem tanks	
3	Fill all Chem tks with water & Hydro test	2 days	Wed 28/06/17	Thu 29/06/17				Fill all Chem tks			
34	Confirm all Chem Tks Level instruments	1 day	Wed 28/06/17	Wed 28/06/17				Confirm all Cher	1		
35	Test Run all dosing pumps on water & check dosing lines	2 days	Thu 21/09/17	Fri 22/09/17			10076	John Mill all Offer	II IKS LEVEL IIISUUII		est Run all-dosing pumps on water & check dosing lines
36	Flush and test all Safety Showers & Hoses	1 day	Thu 26/10/17	Thu 26/10/17						100 /6 🞳 108	100% Flush and test all Safety Showers & Hoses
37	Install Chem unloading sump valves.		Wed 20/09/17	Thu 21/09/17						100% = Inst	stall Chem unloading sump valves.
38	9 1	2 days								100 /6 11150	100% Test all Chem Unloading systems
9	Test all Chem Unloading systems	1 day	Thu 26/10/17	Thu 26/10/17							100% Load first Alum Storage Tank
.0	Load Coustie Storage Tank	1 day	Fri 27/10/17	Fri 27/10/17							100% Load Caustic Storage Tank
	Load Caustic Storage Tank	1 day	Mon 30/10/17	Mon 30/10/17							
1	Load Hypochlorite Storage Tank	1 day	Tue 31/10/17	Tue 31/10/17							0% Load Hypochlorite Storage Tank
2	Batch & Fill RW Polymer storage	1 day	Wed 1/11/17	Wed 1/11/17							0% Barch & Fill RW Polymer storage
3	Batch & Fill Filter Aid Polymer Storage	1 day	Thu 2/11/17	Thu 2/11/17							0% Eatch & Fill Filter Aid Polymer Storage
14	Commission and fill Flouride Storage	3 days	Fri 27/10/17	Tue 31/10/17							0% Commission and fill Flouride Storage
	Site Acceptance Testing (SAT) - Wet Commissioning	137 days	Tue 27/06/17	Thu 18/01/18				<u> </u>			Site Acceptance Testing (SAT) -
16	Lamella	96 days	Tue 27/06/17	Wed 8/11/17							Lamella
7	Fill Lamella/Rapid Mix/Flocculators with Potable	2 days	Wed 18/10/17	Thu 19/10/17							100% Fill Lamella/Rapid Mix/Flocculators with Potable
8	Commission all Lamella Instruments	2 days	Fri 20/10/17	Mon 23/10/17							100% Commission all Lamella Instruments
9	Test run Rapid Tk Mixer & all Flocc Tks Mixers	1 day	Fri 20/10/17	Fri 20/10/17							100% Test run Fapid Tk Mixer & all Flocc Tks Mixers
50	SAT/Sequence Testing of RW to Lamellas (o/f to WW Tk)	1 day	Fri 3/11/17	Fri 3/11/17				#			0% \$AT/Sequence Testing of RW to Lamellas (o/f to WW Tk)
51	SAT/ Sequence Testing of Lamellas with Chemical dosing & set	2 days	Fri 3/11/17	Mon 6/11/17							100% SAT/ Sequence Testing of Lamellas with Chemical dosing & set dose rates
52	dose rates Dual Media Filter	96 days	Tue 27/06/17	Wed 8/11/17							Dual Media Filter
53	Sequence Testing - backwash	1 day	Tue 27/06/17	Tue 27/06/17			100%	Sequence Testin	n backwash		Dudi media i mer
54	SAT/Sequence Testing - backwash Garnite all filters	2 days	Wed 28/06/17	Thu 29/06/17				SAT/Sequence	-	Carnita all filtors	
55	SAT/ Sequence Testing - backwash Garnite air litters SAT/ Sequence Testing Filters Start/ Stop, etc	2 days	Tue 7/11/17	Wed 8/11/17			100 /6	SA1/Sequence	lesting - backwasii	Garrille all fillers	0% SAT/ Sequence Testing Filters Start/ Stop, etc
56	Re-install FW Tk Bellmouth	1 day	Mon 30/10/17	Mon 30/10/17							0% Re-install FW Tk Bellmouth
57		•		Tue 31/10/17							Process Water Pump System
58	Process Water Pump System Commission Process Water Pump System	1 day 1 day	Tue 31/10/17 Tue 31/10/17	Tue 31/10/17							0%- Commission Process Water Pump System
59	Flush and fill Process System & pressurise (isolate temp	1 day	Tue 31/10/17	Tue 31/10/17							0% Flush and fill Process System & pressurise (isolate temp connection)
59	connection)	i day	Tue 31/10/17	Tue 31/10/17							10% Flush and hill Process System & plessurise (Isolate temp connection)
60	Clear Water System	1 day	Thu 9/11/17	Thu 9/11/17							Clear Water System
31	SAT/Sequence Testing of Level Controls	1 day	Thu 9/11/17	Thu 9/11/17							0% SAT/Sequence Testing of Level Controls
52	Raw Water System	1 day	Wed 18/10/17	Wed 18/10/17							Raw Water System
33	SAT/Sequence Testing of Temp RW System	1 day	Wed 18/10/17	Wed 18/10/17							0% SAT/Sequence Testing of Temp RW System
64	Integrated Plant Operation	40 days	Fri 10/11/17	Thu 18/01/18							Integrated Plant Operation
55	SAT/Sequence Testing with temp RW Supply	1 day	Fri 10/11/17	Fri 10/11/17							0% SAT/Sequence Testing with temp RW Supply
66	Test Run & Operate Plant - fine tune & adjust (o/f to stormwater)	3 days	Mon 13/11/17	Wed 15/11/17							0% Test Run & Operate Plant - fine tune & adjust (o/f to stormwater)
7	Drain CW Storage & final inspect (blank temp overflow)	2 days	Wed 15/11/17	Thu 16/11/17							0% Drain CW Storage & final inspect (blank temp overflow)
8	Chlorine disinfection of Filters, FW Tk, CW Tk & pipelines.	2 days	Fri 17/11/17	Mon 20/11/17							0% Chlorine disinfection of Filters, FW Tk, CW Tk & pipelines.
69	Operate Plant and commence post Chlorine and Flouride dosing, fine tune & Adjust - Fil CW Tk, sample & test water quality	2 days	Tue 21/11/17	Wed 22/11/17							0% Operate Plant and commence post Chlorine and Flouride dosing, fi
0	Test Run CW Pumps - HL & LW Pumps	2 days	Thu 23/11/17	Fri 24/11/17							0% Test Run CW Pumps - HL & LW Pumps
1	Confirm HL & LL Storage Tanks Level Signals & Controls	1 day	Thu 23/11/17	Thu 23/11/17							0% Confirm HL & LL Storage Tanks Level Signals & Controls
2	SAT/ Sequence Testing with CW Pumps on demand	3 days	Fri 24/11/17	Tue 28/11/17							0% SAT/ Sequence Testing with CW Pumps on demand
73	Demonstration Test & Commence Operation on demand, fine tune	7 days	Wed 29/11/17	Thu 7/12/17							0% Demonstration Test & Commence Operation on demand, fi
74	& adjust Operate Plant in Auto - monitor & adjust	20 days	Fri 8/12/17	Thu 18/01/18							Operate Plant in Auto - monitor &
, T	Operate Frank in Auto - monitor & aujust	20 uays	1110/12/17	111u 10/U1/10	1	1	I .	1	1	1	Die die Fiant in Auto - Montto &



Drawn: Checked: Authorised Doug Anderson

Wagga Wagga WTP



PROJECT STATUS REPORT



November 2017

PROJECT: Wagga Wagga WTP Upgrade

CLIENT: Riverina Water County Council

CONTRACT NO.: W195

UGL PROJECT NO.: 3200-0485

REPORT DATE: 5th December 2017

REPORT NO.: 28

PROJECT MANAGER: Doug Anderson

PREPARED BY: Doug Anderson



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1.0 SUMMARY

Project progress in November was focussed on the following activities:

Extreme weather event forecast to start 1/12/17, cofferdam evacuated of materials, well point dewatering pumps removed in anticipation of inundation.

Electrical works - punchlist items within the filter, raw water MCC & lamella area; street light poles; clearwater pump station cabling; clearwater storage lighting; test and quality documentation.

Raw Water Intake – Concrete structure complete, first section of draft tubes installed, preparation for first headstock pour.

Clearwater Pump Station Building – Erection of structure 85%.

Lamella roof structure – additional support brackets complete, roof installation complete.

Filters –Issue with supply of remaining coal for filters 1, 2 & 3, coal proposed is non-conforming, UGL is in discussions with Sibelco

Civil/plumbing - Civil has focussed on various drainage works; installation of lamella roof downpipes & drainage; RPZs at various locations, installation of hose reels.

Safety performance across the site continues to be well managed.

2.0 SCOPE OF WORK

The project scope of works is to replace the Wagga Wagga Water Treatment Plant (WTP) to provide additional process capacity and asset reliability to produce up to 55ML/day of water for the residents of Wagga Wagga.

3.0 HSSE

The total hours worked on the project this month were 8426 hours. Subcontractor hours recorded on site were 6800. Total hours worked on the project to date is 222,133.

One near miss report concerning an unsecured purlin during installation of the lamella roof, a worker stood on the purlin and stumbled causing a fall into the fall prevention mesh. Work was suspended, area inspected and investigated all purlins secured and the incident toolboxed.

Site inductions of 20 individuals have been undertaken with current total of 690 inductions completed not including visitor inductions and UGL HSSE pre-start meetings were conducted on all working days, also individual subcontractor pre-start meetings occurred on site daily.

Looking towards Dec/Jan we will be focussed on the following:

- UGL Isolation procedure
- SWMS development by subcontractors
- Continuing training site personnel in UGL Utake 5 and HAZOB
- UGL Critical Risk Protocols all site personnel
- Continuing with Project Manager Monthly Safety Awards

The Safety Report for this month is contained in Appendix B.



4.0 RISK / CRITICAL ACTION AREAS

Summary of Top Risks at October: -

Risk Description	Potential Impact	Control Measures
Quality and specification issues	Impact to project efficiency and rate of completion Additional resources required	Ensure incoming inspections are completed with due diligence
	for investigation and remedy. Subcontractor Impact to Client Relations and Perceptions	Engage with subcontractors & suppliers about prompt rectification of issues
Commissioning Program Overrun	Plant not ready for performance trial by the required date.	Install temporary raw water supply to lamella clarifier to provide a supplemental supply for summer demand
Raw Water Works Construction overrun	Constraint on commissioning activities	Plan and execute a temporary raw water supply utilizing the existing RWCC river pumps
Exceptional Inclement Weather	Delays associated with site inundation due to additional rainfall on site and rise in river levels.	Use construction methodologies which mitigate impacts. Inlet structure works completed during low flows in the river. Insurance policies in place Ensure familiarity with RWCC flood response plan



5.0 CONTRACT/COMMERCIAL

5.1 Progress Claim

The table below summarises the progress to the 30th November.

WAGGA WAGGA WATER TREATMENT PLANT Month

Nov-17

Item No.	Schedule of Prices	Total Cla	im to date
1	Provision of Preconstruction Activities	% complete	Claim Value
	Preconstruction Activities subtotal (1)	100%	
	Provision of Project Management and Site Running		
2	Activities		
	Prooject Management Activities subtotal (2)	96%	
3	Complete all additional designs, where required		
	Design and Documentation subtotal (2)	100%	
4	Intake Works		
	Intake Works - General subtotal (3)	34%	
_	2 21. 2		
5	Raw Water Piping System	660/	
	Raw Water Piping subtotal (4)	66%	
6	Lamalla & David Mix Touls		
0	Lamella & Rapid Mix Tank Lamella & Rapid Mix Tank subtotal (5)	100%	
	Lamena & Rapid Wilk Talik Subtotal (5)	100%	
7	Filters		
<u> </u>	Filters subtotal (7)	100%	
8	Filter Water Tank & Backwash		
	Filter Water Tank & Backwash subtotal (8)	100%	
9	Machinery Room		
	Machinery Room subtotal (9)	98%	
10	Clear Water Storage & Pumping System		
	Clear Water subtotal (10)	94%	
11	Aluminuium Dosing Plant		
	Aluminium Dosing Plant subtotal (11)	99%	



12	PACL Dosing Plant		
	PACL Dosing Plant subtotal (12)	99%	
13	Caustic Soda Dosing Plant Facilities		
	Caustic Soda Dosing Plant subtotal (13)	99%	
14	Sodium Hydrochlorite Dosing Plant		
	Sodium Hydrochlorite Dosing Subtotal (14)	100%	
15	Polymer Dosing Plant		
	Polymer Dosing Plant subtotal (15)	99%	
16	Fluoride Dosing Plant		
	Fluoride Dosing subtotal (16)	100%	
17	Other Items		
	Other Items subtotal (17)	88%	
18	Electrical Items		
	Electrical subtotal (18)	97%	
19	Testing Demonstration Commissioning		
	Testing Demonstation and Commissioning (19)	18%	
20	Post Process Proving		
	Post Process Proving (20)	0%	
21	Sludge Handling & Dewatering System		
	Sludge Handling subtotal (19)	98%	
22	Other Options Accepted		
	Options subtotal (20)	99%	
23	Variations		
	Variations Subtotal	87%	



5.2 Variations

The table below provides a summary of the <u>approved</u> variations against the contract.

Variation No.	Title	Amount (\$ 000) Excl. GST	Status
VO01	Control System Design for fully networked plant	15	Approved
VO02	AC Road Surface	101	Approved
VO03	Future UV	21	Approved
VO04	Disabled Access	278	Approved
VO05	Aggressive Water Response	79	Approved
VO06	NSC02 – removal of Gyprock	5	Approved
VO07	Transformer supplied by principle	- 244	Approved
VO09	Chemical Dosing – Alum Storage	81	Approved
VO10	Switchboards additional spare capacity	8	Approved
VO11	Lamella plate capacity	45	Approved
VO12	Sewer pump station	5	Approved
VO13	Manual Penstocks on Clarifier Inlet	9	Approved
VO14	Increased bearing capacity in the filters	31	Approved
VO15	Waste in excavation NSC04 & NSC06	10	Approved
VO16	Asbestos in Levee	26	Approved
VO17	Warehouse Facility	- 18	Approved
VO18	Filter Gallery Trenches	41	Approved
VO19	Additional 25mm cover to Slab	8	Approved
VO20	Raw Water Intake	105 260	20A Approved 20B Approved
VO21	Material Compatibility Changes	- 17	Approved
VO23	Pits under existing centrifuge building - NSC10	8	Approved
VO24	Clear Water Pumps Mechanical Seal	1.5	Approved
VO25	Bomen Line	80	Approved
VO26	NSC11 Material Excavated under UGL Carpark	27	Approved
VO27	NSC12 Asbestos at Wash Water Holding Tank	3	Approved
VO29	Filter Water Overflow Changes	-80	Approved
VO30	Site Road Realignment	17	Approved
VO31	Roof Access Ladder to Centrifuge Building	14	Approved
VO33	Flowmeter Modbus Communications	22	Approved
VO34	Caustic Building Lighting Changes	3	Approved
VO36	Sludge Thickener Infill Slab	90	Approved
VO40	Street Light Fittings	9	Approved



VO43	S&I 4.8 to 9.6 Garnet Filter Media	86	Approved
VO44	Lamella Corrosion	-300	Approved
VO45	Concrete slab between filters and Lamella	1	Approved
VO46	NSC16 Remove Concrete Slab	4	Approved
VO49	Bore Water Pressure Line Changes	9	Approved
VO50	Filter Building Pop out Power Outlets	2	Approved
VO53	NSC17 Asbestos at A2 to A203	4	Approved
VO56	Rework External Chemical Delivery Pipework	15	Approved
VO140	Power Failure Alarm Modification	5	Approved
VO141	Raw Water Disassembly Frame Footings	2	Approved
VO142	Chemical Building Forklift Access Ramps	12	Approved
VO143	Conversion of Hi & Low Lift Pumps to Mechanical Seals	64	Approved

There are number of unresolved commercial issues some of which may have to be resolved by senior management

6.0 FINANCE

The table below summarises the invoices and payment status.

Claim Description	Invoice no.	Amount	Claim/Invoice Status
W195 Progress Claim 1	Invoice # 1	\$ 879,128.59	Paid
W195 Progress Claim 2	Invoice # 2	\$ 1,428,346.00	Paid
W195 Progress Claim 3	Invoice #3	\$ 1,246,918.00	Paid
W195 Progress Claim 4	Invoice # 4	\$ 2,341,562.00	Paid
W195 Progress Claim 5	Invoice # 5	\$ 2,269,089.00	Paid
W195 Progress Claim 6	Invoice #6	\$ 1,652,403.00	Paid
W195 Progress Claim 7	Invoice #7	\$ 2,039,696.00	Paid
W195 Progress Claim 8	Invoice #8	\$ 1,764,615.00	Paid
W195 Progress Claim 9	Invoice #9	\$ 2,037,494.00	Paid
W195 Progress Claim 10	Invoice #10	\$ 2,540,706.00	Paid
W195 Progress Claim 11	Invoice #11	\$ 3,296,966.00	Paid
W195 Progress Claim 12	Invoice #12	\$1,309,013.00	Paid
W195 Progress Claim 13	Invoice #13	\$1,208,270.00	Paid
W195 Progress Claim 14	Invoice #14	\$ 967,609.00	Paid
W195 Progress Claim 15	Invoice #15	\$ 714,741.00	Paid
W195 Progress Claim 16	Invoice #16	\$ 582,416.00	Paid
W195 Progress Claim 17	Invoice #17	\$ 723,083.00	Paid
W195 Progress Claim 18	Invoice #18	\$ 614,612.00	Paid
W195 Progress Claim 19	Invoice #19	\$ 502,532.00	Paid
W195 Progress Claim 20	Invoice #20	\$ 480,610.00	Paid
W195 Progress Claim 21	Invoice #21	\$ 327,361.10	Paid
W195 Progress Claim 22	Invoice #22	\$ 170,888.00	Paid
W195 Progress Claim 23	Invoice #23	\$ 304,322.00	Paid
W195 Progress Claim 24	Invoice #24	\$ 0.00	Paid



W195 Progress Claim 25	Invoice #25	\$ 0.00	Paid
W195 Progress Claim 26	Invoice #26	\$ 55,051.00	Paid
W195 Progress Claim 27	Invoice #27	\$ 303,036.00	Paid
W195 Progress Claim 28	Invoice #28	\$ 280,348.00	Approved
W195 Progress Claim 29	Invoice #29	\$ 341,270.00	Pending

7.0 PROGRAMME

A revised programme has been produced which encompasses the remaining works and the most recent version is included in App C.

The version attached to this report (6/12/17) reflects the most recent change.

The programme has been constructed with Microsoft Project and will be managed by site, it will remain a live document which will be continually updated as circumstances dictate.

Construction/Completion Summary

- As at the 6/12/17 the plant is now ready to produce potable water at between 25 ML/D and 30 ML/D using the existing raw water RWCC pumps thru a temporary pipeline.
- Raw Water pumps are expected to arrive onsite by mid-Jan 2018
- The Raw Water Intake Concrete work is complete within the cofferdam and the first section of draft tube has been installed. The first headstock will be cast early next year once the cofferdam has been cleaned out (inundated 4/12/2017). The remaining draft tubes to be installed by mid-Jan 2018
- Mechanical installation within/on the inlet structure is scheduled for completion by the end of January 2018followed by the placement of class 1, 2 & 3 rocks and gabions. Placement of rocks and gabions will continue through until early March 2018 followed by riverbank rehabilitation that will be completed by the end of March.
- Mechanical and electrical installation for the rest of the intake structure is scheduled for completion by the first week of March
- Commissioning of the Raw Water Pumps to commence mid March with operations commencing in April 2018.
- Procurement, loading, washing & commissioning of the remaining filter coal will be completed by Feb 2018
- Site roads will be completed by mid-Feb and general site landscaping by the end of March 2018
- All other miscellaneous works, footpaths, random slabs, additional drainage is targeted for completion by March 2018.
- It is the intention that the outstanding major defects (PLC wiring, isolation switches, electric motor replacement) will be completed during an 8 week period in winter, nominally from May to June 2018



8.0 QUALITY

Production of Inspection and Test Reports (ITPs) continues for civil/structural, mechanical and electrical works across the site.

We continue to work through finalising the quality issues with some of fabricated equipment with many of the issues now closed out. In some instances, remedial works have been required to meet the aspects of the specification and we are working with suppliers as needed to remedy these.

9.0 ENVIRONMENTAL

Project Construction Environmental Management Plan continues to be implemented.

The health of the flying fox colony near the Raw Water Intake is now monitored weekly by an ecologist from NGH Environmental

10.0 INDUSTRIAL RELATIONS

Audit conducted by the CCU on the 29/11/17 (Building Code Compliance Unit, NSW), no issues.

11.0 DESIGN AND TECHNICAL

Design is 97% complete, misc mech & elec remain e.g. brackets & supports.

12.0 COMMISSIONING

Temporary raw water supply & flowmeter 100%
Lamella Clarifier – Train one 95%, train two 95%
Lamella Sludge Pumps 95%
PLC sequencing 90%
Instrument Wet Rack 95%
Sample Pumps 85%
Filters 75%
Backwash Pumps 95%
Washwater Pumps 95%
Process Water Pumps 95%
Chemical Dosing 90%
Clearwater Storage 95%
Clearwater Pumps 45%

The continuing focus of commissioning in the next month will be to optimize the plant operation.

13.0 STAKEHOLDERS

The UGL site have continued to engage with other contractors on site as well RWCC staff and construction teams and no issues arising.



14.0 SITE PROGRESS



Photo 1: Lamella Roof



Photo 2: Clearwater Pump Building





Photo 3: First Section of Draft Tubes



Photo 4: Completed Inlet Structure (FRP)



APPENDIX A - SCOPE OF WORKS SUMMARY

The project scope of works is to replace the Wagga Wagga Water Treatment Plant (WTP) to provide additional process capacity and asset reliability to produce up to 55ML/day of water for the residents of Wagga Wagga.

The WTP shall be designed to operate at a treated water production rate anywhere between 60 ML/d (695 L/s) and 22 ML/d (255 L/s).

The main treatment process of the WTP shall include coagulation and flocculation, inclined plate clarification, dual media filtration, chlorination, and fluoridation. Process wastewater shall be managed using gravity thickening and mechanical dewatering.

Product water shall be produced to meet the quality requirements of the specification and shall treat the required quality. The project target completion periods are for a design and construction period of 60 weeks, followed by a 10 week commissioning and proving period.

The scope of on-site works for UGL Engineering and its subcontractors as described in the contract are limited to the following;

The new water treatment facility shall consist of the following elements for a new 60ML/d Water Treatment Plant:

- Raw water intake and pumping station. The intake would be constructed within the river. The
 pumping station would be built on Crown Land adjacent to the WTP on the bank of the
 Murrumbidgee River to supply raw water to the plant;
- · Alum and polymer dosing systems;
- Inclined plate clarifiers (Lamella clarifiers);
- Six dual media filters including backwash pumps and air scour blowers;
- Chlorine storage and dosing system and channel-type static mixer for clear water storage;
- Fluoride dosing system;
- pH correction dosing systems;
- Dewatering building with two new centrifuges to dewater sludge material produced from clarification and filtration during the water treatment process.
- Backwash wastewater collection tank and pumping station for the wastewater produced from the clarification and filtration process;
- Clear water system upgrade including a new 3 ML clear water storage tank and low level and high level pumping stations each fitted with three pumps;
- Electrical works including switch-rooms, automation and control infrastructure, electrical substations and two new 1500kVA transformers;
- Filter wastewater collection sump and transfer pumps;
- Pipework and valves;
- Control room, water testing and analysing facilities;
- Internal access roads;

UGL is responsible for undertaking the detailed design, construction, commissioning, training and handover for aspects of the scope of works above.

UGL will also provide post completion technical support comprising, where necessary some site visits, to assist RWCC in operating and optimising the plant.



APPENDIX B - MONTHLY SAFETY REPORT





HSSE Monthly Safety Report -November 2017

1.0 Overview Statistics

	November 2017	Total to Date
UGL Hours	1466	64,224
Subcontractor hours	6960	157,909
Total Site Hours	8426	222,133
LTIFR: Target <.50	4.50	4.50
,TRIFR: Target 2.70	0	0
MTIFR:	0	0
Lost Time Injuries (LTI)	1	1
Days lost to LTI	40	40
Medical Treatment Injuries (MTI)	0	0
1 st Aid Injuries	0	5
Incidents:		
Injury	0	6
Damage/ Loss	0	22
Near Miss	2	48
Hazard	12	129
Report Only	1	11
Journey Incident	0	1
Non-work related injury	0	0
Environmental	0	11
Safety Initiatives:	0	13
Workplace Safety Inspections	20	690
Environmental Inspections	4	84
Safety Conversations (UGL)	16	1,079

Utake 5 (UGL)	140	5608
Hazobs	12	515
Site audit (e.g. Plant pre-start)	4	87
SWMS reviews	10	350
Site inductions	19	698
Tool box meetings	4	84
Training hours	0	133
Plant delivery inspections	7	182
Checkit compliance (UGL)	100%	100%
UGL/ External Audits	0	3
Alcohol Breath tests	120	3561
Drug tests	0	176

2.0 Incident Summary

The following incidents occurred on site in November 2017.

Near Miss: Steeline personnel where working above the lamella tank roof structure installing roof sheeting. The steeline personnel moved a stack of roofing sheets which where situated on a steel main beams of the roof structure onto previously laid roof sheeting as to allow for next stage of roofing ,when a steeline personnel walked over to check if any damage had been caused to the fall mesh by the placing of the roof sheets onto the structure by a crane earlier today when he walked onto a purlin the purlin moved causing the steeline personnel to fall onto the fall mesh ,the steeline personnel was prevented from falling by appropriately installed fall mesh secured to the roof structure of the lamella tank. It has been identified that the purlin had not been secured at both ends by text screws when the roof structure was erected by DTD personnel. The purlin was secured at only 1 end of the purlin and secured cross bracing by text screws. The work area is access by scaffold tower and static lines inplace and fall mesh installed across the roof structure, hand rails installed for edge protection installed by steeline.

Actions: Work stopped, inspection of all purlin attachment points by DTD & Steeline supervisors and UGL management. During the inspection, it was identified that 3 other purlins had texts screws missing and these text screws where installed by DTD before roofing work recommenced. Tool box held by Steeline supervisor regarding the benefit of installing appropriately secured fall mesh.

Report only: Inform crane driver informed UGL HSSE that he had sat onto a broken star picket which had been broken off and cover with dirt in the coffer dam crane pad area. The crane driver was setting

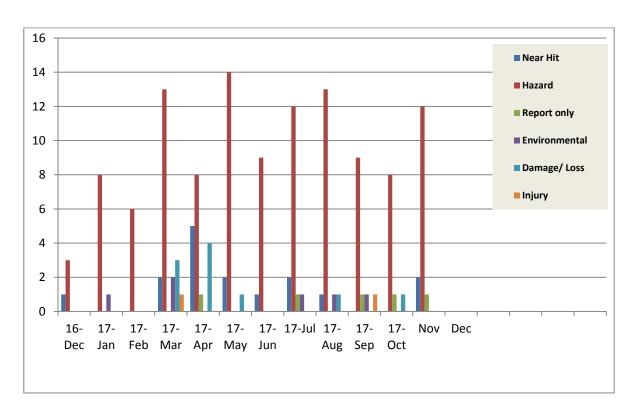
up a 25-ton crane when he placed boards onto the ground to be placed under the single front out rigger of the 25-ton crane, the crane driver sat on the ground to slide the boards into place under the crane when he sat on the ground he sat on a broken star picket which had been covered in dirt (about 20 mm of the star picket was exposed). No 1st aid required - only soreness and a small hole in his pants reported - time reported 4pm

Actions: Star picket removed by 5-ton excavator

Near Miss: Blanket alcohol testing at pre-start with a low-level alcohol result returned by subcontractor personnel. 1st test result .019 and 2nd test result (20 minutes later) .014

Actions; Personnel removed from site for day and warning letter to be issued

Wagga Wagga WTP Incident trends



- November 2017 19 Site inductions not including visitor's inductions
- Site wide training in UGL Isolation procedure
- Continuing education of local subcontractors in regards to SWMS & Safety Culture Development/ Awareness
- Safety Award November 2017

3.0 Project Safety Initiatives for December 2017

- Training:
- UGL Isolation procedure
- SWMS development by subcontractors
- Continuing training site personnel in UGL Utake 5 and HAZOB
- UGL new Critical Risk Protocols all site personnel
- Continuing with Project Manager Monthly Safety Awards

> UGL Daily Pre-start meetings:

Daily site hazards, site hazard board updates, continuing discussion of subcontractor interfacing requirement to, site personnel consultation

> **Subcontractor** individual pre-start meetings conducted after site pre-start. Subcontractor individual work tasks & hazards involved

> UGL Weekly Toolbox meeting:

- Site incidents / actions, industry safety alerts, continuing discussion of site safety hazards,
 site personnel consultation. Update of the site notice board.
- Weekly supervisor/subcontractor HSE meeting discussing HSE initiatives for the project as well as subcontractor interfaces.

> Site Safety Inspections:

Continuing compliance with UGL WWWTP Project Safety Management Plan via:

- ✓ Site safety inspections
- ✓ UGL Safety conversations
- ✓ UGL UTake 5
- ✓ UGL Hazobs
- ✓ Plant operator pre-start inspection audits
- ✓ SWMS reviews, work permit audits

> Fitness for Work:

- Continuing Alcohol testing at pre-start meetings
- Drug testing as per Project Safety Management Plan
- > Continuing Site Environmental inspections and education to subcontractors regarding environmental compliance.

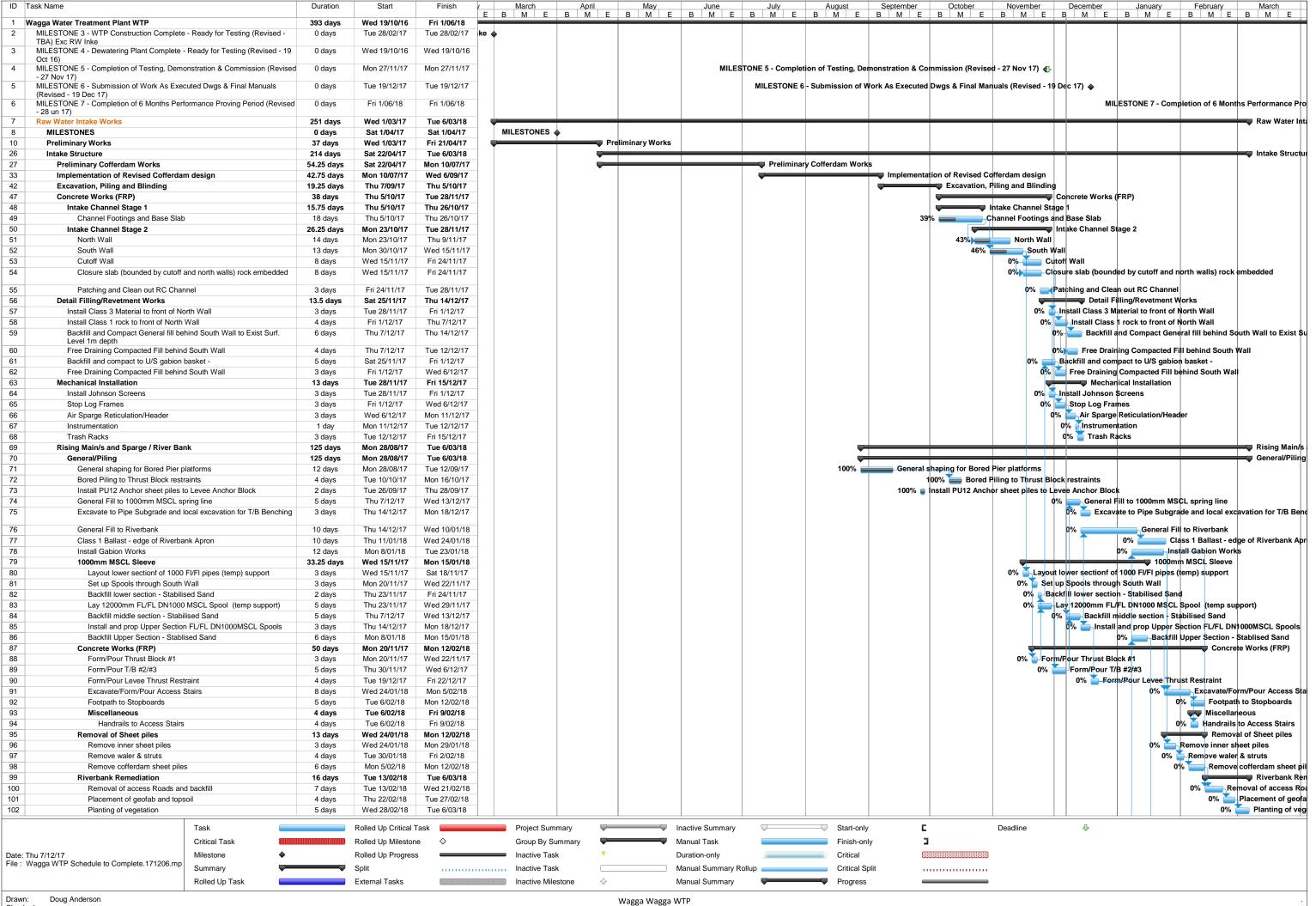
Mark Hunter

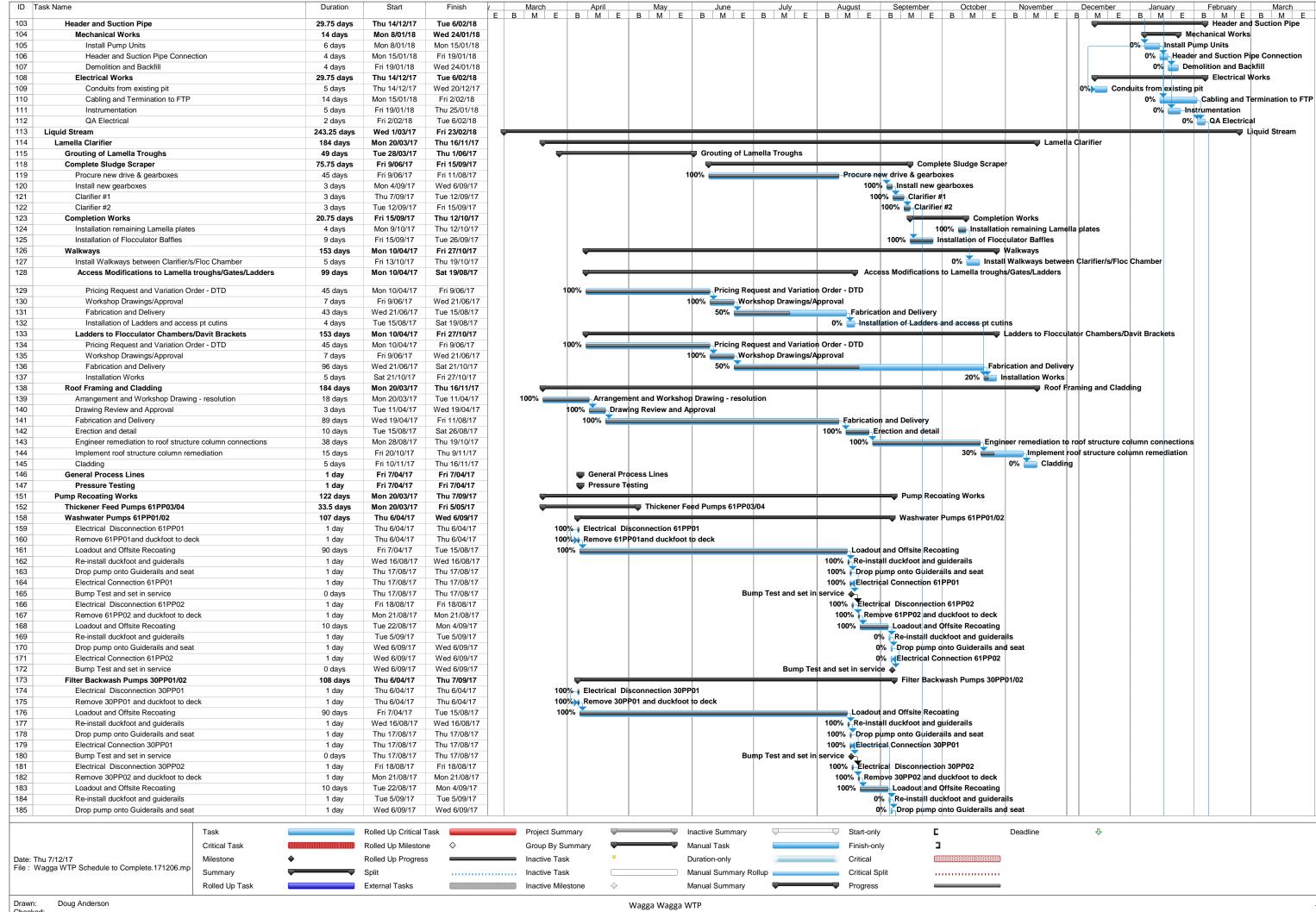
UGL Safety Advisor

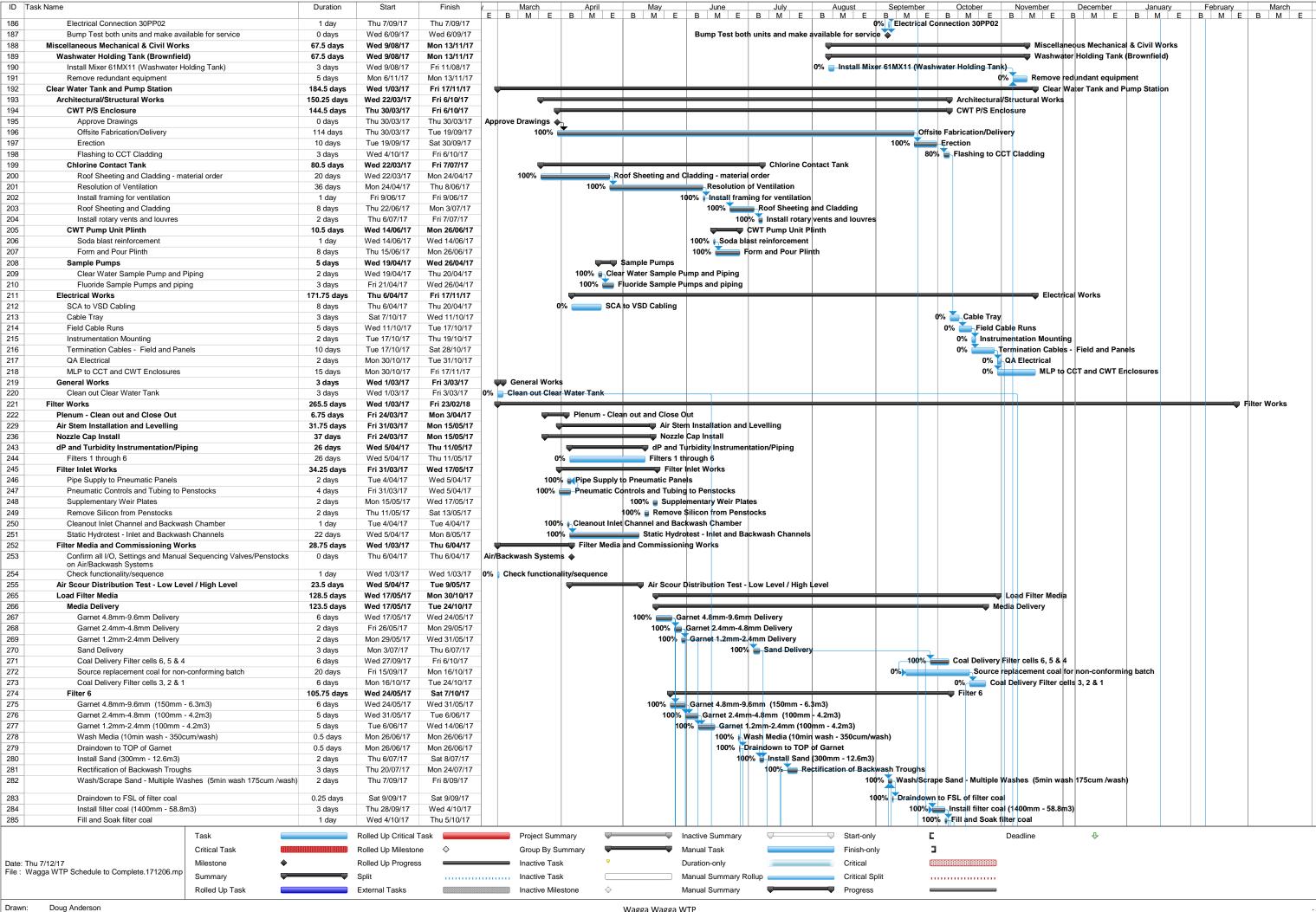


APPENDIX C - PROJECT PROGRAMME

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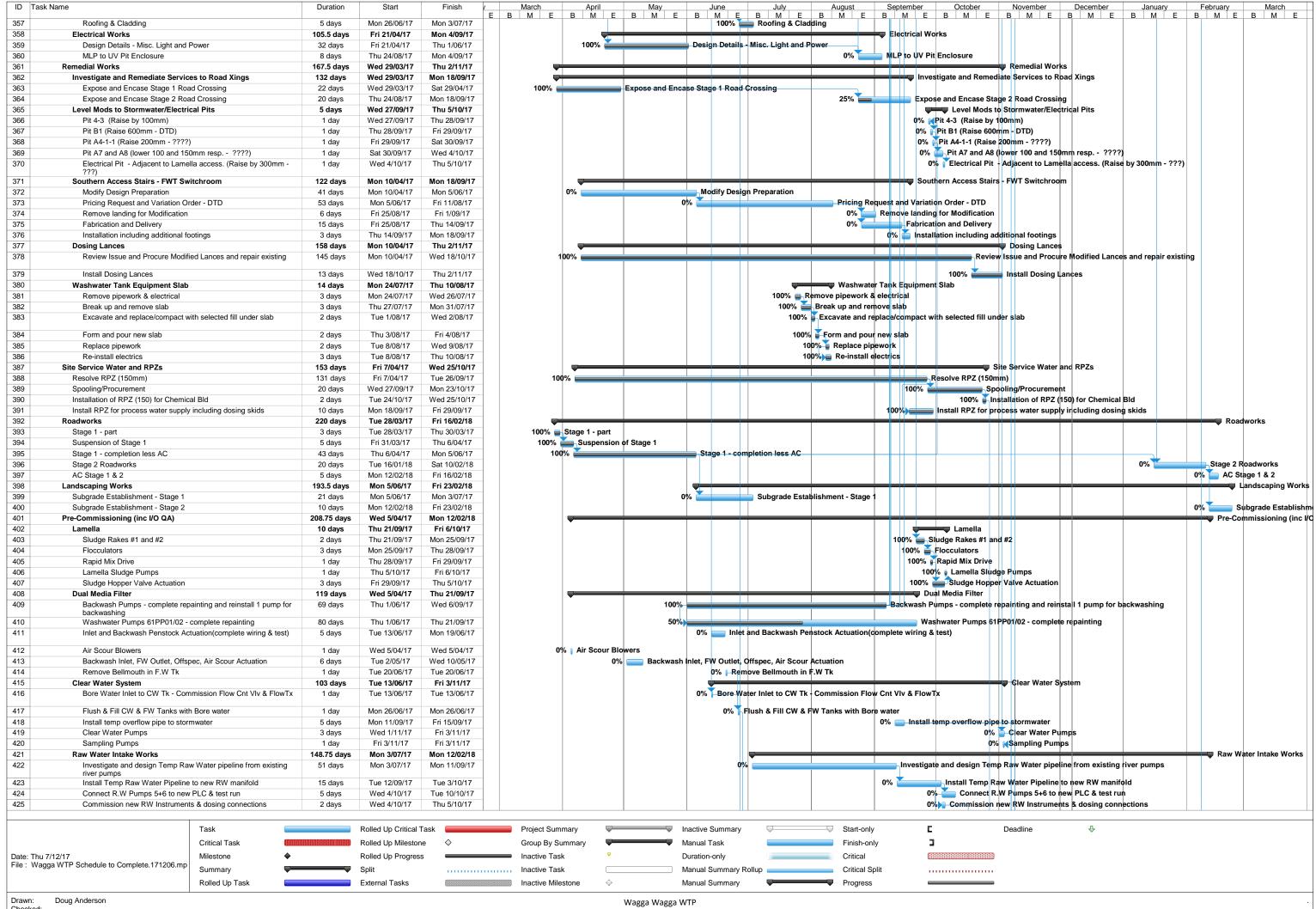




Checked

Wagga Wagga WTP

Task Name		Duration	Start	Finish /	March April May June July August September October November December January February Ma
	W 169			E	B M E B M E
	Wash filter coal (5min wash 175cum /wash)	2 days	Thu 5/10/17	Sat 7/10/17	100% Wash filter coal (5min wash 175cum /wash)
	Filter 5	109 days		Wed 11/10/17	Filter 5
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3) 100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days		Tue 6/06/17	100% Garnet 2.4mm -4.2m3) 100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days		Wed 14/06/17	100% Wash Media (10min wash - 350cum/wash)
	Wash Media (10min wash - 350cum/wash)	0.5 days		Tue 27/06/17	
	Draindown to TOP of Garnet	0.5 days		Tue 27/06/17 Mon 10/07/17	100%
	Install Sand (300mm - 12.6m3)	1 day			
	Rectification of Backwash Troughs	4 days		Tue 25/07/17	100%) Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Thu 7/09/17	Fri 8/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Sat 9/09/17	Sat 9/09/17	100% i Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	3 days	Wed 4/10/17	Sat 7/10/17	100% 🕌 Install filter coal (1400mm - 58,8m3)
	Fill and Soak filter coal	1 day		Mon 9/10/17	100% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Wed 11/10/17	100% Wash filter coal (5min wash 175cum /wash)
	Filter 4	111 days		Fri 13/10/17	Filter 4
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days		Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days		Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	,				100% Wash Media (10min wash - 350cum/wash)
	Wash Media (10min wash - 350cum/wash)	0.5 days		Wed 28/06/17	
	Draindown to TOP of Garnet	0.5 days		Wed 28/06/17	100% Praindown to TOP of Garnet 100% Install Sand (300mm - 12.6m3)
	Install Sand (300mm - 12.6m3)	1 day		Tue 11/07/17	
	Rectification of Backwash Troughs	5 days		Wed 26/07/17	100%) Rectification of Backwash Troughs 400% Week/Carene Send, Multiple Weekee, (Eminuse h 475eum (week)
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Sat 9/09/17	Wed 13/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Wed 13/09/17	Wed 13/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days		Tue 10/10/17	100% Install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day		Wed 11/10/17	100% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Fri 13/10/17	100% → Wash filter coal (5min wash 175cum /wash)
	Filter 3	119.75 days		Wed 25/10/17	Filter 3
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)			Wed 25/10/17 Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	,	6 days			100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days		Tue 6/06/17 Wed 14/06/17	100% Garnet 2.4mm (100mm - 4.2m3) 100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days			
	Wash Media (10min wash - 350cum/wash)	0.5 days		Wed 28/06/17	100% Wash Media (10min wash - 350cum/wash)
	Draindown to TOP of Garnet	0.5 days		Thu 29/06/17	100% Draindown to TOP of Garnet
	Install Sand (300mm - 12.6m3)	1 day		Wed 12/07/17	100% Install Sand (300mm - 12.6m3)
	Rectification of Backwash Troughs	5 days		Wed 26/07/17	100%) Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Sat 9/09/17	Wed 13/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Wed 13/09/17	Wed 13/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days		Fri 20/10/17	0% Install filter coal (1400mm - 58.8m3)
					0% Fill and Soak filter coal
	Fill and Soak filter coal Wash filter coal (Fmin wash 175gum (wash))	1 day		Mon 23/10/17	0% in Fill and Soak filter coal 0% Wash filter coal (5min wash 175cum /wash)
	Wash filter coal (5min wash 175cum /wash) Filter 2	2 days		Wed 25/10/17 Fri 27/10/17	Wash Titter Coal (5min wash 175cum / wash)
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	121.75 days 6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	,			Tue 6/06/17	100% Garnet 2.4mm-4.8mm (100mm - 4.2m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days			
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days		Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days		Thu 29/06/17	100% Wash Media (10min wash - 350cum/wash) 100% Draindown to TOP of Garnet
	Draindown to TOP of Garnet Install Sand (300mm - 12.6m3)	0.5 days	Fri 30/06/17	Fri 30/06/17	100% Draindown to TOP of Garnet
	,	1 day		Thu 13/07/17	
	Rectification of Backwash Troughs	6 days		Thu 27/07/17	100% Rectification of Backwash Troughs
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Wed 13/09/17	Fri 15/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)
	Draindown to FSL of filter coal	0.25 days	Fri 15/09/17	Fri 15/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days		Mon 23/10/17	0% install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day		Tue 24/10/17	0% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Fri 27/10/17	0% Wash filter coal (5min wash 175cum /wash)
	Filter 1	123.75 days		Mon 30/10/17	Filter 1
	Garnet 4.8mm-9.6mm (150mm - 6.3m3)	6 days		Wed 31/05/17	100% Garnet 4.8mm-9.6mm (150mm - 6.3m3)
	Garnet 2.4mm-4.8mm (100mm - 4.2m3)	5 days	Wed 31/05/17	Tue 6/06/17	100% Garnet 4.6mm - 4.2m3)
	Garnet 1.2mm-2.4mm (100mm - 4.2m3)	5 days		Wed 14/06/17	100% Garnet 1.2mm-2.4mm (100mm - 4.2m3)
	Wash Media (10min wash - 350cum/wash)	0.5 days	Fri 30/06/17	Fri 30/06/17	100% Wash Media (10min wash - 350cum/wash)
	,	•	Sat 1/07/17	Sat 1/07/17	100% Wash Media (10min wash - 350cumwash) 100% Draindown to TOP of Garnet
	Draindown to TOP of Garnet	0.5 days			100% Draindown to TOP of Garnet 100% Install Sand (300mm - 12.6m3)
	Install Sand (300mm - 12.6m3)	1 day		Fri 14/07/17	
	Rectification of Backwash Troughs	7 days		Fri 28/07/17	100% Rectification of Backwash Troughs 100% Week Corone Send Multiple Weekes (Fining week 175 sum (week)
	Wash/Scrape Sand - Multiple Washes (5min wash 175cum /wash)	2 days	Fri 15/09/17	Mon 18/09/17	100% Wash/Scrape Sand - Multiple Washes (5min wash 175cum (wash)
	Draindown to FSL of filter coal	0.25 days	Mon 18/09/17	Mon 18/09/17	100% Draindown to FSL of filter coal
	Install filter coal (1400mm - 58.8m3)	2 days		Wed 25/10/17	0% install filter coal (1400mm - 58.8m3)
	Fill and Soak filter coal	1 day		Thu 26/10/17	0% Fill and Soak filter coal
	Wash filter coal (5min wash 175cum /wash)	2 days		Mon 30/10/17	0% Wash filter coal (5min wash 175cum /wash)
HV	Chamber Pit	121.5 days		Mon 4/09/17	UV Chamber Pit
	Structural Enclosure and Access Stairs	71.5 days		Mon 3/07/17	Structural Enclosure and Access Stairs
	Drawing Approval (inc Door Modifications)	16 days		Fri 21/04/17	100% Drawing Approval (inc Door Modifications)
	Offsite Fabrication/Delivery			Thu 15/06/17	100% Offsite Fabrication/Delivery
	·	41 days			
	Erection of framing and stairs	5 days	Thu 15/06/17	Wed 21/06/17	100% Erection of framing and stairs
	Task		Rolled Up Critical Tas	sk	Project Summary □ Inactive Summary □ Start-only □ Deadline □
				<u> </u>	
	Critical Task		Rolled Up Milestone	~	Group By Summary Manual Task Finish-only
hu 7/12/17	Milestone ♦		Rolled Up Progress		■ Inactive Task Duration-only Critical Ussue State Critical Ussue State Critical Ussue State Critical Critic
vagga WTF	Schedule to Complete.171206.mp Summary	_	Split		Inactive Task Manual Summary Rollup Critical Split
00					
00	Rolled Up Task		External Tasks		Inactive Milestone ♦ Manual Summary Progress □□□□□□



ID Task	Name	Duration	Start	Finish	March April May June July August September October November December January February M E B M <th>E B M</th>	E B M
26	Run Temp RW Pumps - flush and fill temp RW Pipeline	1 day	Tue 17/10/17	Tue 17/10/17	0% Run Temp RW Pumps - flush and fill temp RW Pipeline	
7	Install new Raw Water Lift Pumps	3 days	Tue 6/02/18	Fri 9/02/18	0% <mark>≚</mark> Install n	new Raw Wa
,	Air Sparge and Flushing Actuation	1 day	Fri 9/02/18	Mon 12/02/18	0% os Air Spa	parge and FI
9	Chemical Dosing Systems	7 days	Fri 2/06/17	Tue 13/06/17		
0	Final Clean & Inspect all Chem Storage Tanks	2 days	Fri 2/06/17	Mon 5/06/17	100% Final Clean & Inspect all Chem Storage Tanks	
31	Install manholes and final 'box-up' all Chem tanks	3 days	Fri 23/06/17	Tue 27/06/17	100% install manholes and final 'box-up' all Chem tanks	
32	Fill all Chem tks with water & Hydro test	2 days	Wed 28/06/17	Thu 29/06/17	100% Fill all Chem tks with water & Hydro test	
33	Confirm all Chem Tks Level instruments	1 day	Wed 28/06/17	Wed 28/06/17	100% Confirm all Chem Tks Level instruments	
34	Test Run all dosing pumps on water & check dosing lines	2 days	Thu 21/09/17	Fri 22/09/17	100% = Test Run all-dosing pumps on water & check dosing lines	
35	Flush and test all Safety Showers & Hoses	1 day	Thu 26/10/17	Thu 26/10/17	100% Flush and test all Safety Showers & Hoses	
36	Install Chem unloading sump valves.	2 days	Wed 20/09/17	Thu 21/09/17	100% ⊜ Install Chem unloading sump valves.	
37	Test all Chem Unloading systems	1 day	Thu 26/10/17	Thu 26/10/17	100% Test all Chem Unloading systems	
138	Load first Alum Storage Tank	1 day	Fri 27/10/17	Fri 27/10/17	100% Load first Alum Storage Tank	
39	Load Caustic Storage Tank	1 day	Mon 30/10/17	Mon 30/10/17	100% Load Caustic Storage Tank	
40	Load Hypochlorite Storage Tank	1 day	Tue 31/10/17	Tue 31/10/17	0% Load Hypochlorite \$torage Tank	
41	Batch & Fill RW Polymer storage	1 day	Wed 1/11/17	Wed 1/11/17	0% Batch & Fill RW Polymer storage	
142	Batch & Fill Filter Aid Polymer Storage	1 day	Thu 2/11/17	Thu 2/11/17	0% Batch & Fill Filter Aid Polymer Storage	
143	Commission and fill Flouride Storage	3 days	Fri 27/10/17	Tue 31/10/17	0% Commission and fill Flouride Storage	
144	Site Acceptance Testing (SAT) - Wet Commissioning	137 days	Tue 27/06/17	Thu 18/01/18	Site Acceptance Tes	sting (SAT)
145	Lamella	96 days	Tue 27/06/17	Wed 8/11/17	Lamella	Stilly (OAT)
146	Fill Lamella/Rapid Mix/Flocculators with Potable	2 days	Wed 18/10/17	Thu 19/10/17	100% Fill Lame la/Rapid Mix/Flocculators with Potable	
47	Commission all Lamella Instruments	2 days	Fri 20/10/17	Mon 23/10/17	100% Commission all Lamella Instruments	
148	Test run Rapid Tk Mixer & all Flocc Tks Mixers	1 day	Fri 20/10/17	Fri 20/10/17	100% Test-run Rapid Tk Mixer & all Flocc Tks Mixers	
49	SAT/Sequence Testing of RW to Lamellas (o/f to WW Tk)	•	Fri 3/11/17	Fri 3/11/17	9% \$AT/Sequence Testing of RW to Lamellas (o/f to WW Tk)	
150	SAT/ Sequence Testing of Rw to Lamenas (0/10 WW TK) SAT/ Sequence Testing of Lamellas with Chemical dosing & set	1 day	Fri 3/11/17	Mon 6/11/17	100% SAT/ Sequence Testing of Lamellas with Chemical dosing & set	ot doco rotos
	dose rates	2 days	FII 3/11/17			it dose rates
151	Dual Media Filter	96 days	Tue 27/06/17	Wed 8/11/17	Dual Media Filter	
152	Sequence Testing - backwash	1 day	Tue 27/06/17	Tue 27/06/17	100% Sequence Testing - backwash	
153	SAT/Sequence Testing - backwash Garnite all filters	2 days	Wed 28/06/17	Thu 29/06/17	100% ᇦSAT/Sequence Testing - backwash Garnite all filters	
454	SAT/ Sequence Testing Filters Start/ Stop, etc	2 days	Tue 7/11/17	Wed 8/11/17	ψ% Τς SAT/ Sequence Testing Filters Start/ Stop, etc	
455	Re-install FW Tk Bellmouth	1 day	Mon 30/10/17	Mon 30/10/17	0% ⊩Re-install FW Tk Bellmouth	
456	Process Water Pump System	1 day	Tue 31/10/17	Tue 31/10/17	■ Process Water Pump System	
157	Commission Process Water Pump System	1 day	Tue 31/10/17	Tue 31/10/17	0%—Commission Process Water Pump System	
158	Flush and fill Process System & pressurise (isolate temp connection)	1 day	Tue 31/10/17	Tue 31/10/17	0% Flush and fill Process System & pressurise (isolate temp connection	on)
59	Clear Water System	1 day	Thu 9/11/17	Thu 9/11/17	Clear Water System	
60	SAT/Sequence Testing of Level Controls	1 day	Thu 9/11/17	Thu 9/11/17	0% SAT/Sequence Testing of Level Controls	
161	Raw Water System	1 day	Wed 18/10/17	Wed 18/10/17	Raw Water System	
62	SAT/Sequence Testing of Temp RW System	1 day	Wed 18/10/17	Wed 18/10/17	0% SAT/Sequence Testing of Temp RW System	
163	Integrated Plant Operation	40 days	Fri 10/11/17	Thu 18/01/18	■ Integrated Plant Ope	peration
64	SAT/Sequence Testing with temp RW Supply	1 day	Fri 10/11/17	Fri 10/11/17	0% SAT/Sequence Testing with temp RW Supply	
165	Test Run & Operate Plant - fine tune & adjust (o/f to stormwater)	3 days	Mon 13/11/17	Wed 15/11/17	0% Test Run & Operate Plant - fine tune & adjust (o/f to storms	nwater)
66	Drain CW Storage & final inspect (blank temp overflow)	2 days	Wed 15/11/17	Thu 16/11/17	0% ₹Drain CW Storage & final inspect (blank temp overflow)	
67	Chlorine disinfection of Filters, FW Tk, CW Tk & pipelines.	2 days	Fri 17/11/17	Mon 20/11/17	0% 🕌 Chlorine disinfection of Filters, FW Tk, CW Tk & pipelin	nes.
168	Operate Plant and commence post Chlorine and Flouride dosing,	2 days	Tue 21/11/17	Wed 22/11/17	0% Operate Plant and commence post Chlorine and Flouri	ride dosina.
	fine tune & Adjust - Fil CW Tk, sample & test water quality	- 7 -				
9	Test Run CW Pumps - HL & LW Pumps	2 days	Thu 23/11/17	Fri 24/11/17	0% Test Run CW Pumps - HL & LW Pumps	
70	Confirm HL & LL Storage Tanks Level Signals & Controls	1 day	Thu 23/11/17	Thu 23/11/17	0% rConfirm HL & LL Storage Tanks Level \$ignals & Conti	itrols
71	SAT/ Sequence Testing with CW Pumps on demand	3 days	Fri 24/11/17	Tue 28/11/17	0% SAT/ Sequence Testing with CW Pumps on demand	
72	Demonstration Test & Commence Operation on demand, fine tune	7 days	Wed 29/11/17	Thu 7/12/17	0% Demonstration Test & Commence Operation of	on demand
173	& adjust Operate Plant in Auto - monitor & adjust	20 days	Fri 8/12/17	Thu 18/01/18	0% Operate Plant in Auto	to - monitor
113	Operate Plant in Auto - monitor & adjust	∠∪ days	FII 0/12/1/	1110 18/01/18	U70 Operate Plant in Auto	.o - monitor

Start-only Task Rolled Up Critical Task Project Summary Deadline Rolled Up Milestone 🔷 Critical Task Group By Summary Manual Task 3 Finish-only Date: Thu 7/12/17 File: Wagga WTP Schedule to Complete.171206.mp Milestone Rolled Up Progress Inactive Task Duration-only Critical Summary Split Inactive Task Manual Summary Rollup Critical Split Rolled Up Task Manual Summary Progress Inactive Milestone

Drawn: Checked: Authorised Doug Anderson

Wagga Wagga WTP

Variation Summary	Cost \$ inc GST
Approved Variations	1,771,540
Approved Negative Variations	-725,067
Net Variations approved	1,046,473
Total Variations considered	5,404,091
Rejected Variations	4,357,618
Variations for Contamination	187,236
Change scope variations with CMR signoff	1,062,920

Wagga WTP Variations

Variation no.	Description	Cost \$ inc GST	Comment	CRF no.
1	Control system design for fully networked plant	16,500	Finalised	
2	AC14 Road sealing	111,563	Finalised	3
3	Provision for future UV	22,886	Finalised	2
4	Disabled Access to Control Room and Filter Area	305,360	Finalised	
5	Changes to Concrete Specification. S32->S40 + XYPEX	86,900	Finalised	1
6	Removal of additional soil NSC02	5,781	Finalised	
7	Transformers supplied by RWCC	-268,210	Finalised	
8	Access to existing Clarifiers	140,078	RWCC constructing	
9	Alum tank increase size	88,862	Finalised	5
10	Increased Spare Capacity in Switchboards	8,850	Approved	
11	Additional Lamella Capacity	49,613	Finalised	4
12	Sewer pump station at Herritage Residence (1/2 cost)	5,933	Finalised	
13	Penstocks in lieu of stop boards	10,374	Finalised	
14	Increased Bearing Capacity in Filter Block	34,500	Finalised	
15	Rubbish near residence and asbestos at CWS excavation	11,107	Finalised	
16	Levee Asbestos Removal	28,893	Finalised	

			1	1
17	Storage area sub-lease at 9 Say St	-19,800	Finalised	
18	Filter Gallery trenches	45,498	Finalised	
19	Additional 25mm cover on Clarifier outlet slab	9,236	Finalised	
20	Raw Water Intake Coffer Dam & Concrete Works	401,500	Finalised	6
20 C	Raw Water Foundation requirements	2,750,000	Rejected	
21	Galvanised cable tray in lieu of Aluminium	-19,058	Finalised	
22	Non relocation of workshop sewer	-6,353	Not proceeding	
23	Removal of Additional Concrete Slab at Centrifuge Building	8,461	Finalised	
24	Clear Water Pump Mechanical Seals	1,650	Finalised	
25	Bomen Pump Line	88,000	Finalised	
26	NSC11 Material Excavated under UGL Carpark	30,102	Finalised	
27	NSC12 Asbestos Material at Wash Water Holding Tank	3,342	Finalised	
28	NSC13 Poor Ground at Sludge Thickener	21,952	Rejected	
29	Filter Wall Changes due to overflow concerns	-88,000	Finalised	
30	Road and Stormwater realignment	18,429	Finalised	
31	Roof Access Ladder to Centrifuge Building	15,511	Finalised	
32	NSC14 Damage to Scour Line & Repair	12,616	Finalised	
33	Flowmeter modifications	24,352	Finalised	9
34	Caustic Building Lighting	2,967	Finalised	
35	Eaves lining to Buildings	85,265	Rejected	
36	Sludge Thickener Floor	99,275	Finalised	7
37	Reinstallation of DICL		Rejected	
38	Modifications to Filter Building Stairs	41,938	Rejected	
38b	Modifications to Filter Building Stairs	19,250	RWCC offer for variation	
39	Electrical Field Isolators	73,986	Rejected	
40	Street Light Fittings	9,885	Finalised	
41	Offsite Cleaning of SS Reo Filters	28,346	Rejected	

			1	1
42	Design Changes Roads and Gutters	0	RWCC reviewing	
43	Additional 150mm layer 4.8-9.6 Garnet	94,836	Finalised	8
44	Lamella Corrosion Warranty (agreed adjustment 23/1/17)	-330,000	Finalised	
45	Concrete Slab between filter and Lamellas	1,475	Not proceeding	
46	Remove Concrete Slab	4,459	Finalised	
47	Failed pressure test	10,265	Rejected	
48	Changes to Sludge Discharge pipework	24,578	Rejected	
49	Bore Water Pressure Line changes	10,252	Adjusted amount accepted	
50	Pop-up power outlets	2,445	Finalised	
51	Reroute centrate PS to Wash Water Holding Tank	78,085	Rejected	
52	Additional landscaping & Footpaths	184,044	Rejected	
53	NSC17 Asbestos at A2 to A203 and at A8-2	4,942	Finalised	
54	Buildings Roof Drainage Connection to Stormwater System	81,128	Rejected	
54b	Buildings Roof Drainage Connection to Stormwater System	0	RWCC offer for variation	
55	High Low Lift pump valves	26,067	Rejected	
56	Rework External Delivery Pipework	16,748	Finalised	
57	Rework Sludge Thickener Riser	10,403	Rejected	
58	Concrete Encase Stormwater	11,663	Rejected	
59	Concrete Encase Stormwater	16,364	Rejected	
60	Concrete Encase Washwater	46,411	Rejected	
61	Raw Water Piping Hazop Changes	59,871	Rejected	
61b	Raw Water Piping Hazop Changes	4,400	RWCC offer for variation	
62	Ancillary Pipework Material Changes	88,438	Rejected	
62b	Ancillary Pipework Material Changes	3,740	RWCC offer for variation	
63	Dewatering Control Change	7,506	Rejected	

63b	Dewatering Control Change	3,300	RWCC offer	
64	Joinery, Sink & Fume Hood to	24,616	for variation Rejected	
65	Control Room Thickener Rake Bearing	18,292	Rejected	
	Flushing Line		•	
66	Power Monitor Comms with PLC	5,603	Rejected	
66b	Power Monitor Comms with PLC	3,300	RWCC offer for variation	
67	Supply and Fix Additional Reinforcement in Concrete WRS	344,355	Rejected	
68	Additional Hydrotite Jointing in WRS	47,837	Rejected	
69	Provision of Water Meters	14,135	Rejected	
70	Reroute Sewer	14,557	Rejected	
71	Concrete encase pipework		Rejected	
72				
73	Road Subgrade Replacement	61,581	information provided to DA 12/9	
140	Power Failure Alarm Circuit Modifications in Switch Boards	5,647	Finalised	
141	Drilled Holes for Raw Water Frame Footings	2,274	Approved	
142	Forklift access ramps to Chemical building	12,772	Approved	10
143	HL&LL Clear Water Pump mechanical seals	70,361	Approved	11

QUESTIONS & STATEMENTS

CLOSURE OF MEETING TO THE PUBLIC (Confidential Reports)

