Pollution Incident Response Management Plan

(PIRMP)

for

Upper South Creek Networks

Environmental Protection License 21886

Sydney Water Corporation

19 June 2024

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1 Contact List

1.1 Emergency contacts

The relevant staff or services are to be contacted immediately in case of emergency:

Name	Contact Number
Liverpool City Council	1300 362 170
Penrith City Council	(02) 4732 7777.
Emergency Services	Phone 000 or 112 (mobile only)
Fire & Rescue Station (local)	Kemps Creek Rural Fire Station: 02 9608 7777
Fire and Rescue NSW	No response required: Pollution Incident Response/Management Line - 1300 729 579 Response required: 000 (landline) / 112 (mobile).
NSW Health (Hospital local))	Liverpool Hospital Emergency Department on (02) 8738 3000
NSW EPA	Environment Line on 131 555
NSW Ministry of Health	Environmental Health Branch Water Unit Business Hours: 9391 9939, After Hours: 0491 227 423 or 0411 264 070 (backup). E-mail: waterqual@doh.health.nsw.gov.au
SafeWork NSW	Phone 13 10 50 or 02 6659 1713
NSW Police (Liverpool City PAC)	Ph: 02 9765 9499
NSW SES	132 500
Incidents in or adjacent to Kemps Creek Nature Reserve	
National Parks and Wildlife Service Cumberland, Greater Sydney Region	Business Hours – 02 4774 6803 After hours/weekends – 1300 056 294

Note: A laminated copy of this list is placed at each site compound and within each Supervisor's Work Pack

1.2 List of Emergency and Key Contacts

Complete key contacts details table. Must include the names, position title and 24 hr contact details of key staff who are responsible for activating the plan, are authorised to notify relevant authorities under section 148 of the POEO Act, and are responsible for managing the response to a pollution incident, plus any other key stakeholders/businesses within SWC.

Below is an example table that can be used for this purpose.

Name	Position	Contact details
24 Hours Community Line	Quickway Community Engagement Manager	1300 98 94 96 kempscreekwastewater@sydneywater.com.au
Killian Koen	Quickway Project Manager	[redacted]
Tom St Vincent Welch	Quickway Environment Manager	[redacted]
Jason Halton	Quickway Environmental Advisor	[redacted]
Layla Hosseini	Sydney Water Project Manager	[redacted]
Chris Williams	Sydney Water Environment Lead	[redacted]

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2 Introduction

2.1 Purpose

This Pollution Incident Response Management Plan (PIRMP) aims to put a framework in place to ensure that all pollution incidents from the Upper South Creek Networks Environmental Protection Licence are managed and reported effectively. Detailed site-specific information is included in this plan and maintained on site.

The Plan will be implemented by Sydney Water construction contractor Quickway Constructions as part of the Construction Environmental Management Plan.

2.2 Key requirements

The key requirements for this Plan is compliance with the *Protection of the Environment Operations Act 1997* (POEO) Part 5.7A of the Act and that is to prepare, keep, test and implement a Pollution Incident Response Management Plan for Environment Protection Licence (EPL) holders.

2.2.1 Legislation

Legislation relevant to this management plan includes:

- *Protection of Environment Operations (General) Regulation 2009.*
- *Protection of the Environment Operations Act 1997 (POEO Act).*
- *Protection of the Environment Operations (Waste) Regulation 2005*
- *Waste Avoidance and Resource Recovery Act 2001*
- *Work Health and Safety Act 2011*

2.2.2 Guidelines and standard

The main guidelines, specifications and policy documents relevant to this Plan include

- EPA Environmental guidelines: Preparation of Pollution Incident Response Management Plans (2012)
- EPA Bunding and Spill Management Guidelines contained within EPA Environmental Protection Manual for Authorised Officers

2.3 Scope

This Plan covers the construction phase of the Upper South Creek Network namely the Austral to Kemps Creek Pressure Main operated under EPL 21886 for the scheduled activities of sewage treatment

2.4 Site description and operational overview

Sydney Water is constructing and operate the Kemps Creek Dual Pressure Mains Project which forms part of the Upper South Creek Network, in order to support future growth of the Western Sydney South West Growth Area and align with NSW Government commitments for the region. The amin components of the proposal includes:

- Dual pressure mains connecting a new wastewater pumping station in Austral (SP1211) to Upper Soth Creek Advanced Water Recycling Centre (AWRC) in Kemps Creek;
- Supporting infrastructure including a barometric loop at the AWRC

The construction phase of the proposal includes connection to SP11211, construction the dual pressure mains and the barometric loop. The dual pressure mains will be constructed by combination of open trenching and trenchless methods.

3 Prevention and Containment

3.1 Standard Procedures

The Project has procedures to carry out activities in a planned and controlled manner, including construction planning, environmental risk assessments and implementation of identified control measures. These are referred to as Environmental Work Method Statements, Environmental Control Plans and Erosion and Sediment Control Plan.

3.2 Inventory of Pollutants

Potential pollutants on the Project include:

- Chemicals including hazardous substances and/or dangerous goods used in pipeline construction activities. A full list of these is included in Quickway's Hazardous Substance Register (WHS-REG-02)managed by the Safety team, and is located on the share drive at the following location: P:\Clients\Sydney Water MP\1. Ongoing\4345 - Kemps Ck Dual Pressure Main\9. Safety\9.13 Registers.
- Mobile Diesel Pod on the back of a Light Vehicle
- Minor stores in shipping containers
- Sediment-laden runoff from areas affected by roadworks, during rain events
- Dust from exposed soil or pavement areas, during wind events
- Drill fluid/cuttings from HDD drilling activities
- Fuels and oils within plant and equipment
- Diesel or petrol within bulk fuel deliveries and refuelling activities

3.3 Storage

The Project will ensure that all liquid hazardous substances are stored in a bunded storage containers at site compounds which are locked with an impermeable floor to minimise the risk of any spillage or contamination of the Site and adjoining areas.

The bunded areas must be able to contain 120% of the total volume of the largest container of the stored materials. Hazardous substance storage areas will not be located within 50 metres of natural drainage lines, flood prone areas, or on slopes steeper than 1:10.

Adequate quantities of suitable substance to counteract a spillage will be kept readily available at all times. Where this is not practical, the unbunded and unattended drums will be managed in a way that minimises the risk of spillage.

Hazardous substance containers will be transported back to the bunded storage area when conditions change to create a risk to the environment.. The mobile Fuel Pod will have a spill kit is located on the vehicle .

Due to the close proximity of service stations to the project, bulk fuel storage on site is not anticipated.

3.4 Plant & Equipment Maintenance

The Project will ensure there is appropriate spill kits or bunding available when refuelling or maintaining plant and equipment, mixing cutting oil with bitumen, or carrying out any other activity which may result in spillage of a chemical, fuel or lubricant on any location with direct drainage to a waterway or environmental sensitive areas.

Subcontractors who will undertake bitumen cutting work will have spill procedure on hand. They will also have “on board” systems to deal with spills. Refuelling will not be undertaken within 50 metres of built or natural drainage lines.

Refuelling operations will not be left unattended and refuelling of plant and equipment outside the compound would be avoided wherever practical. A ‘refuelling’ EWMS has been prepared and refuelling operators will be trained on the EWMS. Adequately stocked spill kits will be kept on site at all times. Spills will be cleaned up immediately, if safe to do so.

All plant and equipment will be inspected daily for leakages of fuel, oil or hydraulic fluid. Any leaks will be repaired before using the item of plant or equipment. Records of plant inspections will be maintained.

3.5 Other pre-emptive Measures

The project has a range of management actions to prevent and control a range of environmental hazards. In particular the Construction Environmental Management Plan (CEMP) and its sub-plans detail a range of management measures.

3.6 Risk Assessment

The full project environment risk register is attached to the CEMP. However, below is an extract of the risk register which guides management of risk associated with pollution aspects. The risk assessment can be found on the following pages and involves:

- Identification of the risk;
- Analysing the risk (and determining likelihood and consequence);
- Evaluating the risk.
- Treating the risk

Risk Analysis (Risk Classification = Consequence x Likelihood)		Consequence				
		1	2	3	4	5
		Minor	Medium	Serious	Major	Catastrophic
		Reversible and insignificant environmental impact.	Treatable on-site impact with clean up or remedy work incurring a small level of effort.	Moderate on-site and/or off-site impacts (but no significant irreversible damage) with clean up or remedy work incurring a moderate level of effort	Major on-site and/or off-site impacts with clean up or remedy requires significant effort	Major irreversible environmental harm on-site and/or off-site damage.
Likelihood	A – Almost Certain > 1 per week (>25%)	Moderate 11	High 16	Extreme 20	Extreme 23	Extreme 25
	B – Likely 1/week – 1/month (10-25%)	Moderate 7	High 12	High 17	Extreme 21	Extreme 24
	C – Possible 1/month – 1/year (1-10%)	Low 4	Moderate 8	High 13	High 18	Extreme 22
	D – Unlikely 1/year – 1/10 years (0.1- 1%)	Low 2	Low 5	Moderate 9	High 14	High 19
	E – Rare 1/100 years (0.1%)	Low 1	Low 3	Low 6	Moderate 10	High 15

Figure 1: Risk Matrix

Aspect	Construction Activity	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
Soils, sediments and water	• Clearing and grubbing • Earthworks / Trenching • Storage of fuels, chemicals and other dangerous goods • Material stockpiles • Maintenance of plant and equipment, including servicing and refuelling • Concrete works • Dewatering • Micro-tunnelling • HDD Underboring	• Pollution of Waters: Changes to water chemistry altering aquatic habitats, including fish habitats	13 (High) i	• Appropriately designed erosion control structures (e.g. silt fences and sandbags) will be installed as per ESCPs, maintained and cleaned regularly. • Locate spoil stockpiles, plant and equipment away from drainage lines, watercourses or stormwater drains in accordance with established criteria. • Storage, compound access and parking areas sealed, as early during works as practicable. • Chemical storage meets Workcover and EPA bunding/storage requirements (>120% capacity of largest container etc) • Wheel mud reduction/ cleaning measures at exit of all sites where required. • Provide and maintain spill kits at all areas where spills may occur. • Comply with the Project dewatering requirements. • Implement appropriate procedures to identify, contain, handle and management contaminated material. • All dewatering must be completed in accordance with Dewatering Permit requirements compliant with discharge criteria. • Contaminated Land consultant to advise on removal or remediation of contaminated material. • Drilling fluid to be managed in accordance with Drilling Fluid Management Plan during HDD underboring. • Progressively rehab work areas with Hydromulch. • Complying with Environmental Protection Licence and WSW Approval requirements.	6 (Low) i	CEMP EWMS ESCP ERSED training Unexpected, contaminated land and asbestos finds procedure Induction Dewatering Permit / Plan Drilling Fluid Plan Rehab Procedure Toolbox Talks
		• Impacts to various sensitive receiving environments through accidental release of water or pollutants during construction	13 (High) ii		6 (Low) ii	
		• Impact to water quality due to fuels and leaks and inappropriate storage of chemicals, fuels, oils and other liquids.	8 (Moderate) iii		5 (Low) iii	
		• Changes in water chemistry, in particular pH values, affecting aquatic ecosystems	13 (High) iv		6 (Low) iv	
		• Exposed soils during earthworks erode and cause sedimentation of waterways and aquatic environments	9 (Moderate) v		C (low) v	
		• Potential release of tannins from stored mulch piles	6 (Low) vi		6 (Low) vi	
		• Disturbance of contaminated material causing pollution	8 (Moderate) vii		5 (Low) vii	
		• Smothering of vegetation from erosion	8 (Moderate) viii		5 (low) viii	
Air quality	• Earthworks / Trenching • Spoil handling/haulage • Stockpiling • Vehicular movements • Handling of chemicals, waste and hazardous goods	• Potential for decreases in air quality during construction associated with dust generating activities and emissions from heavy construction machinery	7 (moderate) i	• Induct personnel on air quality issues and safeguards. • Suppress dust on unsealed surfaces, stockpiles and other exposed surfaces. • Modify or cease operations during high winds. • All trucks on public roads to cover loads. • Vehicles, equipment, machinery used and sites – designed, operated and maintained to control the emission of smoke, dust, odours and fumes. • All disturbed areas stabilised, revegetated and/or landscaped as soon as practicable. • No burning or incineration of any material at any time. • Regularly inspect erosion control measures. • Visual Dust monitoring.	4 (low) i	CEMP EWMS ESCP Induction Toolbox Talk
		• Impacts on residential sensitive receivers, including impacts on living areas, swimming pools and general amenities	4 (low) ii		2 (low) ii	
		• Potential adverse health effects	2 (low) iii		2 (low) iii	
		• Impacts on water quality and vegetation health from dust deposition	4 (low) iv		2 (low) iv	
		• Complaints from neighbours	4 (moderate) v		2 (low) v	

Figure 2: Extract from Environmental Risk Register

4 Spill Response and Notification

4.1 Pollution Incidents

Under the EPA document Environmental Guidelines: Preparation of pollution incident response management plans, pollution incidents are defined as:

Pollution incidents means an incident set of circumstances during or as a consequence of which there is or likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which as substance has been places or disposed of on premises, but does not include an incident or set of circumstances involving only the emission of any noise.

4.1.1 Types of incidents

Pollution incidents which may occur and fall under the requirements of this plan includes:

- Hazards to human health or the environment: Fluid spill and/or leak can lead to soil and water contamination as well as air pollution. Some spills or releases are not hazardous to humans but are harmful to the natural environment. Even if a spill doesn't require evacuation of people, the substance should still be contained and cleaned up in accordance with the applicable Safety Data Sheet (also known as SDS).
- Discharge to waters not in accordance with the Environmental Protection Licence.
- Materials which travel further than the project boundary which has, or potential of causing adverse impact. An example includes generation of excessive dust.
- Fire, including bush fires.

Minor incidents that result in no material harm or residual environmental impacts are unlikely to require notification. These incidents would be managed and reported however, as per the Sydney Water *Incident Management Procedure (SWEMS0009)*

4.1.2 Notifications

A pollution incident is required to be notified to the EPA Environmental Line and other appropriate agencies of any environmental incidents or pollution incidents on or around the site in accordance with Part 5.7 of the Protection of Environment Operations Act 1997 (NSW) (POEO Act), in the following circumstances:

a) If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial

b) If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds $10,000.

The Principal will be notified verbally immediately and in writing within one hour of any incident occurring. Initial Incident/non-compliance/event notification will be provided to the Principal within 24 hours of the incident occurring.

All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

The Project Manager and Environmental Manager will be available to be contacted by the EPA on a 24-hour basis and who have authority to take immediate action to shut down any activity, or to affect any pollution control measure, as directed by Sydney Water or an authorised officer of the EPA.

Contact details for the Project Manager and Environmental Manager are provided below:

- Project Manager –Kilian Koen – 0473 149 821
- Environmental and Sustainability Manager – Tom St Vincent Welch – 0417 523 756

Sydney Water will be responsible for any external notification of environmental incidents as per Section 1 of this Plan

When reporting an incident the following information, if known, will be provided verbally (and records kept):

- Time, date, location and likely duration of incident.
- Location/place where pollution is occurring/likely to occur;
- Type of incident.
- Extent of incident.
- Action taken or proposed to be taken to deal with the incident.

4.1.3 Safety equipment / device to minimise risks to human or environment

Spill kits are located in each construction zone and will be identified during the construction zone induction process.

- Spills kits shall be fully stocked with “absorbent” materials to contain and soak up spilled liquid. Plastic garbage bags shall be made available in which to dispose residual used spill material.
- During regular inspections, the Quickway Environmental Advisor will review the spill kits and arrange restocking when required.
- Each construction zone must have a working communication device such as telephones, radios or other communication devices available so that people may contact services or be contacted in the case of an emergency.

In the event of a Quickway Standard Operating Procedure (SOP) Spill Response Procedure (Appendix A) or the Drilling Fluid management Plan is to be implemented.

Other devices used on the project to minimise the risks to human health or the environment and to control a pollution incident include

- water carts to minimise the generation of dust and to extinguish burning of combustible fuels;
- fire extinguishers for fire fighting events;
- excavators and/or sandbags to create sumps to contain or detain sediment laden runoff.

4.2 Community Notification

Early warnings for affected or potentially affected community members for any pollution incident will be communicated to those community members in consultation with Sydney Water and relevant agencies.

The Quickway Community Manager will determine the means of communication, in liaison with relevant authorities, which will vary based on the size and severity of the pollution incident. In determining the extent of community notification, the Quickway Community Manager will consider the nature of the pollutant, magnitude of its emission, as well as the direction and manner of its transmission.

In the event that community notification is required the following actions, in consultation with relevant authorities, would be carried out where appropriate and safe to do so by the Community team:

Based on the advice of the location and direction of the pollution incident, use Consultation Manager to determine the contact details of relevant stakeholders who may be affected.

- Provide notification either via:
    - Telephone;
    - Email,
    - Letterbox drop, and/or via door knocks;
    - Radio, and road/motorway variable message signage as required in consultation
    - with relevant authorities;
- The notification may also include recommended actions that members of the community can take to prevent or minimise harm as required in consultation with relevant authorities such as closing windows and doors;
- Providing protective fencing and barricading to prevent community stakeholders from entering into a polluted area; and
- Follow up notifications:
    - Face to face or telephone advice;
    - Email updates;
    - Project website updates;
    - Variable message signage on roadways and radio communications as required in consultation with relevant authorities.

For a pollution incident to a stormwater system or a creek, consider notifying the stakeholders adjacent to the creek and downstream water users, to avoid contact with or the use of water in the creek system.

For an airborne pollution incident, consider notifying the stakeholders with instructions to close windows and doors and remain inside, as appropriate.

Where relevant, provide notification to the Forest High School and Frenchs Forest Public School by contacting their respective Principal.

The Quickway and Sydney Project Managers and Construction Managers will provide the necessary assistance to the incident controller including the provision of access to the Projects community notification tools.

5 Compliance Management

5.1 Role and responsibilities

The Project Team's organisational structure and overall roles and responsibilities are outlined in the CEMP. Specific responsibilities for the implementation of this plan are detailed below.

5.1.1 Environmental Manager and Advisor

- Being familiar with the requirements of this plan. •
- Ensuring the requirements of the PIRMP are communicated to all personnel, subcontractors and where appropriate, visitors to site through on site and their responsibilities. •
- Co-ordinate and implement training.
- Ensuring incidents are managed and strictly supervised in accordance with the plan, company policies and procedures
- Understanding process and location of spill kits and development of additional controls as appropriate.
- Ensure any the spill response flowchart, emergency contact numbers and details and any other bulletin or information pertaining to emergency plans and management is placed on noticeboards
- Update and revise the plan, as required.

5.1.2 Supervisors

- Ensure all crew are conversant with their responsibilities and duties under the PIRMP.
- Ensure construction sites are prepared for unforeseen incidents as per requirements in this plan.
- Educate supervisory personnel in accordance with plan requirements, statutory obligations, and relevant procedures
- Ensure staff and contractors report incidents in a timely manner.
- Assist in any environmental investigation.

5.1.3 Community and Stakeholder Manager

- Responsible for preparation and implementation of information to communicate with the
- community with regard to any incidents that may affect owners and occupiers of surrounding properties.
- Ensure community engagement are in place and maintained to keep the community informed.

5.1.4 All site personnel

- Includes all subcontractors, workers and engineers.
- Attend training and toolboxes which go through the procedure.
- Staff and contractors report incidents in a timely manner.
- Assist in any environmental investigation.

5.2 Training

All Personnel shall be provided with general Emergency Management Training as part of the induction process, and such training shall cover as a minimum:

- The locations of all emergency equipment and the correct method for its use. •
- Spill risk awareness to encourage awareness of the dangers presented by spills and the means for preventing it. •
- Notification requirements and key personnel.

Personnel who have assigned responsibilities in an emergency situation shall be provided with additional training, as well as refresher training to keep up to date. There will also be feedback to personnel based on outcomes of the routine testing or emergency drills that are undertaken. Records of personnel who have undertaken the training will be kept.

Further details regarding staff induction and training are outlined in the CEMP.

6 Review and Improvement

6.1 Monitoring, Testing and Review

At a minimum, this document shall be reviewed annually and the appropriate process reviewed within one month of any major spill or in line with changing business needs, changing environment, and emergency risks (whichever is sooner).

The plan will be tested annually either with a desktop exercise or with a practical emergency drill.

6.2 Continuous improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance.
- Determine the cause or causes of the spill.
- Develop and implement a plan of corrective and preventative action to address any nonconformances and deficiencies.
- Verify the effectiveness of the corrective and preventative actions.
- Document any changes in procedures resulting from process improvement.
- Make comparisons with objectives and targets.

6.3 Update and amendment

As described in the CEMP, between the scheduled audits and reviews, a register of issues will be maintained to ensure that any issues are recorded for future action.

Changes to this plan will be approved by the Environmental Manager and the Project Director and documented in the document control section for each revision.

A copy of the updated plan and changes will be distributed to all relevant stakeholders.

6.4 PIRMP Testing Dates & Review Records

Date of Test	Name & Position	Manner of Testing (e.g. desktop exercise)	Summary of Changes	Version number	Issue date
n/a	Chris Williams	Approved for use	Drafted and approved for use	1	19 June 2024

Definitions

Term	Definition
AWRC	Advanced Water Recycling Centre
CEMP	Construction Environment Management Plan
PRIMP	Pollution Incident Response Management Plan
SOP	Standard Operating Procedure
EPA	Environmental Protection Authority
EPL	Environmental Protection Licence
ERSED	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
HDD	Horizontal Directional Drilling
POEO	*Protection of the Environment Operations Act 1999*
SWEMS	Sydney Water Environmental Management System

Appendix 1 – Standard Operating Procedure – Spill Response Procedure

Appendix 2 – Drainage Maps

Figure 6-2 Water and drainage

Appendix 3 – EPL Premise Boundary

Note : Curent Permise Maps can be found here :

Kemps Creek Dual Pressure Mains | Sydney Water Talk