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

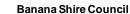
- undertaking an audit to confirm level of statutory compliance with respect to storage and use of hazardous chemicals in the workplace.
- help Council to understand whether it is achieving an acceptable level of risk management with respect to hazardous chemicals at Council's water supply and sewerage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





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• 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.

<u>Liquified Chlorine Gas - Safety Procedures for Construction and Maintenance</u>

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



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- 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			



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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



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	Site Visit Day 1	
•	Introductory meeting – BSC Office Biloela. Site Inspections Day 1 - consider Callide Dam RWPS Biloela WTP Biloela TWPS Thangool Booster PS	
	Site Visit Day 2	
•	Site Inspections Day 2 - consider	
	 Goovigen 	
	o Wowan	
	o Baralaba WTP	
	o Banana Res	
	Site Visit Day 3	
•	Site Inspections Day 3 - consider	
	o Taroom WTP	
	o Taroom STP	
	 Theodore WTP 	
	 Theodore STP 	
	Site Visit Day 4	
•	Site Inspections Day 4 - consider o Biloela STP	
•	Training Chlorine Gas Safety Procedures Construction & Maintenance – BSC Biloela Office	
•	Training Fluoride dust/powder handling including safety procedures and PPE requirements (optional)	
	OTE: - Training component to be conducted on ues/Wed/Thurs as RDO's scheduled for Mon & Fri	





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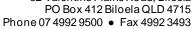
Site Visit Day 5 Site Inspection Day 5 - consider Moura STP Moura WTP Close Out Meeting – BSC Office Biloela Draft audit report - submit to BSC for review Draft emergency plans and procedures submitted to BSC for review. Draft Chlorine Gas Safety Procedures Construction & Maintenance to BSC for review Comments on draft documentation provided by Council (allow 2 weeks) 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.



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Key Personnel 1.7

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)

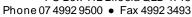
Section 2 **Work Health & Safety Requirements**

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.



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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



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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

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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:

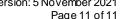
30 Moriarty Street Banana QLD 4702

Chemical & Quantity

• Chlorine Gas

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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