

ANNEXURE – Q-2223-CS-44 HAZARDOUS CHEMICAL AUDIT & ASSOCIATED WORK WATER SUPPLY & SEWERAGE TREATMENT FACILITIES

Section 1 Scope of Works

1.1 Overview of Project Objectives

Council invites proposals from suitably qualified and experienced consultants to assist Council in meeting its obligations under the *Work Health and Safety (WHS) Act 2011*, by: -

- undertaking an audit to confirm level of statutory compliance with respect to storage and use of hazardous chemicals in the workplace.
- help Council to understand whether it is achieving an acceptable level of risk management with respect to hazardous chemicals at Council's water supply and sewerage treatment facilities throughout the Shire.

Chlorine storage and dosing facilities are specifically to be addressed together with other hazardous chemicals stored/used at Council's treatment facilities. A list of locations and relevant chemicals is included as **Attachment A**.

1.2 Brief Description of the Works

This audit is to:

- Identify both general and specific obligations of Banana Shire Council under the WHS Act and WHS Regulation, with reference to the Code of Practice for Managing Risks of Hazardous Chemicals in The Workplace (2021) and AS/NZS 2927:2019 in relation to the storage and handling of chlorine.
- Include a visual review of physical equipment and infrastructure available at each site during a site inspection of each facility.
- Address transfer of chlorine gas and other hazardous chemicals between sites
- Include a desktop review of available management systems, training programs, operational procedures, maintenance procedures, emergency plans, etc.
- Include discussions with Council personnel, including facility operators, to determine the level of compliance with existing policies and procedures.
- Placard and manifest requirements under the Work Health and Safety Regulations.
- Manifest threshold quantity specified in Schedule 11 to the model WHS Regulations.

- Requirements of a Major Hazard Facilities (MHF) under schedule 15 of the Work Health and Safety Regulation 2011. (*Chlorine UN1017 - MHF threshold (schedule 15) 25 tonne - 10% threshold quantity 2.5 tonne - larger water treatment plants*) If council meets these requirements.

A report is to be prepared outlining areas of compliance and non-compliance.

A list of actions is to be provided for achieving compliance, together with recommendations for improving existing infrastructure or management systems to reduce the risk to as low as reasonably practicable.

1.3 Specification of Works to be carried out

Hazardous Chemical & Dangerous Goods Audit: W&S Treatment Facilities

An audit is to be conducted of the Banana Shire Council treatment facilities located at Biloela (incl Callide Dam & Thangool), Moura (incl Banana), Taroom, Theodore, Baralaba, Goovigen and Wowan against the following legislation and standards with respect to hazardous chemical and dangerous goods management:

- Queensland Work Health and Safety (WHS) Act 2011
- Queensland Work Health and Safety Regulation (WHS) 2011
- Managing risks of hazardous chemicals in the workplace, Code of Practice 2021
- AS/NZS 2927:2019 The storage and handling of liquefied chlorine gas.

Preparation of emergency plans and procedures

Emergency plans and procedures are to be reviewed and updated/prepared in accordance with the requirements of:

- Queensland Work Health and Safety (WHS) Act 2011
- Queensland Work Health and Safety Regulation 2011
- Emergency Planning: Guidelines for Hazardous Industry, CHEM Unit (now HICB), 1998.
- AS/NZS 2927:2001 The storage and handling of liquefied chlorine gas.
- Emergency Management sections of the various Australian Standards for dangerous goods
- Other relevant documentation

Consequence modelling of typical chlorine releases is to be used to determine hazard zones around each storage facility during an emergency.

Liquefied Chlorine Gas - Safety Procedures for Construction and Maintenance

Emergency plans and procedures are to be reviewed and updated/prepared in accordance with the requirements of:

- Provide training to Council Officers (8 no.) on Section 8.10 of AS/NZS 2927:2001 -The storage and handling of liquefied chlorine gas
- In consultation with Council Officers draft policies and procedures with respect to relevant work undertaken under Section 8.10 of AS/NZS 2927:2001 - The storage and handling of liquefied chlorine gas including:
- Routine work, management of change, work permits, hot work, work inside a confined space, preparation of worksite and plant, completion of work and commissioning.

Risk Assessments – Hazardous Chemicals

Where existing risk assessments are deemed inadequate / do not exist. Consult with Council Officers and develop risk assessments with staff at the respective sites.

1.4 Pricing/Fee Proposal

TASK	RESOURCE	HOURS / DAYS	PRICE (INC GST)
Audit			
Review of available documentation prior to site visit			
Site visit (min 4 days)			
Audit report and recommendations			
Risk assessments as required			
Other: -			
		Sub-total	
Emergency plans and procedures			
Consultation			
Review / Update / Preparation of emergency plans & procedures			
Consequence Modelling			
Other: -			
		Sub-total	
Chlorine Gas Safety Procedures Construction & Maintenance			
Consultation			
Preparation of Draft Procedures			
Training			
Other: -			
		Sub-total	

TASK	RESOURCE	HOURS / DAYS	PRICE (INC GST)
Audit			
Other			
		Sub-total	
Miscellaneous			
Travel / Airfares			
Accommodation / Meals			
Transport			
Disbursements			
Other: -			
		Sub-total	
TOTAL (inclusive of GST)			\$

1.5

Provide a schedule for completion of this project:

RFQ Advertised	18/08/2022
RFQ Closes	01/09/2022
Project Awarded by	09/09/2022
Banana Shire Council to provide available documentation for review prior to site visit. It is preferred that the site visit be held in October when key staff return from extended leave.	Within 2 weeks of award

<p><u>Site Visit Day 1</u></p> <ul style="list-style-type: none"> • Introductory meeting – BSC Office Biloela. • Site Inspections Day 1 - consider <ul style="list-style-type: none"> ○ Callide Dam RWPS ○ Biloela WTP ○ Biloela TWPS ○ Thangool Booster PS 	
<p><u>Site Visit Day 2</u></p> <ul style="list-style-type: none"> • Site Inspections Day 2 - consider <ul style="list-style-type: none"> ○ Goovigen ○ Wowan ○ Baralaba WTP ○ Banana Res 	
<p><u>Site Visit Day 3</u></p> <ul style="list-style-type: none"> • Site Inspections Day 3 - consider <ul style="list-style-type: none"> ○ Taroom WTP ○ Taroom STP ○ Theodore WTP ○ Theodore STP 	
<p><u>Site Visit Day 4</u></p> <ul style="list-style-type: none"> • Site Inspections Day 4 - consider <ul style="list-style-type: none"> ○ Biloela STP • Training Chlorine Gas Safety Procedures Construction & Maintenance – BSC Biloela Office • Training Fluoride dust/powder handling including safety procedures and PPE requirements (optional) <p><i>NOTE: - Training component to be conducted on Tues/Wed/Thurs as RDO's scheduled for Mon & Fri</i></p>	

<p><u>Site Visit Day 5</u></p> <ul style="list-style-type: none"> • Site Inspection Day 5 - consider <ul style="list-style-type: none"> ○ Moura STP ○ Moura WTP • Close Out Meeting – BSC Office Biloela • Draft audit report - submit to BSC for review • Draft emergency plans and procedures submitted to BSC for review. • Draft Chlorine Gas Safety Procedures Construction & Maintenance to BSC for review 	
<p>Comments on draft documentation provided by Council (allow 2 weeks)</p>	
<ul style="list-style-type: none"> • Final audit report submitted to Banana Shire Council • Final emergency plans and procedures submitted to Banana Shire Council. • Final Chlorine Gas Safety Procedures (Construction & Maintenance) submitted to Council 	

1.6 Insurances

The Offeror is required to hold the below insurances at the time of submitting the offer.

- Professional Indemnity
- Public Liability

The successful business will be required to maintain these insurances throughout the duration of the contract.

1.7 Key Personnel

Please provide a copy of the key personnel resume/professional summary detailing experience relevant to the RFQ.

1.8 Attachments

The following attachments form part of the Scope of Works:

- Attachment A – Chemical quantity and site location

1.9 BSC Policies

The Contractor must comply with the following BSC Policies in the completion of the works:

- Code of Conduct.
- Drug and Alcohol Policy.
- Procurement Policy; and
- Work Health and Safety Policy.
- Complete copies of these policies are available to the public on the BSC website at the following address: <https://www.banana.qld.gov.au>

1.10 Standards

The Contractor must comply with the following standards in the completion of the works:

- Workplace Health and Safety Regulations 2011.
- This Specification
- Main Road Specific Contract Requirements for MRTS05 Supply of Unbound Pavement and MRTS22.1 Supply of Cover Aggregate
- Capricorn Municipal Development Guidelines (CDMG)

Section 2 Work Health & Safety Requirements

2.1 BSC Inductions

The Contractor/Service Provider employees (and subcontractors' personnel if applicable) are required to:

- Complete all nominated training and inductions directed by BSC prior to mobilisation to site; and

If the Contractor/Service Provider employee or subcontractor fails to maintain the required inductions, BSC reserves the right to refuse or remove the subject parties from BSC sites.

Attachment A - Chemical quantity and site location

1. Callide Valley

a) Callide Dam RWPS (Raw Water Pump Station)

Address

28 Cocups Road, Biloela QLD 4715

Chemical & Quantity

- Potassium Permanganate – 1000kg

b) Biloela WTP

Address:

710 Calvale Road, Biloela QLD 4715

Chemical & Quantity

- Powder Activated Carbon (PAC) – 1000kg
- Chlorine Gas – 6500KG
- Cyanide Reagent – 1000mL
- Ultrion
- Potassium Permanganate
- Sodium Hydroxide – 4500L IBC
- Magnafloc LT25 – 50kg
- Sodium Hypochlorite

c) Biloela TWPS (Town Water Pump Station)

Address:

23 State Farm Road, Biloela QLD 4715 (Corner State Farm Road and Prairie Street)

Chemical & Quantity

- Chlorine Gas – 280kg
- Fluoride

d) Biloela STP & Plumbers/Retic Sheds

Address:

93 Quarrie Road, Biloela QLD 4715

Chemical & Quantity

- Zetag – 250L
- Sodium Hypochlorite – 5500L
- Liquid Alum – 10000L

e) Thangool Booster Pump Station

Address:

Burnett Highway, Thangool QLD 4716

Chemical & Quantity

- Sodium Hypochlorite

f) Goovigen Reservoir

Address:

10 Stone Crescent, Goovigen QLD 4702

Chemical & Quantity

- Chlorine Gas – 120kg

g) Wowan Chlorination Facility

Address:

Wowan Bore Road, Wowan

Chemical & Quantity

- Chlorine Gas

h) Baralaba WTP

Address:

2 Lew Drake Drive Baralaba QLD 4702

Chemical & Quantity

- Powder Activated Carbon (PAC) – 195kg
- Chlorine Gas – 280kg
- Cyanide Reagent – 500mL
- Ultrion – 1000kg
- Potassium Permanganate – 150kg
- Caustic Soda – 1000L
- Sodium Hypochlorite – 130L
- Hydrochloric acid – 130L

2. Dawson North

a) Moura WTP

Address:

69 Davey Street Moura QLD 4718

Chemical & Quantity

- Powder Activated Carbon (PAC) – 20kg
- Chlorine Gas – 5280kg
- Cyanide Reagent – 500mL
- Ultrion – 2300kg
- Potassium Permanganate – 20kg
- Fluoride -75kg
- Magnafloc LT25
- Sodium Hypochlorite
- Sodium Hydroxide

b) Moura STP

Address:

71 Davey Street Moura QLD 4718

Chemical & Quantity

- Ultrion – 2000L
- Zetag – 250kg
- Aerofloc C100 (ACH) – 1000L
- Citric Acid – 500L
- Sodium Hypochlorite – 1000L

c) Banana Reservoir

Address:

30 Moriarty Street Banana QLD 4702

Chemical & Quantity

- Chlorine Gas

3. Dawson South

a) Theodore WTP

Address:

35-53 Schultz Road Theodore QLD 4719

Chemical & Quantity

- Powder Activated Carbon (PAC) – 20kg
- Chlorine Gas -270kg
- Cyanide Reagent – 100mL
- Ultrion – 1000L
- Magnafloc LT25

b) Theodore STP

Address

Malakoff Road, Theodore QLD 4719

Chemical & Quantity

- Chlorine Gas – 280kg
- Aerofloc C100 (ACH) – 1000L
- Liquid Alum – 1000L
- Sodium Hypochlorite -1000L
- Citric Acid – 500L
- Sodium Hydroxide – 1000L

c) Taroom WTP

Address:

6 Cranmer Street, Taroom QLD 4420

Chemical & Quantity

- Chlorine Gas – 210KG
- Cyanide Reagent – 100mL
- Sodium Hypochlorite

d) Taroom STP

Address:

18-30 Tai Shue Street QLD 4420

Chemical & Quantity

- Aerofloc C100 (ACH) – 1000L
- Sodium Hypochlorite – 3000L
- Aerofloc P600 – 200L
- G.O.A.T – 1000L