Pollution Incident and Emergency Response Management Plan

Tamworth Regional Council

Calala Water Treatment Plant

June 2018 - Version 5.0

REVISION HISTORY

VERSION	DATE	AUTHOR / REVIEWER	DETAILS
V1.0	01/12/2012	Tamworth Regional Council	Original document.
V2.0	01/04/2013	Tamworth Regional Council	Revised document.
V3.0	01/08/2013	Atom Consulting	Revised document.
V4.0	30/10/2017	Anthony Allwell (SEO)	Review and update as per Action Plan (Logicus, April 2017).
V5.0	30/06/2018	Anthony Allwell (SEO)	Review and update as per Action Plan (Logicus, March 2018).

DOCUMENT REGISTER

VERSION	DATE ISSUED	LOCATION	ISSUED BY
V1.0	01/12/2012	Team Leader Office	Tamworth Regional Council
	01/12/2012	Lunchroom	Tamworth Regional Council
V2.0	01/04/2013	Team Leader Office	Tamworth Regional Council
	01/04/2013	Lunchroom	Tamworth Regional Council
V3.0	01/08/2013	Team Leader Office	Lydia Pajmakoska
	01/08/2013	Lunchroom	Lydia Pajmakoska
V4.0	30/10/2017	Team Leader Office	Anthony Allwell
	30/10/2017	Lunchroom	Anthony Allwell
V5.0	30/06/2018	Team Leader Office	Anthony Allwell
	30/06/2018	Lunchroom	Anthony Allwell

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FIGURES

TABLES

This document is designed for double sided printing.

ABBREVIATIONS

DG	Dangerous Goods
EPA	NSW Environment Protection Authority
EPL	Environmental Protection Licence
IMS	Integrated Management System
MSDS / SDS	Material Safety Data Sheets / Safety Data Sheets
PIRMP	Pollution Incident Response Management Plan
POELA Act	Protection of the Environment Legislation Amendment Act (2011)
POEO Act	Protection of the Environment Operations Act (1997)
PPE	Personal Protective Equipment
SEO	Senior Environmental Officer
SOP	Standard Operating Procedure
SWP	Standard Work Practice
TRC	Tamworth Regional Council

Is there an immediate threat to human health and/or the environment?

No → Contact **Team Leader**

0438 463 924

Manage Incident on-site

Yes

Contact **Emergency Services** (if required)

Call 000 (or 112 from mobiles)

Ensure all people, including public, are removed from the danger area.

Contact **Team Leader**
0438 563 924

Contact **Manager — Water and Waste Operations**

Dan Coe 0428 297 896

Contact **Headworks Engineer**

Russell Lyne 0400 965 604

Assess risk and severity and implement action.

Level 1: Incident affects immediate area only

Restrict access to the area.

Staff to inform public of areas of restricted access

Implement appropriate response action

Complete a Workplace Incident and investigation Form.

NOTE: In the absence of the Team Leader, the Acting Team Leader assumes the responsibilities of the Team Leader.

Contact **Headworks Engineer**

Russell Lyne 0400 965 604

Complete Workplace Incident Report and Investigation Form (10781/2014)

Contact other agencies as required:

NSW EPA—131 555

Ministry of Health, local Public Health unit—6764 8000

WorkCover—131 050

Fire and Rescue NSW—1300 729 579 (only if 000 is not contacted as part of initial response.

NOTE: This notification should be undertaken by the Manager - Water and Waste Operations, or the Director - Water and Waste in his absence. This responsibility then falls to the Senior Officer.

Level 2: Incident affects others within the facility

Level 3: Incident could affect surrounding neighbours

Initiate **Evacuation Procedure**

1. Team Leader notifies that evacuation is required.

2. TRC staff to evacuate to assembly point, and where necessary, escort public and contractors to assembly point.

3. Team Leader to confirm all workers and customer vehicles at assembly point or accounted for.

4. Team Leader to advise customers and commercial vehicles of the emergency and to leave site if safe to do so.

Notify neighbouring property owners.

Have relevant authorities been notified?

Has the incident been cleaned up appropriately?

Has the incident been reported to the EPA and a report provided?

Complete a Workplace Incident Report and Investigation Form.

Has the PIRMP been reviewed and updated?

1   INTRODUCTION

1.1   SCHEME OVERVIEW

Tamworth Regional Council (TRC) supplies potable water to the town of Tamworth from the Calala Water Treatment Plant (WTP). The typical daily production at the Calala WTP is approximately 25 ML per day with a peak daily demand of approximately 50 ML per day during the Country Music Festival.

As part of the water treatment process, the Calala WTP plant doses:

- Powdered Activated Carbon (PAC)   - for taste and odour control;
- Liquid Aluminum Sulfate (Alum)   - for coagulation;
- Polymer   - as a clarifier and filter aid;
- Chlorine   - to disinfect;
- Sodium Carbonate (soda ash)   - for pH and alkalinity correction; and
- Sodium Fluorosilicate   - for caries prevention.

Two clarifiers and twelve dual media filters are used at the Calala WTP to treat the water prior to distribution. Sludge from the clarifiers and filter backwash is transferred to the sludge lagoons. There are four sludge lagoons at the site, of which two are operational at any one time. These sludge lagoons can be isolated in the case of an emergency and the other two sludge lagoons used. Council holds an Environmental Protection Licence (EPL 12430) for discharge from the sludge lagoons.

1.2   ABOUT THE DOCUMENT

The Pollution Incident Response Management Plan (PIRMP) for the Tamworth Calala Water Treatment Plant was originally prepared by TRC and Atom Consulting, and has since been revised by Tamworth Regional Council staff and management. The main purposes of this document are:

- To exist as the immediate guide for Council employees in the case of an incident or emergency involving the Calala WTP;

- To comply with 'Preparation of Pollution Incident Response Management Plans' under Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO) Act and the Protection of the Environment Operations (General Regulation 2009); and

- To comply with Element 6 of the Framework for Management for Drinking Water Quality in the Australian Drinking Water Guidelines (ADWG) (2011).

NOTE: A pollution incident is defined as 'an incident , during which or as a consequence of, where there is a leak, spill or other escape of a substance, as a result of which pollution has occurred, is occurring or likely to occur.

A pollution incident is required to be notified if there is a risk of "*material harm to the environment*", i.e. it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial.

1.3 REGULATORY COMPLIANCE

Table 1-1 and Table 1-2 detail how this Pollution Incident Response Management Plan complies with the regulations and guidelines as stated above.

TABLE 1-1   REQUIREMENTS OF THE POEO REGULATION

Requirements of the POEO (G) Regulation	Pollution Incident Response Management Plan
3.3.1 Descriptions and likelihood of hazards [clause 98C (1)(a) and (b)]	Section 8 - Description and Likelihood of Risks
3.3.2 Pre-emptive actions to be taken [clause 98C(1)(c)]	Section 6.3 - Pre-emptive Actions
3.3.3 Inventories of pollutants [clause 98C(1)(d) and (c)]	Section 9 - Pollutant Inventory
3.3.4 Safety equipment [clause 98C(1)(f)]	Section 6.4 - Locations of Emergency Equipment
3.3.5 Contact details [clause 98C(1)(g) and (h)]	Section 3.1 - Pollution Notification Protocol
3.3.6 Communicating with neighbours and the local community [clause 98C(1)(i)]	Section 3.2 - Communication with Neighbours and the Community
3.3.7 Minimising harm to persons on the premises [clause 98C(1)(j)]	Section 4 - Emergency Operating Plans
3.3.8 Maps [clause 98C(1)(k)]	Section 9 - Pollutant Inventory
3.3.9 Actions to be taken during or immediately after a pollution incident [clause 98C(1)(l)]	Section 2 Incident Response Process (What to do first)
3.3.10 Staff training [clause 98C(1)(m)]	Section 6.1 - Training

TABLE 1-2 **REQUIREMENTS OF THE AUSTRALIAN DRINKING WATER GUIDELINES (ELEMENT 6)**

ADWG Element 6 Requirements	Incident and Emergency Response Plan
2.6.1 Communication	
Define communication protocols with the involvement of relevant agencies and prepare a contact list of key people, agencies and stakeholders	Section 3.1 - Pollution Notification Protocol
Develop a public and media communications strategy	Section 3.2 - Communication with Neighbours and the Community
2.6.2 Incident and Emergency Response Protocols	
Define potential incidents and emergencies and document procedures and response plans with the involvement of relevant agencies	Section 4 - Emergency Operating Plans Section 2 Incident RESPONSE Process (What to do first)
Train employees and regularly test emergency response plans	Section 6.1 - Training
Investigate any incidents and emergencies and revise protocols as necessary	Section 6.2 - Review of Document

1.4 HOW TO USE THIS PLAN

This PIRMP is divided into 3 parts:

Part 1 – Emergency Plans

This part contains Emergency Operating Plans and should be referred to in an emergency situation.

Part 2 – Response Protocols

This part describes the three incident and emergency levels and the process by which an incident is escalated. Roles and responsibilities are detailed for each of these levels.

Part 3 – Preparation Measures

This part details required preparatory measures, including training, document reviews, forms and checklists. Maps, a risk assessment and pollution inventory is also included.

1.5 FACILITY COVERED BY THIS PIRMP

This PIRMP relates specifically to the Calala WTP which incorporates activities of EPA Licence EPL 12430.

1.6   PIRMP Distribution

A copy of this PIRMP is to be kept at the premises to which the relevant Environmental Protection Licences (EPL's) relate, or where the relevant activity takes place, so that it is readily available to those responsible for its implementation and to any Authorised Officer on request.

The master copy of this PIRMP is to be maintained by the **Senior Environmental Officer - Water and Waste Operations (TRC)** who will be responsible for the distribution of the PIRMP and the annual review.

A copy of this PIRMP is also to be retained by the **Manager - Water and Waste Operations (TRC)**.

A copy of this PIRMP is to be available at each of the following locations at the Calala WTP:

• Team Leader Office; and

• Lunchroom.

In addition, copies of the emergency contacts list as contained in the PIRMP are to be made available in each of the work vehicles and items of plant at the Calala WTP.

Additionally, any regular site contractors should receive appropriate general training on the existence and use of this document. This should be organised by the **Headworks Engineer - Water** on an annual basis.

1.7   PIRMP Review

The PIRMP is to be reviewed annually by the **Senior Environmental Officer – Water and Waste Operations (TRC)** in conjunction with relevant Council staff including the **Manager - Water and Waste Operations (TRC).**

When revisions are made to the PIRMP, the revised document will be re-distributed and redundant copies collected and discarded. The date of issue and revision number is to be recorded on the title page of the document for future reference.

1.8   PIRMP Training

To ensure that this PIRMP is properly followed in the event of a pollution incident, training programs shall be provided to relevant **Council Employees**. The objectives of the training program shall be as follows:

   a) *To ensure that **Council Employees** are knowledgeable of their roles and responsibilities concerning this PIRMP.*

   b) *To ensure that **Council Employees** are knowledgeable of the PIRMP's procedures to affect a safe and appropriate response to pollution incidents.*

Relevant **Council Employees** will receive training in the PIRMP appropriate to the level of their expected involvement, including site operational staff, supervisors, management and on-call personnel. The following section provides the general training program which is to be implemented in support of this PIRMP.

This process should also identify appropriate site personnel to provide general PIRMP awareness training for contractors, with particular attention given to the control structure and communication procedures for the site.

PART 1 - EMERGENCY PLANS

This part contains Emergency Operating Plans relating to the Calala WTP and should be referred to in an emergency situation.

2 INCIDENT RESPONSE PROCESS (WHAT TO DO FIRST)

In the event of an incident the steps summarised in Table 2-1 and Figure 2-1 below should be followed.

TABLE 2-1. INCIDENT RESPONSE PROCESS.

Step			Reference
1	Identify and Assess Incident Severity	Level 1 - Routine Incident.	Section 5.3 - Level 1: Incident
		Escalate to Level 2 - Major Incident.	Section 5.4 - Level 2: Major Incident
		Escalate to Level 3 - Emergency, if incident is severe with broad impacts anticipated to have an extended recovery period. Declare an emergency and form an Emergency Response Team.	Section 5.5 - Level 3: Emergency
2	Take Any Necessary Immediate Action	If necessary, contact emergency services. Provide any emergency assistance to injured personnel. Reduce the probability of any additional injuries or damage.	Section 3.1 - Pollution Notification Protocol
3	Notify	Implement Environmental Protection Authority (EPA) notification protocol if there is a pollution incident where "a material harm to the environment is caused or threatened".	Section 3.1 - Pollution Notification Protocol
4	Manage the Incident	Implement relevant Emergency Operating Plans.	Section 4 - Emergency Operating Plans
5	Reporting	Complete site incident / debrief report.	Section 4 - Emergency Operating Plans

NOTE: When making an emergency call to 'Triple Zero' (000), a site location statement should be used such as: "*Calala Water Treatment Plant. Travel south-east along Calala Lane for approximately 1.5 kilometres from the intersection of Goonoo Goonoo Road. The facility is located on the left hand side of Calala Lane. Proceed to the front gate and press the intercom buzzer if safe to do so*".

FIGURE 2-1   INCIDENT RESPONSE DIAGRAM
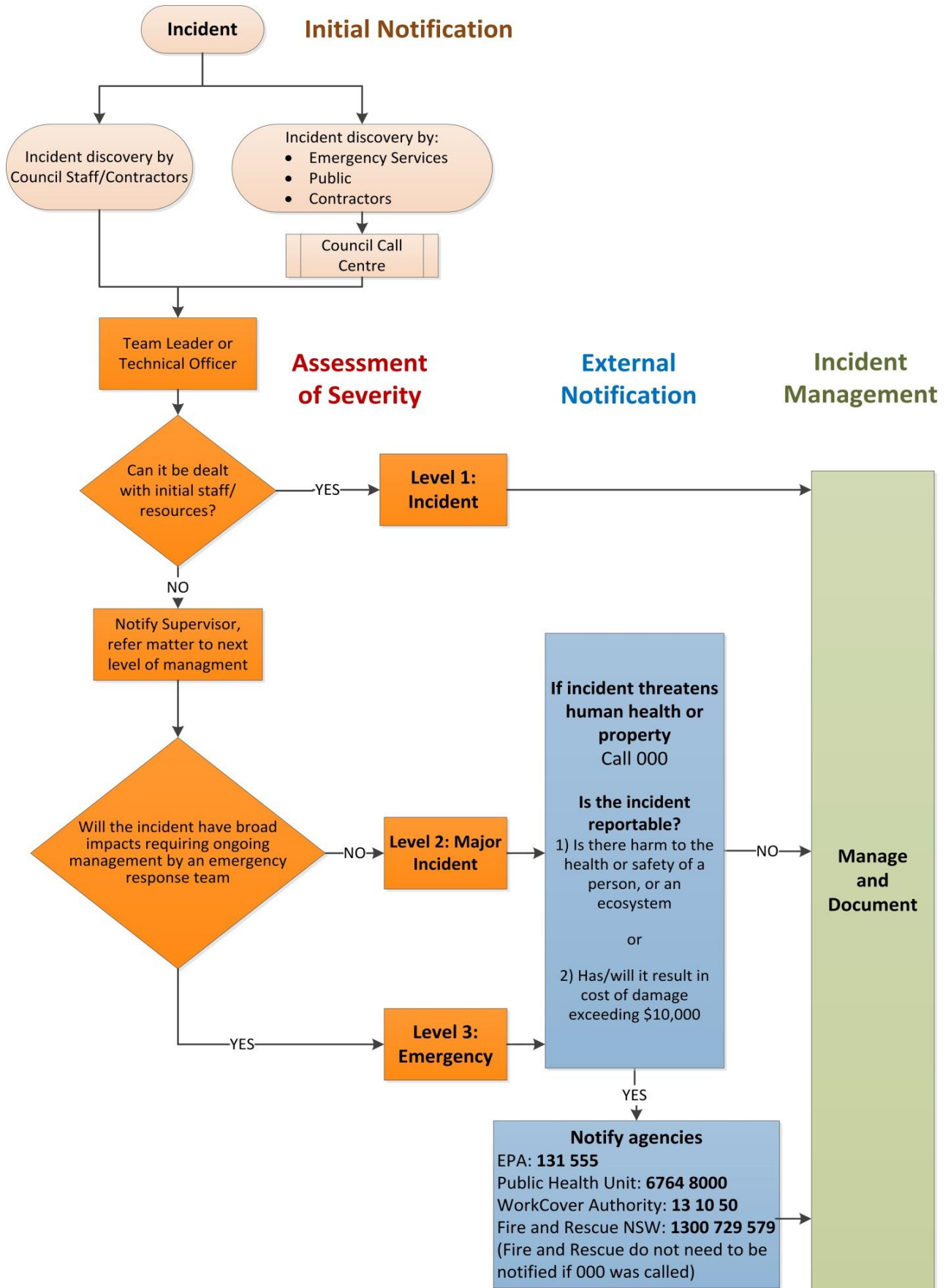
3   COMMUNICATION

3.1   POLLUTION NOTIFICATION PROTOCOL

The Notification of Pollution Incidents (TR-EV-FS-01-SF4793) document below has been adopted by TRC and is based on the EPA notification protocol (available at http://www.environment.nsw.gov.au/pollution/notificationprotocol.htm).

Notification of Pollution Incidents

It is a legal requirement for pollution incidents to be notified to particular agencies immediately when they occur.

When does the notification requirement apply?

The notification requirement applies to any pollution incident where a "material harm to the environment is caused or threatened".

This requirement means that any incident which involves harm to the health or safety of a person, or an ecosystem, must be notified unless it is trivial. Incidents which result in a cost or damage exceeding $10,000 must also be notified under this requirement.

Who is required to action the notification requirement?

The Council has the duty to notify under the legislation. This duty is to be performed by the person who Manages the division carrying out the activity when the pollution incident occurs, that being the **Manager - Water and Waste Operations.**

If the relevant Manager cannot be located then the incident must be immediately referred to the Director, or any other member of the Executive Team to action the notification, that being the **Director - Water and Waste.**

If the Manager, nor any member of the Executive Team, can be located promptly or without delay, then the staff member who has identified the incident has the duty to notify the relevant agencies in the manner described below.

How must a pollution incident be notified?

In the event of a pollution incident:
- Immediate action should be taken to ensure the safety of people and containment of pollution if it is safe to do so.
- Call 000 (or 112 from mobiles) if the incident threatens human health or property. This will mobilise Fire and Rescue NSW, the NSW Police and / or the NSW Ambulance Service (combat agencies) as required.
- If a combat agency is not required then:

As soon as it is safe to do so, **the following agencies MUST be notified in the following order:**

- EPA - 131 555

- Ministry of Health via the local Public Health Unit - 6764 8000

- WorkCover Authority - 13 10 50

- Tamworth Regional Council - 1300 733 625

- Fire and Rescue NSW - 000 (or 112 from mobiles) or 1300 729 579

The information that will be required in the notification is:

- o the time, date, nature, duration and location of the incident;
- o the location of the place where pollution is occurring or is likely to occur;
- o the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known;
- o the circumstances in which the incident occurred (including the cause of the incident, if known);
- o the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

If information is not known at the time of initial notification, but becomes known at a later time, then additional notification should be made.

Other points of note:

The EPA may require others (such as community members or property owners) to be notified by Council. These instructions must be followed. This notification procedure does not apply to odour.

If, at the time of making the notification, you believe that some of the above authorities do not need to attend the incident, you may provide that advice. However, the authorities must be notified and all of the information regarding the incident must be passed on to the authorities. It is the responsibility of each authority to decide whether they need to attend the incident.

3.2 COMMUNICATION WITH NEIGHBOURS AND THE COMMUNITY

Should a neighbour in the vicinity of the incident be required to take action due to an impending or actual pollution risk, a telephone call or visit to the residence or business where a pollution impact may be experienced will be made by a Council staff member. In the event of a major pollution incident, residents or businesses may be further contacted by an emergency service representative, such as in a case where evacuation or critical safety actions are necessary.

An 'all-clear' telephone call or visit will also be made to residents when the incident is no longer of concern or normality has been restored.

Significant community buildings near the WTP are:

- Carinya Christian School;
- Goodstart Early Learning;
- Shopping Centre (10 Campbell's Rd Calala);
- Trinity Church.

Neighbour contact details are as follows:

Carinya Christian School

5 Boronia Drive

Tamworth NSW 2340

P. (02) 6762 0970

E. admin@carinya.nsw.edu.au

Goodstart Early Learning

49 - 51 Calala Lane

Tamworth NSW 2340

P. (02) 6765 3636

E. caa@goodstart.org.au

Carlos IGA

10 Campbell Road

Calala NSW 2340

P (02) 6762 1499

E. igacalala@carlosiga.com.au

Trinity Church

25 Boronia Drive

Tamworth NSW 2340

P. (02) 6765 7914 (Office)

P. (02) 6765 4074 (John)

E. ross.f@trinitychurch.com.au
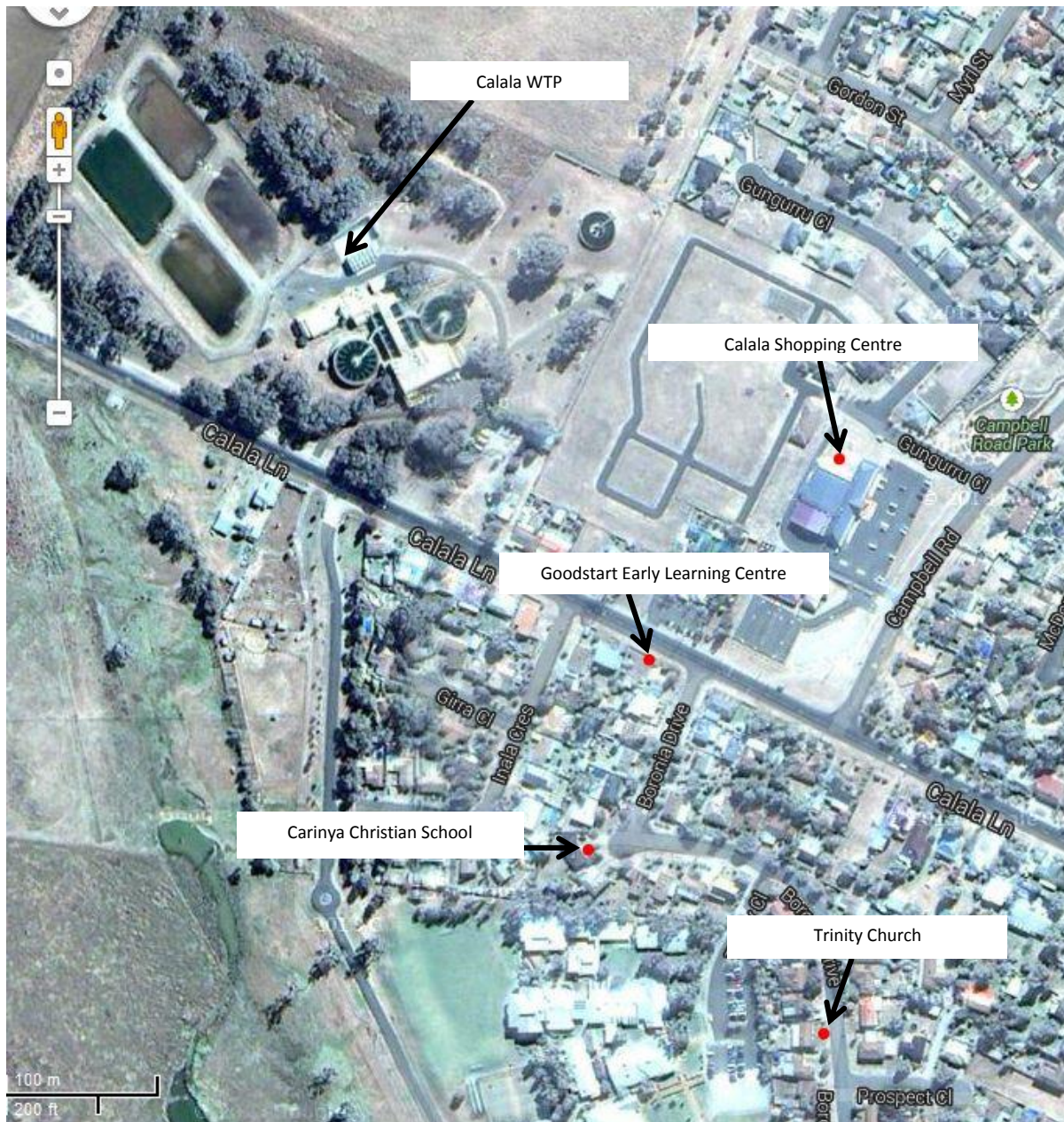
Wider Community

Council will use the following methods of communication as appropriate to the circumstance:

- Council website;

- Whispir;

- Media releases to local radio stations / local newspapers etc; and

- Door-knocking.

4 EMERGENCY OPERATING PLANS

Emergency Operating Plans (EOP) have been developed to provide guidance for staff during emergency events.

Each EOP has been designed as a 1 page "Rip and Run" document. Each plan provides guidance on appropriate actions and includes space for notes to be recorded during an emergency. The Notification Protocol is duplicated on the back page of plans as appropriate.

The following Emergency Operating Plans are included in this section:

- Major asset failure;
- Bomb threat / Criminal acts / Security threats;
- Power failure;
- Critical limit non-conformance at WTP;
- Dangerous goods or chemical spill / leak;
- Fire or explosion;
- Building / office problem;
- Natural disaster;
- Microbiological failure;
- Chemical water quality incident;
- Powder spill;
- Sludge spill or tanker spill; and
- Raw water failure.

These plans should be implemented where appropriate.

4.1 MAJOR ASSET FAILURE

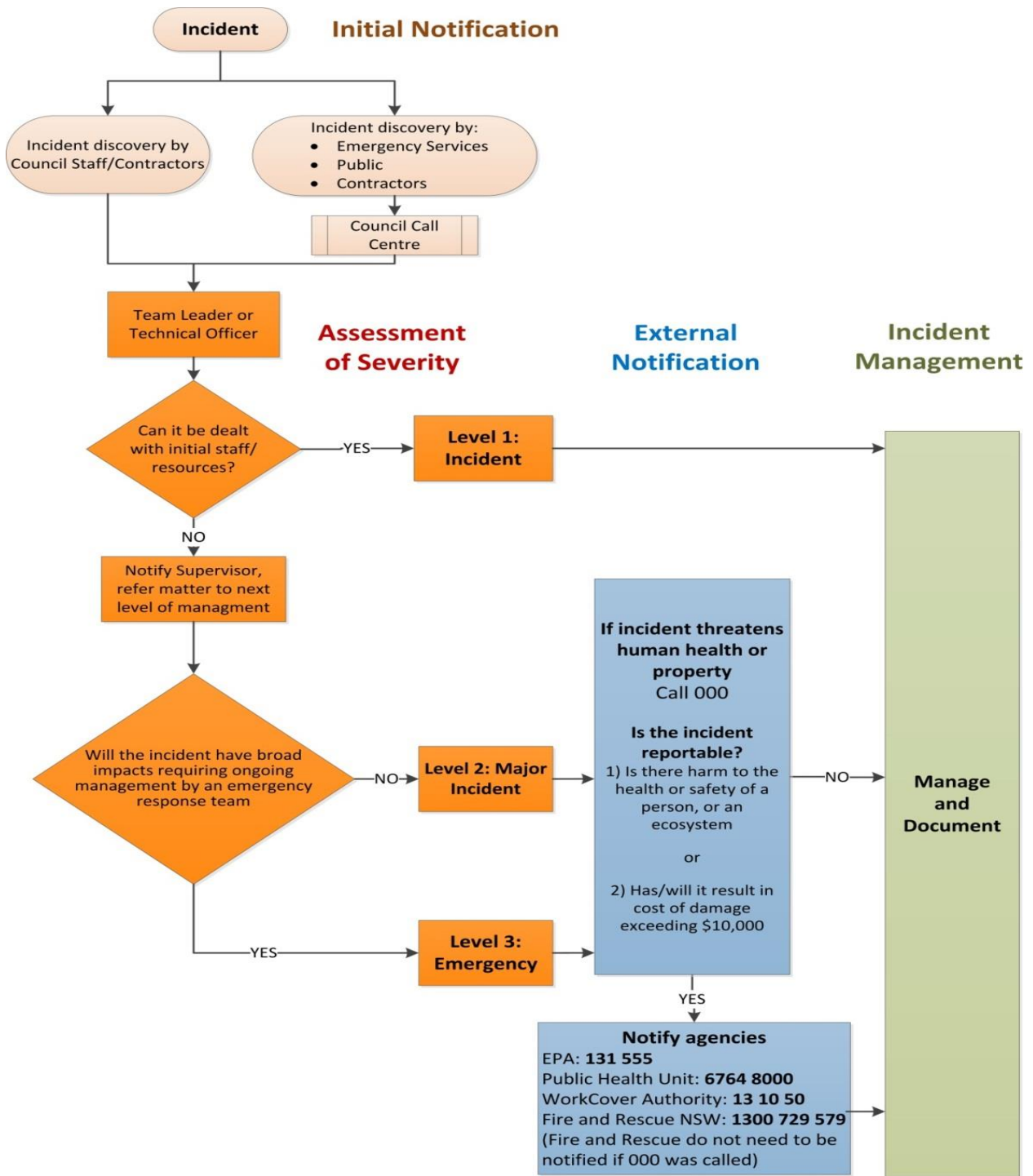| Summary	This emergency operating plan applies to the failure or imminent failure of a major asset		Notes
Initiation and Notification	Initiate this EOP if there is a failure or suspected failure of a major asset including: sludge lagoon, treatment plant process, civil structure, major equipment or chemical leak. Communicate with Manager - Water and Waste Operations. Use the Pollution Notification Protocol (flowchart over page) if there is the potential for a leak or a spill to the environment. Refer to Section 3 for full notification details.		
Equipment Identified	• Backhoe • Trucks • Excavator	• Trailer • Sandbags • Personal Protective Equipment (PPE)	
Specific Activities	I. Assess the problem	1. Shutdown affected assets and assess damage 2. Make area safe 3. Check welfare of staff and public, provide aid 4. Identify extent of failure, liaise with manager regarding size of problem 5. Assess the potential impact on production	
	II. Isolate and fix the problem	6. Alert appropriate staff and emergency response personnel 7. Communicate and liaise with customers as appropriate 8. Communicate with regulators and authorities 9. Liaise with Emergency Services and assist 10. Provide temporary fix or reconfigure delivery system if possible 11. Provide emergency equipment (pumps, generators, manual systems, local needs etc)	
	III. Monitoring	12. A monitoring program may need to be developed in relation to the specific failure of the asset	
	IV. Recovery and return to safety	13. Conduct repairs and begin planning for permanent repairs or replacement assets 14. Disinfect if required and make safe for access as appropriate	
	V. Report of findings	15. Complete forms as appropriate: • Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Initial Notification

Incident

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

Can it be dealt with initial staff/ resources?

YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

External Notification

If incident threatens human health or property Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

NO →

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

Incident Management

Manage and Document

4.2 BOMB THREAT/ CRIMINAL ACTS / SECURITY THREATS

Summary	This emergency operating plan applies to bomb threats, criminal acts or security threats.		
Initiation and Notification	Notify Police (000). Notify direct supervisor. Use the Pollution Notification Protocol if there is the potential for a leak or a spill to the environment. Refer to Section 3 for full notification details.		
Equipment Identified	• Phone threat checklist • Communications equipment • Remote access IT equipment		
Specific Activities	I. Assess the problem	1.	Assess damage / level of threat to affected assets
		2.	Check welfare of staff and public, provide aid
		3.	Check functionality of affected area
	II. Isolate and fix the problem	4.	Alert appropriate staff and emergency response personnel
		5.	Communicate with Manager/Director
		6.	Communicate and liaise with customer
		7.	Communicate with regulators and authorities
		8.	Liaise with Emergency Services and assist
		9.	Provide temporary supply or reconfigure delivery system if required
		10.	Provide emergency equipment (pumps, generators, manual systems, local needs etc)
	III. Monitoring	11.	Monitor the system to maintain network operation and WTP process if possible. Alternative operation and more frequent monitoring may be required during the event
	IV. Recovery and return to safety	12.	Conduct necessary repairs and begin planning for permanent repairs or replacement assets if required
	V. Report of findings	13.	Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).

PHONE THREAT CHECKLIST©
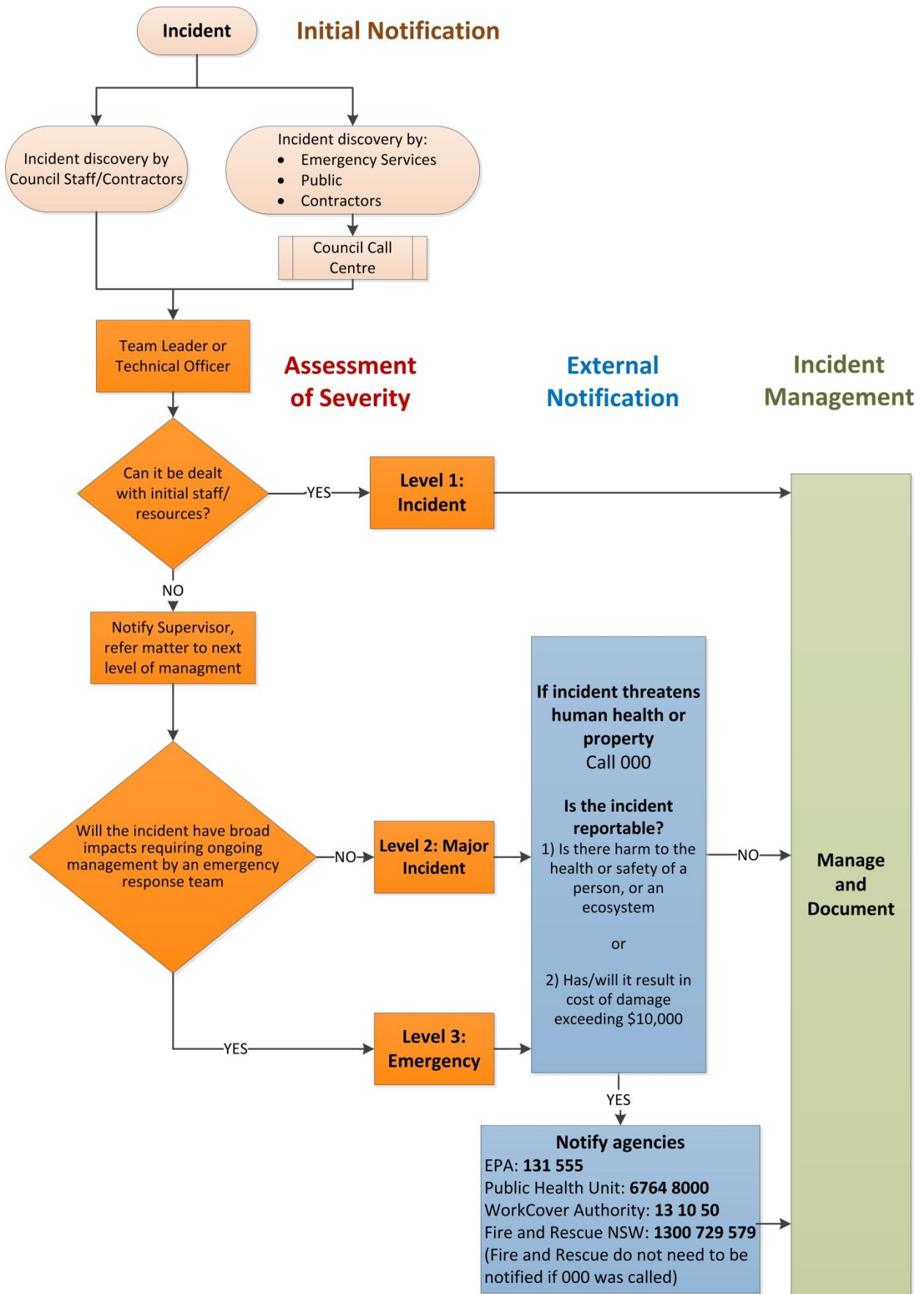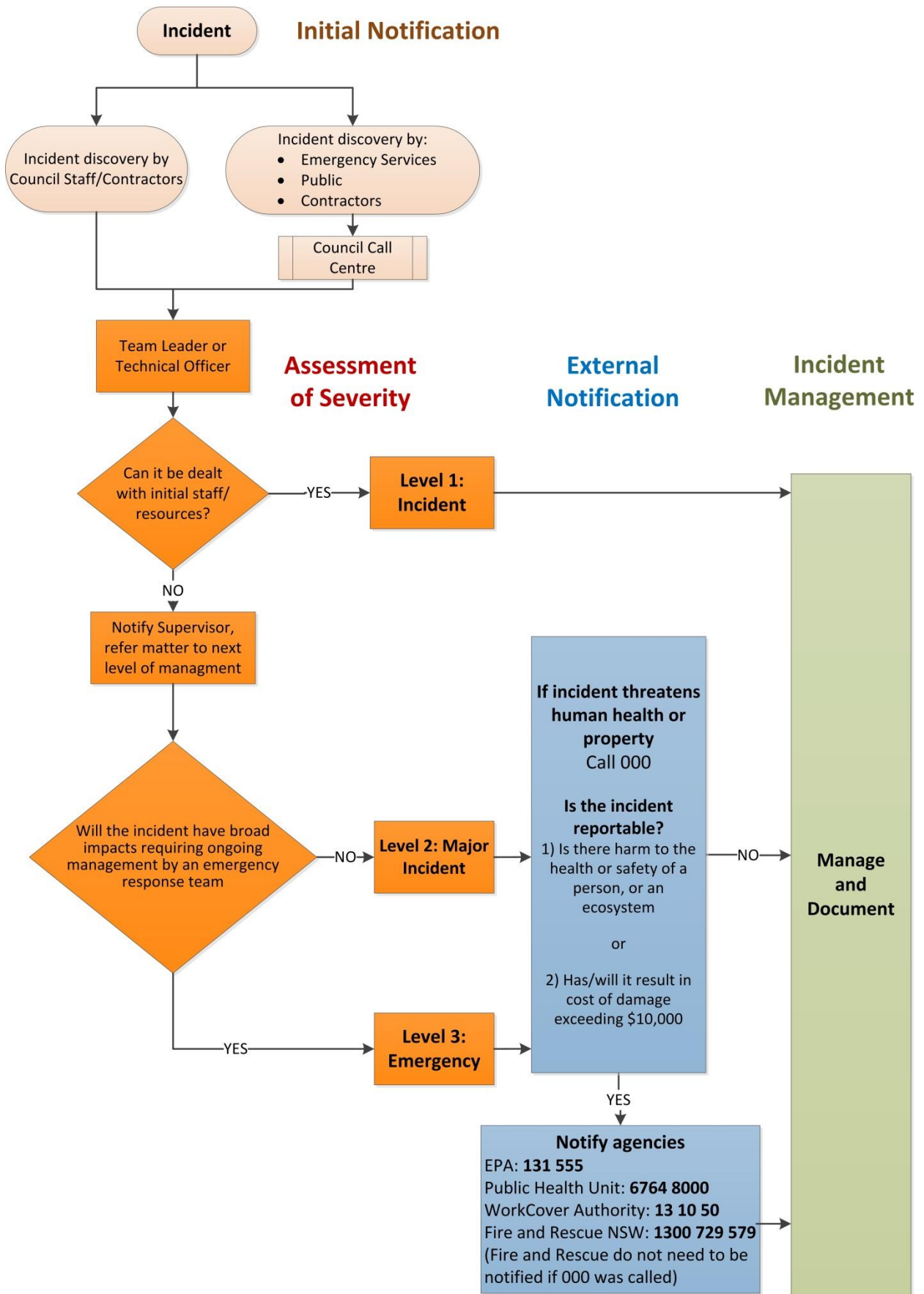
AFP — REMEMBER TO KEEP CALM

(Australian Federal Police — To fight crime together and win)
(Australian Bomb Data Centre)

WHO RECEIVED THE CALL

Name (print):
Telephone number: _____
Date call received: / / Time received: _____
Signature:

GENERAL QUESTIONS TO ASK

1. What is it ?
_____

2. When is the bomb going to explode ?
OR
When will the substance be released ?
_____

3. Where did you put it ?
_____

4. What does it look like ?

5. When did you put it there ?

6. How will the bomb explode ?
OR
How will the substance be released ?

7. Did you put it there ?
_____

8. Why did you put it there ?
_____

BOMB THREAT QUESTIONS

1. What type of bomb is it ?

2. What is in the bomb ?

3. What will make the bomb explode ?

CHEMICAL / BIOLOGICAL THREAT QUESTIONS

1. What kind of substance is in it ?

2. How much of the substance is there ?
_____

3. How will the substance be released ?
_____

4. Is the substance a liquid, powder or gas ?

OTHER QUESTIONS TO ASK

1. What is your name ?

2. Where are you ?
_____

3. What is your address ?

PHONE THREAT CHECKLIST

REMEMBER TO KEEP CALM

EXACT WORDING OF THREAT

_____
_____
_____
_____
_____
_____

CALLER'S VOICE

Accent (specify):
Any impediment (specify):
Voice (loud, soft, etc):
Speech (fast, slow, etc): _____
Diction (clear, muffled):
Manner (calm, emotional, etc):
Did you recognise the caller ? _____
If so who do you think it was ?
Was the caller familiar with the area ?

THREAT LANGUAGE

Well spoken: _____
Incoherent:
Irrational:
Taped: _____
Message read by caller:
Abusive:
Other:

BACKGROUND NOISES

Street noises: _____
House noises: _____
Aircraft:
Voices: _____
Music:
Machinery:
Other:
Local Call:
STD:

OTHER

Sex of caller: _____ Estimated age: _____

CALL TAKEN

Duration of call: _____

Number called:

ACTION (OBTAIN DETAILS FROM SUPERVISOR)

Report call immediately to: _____

Phone number: _____

4.3 POWER FAILURE

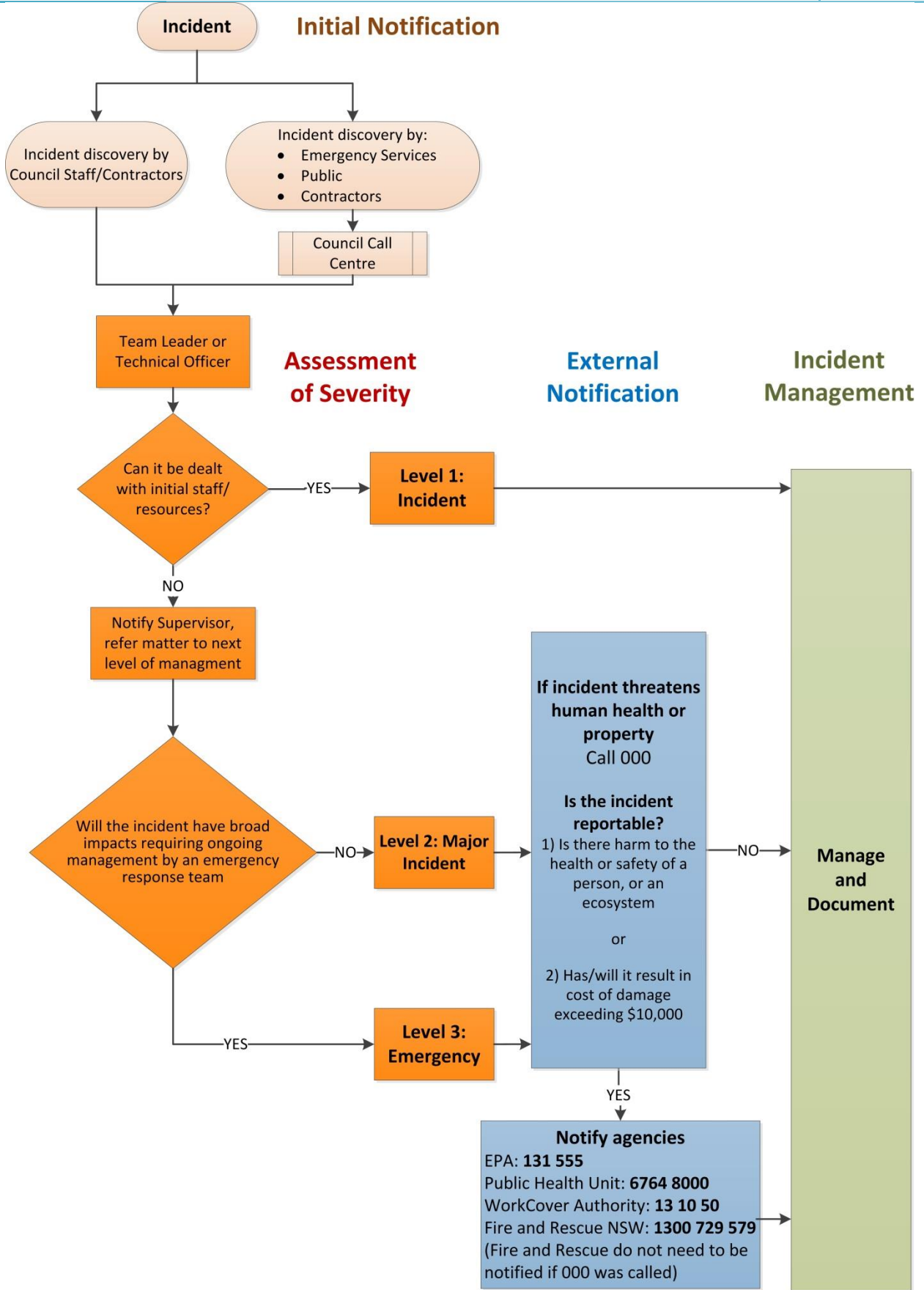| Summary	This emergency operating plan applies to power failure at the WTP		Notes
Initiation and Notification	Communicate with Manager - Water and Waste Operations. Use the Pollution Notification Protocol (flowchart over page) if there is the potential for a leak or a spill to the environment. Refer to Section 3 for full notification details. Communicate with regulators and authorities as appropriate.		
Equipment Identified	• Generators • Mobile telephones / Radios • Sandbags / Spill kit		
Specific Activities	I. Assess the problem	1. Make area safe 2. Check welfare of staff and public, provide aid 3. Consider the need for a back-up generator 4. Determine the extent of the power failure and the likely outage time 5. Communicate with Council IT, electricians, SCADA contractor as appropriate	
	II. Isolate and fix the problem	6. Deploy generators as appropriate 7. Identify extent of failure, liaise with manager regarding size of problem 8. Assess the potential impact on production 9. For an extended outage consider: • Management of water consumption and communication with community to reduce demand. • Back up to SCADA • Staffing requirements in terms of production monitoring • Fuel requirements for generators	
	III. Monitoring	10. Manual monitoring and recording of plant and reservoir levels	
	IV. Recovery and return to safety	11. Once power has returned restart the system and monitor until stable	
	V. Report of findings	12. Complete forms as appropriate: Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources?

YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

NO → **Manage and Document**

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

4.4 CRITICAL LIMIT NON CONFORMANCE AT WTP

Summary	This emergency operating plan applies whenever a critical limit is reached as the process may no longer be achieving the required treatment to minimise the risk to human health		Notes
Initiation and Notification	Alert the Operations Engineer. Communicate and liaise with external authorities (e.g. NSW Health, EPA) as appropriate. Consider the appropriate NSW Health protocols.		
Equipment Identified	See specific Standard Operating Procedures (SOP) for managing critical limit failures.		
Specific Activities	I. Assess the problem	1. Identify how far through the process the poor water quality is. 2. Consult the specific SOP for managing critical limit failures	
	II. Isolate and fix the problem	3. Identify the cause of the Critical Control Point (CCP) excursion. This may be as a result of process failure, equipment failure, monitoring failure or storm events 4. It may require expertise outside Council to be sought e.g. NSW Office of Water Officers, consultants	
	III. Monitoring	5. Monitoring the CCP until it returns to acceptable value. More frequent testing is likely to be required and additional parameters may need to be monitored until the process is stable again 6. Additional monitoring should also be considered to rule out monitoring equipment failure.	
	IV. Recovery and return to safety	7. Once the process has stabilized return to normal operations.	
	V. Report of findings	8. Complete forms as appropriate: • Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident — **Initial Notification**

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources? — YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team — NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

— NO → **Manage and Document**

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

4.5 Dangerous Goods or Chemical Spill /Leak

Summary	This emergency operating plan applies to a chemical spill involving alum or fluoride or poly		Notes
Initiation and Notification	High level alarm in bund. Alert direct supervisor. Notify emergency services (000) if there is immediate danger. Use the Pollution Notification Protocol (flowchart over page) if there is the potential for a leak or a spill to the environment. Refer to Section 3 for full notification details.		
Equipment Identified	• Spill containment kit • PPE • Pump / hose out equipment		
Specific Activities	I. Assess the problem	1. Keep up-wind 2. Assess seriousness of incident type based on quantity and type of leaking / spilled substance (e.g. major chemical leak from delivery tanker or small Round-up spill) 3. Avoid all contact with material 4. Warn nearby persons, provide aid 5. Remove any possible sources of ignition if potentially flammable	
	II. Isolate and fix the problem	6. Shutdown affected assets 7. Make area safe 8. Pump out bund, hose out and clean 9. Activate spill containment procedures	
	III. Monitoring	10. Review need for environmental / process monitoring	
	IV. Recovery and return to safety	11. Liaise with Emergency Services and assist with containment and clean up 12. Notify other relevant authorities (e.g. EPA / Ambulance). 13. Contact Manager - Water and Waste Operations or Headworks Engineer. 14. Decide with the relevant authority how to manage and secure the site 15. If appropriate, dispose of any alum at Westdale 16. Conduct repairs and begin planning for permanent repairs or replacement assets	
	V. Report of	17. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and	

Findings	Investigation (TC-RS-SP-002-SF4693).	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources?

— YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

— NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

— NO →

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
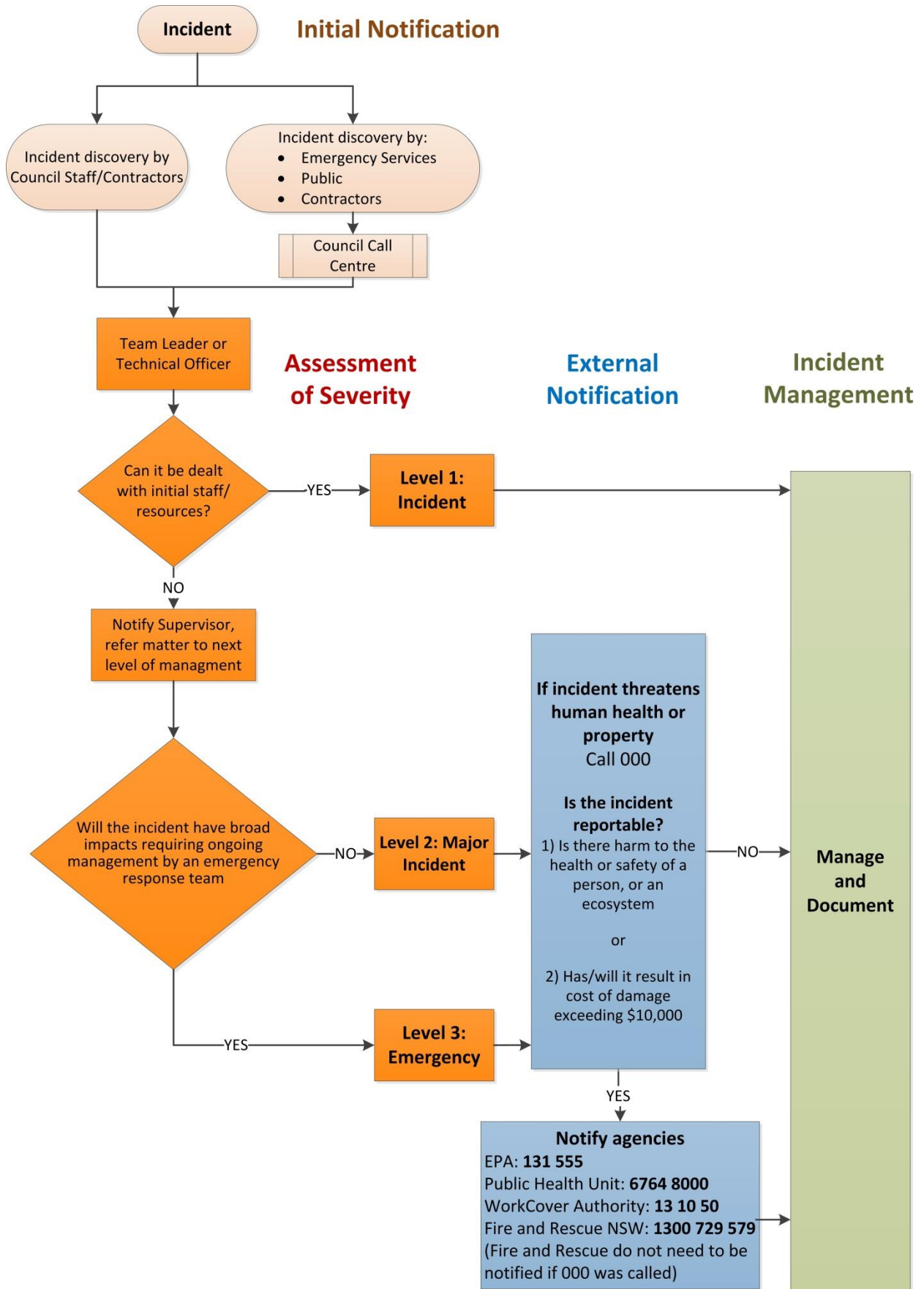(Fire and Rescue do not need to be notified if 000 was called)

Manage and Document

4.6 Fire or Explosion

Summary	This emergency operating plan applies to a fire or where smoke is identified		Notes
Initiation and Notification	Assess the seriousness and raise the alarm if incident is major. Warn anyone in danger; evacuate people away from immediate area. At the Calala WTP, the assembly point is at Assembly Point A (Visitors car park). Call Fire Brigade (000). Use the Pollution Notification Protocol (flowchart over page) if there is the potential for a leak or a spill to the environment. Refer to Section 3 for full notification details.		
Equipment Identified	• Fire blankets • Fire extinguishers • Fire hoses • PPE • Traffic management equipment		
Specific Activities	I. Assess the problem	1. Determine the extent and nature of the fire if safe to do so 2. Verify the presence of all personnel / contractors / visitors at this point	
	II. Isolate and fix the problem	3. Warn traffic of any hazard which affects traffic (use lights, warning signs, etc.) 4. Take any practical steps to contain the hazard	
	III. Monitoring	5. Take any practical steps to prevent the hazard from spreading	
	IV. Recovery and return to safety	6. Contact Manager - Water and Waste Operations or Headworks Engineer 7. Decide with the relevant authority how to manage and secure the site	
	V. Report of Findings	8. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources? — YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team — NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

— NO →

Manage and Document

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
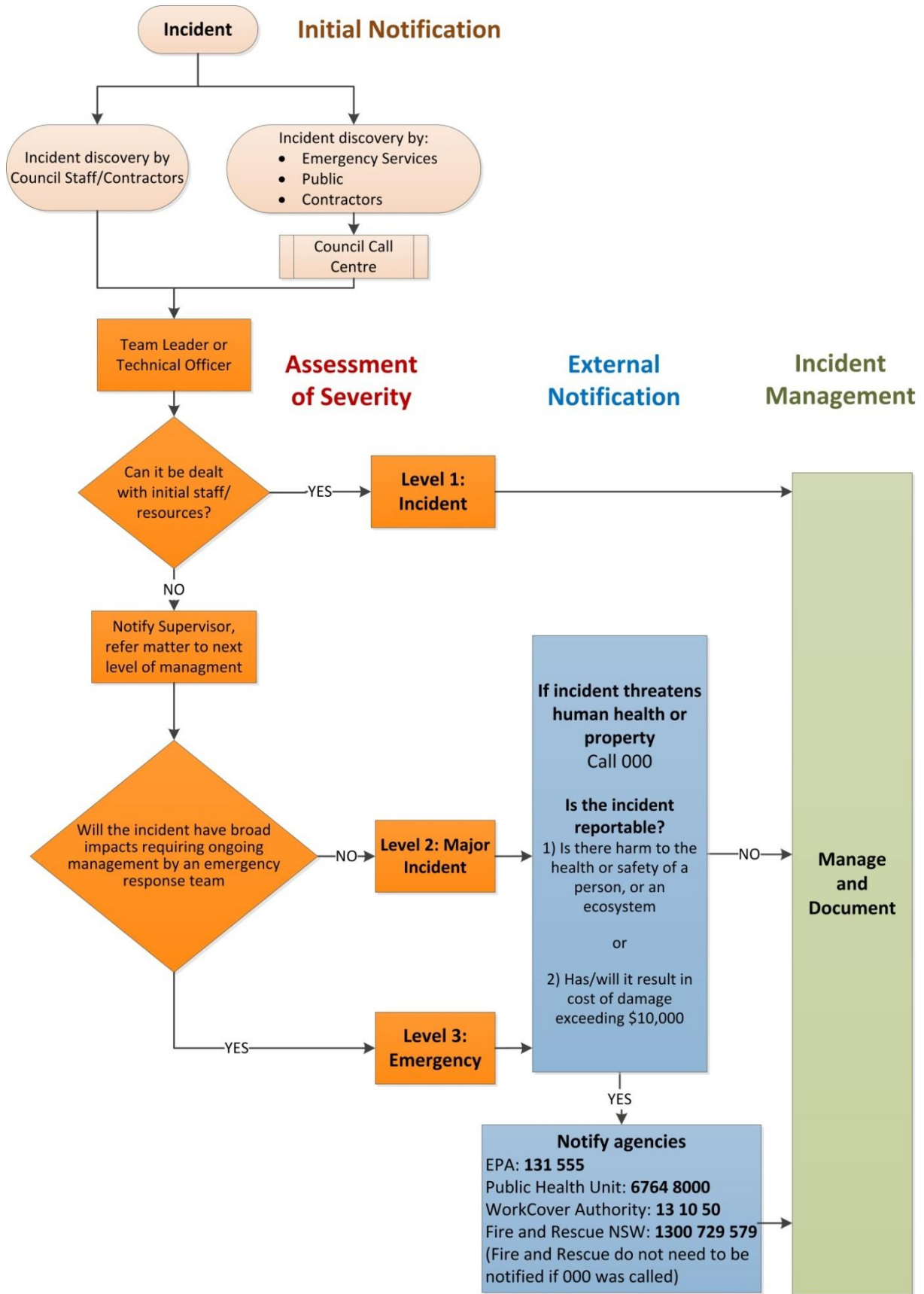(Fire and Rescue do not need to be notified if 000 was called)

4.7 BUILDING / OFFICE PROBLEM

Summary	This emergency operating plan applies when a building has been affected by an incident (e.g. flooding limiting access to site or building collapse)		Notes
Initiation and Notification	Notify emergency services (000) if there is immediate danger. Contact ambulance if there are injured people (000). Contact direct supervisor. Consider locating staff on or as appropriate if there will be flooding.		
Equipment Identified	• First aid kit • Communications equipment (mobile phone, radio, UHF)		
Specific Activities	I. Assess the problem	1. Make area safe 2. Check welfare of staff and public, provide aid 3. Communicate and liaise with Police / Emergency Services and assist with investigation	
	II. Isolate and fix the problem	4. Isolate and fix the problem as appropriate (if safe to do so)	
	III. Monitoring	5. Monitor the problem to determine if it has been fixed	
	IV. Recovery and return to safety	6. Conduct repairs and begin planning for permanent repairs or replacement assets	
	V. Report of findings	7. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources?

YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

NO → **Manage and Document**

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)
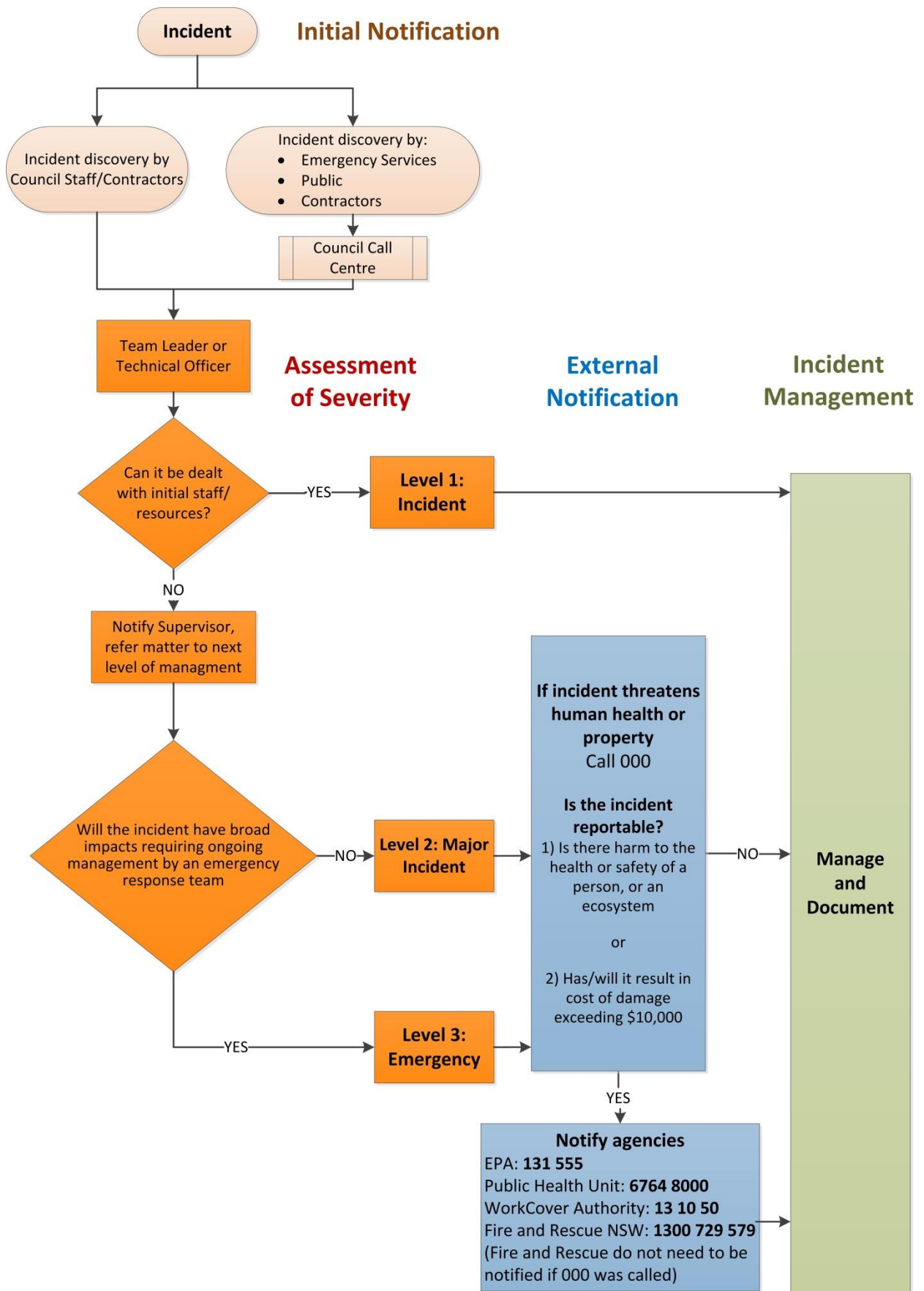
4.8 NATURAL DISASTER

Summary	This emergency operating plan apply to floods, bushfire, earthquake, landslip, wind, hail, lightning, drought		Notes
Initiation and Notification	Communicate with Manager - Water and Waste Operations. Notify emergency services (000) if there is immediate danger. Use the Pollution Notification Protocol if there is the potential for a leak or a spill to the environment Refer Section 3. Communicate with customers. Communicate with regulators and authorities as appropriate.		
Equipment Identified	• Generator • Backhoe	• Radios • Pumps	
Specific Activities	I. Assess the problem	1. Shutdown affected assets and assess damage 2. Make area safe 3. Check welfare of staff and public, provide aid	
	II. Isolate and fix the problem	4. Liaise with Emergency Services and provide necessary assistance 5. Provide emergency equipment (pumps, generators, manual systems etc.) as required 6. Consider what may be required to maintain the critical system units – e.g. pumps at pump stations 7. Assess demand requirements, check storage requirements and reset plant	
	III. Monitoring	8. Monitor the system to maintain network operation and WWTP process if possible 9. Alternative operation and more frequent monitoring may be required during the event. Additional parameters may need to be monitored until the process is stable again 10. Consider a restart strategy 11. If repairs have been made, monitor the scheme to determine if repairs have been successful 12. Consider media contact 13. If appropriate, hold water in main reservoir. 14. Monitor and record clear-water and reservoir chlorine levels	
	IV. Recovery and return to safety	15. Conduct repairs and begin planning for permanent repairs or replacement assets	
	V. Report of findings	16. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/resources?

—YES→ **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

—NO→ **Level 2: Major Incident**

—YES→ **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

—NO→

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

Manage and Document

4.9 MICROBIOLOGICAL FAILURE

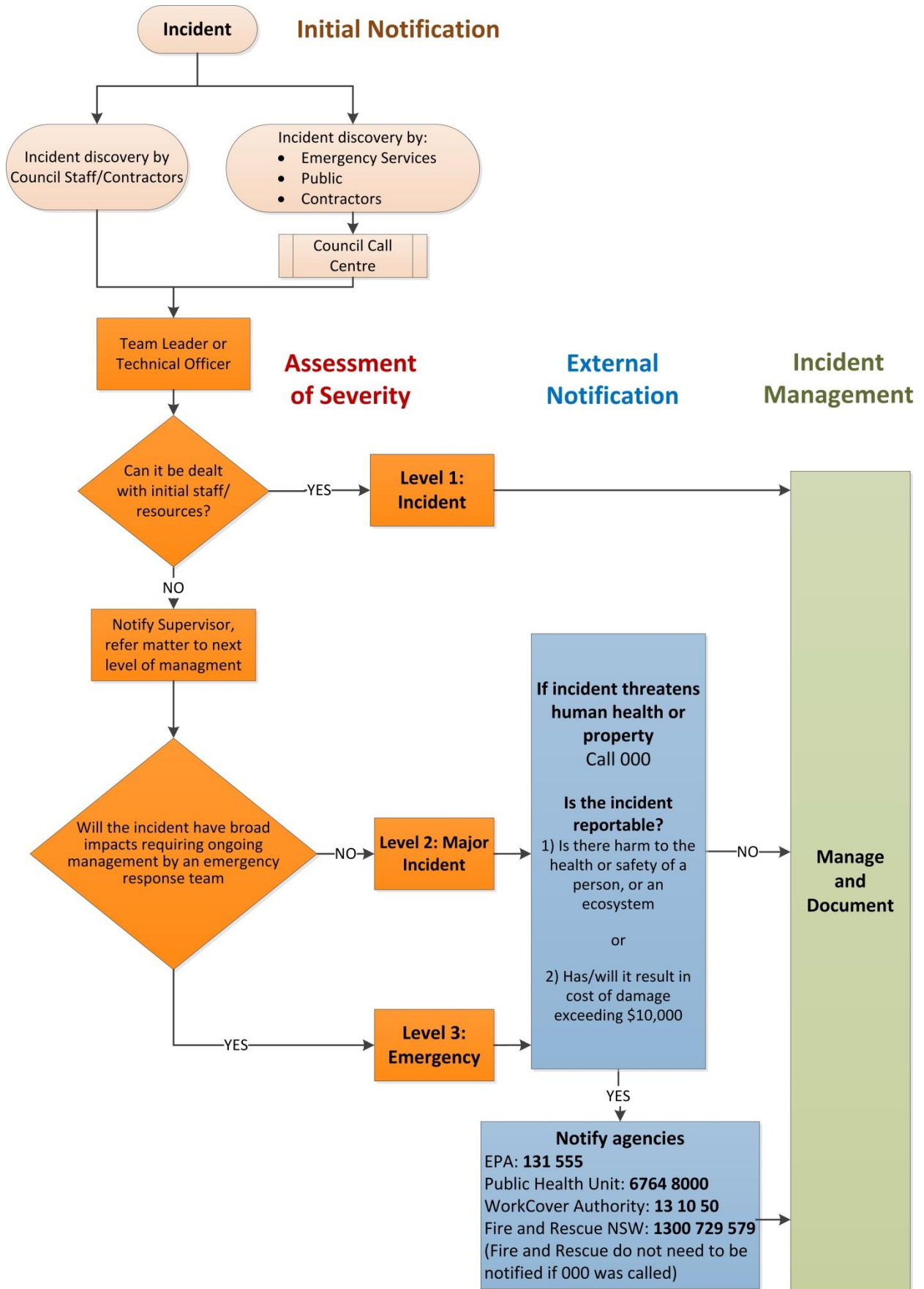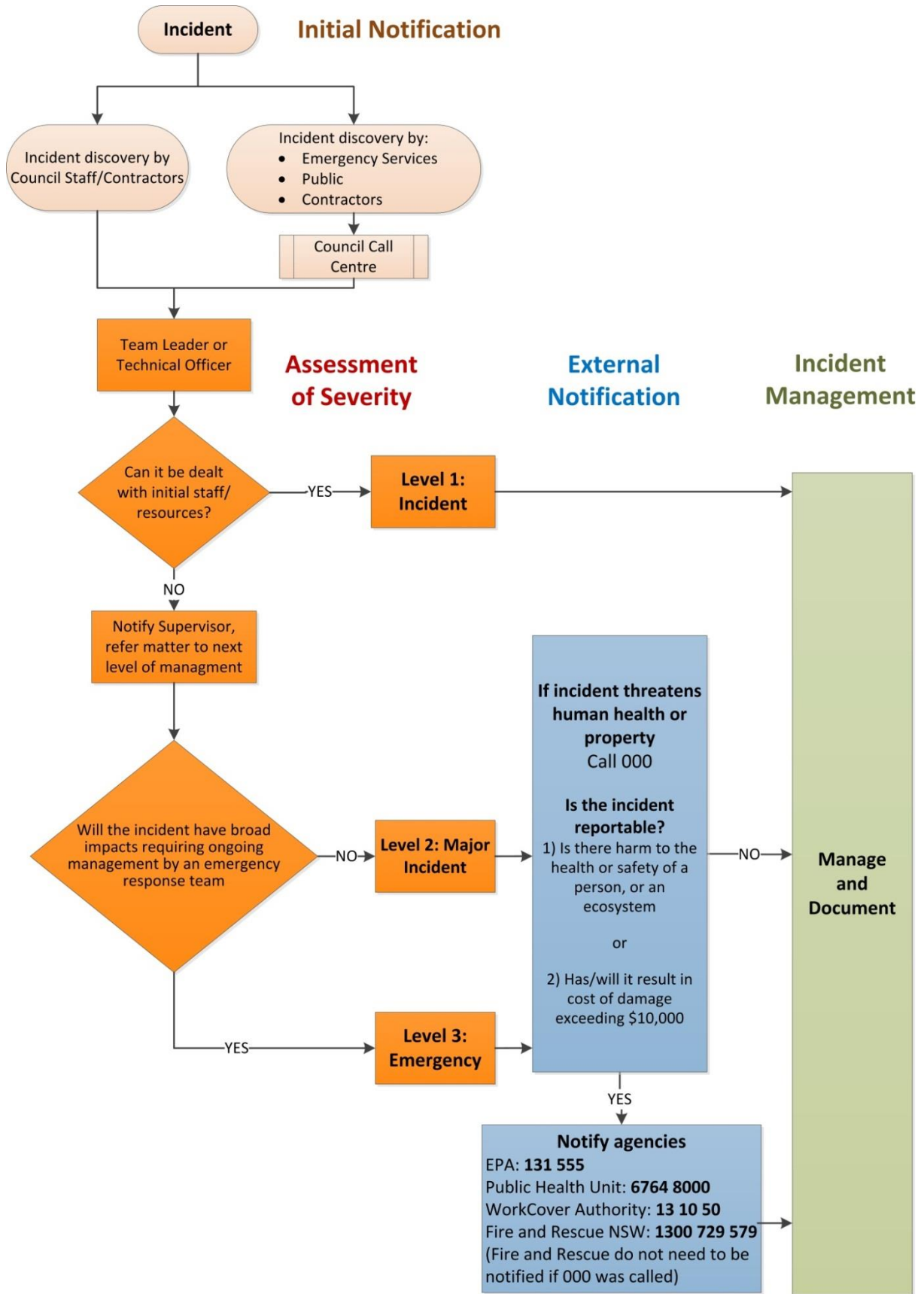| Summary	This emergency operating plan applies if a microbiological failure has been detected		Notes
Initiation and Notification	Communicate with Manager - Water and Waste Operations. Use the Pollution Notification Protocol if there is the potential threat to human health (*Refer to Section 3).* Communicate with NSW Health and other regulators and authorities as appropriate.		
Equipment Identified	• Plumbing equipment • Disinfectant • Water testing equipment (chlorine meter, conductivity meter)		
Specific Activities	I. Assess the problem	1. Follow the NSW Health Response Protocol: for the management of microbiological quality of drinking water: http://www0.health.nsw.gov.au/publichealth/environment/water/nswhrp_microbiological.asp 2. Determine the source and extent of the contamination 3. Communicate and liaise with NSW Health and assist with investigation	
	II. Isolate and fix the problem	4. Isolate and fix the problem as appropriate	
	III. Monitoring	5. Test water supplies to determine the extent of the contamination and effectiveness of repairs	
	IV. Recovery and return to safety	6. Continue monitoring system until the process is stable	
	V. Report of findings	7. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources?

YES

Level 1: Incident

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

NO

Level 2: Major Incident

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

NO

Manage and Document

YES

Level 3: Emergency

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

4.10 CHEMICAL WATER QUALITY INCIDENT

Summary	This emergency operating plan applies there is chemical water quality incident at the WTP as the process may no longer be achieving the required treatment to minimise the risk to human or environmental health	Notes
Initiation and Notification	Communicate with Manager - Water and Waste Operations. Use the Pollution Notification Protocol (flowchart over page) according to incident severity. Refer to Section 3 for full notification details. Alert the Operations Engineer. Communicate and liaise with external authorities (e.g. NSW Health, EPA) as appropriate. Consider the appropriate NSW Health protocols.	
Equipment Identified	• Water sampling equipment	
Specific Activities	I. Assess the problem 1. Follow the NSW Health Response Protocol: for the management of physical and chemical quality of drinking water: http://www.health.nsw.gov.au/environment/water/Pages/nswhrp-chemical.aspx 2. Determine the source and extent of the contamination 3. Communicate and liaise with Police / Emergency Services, NSW Health and assist with investigation	
	II. Isolate and fix the problem 4. Isolate and fix the problem as appropriate	
	III. Monitoring 5. Test water supplies to determine the extent of the contamination and effectiveness of repairs	
	IV. Recovery and return to safety 6. Continue monitoring system until the process is stable	
	V. Report of findings 7. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident — **Initial Notification**

Assessment of Severity

External Notification

Incident Management

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Can it be dealt with initial staff/resources? — YES → **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team — NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

— NO →

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

Manage and Document
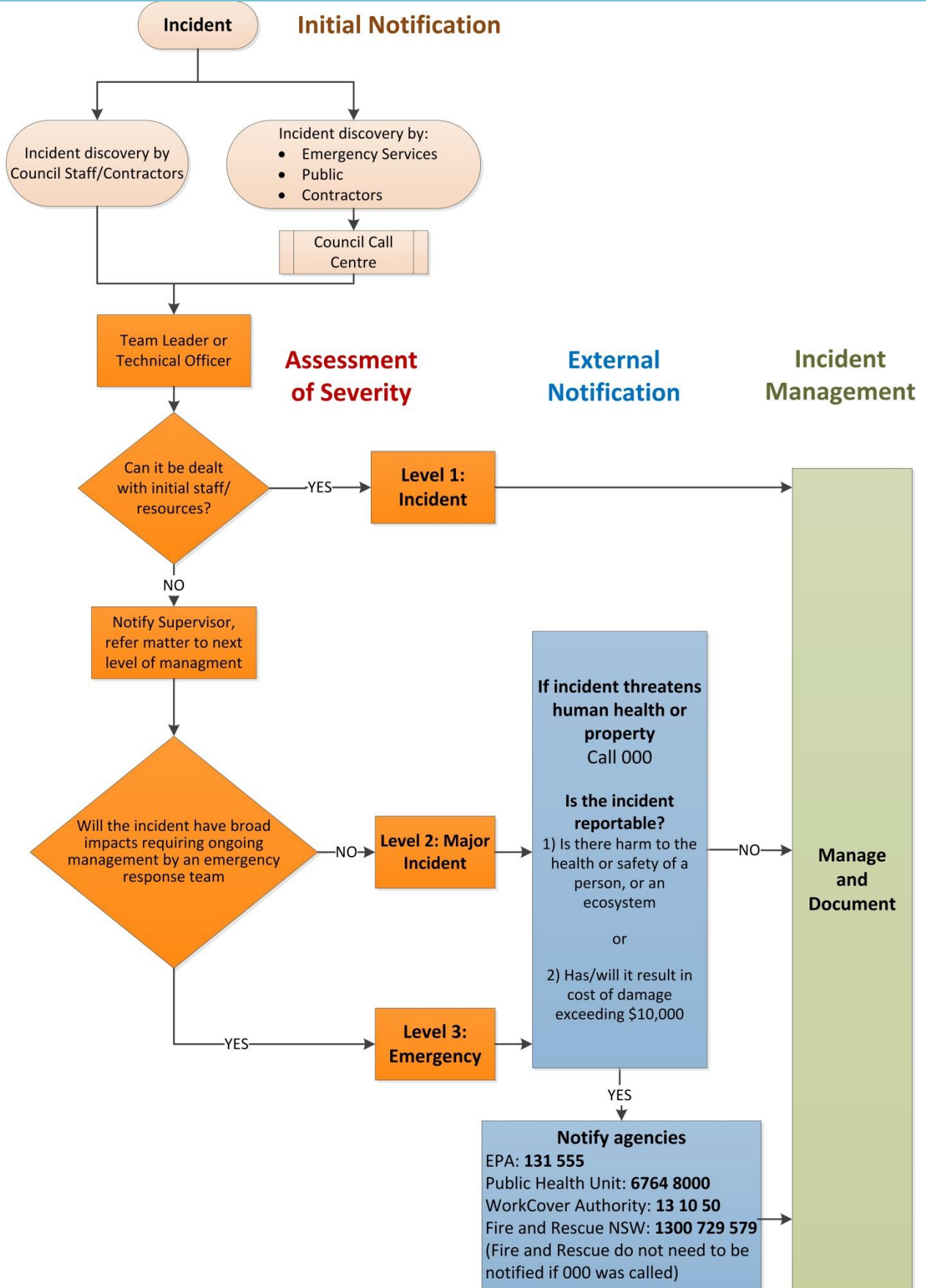
4.11 Powder Spill

Summary	This Emergency Operating Plan should be used if there is a powder spill at the WTP. This may include a spill of soda ash, fluoride, PAC or polymer.		Notes
Initiation and Notification	This incident will most likely be notified by a plant operator or contractor on-site. Follow the notification protocol according to incident severity. Notify emergency services (000) if there is immediate danger. Notify Manager - Water and Waste Operations.		
Equipment Identified	- PPE - Sand bags - Bunding equipment - Sucker truck		
Specific Activities	I. Assess the problem	1. Assess the natural of the chemical and PPE requirements 2. Assess the amount spilt	
	II. Immediate Actions	3. Make area safe 4. Organise clean-up: - Activate spill containment systems and procedures - For soda ash, PAC, polymer, wear appropriate PPE and clean up with in-house resources - For fluoride, wear appropriate PPE, contain on-site with bunding. Consider a sucker truck if necessary	
	III. Monitoring	5. Monitor downstream receiving environments if chemical may have been washed downstream	
	IV. Recovery and return to safety	6. Liaise with Emergency Services and assist with containment and clean up 7. Conduct repairs and begin planning for permanent repairs or replacement assets	
	V. Report of findings	8. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).	

Initial Notification

Incident

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

Can it be dealt with initial staff/ resources?

—YES→ **Level 1: Incident**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

—NO→ **Level 2: Major Incident**

—YES→ **Level 3: Emergency**

External Notification

If incident threatens human health or property Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

—NO→

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

Incident Management

Manage and Document

4.12 Sludge Spill or Tanker Spill

Summary	This Emergency Operating Plan should be used if there is a tanker filling or sludge spill at the WTP.		Notes
Initiation and Notification	Alert direct supervisor. Notify emergency services (000) if there is immediate danger. Use the Pollution Notification Protocol (flowchart over page) according to incident severity. Refer to Section 3 for full notification details.		
Equipment Identified	• PPE • Bunding and signage • Pump		
Specific Activities	I. Assess the problem	1. Assess quantity discharged into lagoons	
	II. Isolate and fix the problem	2. Isolate truck and assess if spill is contained on site or has left site 3. Activate spill containment systems and procedures:	
		If contained: • Change operation to other lagoon	**If not contained:** • Follow appropriate notification protocol • Change operation to other lagoon
	III. Monitoring	**If contained:** • Monitor and test water until acceptable quality • Consider trickle feed to working lagoon	**If not contained:** • Assess extent of environmental damage • Continue to monitor any changes to affected areas • Monitor and test water until acceptable quality
	IV. Recovery and return to safety	4. Liaise with Emergency Services and assist with containment and clean up 5. Notify other relevant authorities 6. Contact Manager - Water and Waste Operations or Headworks Engineer 7. Decide with the relevant authority how to manage and secure the site 8. Conduct repairs and begin planning for permanent repairs or replacement assets	

V. Report of findings	9. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).

Initial Notification

Incident

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources?

YES →

Level 1: Incident

NO ↓

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team

NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

NO → **Manage and Document**

YES ↓

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

4.13 RAW WATER FAILURE

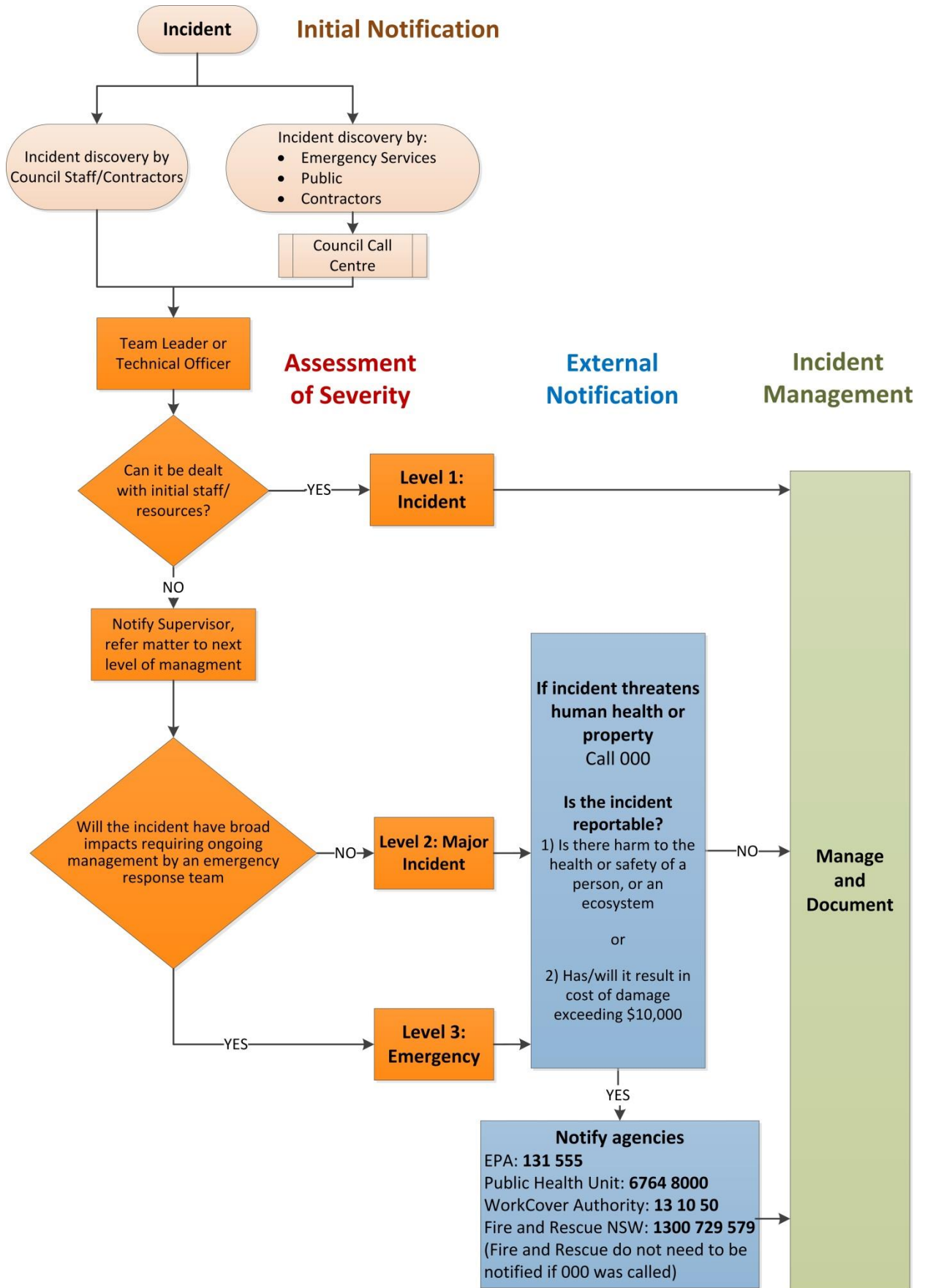| Summary			Notes
Initiation and Notification	Communicate with Manager - Water and Waste Operations. Use the Pollution Notification Protocol (flowchart over page) according to incident severity. Refer to Section 3 for full notification details. Communicate with regulators and authorities as appropriate.		
Equipment Identified	• Water sampling equipment		
Specific Activities	I. Assess the problem	1. Identify extent of water availability 2. Follow algal protocols	
	II. Isolate and fix the problem	3. Reduce raw water flow 4. Consider alternative water sources 5. Consider media release	
	III. Monitoring	6. Test water sources to determine availability and quality	
	IV. Recovery and return to safety	7. Once the process has stabilized return to normal operations 8. Liaise with regulators and authorities as appropriate	
	V. Report of findings	9. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)	

Incident

Initial Notification

Incident discovery by Council Staff/Contractors

Incident discovery by:
- Emergency Services
- Public
- Contractors

Council Call Centre

Team Leader or Technical Officer

Assessment of Severity

External Notification

Incident Management

Can it be dealt with initial staff/ resources? — YES → **Level 1: Incident** → **Manage and Document**

NO

Notify Supervisor, refer matter to next level of managment

Will the incident have broad impacts requiring ongoing management by an emergency response team — NO → **Level 2: Major Incident**

YES → **Level 3: Emergency**

If incident threatens human health or property
Call 000

Is the incident reportable?
1) Is there harm to the health or safety of a person, or an ecosystem

or

2) Has/will it result in cost of damage exceeding $10,000

— NO → **Manage and Document**

YES

Notify agencies
EPA: **131 555**
Public Health Unit: **6764 8000**
WorkCover Authority: **13 10 50**
Fire and Rescue NSW: **1300 729 579**
(Fire and Rescue do not need to be notified if 000 was called)

PART 2 – RESPONSE PROTOCOLS

This part describes the three (3) incident and emergency levels and the process by which an incident may be escalated. Roles and responsibilities for key personnel are detailed for each level.

5 RESPONSE LEVELS

5.1 LEVEL CLASSIFICATION

Depending on the severity of an event, a response may be handled at different levels within Council. For the Calala Water Treatment Plant, a three-tiered structure has been developed.

Level 1 **Incident** — a small event which can be addressed by normal work crews.

Level 2 **Major incident** — an event which is escalated to the next level of management.

Level 3 **Emergency** — a serious event with broad impacts anticipated to have an extended recovery period requiring coordination by a management team. It may have an external combat agency as the lead for the initial emergency response.

TABLE 5-1 EXAMPLES OF EACH RESPONSE LEVEL

Specific Examples	Minor Incident (Level 1)	Major Incident (level 2)	Emergency (Level 3)
WTP / Pump station	Pump failure; minor plant breakdown	Interruption to process flow, plant breakdown.	Biological failure; failure that threatens treatment process
Safety	Injury needing first aid	Part of site declared unsafe and closed to staff.	Injury needing hospitalisation. Site / equipment declared unsafe and closed to staff and public.
Chemical spill	Contained minor spill	Spill with potential harm to the health of humans or to the environment.	Major spill; with health, safety or environmental impacts.
Criminal acts	Minor vandalism to facilities;	Trespass / break in at facility.	Fraud / theft by employees. Criminal charges against water business managers; threats received and taken seriously.
Major asset failure (incl. power failure, fire or explosion)	N/A	Short outage, little effect. Minor fire extinguished by staff.	Outage, short interruption to process flow. Fire causing some damage or injury.
Natural disaster	N/A	Local flooding or small fire causing minor asset damage. Local storm damage.	Bushfire, major storm, or significant flooding threatening assets.
Building / Office / IT / business systems	Minor damage	Short term loss of part of office; minor outage of key system.	Evacuation of office; partial damage / loss of office; loss of major SCADA.
Civil action / Media	Complaints received and routinely dealt with	Verbally aggressive complainant.	Protest action / threats. Angry or physical action taken towards staff.
Staff absence	N/A	Localised illness. Other staff can cover.	Loss of a number of staff causing re-prioritising of work. Industrial action reducing maintenance.

5.2 ESCALATING INCIDENTS

When an incident occurs, the most senior staff member on-site becomes the **Incident Site Coordinator**.

The decision making process used to determine whether an event is a routine, major incident or emergency is as follow:

The **Incident Site Coordinator** will contact the relevant Supervisor:

- If the incident is manageable with normal operational resources, and that it should not be escalated further .... **Level 1: Incident**

- Refer the matter to the next level of management.................................. **Level 2: Major Incident**

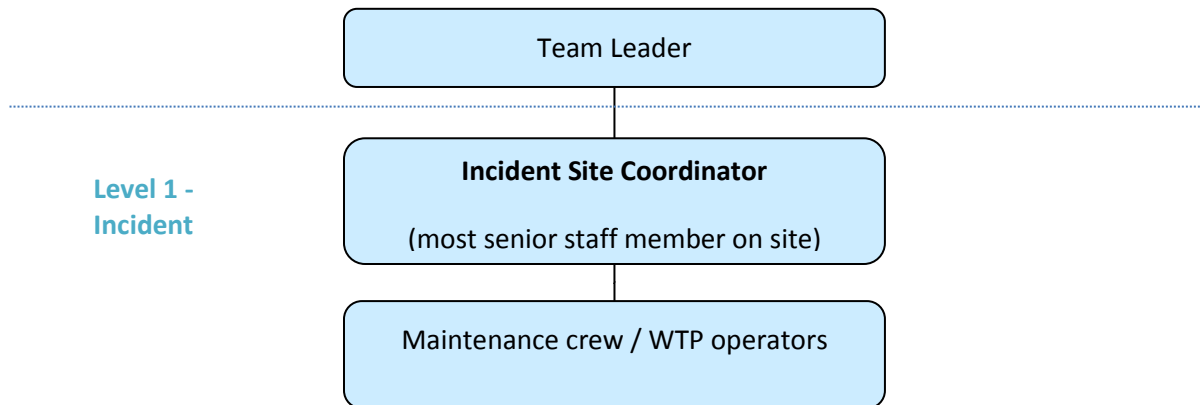- Declare an emergency and activate an Emergency Response Team ..... **Level 3: Emergency**

If the supervisor considers the incident is manageable, he/ she should continually monitor the event and refer to management if the situation changes.

5.3 LEVEL 1: INCIDENT

Level 1 or routine incidents (which occur frequently) should be resolved by a maintenance crew or by WTP operators. Level 1 Incidents require attention but have little operational effect.

An **Incident Site Coordinator** is responsible for the incident site operation, control and response.

FIGURE 5-1   LEVEL 1: INCIDENT ORGANISATIONAL STRUCTURE

Team Leader

Level 1 - Incident

Incident Site Coordinator

(most senior staff member on site)

Maintenance crew / WTP operators

TABLE 5-2   LEVEL 1: INCIDENT SITE COORDINATOR ROLE

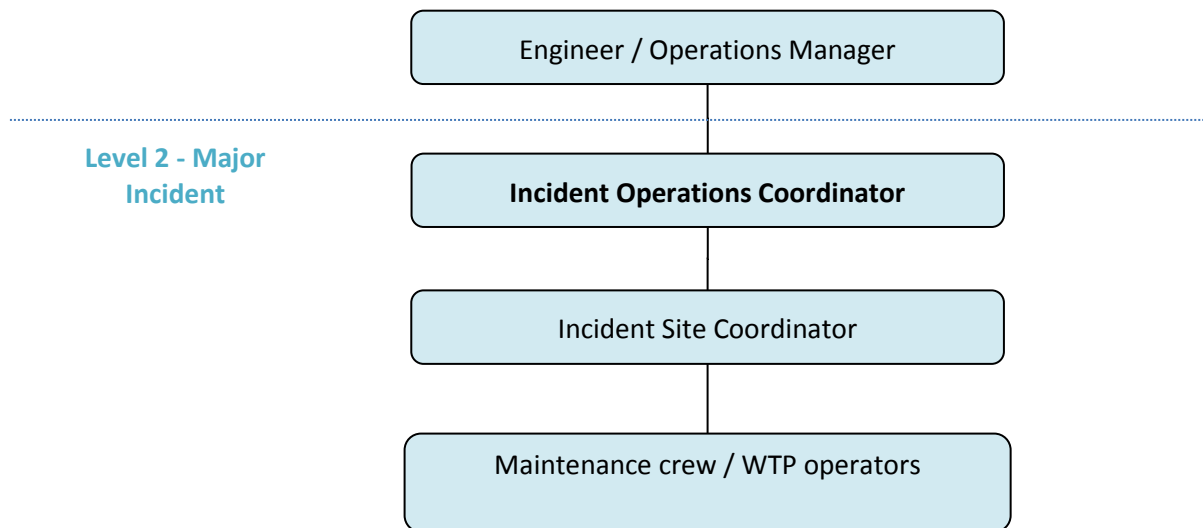| Role	Incident Site Coordinator
Undertaken by	Most senior staff member on-site
Reports to	Team Leader / Headworks Engineer
Manages	Maintenance crew / WTP operators
Responsibilities	Ensure the safety of all personnel and those of other organisations; Manage Council's activity at the incident site; Ensure the incident is controlled by making the site safe; Does not put themself or any other person in danger by tackling an incident outside their capability.
Notify	1. Alert emergency services if necessary and ensure they have access to the site and are given any information they need. 2. Follow notification protocols if the incident is reportable (see Section 3).
Actions	3. Determine the scale of incident, considering: o Severity of incident (e.g. damage to property, roads, environment); o Injures; including nature and number; o Whether water business assets are affected; o Whether there are any customers affected. 4. Coordinate all Council teams at site. 5. Liaise with Customer Services, Council's Corporate Communications Officer. 6. Control access to site for all Council employees.
Escalate	Grade incident as situation changes and advise Control Room / Emergency Manager of appropriate action and escalate to a Level 2 if unable to be dealt with on site by staff / resources.
Reporting	Maintain a Site Incident Log. Record details of incident on Incident Report Form (TC-TC-001-SF4684).

5.4 LEVEL 2: MAJOR INCIDENT

Incidents are escalated to a Level 2 - Major Incident when they are unable to be dealt with by initial on site staff or resources. Level 2 - Major Incidents can be handled with normal operational resources and do not require an ongoing management by an emergency response team.

The *most senior staff member* responding to the incident should take on the role of **Incident Operations Coordinator**.

Key triggers for a major incident are:

- Serious injuries affecting the operation of a water asset, depot or office;
- WTP process or equipment failure;
- Environmental impacts;
- Health issues;
- Local flooding or minor building fires;
- Bomb threat / search;
- Vandalism;
- Limited industrial action, communications / IT failure, power outages.

FIGURE 5-2   LEVEL 2: MAJOR INCIDENT ORGANISATIONAL STRUCTURE

TABLE 5-3   LEVEL 2: INCIDENT OPERATIONS ROLE

Role	Incident Operations Coordinator
Summary	Responsible for incident site operation, control and response
Undertaken by	The most senior staff member responding to the incident. Generally the Headworks Engineer
Reports to	Engineer / Operations Manager
Manages	Incident Site Coordinator
EOP	Refer to relevant Emergency Operating Plan where applicable
Responsibilities	Ensure the safety of all personnel and those of other organisations; Provide and manage any additional needed staff /resources; Does not put themself or any other person in danger by tackling an incident outside their capability.
Notify	1. Alert emergency services if necessary and ensure they have access to the site and are given any information they need; 2. Follow notification protocols if the incident is reportable (see Section 3).
Actions	3. Determine scale of incident. 4. Determine initial response required (including alerting emergency services). 5. Establish clear command and communications. 6. Ensure the **Incident Site Coordinator** has secured the site. 7. Remain at the incident (or at a distance if the site is unsafe) until such time that emergency resources arrive and facilitate emergency services' access to the site. Liaise and assist. 8. Provide additional staff / resources as needed. 9. Manage the Council's own staff and resources on site or delegate to **Incident Site Coordinator.** 10. Ensure that the **Incident Site Coordinator** provides situation updates. 11. Grade incident as situation changes and advise Control Room / Emergency Manager of appropriate action.
Escalate	Grade incident as situation changes and advise Control Room / Emergency Manager of appropriate action. Escalate to Level 3 Emergency if necessary.
Reports	Maintain a Site Incident Log. Record details of incident on Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693).

5.5 LEVEL 3: EMERGENCY

A Level 3 - Emergency is a serious incident with broad impacts anticipated to have an extended recovery period requiring coordination by a management team. It may have an external combat agency as the lead for the initial emergency response. Key triggers for an Emergency and activating an **Emergency Response Team** are:

- Injuries, fatality, or significant ongoing threat; serious supply or service problem; serious infrastructure damage (whether owned by Council or others); investigation by statutory authorities; recurring related incidents;

- Serious injuries, affecting the operation of a WTP asset, depot or office; major building fires; health issues;

- Significant or widespread impact on supply and service operations; significant asset failure or sabotage;

- Spill / emission which requires external resources to mitigate; high volume spill impacting the environment; contamination / failure of a depot storage system;

- Disruption requiring corporate / external resources to address; communications / IT failure; significant power outage;

- WTP process or equipment failure.

5.5.1 EMERGENCY RESPONSE TEAM (ERT)

The Emergency Response Team will be led by the **Emergency Manager,** the most senior person appropriate to the emergency (e.g. the Operations Manager in the case of a supply incident).

In the event that an incident is escalated to a Level 3 Emergency, the Emergency Manager should notify his / her direct manager (e.g. Manager - Water and Waste Officer / Director - Water and Waste).

The Emergency Manager will appoint and convene his / her own **Emergency Response Team** that will include:

- An **Operations Coordinator**, who will liaise with the Incident Site Coordinator;

- A **Logistics Coordinator**, who will source and coordinate additional resources and skills; and

- The **Support and Administration Coordinator** will coordinate log keeping, depot liaison and business needs.

TABLE 5-4   **LEVEL 3: EMERGENCY RESPONSE TEAM**

Role	Emergency Response Team
Summary	Key responsibilities of the Team are to manage the operational and business implications of an incident
Responsibilities	• Restoration of operations; • Liaison with external agencies; • Co-ordination of resources; • Management of communications; • Notification to General Manager.
EOP	Refer to relevant Emergency Operating Plan where applicable
Notify	1. Confirm that emergency services have been alerted, have access to the site and have been given any information they need. 2. Confirm that notification protocols have been followed if the incident is reportable (see Section 3).
Actions	3. Commence and maintain group logs and information boards. 4. Ensure all key officers have been briefed and ongoing communication protocols established and implemented. 5. Ensure appropriate functional specialists have been activated and briefed. 6. Advise the Director - Water and Waste, and establish a communication strategy and updates protocols (may include a communications liaison officer to the Emergency Operations Centre or site). 7. Review incident for impact on customers. Establish and maintain regular liaison with customers. 8. Advise and maintain regular liaison with a designated contact at all appropriate regulators. 9. Determine and continually review operating rules and decision-making processes for the ERT, including support resources. 10. Under the direction of the Emergency Manager, conduct regular reviews (every 2 hours or better) and assess the issues identified, provide updates and progress reports on actions taken, and contribute to the development and implementation of the overall response strategies. 11. Ensure that all members of the ERT are appraised of major new developments; 12. Establish and continually update relevant executives. 13. Monitor the morale and welfare of affected staff and ensure all necessary support, counseling, and relief is organised. 14. Make arrangements for team member breaks every four hours, and, in the event of prolonged emergency, relief shifts every twelve hours.
Termination	The decision to terminate an emergency will be made by the Emergency Manager in consultation with the Site Coordinator and a senior executive.

| Reporting	Complete forms as appropriate:
	• Incident Report Form (TC-TC-001-SF4684) and Incident and Investigation (TC-RS-SP-002-SF4693)

Activation of the Emergency Operations Centre

At any time, during a Level 3 - Emergency event, the Emergency Manager may elect to establish an Emergency Operations Centre. This may be done if significant issues are present or if the emergency requires co-ordination of internal and external resources from two or more facilities or locations and / or cannot be managed at a local depot or facility.

The location of an Emergency Operations Centre should, where possible, be identified in advance and be equipped with facilities on hand to enable it to be activated quickly.

Typical locations for an Emergency Operations Centre would be the WTP operations Control Centre or council meeting room.

If the incident takes place in a facility such as a treatment works, the Emergency Operations Centre should be set up in a meeting room with close access to the Control Room.

FIGURE 5-3   LEVEL3: EMERGENCY RESPONSE TEAM ORGANISATIONAL STRUCTURE
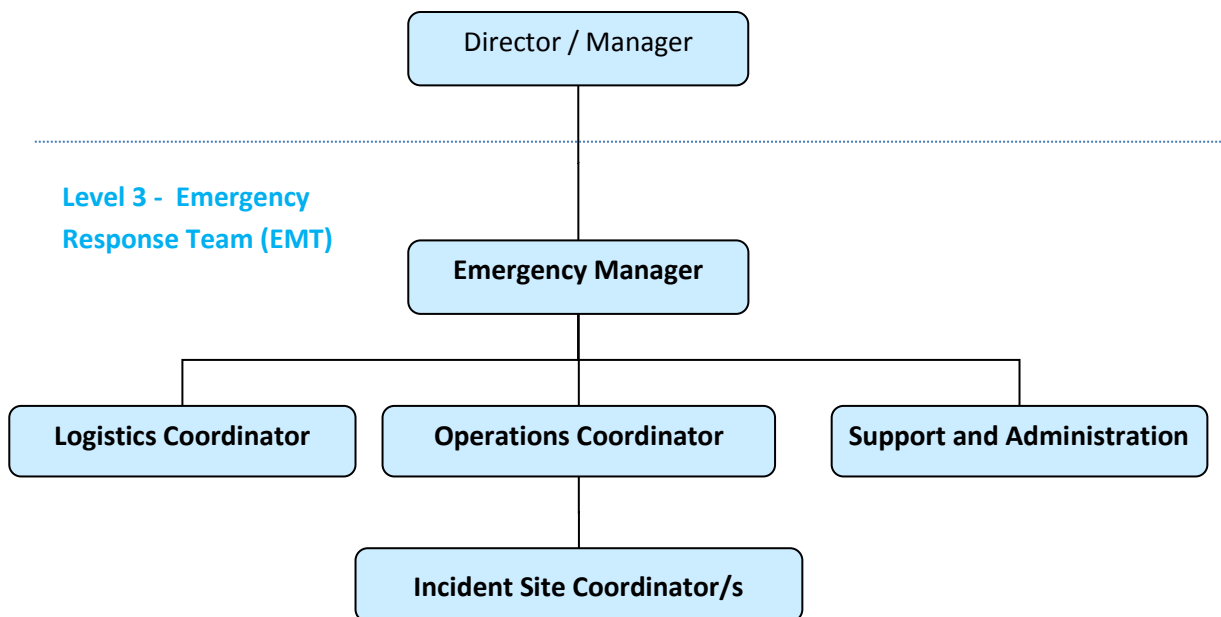
Emergency Manager

Who: This role is usually filled by the relevant Duty Manager.

Responsibility: Manage the overall incident from available resources.

Specific actions include:

• Appoint and coordinate an Emergency Response Team;

• Assess operational and business implications;

- Identify support requirements (especially non-operational, e.g. Communications);

- Inform, advise and liaise with Executive;

- Ensure regular flow of information to the ERT (when activated);

- Maintain log;

- Conduct incident debrief on termination.

Emergency Operations Coordinator

Who: This role is usually filled by the Control Room or service crew supervisor.

Responsibility: Provide support to the Emergency Manager from available resources.

Specific actions include:

- Receive briefing and role allocation, and co-ordinate own group;

- Establish communications channels and protocols with Emergency Manager and Incident Site Coordinator, then obtain detailed situation update and assessment;

- Identify additional resources required if indicated;

- Assess incident details and collate appropriate reference material (system maps, directories, operating procedures etc);

- Review technical / operational implications and solution options, then provide instructions and advice accordingly to incident site team;

- Maintain master event log – issue regular update copies to ERT;

- Assess impact on operability of the Council's facilities, and consider contingency options to maintain services;

- Provide advice, information updates, and resource support to the ERT;

- Co-ordinate inputs of specialists and other technical advisors;

- Advise Communications personnel on the technical content of media releases;

- Act as liaison point with regional emergency services' staff;

- Handle communication with other external groups as advised by the Communications personnel (e.g. emergency services and the regulator);

- Stand down as instructed and contribute to debrief / investigation.

Emergency Logistics Coordinator

Who: For operational emergencies this role will normally be filled by the senior specialist area supervisor.

Responsibility: Source and co-ordinate additional resources required at the incident site, or elsewhere.

Specific actions include:

- Liaise with emergency services' command (away from site);

- Liaise with other Council operations and external providers of services or equipment;

- Liaise with Council centralised functions which may be able / required to provide support (e.g. IT or Communications).

Emergency Support and Administration Coordinator

Who: The Emergency Manager will appoint an individual to this role as he / she sees fit.

Responsibility: Sources administration support to the ERT and plans longer term implications.

Specific actions include:

- Assess long term operations impact;

- Develop strategies to restore / resume disrupted business functions;

- Co-ordinate restoration and resumption of normal operations;

- Provide log-keeping and administrative support to the ERT.

5.5.2 TERMINATION AND RECOVERY

Termination

The decision to terminate an emergency will be made by the Emergency Manager in consultation with the Site Coordinator and senior executive. Issues they will consider will be the attendance of emergency services at the site, and the impact on customers and the water business.

Termination may proceed if the following have been attended to:

- Injured persons have been hospitalised or otherwise taken care of;

- Next-of kin of staff who have been injured, have been advised and taken care of;

- Staff suffering from trauma have entered a counselling program;

- Any spills and leaks have been stopped, contained and recovered;

- The incident site is free of flammable or toxic vapours;

- Any fire has been extinguished, there is no possibility of fire starting again, and the fire brigade has given the all clear;

- A head count has been carried out by the Council's Incident Site Coordinator, taking account of all staff and visitors to the premises where the incident occurred;

- All relevant evidence has been preserved to the satisfaction of police and / or WorkCover;

- All immediate restorations/repairs have been effected to restore services / supply;

- Any offenders have departed the site, or have been apprehended by police;

- Unidentified or suspicious packages have been removed by the police.

Recovery

The aim of the recovery phase is to identify, document and manage through to a satisfactory conclusion all operational and strategic issues, including the welfare of staff, members of the public and Council-owned assets, which will enable the return to a normal level of function.

The recovery phase may continue for a period of time after an emergency has been terminated, and will require ongoing attention from management and staff until all issues arising from the emergency have been resolved.

TABLE 5-5. ISSUES TO BE CONSIDERED DURING RECOVERY.

Area	Considerations
Customer needs	• Immediate needs and wants (welfare, health and convenience) • Alternative service arrangements, until normal operations reinstated (bottled water, portable toilets etc.) • Public communications advising customers of alternate arrangements • Other assistance to customers affected by the incident (e.g. insurance etc.) • Assistance to next of kin
Staff needs	• Staff rehabilitation • Welfare of staff and next of kin • Staff communications strategy
Community and stakeholder reaction	• Damage to community profile • Actions to restore goodwill • Two way communications strategy • External public relations strategy • Media relations arrangements
Environmental impact	• Impact on drainage system and water catchment areas • Impact on other public infrastructure (roads, railways, power lines etc.) • Isolation and containment measures • Rehabilitation and clean-up
Business operations restoration	• Repair or replacement of damaged facilities and / or equipment • Additional resources required to support business operations • Replenishment of all emergency equipment used in the emergency • Strategy to restore revenue losses • Co-operation with other agencies (especially telecoms and electricity utilities)
Regulators and compliance with their reporting requirements	• WorkCover • NSW Health • Local Authorities • Emergency Services • Environment Protection Agency (EPA) • Council policies and procedures

PART 3 – PREPARATION MEASURES

This part details required preparatory measures, including training, document reviews, forms and checklists.

6   PREPARING FOR AN EMERGENCY

6.1 TRAINING

To evaluate the effectiveness of the IERP and to ensure that procedures and practices in this IERP are adequate and are being implemented properly, drills should be conducted regularly. The objectives of the training program are:

- To ensure that TRC employees are knowledgeable of their roles and responsibilities concerning this IERP; and

- To ensure that TRC employees are knowledgeable of the EIRP's procedures to affect a safe and appropriate response to incidents and emergencies.

6.1.1 TRAINING LEVEL

TRC employees will receive training in the IERP appropriate to the level of their expected involvement.

Training on the IERP will help determine what works and what does not so that revisions can be made accordingly.

Training may include:

Orientation Sessions: These should include basic instructions and explanation of the IERP and Action Plan procedures;

Table Top Workshops: Where employees are presented with a fabricated major event. They verbally respond to a series of questions and evaluate whether their response matches the IERP;

Functional Exercises: are designed to simulate a real major event. A team of simulators is trained to develop a realistic situation.;

Full Scale Drills: Emergency response personnel and equipment are actually mobilised and moved to a scene. A problem is presented to the response personnel and they respond as directed by the IERP and Emergency Response Co-ordinator at the scene.

6.1.2 TRAINING FREQUENCY

Training will be conducted annually or when:

- New employees commence;

- New equipment or materials are used; and

- Procedures are updated or revised.

Training and testing of the plan at the table-top level or higher must occur every 12 months. The testing must cover all components of the plan including the effectiveness of the training.

6.2 REVIEW OF DOCUMENT

This document should be reviewed every year with the contact list updated every 3 months.

Other triggers for review include:

- Within 1 month of an emergency (regulatory requirement);

- Within 2 months of a change in the WTP operation;

- Immediately upon change in contact information.

6.3 PRE-EMPTIVE ACTIONS

6.3.1 ALARMS

Key processes within the system are monitored and alarmed. Process monitoring is tabulated in Table 6-1 below.

TABLE 6-1   PROCESS MONITORING

Location Parameter	Dungowan and Peel River, paradise well	raw	Settled water	Post filter	Clear water
Turbidity	Yes	Yes (process indication)	Yes (plant shutdown)	Yes (shuts single filter down)	Yes (alarm)
Fluoride					Yes
Chlorine					Yes
pH					Yes
Flow		Yes			
Delta p				Yes (with backwash)	
Time				Yes (with backwash)	

ChecksERROR! NOT A VALID BOOKMARK SELF-REFERENCE. below summarises the forms and checklists undertaken to ensure environmental and health and safety precaution are in place at the Calala Water Treatment Plant.

TABLE 6-2   SUMMARY OF CHECKLISTS

TRIM Reference	Checklist
149013/2016	Emergency Evacuation Exercise Observers Checklist
181402/2016	First Aid Kit Checks and Re-Supplies Checklist
176996/2013	Work Inspection Report
10775/2014	Plant Start-up - Small to Medium Fleet Vehicle Checklist (Completed weekly)
10784/2014	Workplace Induction
MSF-013	Plant Hired Check
10778/2014	Toolbox Talk Worker Meeting Record
84294/2014	Confined Space Work Permit
28860/2014	Isolation Permit
	Weekly Running Sheet
	Daily Running Sheet
	Process Monitoring
	Daily Chemical Use
	Daily Water Report
	Water Treatment Plant Quality Control
	Form 3 for Fluoridation
	Dungowan Pipeline Trailer Checklist

6.3.3   **PRE-EMPTIVE ACTIONS**

Table 6-3 documents formalised procedures and practices undertaken as pre-emptive actions to reduce the likelihood of risks leading to an emergency or inhibiting an effective response to an incident or emergency.

TABLE 6-3   DOCUMENTED PROCEDURES AND PRACTICES

TRIM Reference	Document
MSF-172	Running Sheet Water and Sewer – Single Site
MSF-173	Running Sheet Water and Sewer – Multiple Sites
MSF-181	Emergency Response Procedure Water and Sewerage Operations and Worksites
RS-HS-SP-006	Undertaking support activities for an Emergency Service (SWP)
172969/2013, 84294/2014 and 85145/2014	Working In or Around Confined Spaces Confined Space Entry Permit Confined Space Entry and Exit Procedure
9694/2014	Traffic Control - Prestart Setup, Ongoing and Dismantling
28860/2014	Isolation Permit
72894/2005	Portable Ladders
72963/2005	Manual Handling
72968/2005	Syringes and Needles
73070/2005	Power Tools
73083/2005	Arc Welding
73089/2005	Compressed Air and Air Tools
75767/2005	Cranes
77129/2005	Oxygen and Acetylene Gas
85147/2014	Laser Equipment
98306/2014 and 98286/2014	Working Near Electrical Services
77480/2005 and 28856/2014	Personal Protective Equipment
172963/2013 and 77503/2005	Working at Heights Greater Than 2 Meters Safety Harnesses and Fall Arrestors
77575/2005	Working Alone
172970/2013	Work Carried Out In or Near a Shaft or Trench With a Depth Greater Than 1.5m Excavations

TRIM Reference	Document
72963/2005	Lifting Manholes / Manual Handling
172967/2013	Work Carried Out Near Pressurised Gas Mains
SRA-011 **41556/2004**	Reservoir Maintenance and Repairs
SRA-076 **157879/2008**	Clear Water Pump Maintenance and Operations
SRA-081 **89505/2008**	Pest Control at the Peel Pump Station
SRA-082 **70203/2005**	Chlorine Room Maintenance and Operations
SRA-083 **70206/2005**	Powder Activated Carbon Plant Maintenance and Operations
SRA-110 **112958/2006**	Filter Bath Maintenance and Operations
SRA-111 **90715/2007**	Balance Tank Maintenance and Operations
SRA-112 **113074/2006**	Clarifier Maintenance and Operations
SRA-115 **120337/2006**	Alum Room Maintenance and Operations
SRA-116 **127230/2006**	Conducting Tours at Calala WTP
SRA-120 **51707/2007**	Laboratory Testing at Calala WTP
SRA-130 **89757/2007**	Fluoride Room Maintenance and Operations
SRA-131 **89759/2007**	Polymer Room Maintenance and Operations
SRA-132 **89760/2007**	Sludge Lagoon Maintenance and Operations
SRA-133 **89761/2007**	Soda Ash Room Maintenance and Operations

TRIM Reference	Document
SRA-134 **89763/2007**	Water Sampling at Calala WTP
SRA-135 **90720/2007**	Peel Intake Maintenance and Operations
SRA-136 **90869/2007**	Delay Tank Maintenance and Operations
SRA-137 **91227/2007**	Site Access, Security and Inspection
SRA-200 **9747/2008**	Powerlines Site Specific Risk Assessment
WE-WE-SP-006 **58444/2011**	Asbestos Pipes

6.4 LOCATIONS OF EMERGENCY EQUIPMENT

Table 6-4 lists the location of existing equipment that may needed to be used in an emergency. Additional equipment can be sourced through Regional Plant Hire and Transpacific as required.

TABLE 6-4   LOCATION OF EMERGENCY EQUIPMENT

Equipment	Source / Location	Responsible Person	Telephone No.
Dungowan pipeline trailer	WTP	Team Leader	
Spill kit	WTP	Team Leader	
First aid kits	WTP	Team Leader	
Emergency retrieval gear	WTP	Team Leader	
Fire equipment (extinguishers and fire blankets)	WTP	Team Leader	
Phones within plant	WTP	Team Leader	
Two-way communication radio	WTP	Team Leader	
Traffic management equipment	Workforce International	Team Leader	(02) 6762 9300
Traffic management equipment	Plant and Fleet	Warehouse Supervisor Senior Storeperson Technical Officer – Plant and Supply	67675103 67675110 67675140 / 0409314658
Heavy equipment including sucker truck, graders backhoes, low loaders	Plant and Fleet	Warehouse Supervisor Senior Storeperson Technical Officer – Plant and Supply	67675103 67675110 67675140 / 0409314658
Heavy equipment including 1.8t excavator, vacuum excavator, tippers, trenchers, bobcats, backhoes, flushing truck CCTV camera, 2 x 3" pumps, 4" pump	Flynn Street Depot	Dan Coe / Team Leader	
Coates Hire		Team Leader	1300 131 552
200kVa trailer generator	Flynn Street Depot	Dan Coe / Electrical Staff	
Breathing apparatus	WTP	Team Leader	

7 FORMS AND CHECKLISTS

7.1 SITUATION REPORT (SITREP)

To be used when receiving a report from the first crew member / supervisor attending a scene. SITREPs should be provided by the Initial Crew on a regular basis or whenever the status of the incident changes.

Name of person receiving this call: …………………………………………………………………………

Date   …………………………………………Time: …………………………………………am/pm

Caller's Name: Contact Details: Mobile   Tel: Radio:
Have you made contact with the person who reported the incident?   Yes   /   No
Confirm Location: Street: Suburb: Nearest Cross Street:
Severity of the incident: (e.g. Damage to property, roads, environment etc)   Name and nature of any injuries:
Water business assets affected: (i.e. Pipes, valves, pumping station etc)
Are any customers affected? (e.g. Flooding, loss of supply etc)   Yes   /   No
Current action being taken (e.g. Have ambulance, police, fire service etc been called?)

Current resources on site (e.g. Number of local water utility staff / resources)

Estimate of staff / resources required:

Actions proposed to be taken:

7.2 EMERGENCY RESPONSE TEAM FIRST ADVICE

The points below are to assist the Emergency Team Member who took the first alert call to report to the first meeting of the Emergency Response Team. It forms the first entry on the Master Log for the event.

Record the following:

- Nature of Incident;
- Customer Request Management System (CRMS) Number;
- Location;
- Date; and
- Time.

Obtain any answers to as many of the questions below as you can.

- What has happened?
- Who is responding to the incident and how?
- Are there any injuries and / or fatalities? If so, inform Emergency Services.
- Are all water staff accounted for? Initiate action if necessary.
- Is there:
    - WTP infrastructure damage?
    - Other water assets / services that will be affected as a consequence?
    - Non-water business infrastructure damage?
    - Private infrastructure damage?
    - Service disruption?
    - Public health consequences?
    - Environmental consequences?
- Review available information and initiate action if necessary.
- Is the Incident Site Coordinator coping with the situation?   (Review and initiate appropriate action if necessary).
- What support is required from the Council as a whole? Initiate necessary action if necessary.
- Which Managers have been notified? Operations / Executive / Communications / General Manager / Mayor.

7.3 EMERGENCY RESPONSE TEAM INITIAL ACTIONS

The following table summarises what should be done by the first team members to arrive at the control room after activation, pending the full formal team start up.	
Assembly	• If the Emergency Operations Centre is to be activated, available staff will help set up the room. • Convene as directed as soon as possible, or at the time specified, and advise own staff of your whereabouts / delegation of normal duties.
Activation of the Emergency Operations Centre	• Gather any necessary equipment and material – especially systems maps and asset details. • Plug in and allocate telephone lines, and advise all interested groups (including switchboard) of the numbers being used. • Set up a fax machine, and arrange printing, copying, and email access. • Issue role checklists, other reference material, general stationery, etc. • Set up incident log whiteboards and brief team. • Arrange security and access control.
Organisation	• Check attendance of all mobilised resources. • Confirm key appointments, i.e. Incident Site Coordinator and ERT group Co-ordinators. • Organise team-seating arrangements and phones. • Consider need for additional specialist and support resources, and facilities. • Provide full briefing for mobilised staff, and specify the intended course of action, authorisation levels, and priority tasks / areas of responsibility.
Communication	• Establish communications with the incident site and obtain latest situation report. • Ensure authorities and emergency services are notified, if not already done by the site team, and all key internal and external stakeholders.
Response	• Log and assess the known facts (keep personal logs), consider the key issues and implications, and arrange for provision of any immediate site support needs, including the need for a senior management visit. • Develop initial response strategies (operations, communications, stakeholder liaison), and consider immediate next steps, including priority tasks for each group. • Commence team operations and set schedule for next review session.

7.4 EMERGENCY MANAGEMENT START-UP MEETING AGENDA

This meeting should take no more than 10 minutes before action commences.

Provide notepads / pens / pencils for attendees.

Emergency Manager to Chair

Attendees: Emergency Response Team: Operations Coordinator, Logistics Coordinator, Planning and Administration Coordinator + (optional) Relevant executive, Council Communications specialist

The Meeting Minutes are to be kept by the Log Keeper who is to be nominated by the Planning and Administration Coordinator.

Emergency Response Team Leaders calls meeting to order.

1.	Outline of Emergency	ERT Leader (2 minutes)
2.	Outline roles of ERT members	ERT Leader (1 minute)
	Re-read your position checklist and keep checking to ensure all your responsibilities are covered	
3.	Review all known information to date	Operations Coordinator and Communications Coordinator
4.	Review staffing arrangements on Site	Operations Coordinator
5.	Review all known actions to date	Operations Coordinator
6.	Consider immediate actions	ERT Leader to lead / All
7.	Allocate which team members inform stakeholders (e.g. Internal / Regulators / Contractor / Corporate etc)	ERT Leader to lead / All
8.	Any questions / comments	All
9.	Time of next report-back meeting	ERT Leader

8   DESCRIPTION AND LIKELIHOOD OF RISKS

This section meets the requirements of clause 98C (1) (a) and (b) of POEO (G) Regulation. General pre-emptive actions are also documented in Section 6.3. A water quality risk assessment forms part of the Drinking Water Quality Management System.

TABLE 8-1. RISK ASSESSMENT

Hazard	Hazardous Event	Impact	Likelihood	Residual Risk rank	Preventative Measures and Pre-emptive Actions
Chlorine Gas	Minor leak (no visible plume)	Potential minor health impact (minor)	Unlikely	Moderate	- Gas detector with automated shutoff - SCBA - Emergency operating plan
	Major Leak	Potential off-site health impact (critical)	Rare	Low	- Gas detector with automated shutoff - SCBA - Emergency operating plan
Alum	Tank leak or pipe rupture contained by bund	Potential environmental impact (insignificant)	Unlikely	Low	-Bunds, level alarm emergency operating plan - PPE
	Tanker spill during loading contained on-site (in lagoon)	Potential environmental impact (insignificant)	Unlikely	Low	- Liquid spill EOP - Lagoon isolation - PPE
	Spill not contained	Potential environmental impact (major)	Rare		- Liquid spill EOP
Polymer Batch (Liquid)	Leak from day tank or pipe break	Potential environmental impact (insignificant)	Unlikely	Low	- Powder spill EOP -Lagoon isolation - PPE
Polymer Powder	Bag break during unloading / batching	Potential environmental impact (insignificant)	Unlikely	Low	- Powder spill EOP - Lagoon isolation - PPE

Hazard	Hazardous Event	Impact	Likelihood	Residual Risk rank	Preventative Measures and Pre-emptive Actions
Sodium Fluorosilicate Powder	Bag break during unloading / batching	Potential environmental impact (insignificant)	Unlikely	Low	- Powder spill EOP - Lagoon isolation - PPE
PAC Spill	Bag break during unloading / batching	Potential environmental impact (insignificant)	Unlikely	Low	- Powder spill EOP, Lagoon isolation, PPE
Soda Ash Spill	Bag break during unloading / batching	Potential environmental impact (insignificant)	Unlikely	Low	- Powder spill EOP, Lagoon isolation, PPE
Major Asset Failure - leading to overland flow	Scouring, water treatment plant chemicals release in overland flow	Potential environmental impact	Rare	Rare	- Maintenance / Daily checklist
WTP Solids	Carryover into supernatant to river release at levels that would cause an environmental impact	Potential environmental impact (fish kills)	Rare	Rare	- SRA 132 Calala WTP Sludge Lagoon Maintenance and Operations - SWP-3106-WTP Calala WTP-Sludge Lagoon Operation - Operator in attendance during sludge wasting
	Flooding of sludge lagoons during operation	Overland flow of sludge	Rare	Rare	- Maintenance / Daily checklist

9 POLLUTANT INVENTORY AND MAPS

This section meets the requirements of clause 98C (1)(d) (e) and (f) of the POEO(G) Regulation.

TABLE 9-1   POLLUTANT INVENTORY

Item	Location	Maximum Quantity
Petrol	Chemical Storage Shed	80 L
Degreaser	Chemical Storage Shed	40 L
Metsun 600 Herbicide	Chemical Storage Shed	2 kg
Renolin	Chemical Storage Shed	20 L
Hydraulic Oil	Chemical Storage Shed	20 L
Transmission Fluid	Chemical Storage Shed	20 L
Energol GR-XP220 (ISO)	Chemical Storage Shed	40 L
Roto-Inject Fluid Ultra 8	Chemical Storage Shed	20 L
Versaclean	Chemical Storage Shed	20 L
RTU	Chemical Storage Shed	25 L
Biochoice 360 Herbicide	Chemical Storage Shed	2 L
Hydrochloric Acid (320H/L)	Chemical Storage Shed	2 L
Shadow Odour Control	Chemical Storage Shed	25 L
Alum	Alum storage tanks	100,000 L
Chlorine	Chlorine storage room	6 x 920 kg drums
Sodium Fluorosilicate	Fluoride room	3 tonnes
Soda Ash	Dosing Room	28 tonnes
PAC	PAC dosing room	5 tonnes
Polyelectrolyte	Dosing room	500 kg

Safety data sheets for chemicals are held at the storage location and in the WTP office.

FIGURE 9-1   MAP OF SITE SHOWING DISCHARGE LOCATION AND LOCATION OF CHEMICALS
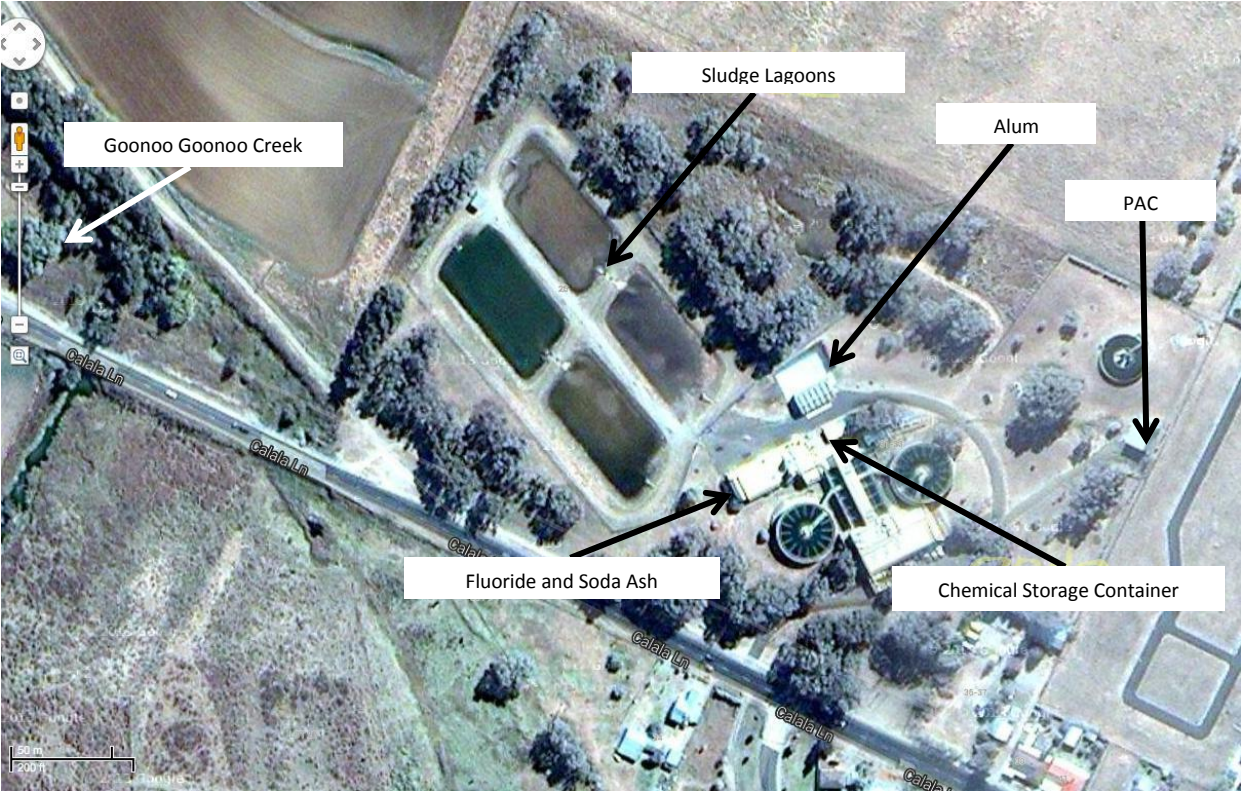
FIGURE 9-2   MAP OF SITE SHOWING DISCHARGE LOCATION AND STORMWATER DRAINS