

# Pollution Incident Response Management Plan

## Buronga Gol Gol Wastewater Treatment Works

**Environmental Protection Licence number 10639** 

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## Wentworth SHIRE COUNCIL

## Contents

1.0 Introduction/Purpose	
Council's Vision Council's Aim Current and Future Population Growth	4
2.0 Incident Management Plan	6
Pollution Management and Response Plan	
Risk Management – Wastewater Treatment Plants	
2.1 Risk Assessment Availability of Sewerage Treatment Capacity	
Monitoring and reporting Sewerage Data	
3.0 Incident Management Team and Communication	
3.1 Key Personnel for incident response	
Agency contact details	
WSC registered Contractors	
<ul> <li>3.2 Communicating with local community [clause 98C(1)(i)]</li> <li>3.3 Dealing with Critical incidents and minimising harm to community &amp; Envir</li> </ul>	
4.0 Response Management Plan/Action Plan	
Actions to be taken during or immediately after a pollution incident	
4.1 Management of Sewer Pump Stations Spill:	
4.2 Operational Staff Safety – Use of Machinery/Materials/Methodology adop 98C(1)(f)	
Hierarchy of Organisation Responsibility	
Incident Recovery	
4.3 Flood:	13
5.0 Staff Training	
6.0 Expected Program Outcomes	
6.1 Asset Management	
6.2 Key Program Outcomes	13

#### 1.0 Introduction/Purpose

The Wentworth Shire Council provides essential drinking water and sewerage services to its communities. There are times when the provision of these services is challenged. Recent incidents and emergencies have highlighted both strengths and areas to be improved in an incident of emergency management.

The purpose of this Incident Response Management Plan is to Protect the Environment and the broader Community from unexpected sewer overflows or sewer failures that cause extensive utility damage and environmental harm.

The Wentworth Shire Council manages its Wastewater treatment plant located at 276 Alcheringa Drive, Buronga. Buronga and Gol Gol Townships wastewater discharge to the Wastewater treatment plant in Buronga.

#### Council's Vision

Council's vision is to extend its valuable service to the customers in the way of

- Considering Customers' affordability
- Protect the Environment and make improvements in Friendly way
- Increase communities Health and well being

#### Council's Aim

Plan and implement projects in a strategic way to cater for the current and future population.

The Aim of this Program is to

- Identify the risk which associate with Sewer Wastewater Treatment Plant
- Reduce the level of Risk
- Protect the Environment
- Increase the Health and wellbeing

Further, the draft incident management plan draws the existing requirements in NSW Government Policy and Legislation for Incident management.

#### **Current and Future Population Growth**

Based on the Census Data, it is identified around 4000 population living in both Buronga and Gol Gol. It is expected 3.5% growth rate of the population of the township of Gol Gol.

Gol Gol located in close proximity to the township of Mildura in Victoria. The population growth pressure in Mildura has directly influenced the population growth in Gol Gol. Based on the current predictions, it is expected around 8,000 – 10,000 population in the year 2050.



#### Figure 1 – Location of Wastewater Treatment Plant in Buronga

Buffer Zones are commonly applied to sewage treatment plants to minimise the impacts of odours, noise and other adverse environmental effects on existing and future development, as well as minimising impacts on customers. Wastewater Treatment Plant requires a large area with appropriate land use controls to exclude odour sensitive land uses, such as residential and/or commercial activities.

NOTE- The buffer distance depicted in figure 1 is indicative only. Council plans to implement a new policy based on EPA advices to manage the future developments near the WWTP (Wastewater Treatment Plant) effectively.

WSC – Wentworth Shire Council

#### 2.0 Incident Management Plan

There are three acts and regulations that have set up as target requirements for incident and emergency response plan for Wastewater Treatment Plant. They are

- Local Government Act 1993 & Local Government (General) Regulations 2021
- Protection of the Environment Operations Act 1997 & Protection of the Environment Operations Regulations 2021
- Public Health Act 2010 & Public Health Regulations 2012

#### Pollution Management and Response Plan



#### Risk Management – Wastewater Treatment Plants

Managing high risk assets and when those assets reach a stage in their operational life where their likelihood of failure is imminent, they pose an unacceptable risk to WSC (Wentworth Shire Council) and its customers. Timely intervention through renewal by replacing or rehabilitating these assets is one of the measures required to lower the existing Risk

WSC systematically assesses the asset risk profiles of the Sewer Wastewater Treatment Plants and develops work programs as appropriate to mitigate risk to the appropriate and agreed level.



#### 2.1 Risk Assessment

#### Refer – Water and Wastewater Project Risk Matrix – APPENDIX

			Risk		New Ri
Risk	Likelihood	Consequences	Rating	Control Measures	Ratin
	Raw Sev	vage			
Failure of Lagoon embankment	С	4	Level C (4)	Routine Inspection/Staff Training on Dam Safety	Level D
Pipe Blockage between lagoons	С	3	Level C (3)	Routine Inspection / Overflow Channels	Level D
High Inflow Infiltration through Reticulation	A	4	Level A (4)	Smoke Testing Network/ Flow Observation through SCADA/CCTV/Early Repair	Level D
Power failure	С	3	Level C (3)	Provide back Up Generator	Level C
Contamination & Localised Flooding due to heavy Rain	A	4	Level A (4)	Outside the 1:100 year flood Zone	Level E (
J				<b>_</b>	
Risk	Likelihood	Consequences	Risk Rating	Control Measures	Risk Rati
Treated	Sewage- Disc	harge to Irrigatior	)		
Flood - Lagoons	С	3	Level C (3)	Site Visits & Physical Inspections/Available Future Sewer Storage Areas/SCADA	Level E (
Failure of Lagoon embankment	С	4	Level C (4)	Routine Inspection/Staff Training on Dam Safety	Level E
Pipe Blockage					
between lagoons and Irrigation	С	3	Level C (3)	Overflow Channels	Level E (

	Consequences	Insignificant	Minor	Moderate	Major	Catastrophic
	Likelihood	1	2	3	4	5
Α	Almost Certain	Moderate	Moderate	Very High	Very High	Very High
В	Likely	Minor	Moderate	High	Very High	Very High
С	Possible	Low	Minor	High	Very High	Very High
D	Unlikely	Low	Low	Moderate	High	Very High
Ε	Rare	Low	Low	Moderate	High	High

#### Availability of Sewerage Treatment Capacity

Knowing the existing capacity of the Wastewater Treatment plants, it is possible to reduce the likelihood of polluting waterways and wetlands and protective flora -fauna reliant on those waterways or wetlands

Also, WSC's aim is to minimise the operational cost associated with unplanned operational work.

Pollutant	Total Volume Available	Locations
Sewage untreated	100 ML	Sedimentation tanks, media filters, humus tanks
Sewage treated	20 ML	Evaporation area

#### Monitoring and reporting Sewerage Data

WSC keep all information and records required by the conditions of the EPA, at least for seven years. This includes monitoring data and reports, information of environmental releases and other necessary information.

#### 3.0 Incident Management Team and Communication

The below personnel are responsible for activating these plans and managing the response to incidents including those authorised to notify relevant authorities.

#### 3.1 Key Personnel for incident response.

Name	Position	Role	24-hour contact detail	
Scott Barnes	Manager Engineering	Engineering Communication	(M)	0460 893 977
	Services	/Public liaison Manager	(Office)	03 5027 5027
	Senior Water and	Incident	(M)	0460 893 977
Jag Jayasena	Wastewater Engineer	controller/Technical Advisor	(Office)	03 5027 5027
Jack Garraway	Team Leader Water and	Resource Controller/Team	(M)	0429 181 613
Such Ganaway	Wastewater	Leader	(Office)	03 5027 5027
Geoff Gunn	Director Roads and	Team Finance	(M)	0428147926
Geon Gunn	Engineering	Manager	(Office)	03 5027 5027
Ken Ross	General Manager	Advisor		427510714
On Call- Duty Officer	Operator / Labourer Water and Wastewater		(M)	0427 064 275



#### Agency contact details

EPA	Environment Line – 131 555
FIRE AND RESCUE	000
Department of	Business hours / After Hours Dave Farrell, Public Health Officer, NSW (Work Hours Mob- 08 80801504)
Health	PO Box 457, Broken Hill, NSW 2880
	Ph: 08 8080 1499
	Fax: 08 8080 1683 / 1196 (*s)
WorkCover Authority of NSW	phone 13 10 50
	Megan Patterson
	Risk and Assurance Organiser
State water	State Water Corporation
	PH: 02 6760 2012
	MOB: 0427 277 591
NSW/Office- water	Ben Maloney 0429 604 409
NSW-EPA Buronga Operations Officer Georgia Feben - 0448 220 586	

The EPA has developed a notification protocol available at www.environment.nsw.gov.au/pollution/notificationprotocol.htm.

Immediately call 000 if the incident presents any danger or threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

#### **WSC registered Contractors**

Company	Contact	Description	24-hour contact details
RDG electrical	Rob Gulbin	Electrical, control and RTU.	0408 236 833
Bertalli waste management	Tim Bertalli	Eduction (vacuum) Truck	0419 556 803(not oil or fuel)



ТРІ		Vacuum Truck	131339 (oil and fuel)
Pipeline Imaging	Steve Livingstone	Jetting, vacuuming and CCTV	0427 302 301
Coates Hire		Pump hire	131552
Forbes Wilson		Pump hire	0488 212 222

#### 3.2 Communicating with local community [clause 98C(1)(i)]

The Buronga / Gol Gol Sewage Treatment Plant is located nearly 1Km away from the existing residential dwellings, commercial districts and industrial areas. In the event that a pollution incident occurs, an attempt will be made to advise any potentially affected parties. It may be possible for spills to enter waterways.

In the event of above-mentioned critical instances, a media release may be produced by the WSC, that advises the potential water users about the following;

Considering the current population is low in the vicinity of the Wastewater Treatment Plant, mass notification may be an inefficient method of disseminating information. Hence WSC will contact the affected parties directly.

#### 3.3 Dealing with Critical incidents and minimising harm to community & Environment

The effluent and sludge present on site may present a danger to personal health if contact with eves or mucus membranes occurs or if swallowed. Direct contact should be avoided.

Public not permitted to enter into the premises and even media don't allow to enter if the incident is harmful to the human being.

All Personal must be followed the relevant workplace procedures and safe work method statements.

#### 4.0 Response Management Plan/Action Plan

Actions to be taken during or immediately after a pollution incident

- Immediately call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.
- If the incident does not require an initial 000 call, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

Agency	Contact Number
Wentworth Shire Council	03 5027 5027
EPA	131 555
The Ministry of Health via the local Public Health Unit	1300 650 172
Workcover Authority	13 10 50

The appropriate contact and details for the Public Health Unit are available in section 3.0 above.

#### 4.1 Management of Sewer Pump Stations Spill:

Follow the actions below:

- If the spill is continuing and a sewage pump station is contributing, turn off the pump station.
- If gravity flows are contributing to the spill and the problem is not likely to be resolved in a short time (e.g. clearing a blockage) then a plug should be fitted to the upstream manhole if practicable.
- A vacuum/eductor truck should be hired to remove any spilled sewage/sludge.
- If pump station failure is a contributing factor, an alternative pump may be required. Pump stations may be able to be serviced with a vacuum truck while repairs are being made.



### 4.2 Operational Staff Safety – Use of Machinery/Materials/Methodology adopted (Cl 98C(1)(f)

Below is a list of the safety equipment and other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident.

Item	Description	Location
Equipment		
Eductor Truck	Eductor or vacuum trucks are used for spill clean-up. They remove excess liquids and solids	Contractor supplied
Mobile pump / Hire Pump	flex drive or similar pumps are used for spill clean-up. They remove excess liquids.	Vehicles
Shovels, barrows etc.	minor equipment is used to clean up spills.	On site, Vehicles.
Site Bund	A bund can be deployed to prevent spill from spreading further.	On site, Vehicles
PPE		
Safety glasses, Gloves, Gum boots, biocide hand cleaner.	These items are used to minimise skin contact of the spilled material when working at the spill location.	Vehicles
Infrastructure		

#### Hierarchy of Organisation Responsibility

- The Water and Wastewater department is responsible for the above actions and controlling the incident.
- If the spill enters water ways then State Water should be notified.
- If the spill is significant then the NSW Office of Water should be notified.

#### **Incident Recovery**

Consider if disinfection is required, Natural drying and sunlight is likely to be sufficient to disinfect the site.

Any other precautions/steps to be followed will announce by the WSC communication department and publish in the website.

#### 4.3 Flood:

For flooding events when the plant or evaporation area are inundated, the relevant authorities should be notified. As the flow will be very high dilution will be a control factor. There may be no practicable actions to take. In this instance affected parties should be advised.

#### 5.0 Staff Training

Regular training and monitoring of Staff capabilities will be assessed in every year. Also, Staff well trained on OHS issues and handling incidents.

#### 6.0 Expected Program Outcomes

Delivery of this Incident Management Response program of works directly aligns with WSC's Strategy. Standards are established in collaboration with the customers. Risks are managed and the environment is protected

#### 6.1 Asset Management

WSC's aim is to increase the level of service for the customers and WSC indicated a strong preference for a proactive approach to network management, as opposed to a run-to-failure or responsive approach. This has resulted in the need for funding of an ongoing program of renewal of critical sewer mains to manage risk.

#### 6.2 Key Program Outcomes

WSC has a responsibility to manage the risk its critical infrastructure poses to its customers, stakeholders and the community. This program also assists WSC to meet agreed objectives comprising:

- Protect public health and safety
- Meet customer expectations
- Minimise community cost associated with damage to public and private assets
- Minimise reputational damage to WSC as a consequence of critical sewer asset failure
- Minimise environmental impact as a consequence of unforeseen sewer collapses

# **APPENDIX**

1. Risk Assessment Table

2. Criticality Table

Risk and Criticality table – Water and Wastewater Planning Stage Risk Analysis based activities

### **Engineering - Water and Wastewater - Project Risk Matrix**

Activity	Insignificant	Minor	Moderate	Major	Catastrophic
	1	2	3	4	5
Financial Liability	0-2K	>2K-5K	>1M	>1M-3M	>3M
Water Quality	Minor Aesthetic Issues	Major Aesthetic Issues/Potential Chronic Issues/Isolated Microbiological Failures	Wide Spread Microbiological Failures/Definite Chronic Issues/Loss of Localised Public Confidence	Wide Spread Illness/Loss of Majority Public Confidence/State Gov Involvement and High- Level Media Involvement	Extreme Level Illness Spread/Death
Operations	Minor Operational Disruption/Operations Team can Handle the issue	Minor Operational Disruption/Operations Team can Handle the issue/Require Specific Advice/Materials available locally	Material Not Available Locally/Need a week to fix the issue/Overall manageable level of control	Very Little or No Control/Material Not Available/Take more than month to fix the issue/Require contractors' involvement	Out of Control/Materials Not Available/More than a month to take fix the Issue
Assets/Infrastructure	Minor Asset break down - Easily replace, Council Staff can manage the work - Criticality Level - Low	Identified Asset Failure in advance- Criticality Level- Considerable	No Prior Notice-Sudden Failure of Asset/Manageable Level/Criticality Level - High	No Prior Notice-Sudden Failure of Asset/Major Break-down/Criticality Level -Extremely High	No Prior Notice- Sudden Failure of Asset/Major Break- down/New Asset Require/Criticality Level -Catastrophic
Customer Complaints	<20	<50	<75	<100	100<
Service Interruptions					
Residential	<10 Lots	<15 Lots	<25 Lots	<50 Lots	Lots 50<





#### Incident Response Management Plan- Buronga / Gol Gol Wastewater Treatment Plant /DOC /17/5719

Major Industry	NA	NA	0<1 Industry	<2 Industries	Industries 2<
Safety	First aid injury/Not Serious	GP/physiotherapy/Lost time injury for 1 week	Admission to Hospital/More than a month treatment/Compensation	Severe injuries/Unconscious/More than one month Hospitalised	Death or Serious injuries keep out of work/Penalties Apply/Breach of Safety
Environmental	Minimal onsite impact/One day affect/Cost less than \$100K	High Level onsite impact/Moderate Area impact/Cost more than \$100K/Settlement 1 Year max	High Level Area impact/Cost more than \$200K/Media involvement/EPA regulation breaching/Settlement take less than 2 Years	Severe Impact/Impact hearing at Courts/Cost more than \$300K/High Level Political Issue and Involvement/Settlement take more than 2 Years	No Recovery available for the environment/ Heavily breach of contract/Cost more than 400K/ EPA involvement/Court Hearing/No longer manage the organisation
Customer involvement/Social/General Public Reaction	Tolerate/No Public Involvement/Less Than 5 customers involvement	Minor Public Involvement/Local News Papers involvement/5 to 10 Customers	High Level Public Involvement/Seek Answers/Major Public Reactions/More than 20 Customers	Seek Council's Actions/Local Media Publicity/Unsatisfactory claim for more than 1 month/More than 50 Customers	Seek Council's Actions/Country wide Media Publicity/Unsatisfactory claim for more than 2 months/More than 100 customers
Legal	No Legal Action	Regulatory Enquiry	Public Works Enquiry/Possible lawyers Involvement	Major Penalties/Public Works Enquiry/Courts Hearing/Political Involvement	Severe Penalties/Public Works Enquiry/Courts Hearing/Political Involvement



	Minor Asset break down		Material not readily	Take more than 5 days to fix	
	- Easily replace, Council	Materials available/	available (Need to	the issue and can be fixed	Take more than two
	Staff can manage the	Time to fix the issue or	transport from another	within two weeks/Cost more	weeks to fix the
	work, Materials & Parts	Asset will take more	state) / take more than 24	than \$60,000 and less than	issue/Need Specific skill
Level of Service/Criticality	readily available, Less	than 5 hrs/Local	hrs to fix the issue and less	\$100,000/ contractors should	workmanship to fix the
Level of Service/Criticality	time consuming to fix	contractor would	than 2 days/Local	be hired from	issue/Severe damage
	and operate (Less than	require/Considerable	contactors can do the	interstate/heavy equipment	to the Assets/Parts
	1 Hr maximum time	cost involve	work/ total cost expected	and equipment required/All	should be imported
	required), Low	(\$20,000>\$10,000)	more than \$20,000 and less	Resources not readily	from overseas
	cost(\$<5,000)		than \$50,000	available	

	Consequences	Insignificant	Minor	Moderate	Major	Catastrophic
Lik	elihood	1	2	3	4	5
Α	Almost Certain	Moderate	Moderate	Very High	Very High	Very High
В	Likely	Minor	Moderate	High	Very High	Very High
С	Possible	Low	Minor	High	Very High	Very High
D	Unlikely	Low	Low	Moderate	High	Very High
Ε	Rare	Low	Low	Moderate	High	High



Assets Criticality					
Assets Criticality Rating	Base for Assets criticality	No of customers out of service			
Criticality 1	Minor Asset break down - Easily replace, Council Staff can manage the work, Materials & Parts readily available, Less time consuming to fix and operate (Less than 1 Hr maximum time required), Low cost(\$<5,000)	Less than 5			
		1			
Criticality 2	Materials available/ Time to fix the issue or Asset will take more than 5 hrs/Local contractor would require/Considerable cost involve (\$20,000>\$10,000)	10> Customers >5			
Criticality 3	Material not readily available (Need to transport from another state) / take more than 24 hrs to fix the issue and less than 2 days/Local contactors can do the work/ total cost expected more than \$20,000 and less than \$50,000	30 > Customers >15			
Criticality 4	Take more than 5 days to fix the issue and can be fixed within two weeks/Cost more than \$60,000 and less than \$100,000/ contractors should be hired from interstate/heavy equipment and Machinery required/All Resources not readily available	50 > Customers >30			
Criticality 5	Take more than two weeks to fix the issue/Need Specific skill workmanship to fix the issue/Severe damage to the Assets/Parts should be imported from overseas	More than 100 customers affected			