

MANGOOLA OPEN CUT

GLENCORE

Plan for

SURFACE WATER AND GROUNDWATER RESPONSE

Document Number: MANOC-1772150304-3020

Status: Draft for Comment

Version: 7

Statutory Approval TBA

Effective: TBA

Review: TBA

Owner: Coordinator – Environment & Community

Document Review History

Version	Date Reviewed	Review Team (consultation)	Nature of the Amendment
1	February 2013	DP&I	Document developed in accordance with Schedule 3, Condition 36 and approved by DP&I.
2	July 2014	Mangoola Coal/DP&E	Revised to reflect Modification 6, name changes to company and general review. Approved 22 nd December 2014.
3	January 2017	Mangoola Coal NSW EPA Crown Lands and Water Division Steve Downes (suitably qualified expert endorsed by the Secretary)	Revised to: <ul style="list-style-type: none"> • Better define response processes using flow diagrams • Align with details studies based around definition of the alluvium and colluvium related to Big Flat Creek • Align with trigger processes revised for the Ground Water Monitoring Program • Define process of compensation for potentially affected landholders as per DP&E Dam Audit 2016 • Remove Appendix 1 Quick reference guide.
4	November 2017	Mangoola Coal	Updated in consultation with Crown Lands and Water Division further comment.
5	May 2018	Mangoola Coal	Updated in line with amendments to Groundwater Monitoring Plan (GWMP).
6	May 2018	Mangoola Coal	Approved by DPE
7	January 2020	Mangoola Coal	Update Figure 2.7 to include assessment of potential inflows from Big Flat Creek.
8	April 2020	Mangoola Coal	Included figure 2.9 to outline response to discharge of water from the Sandy Creek Farm Dams and / or Raw Water Dam Seepage Collection Sump (SCS) in accordance with the Engeny Saline Seepage Discharge Investigation Cover Letter 2020

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1 Introduction

1.1 Definitions

The terminology utilised within this **SWGWRP** is defined in **Table 1.7** of the **WMP**.

2 Management Response Protocols

Mangoola Coal has developed protocols that outline the responses required in the event that operations result in potential adverse impacts to the surrounding surface water and/or groundwater environment. Events included in this TARP include those which are unforeseen (not anticipated or predicted) based on previous environmental assessment and mining operations.

2.2 Surface Water Response Plans

Surface Water Management and Monitoring at Mangoola is outlined within the **WMP** and **SWMP**.

The TARP's outlined in **Figures 1-5** are implemented as per the predefined triggers listed in the **SWMP**.

Surface Water Quality Impact Assessment Criteria Exceedance

Trigger	
Surface water quality monitoring result outside of the impact assessment criteria presented in the SWMP	
Action	
Notify the Mangoola Coal ECM Review monitoring results against historical monitoring data Review recent monitoring results for adjacent monitoring sites Review operations and determine if the impact is a result of mining Consult a suitably qualified water engineer if required Determine if an incident has occurred as defined under EPL 12894 and / or PA 06_0014	
Response	
An incident has not occurred and trigger is not a result of mining	An Incident is deemed to have occurred
Continue Monitoring and Reporting as per the requirements of the SWMP . Revise impact assessment criteria if necessary	Assess risk of environmental harm, take all preventative measures to prevent or minimise environmental harm and enact PIRMP if required Conduct an investigation into the incident Notify as per Schedule 5, Condition 4 of PA 06_0014 and EPL 12894 Condition R2 Submit a detailed report to the EPA, DP&E and Crown Lands and Water Division (within seven days) regarding the incident as per Schedule 5, Condition 4 of PA 06_0014 and EPL 12894 Prioritise actions based on the risk to the environment and likelihood of a repeat incident Monitor the completion of actions to ensure they have been effective Review and if necessary revise SWMP and SWGWRP as per Schedule 5, Condition 9 of PA 06_0014

Figure 2.1

**Stream Health Criteria Exceedance and/or Deterioration of Stream
Stability, GDE Health**

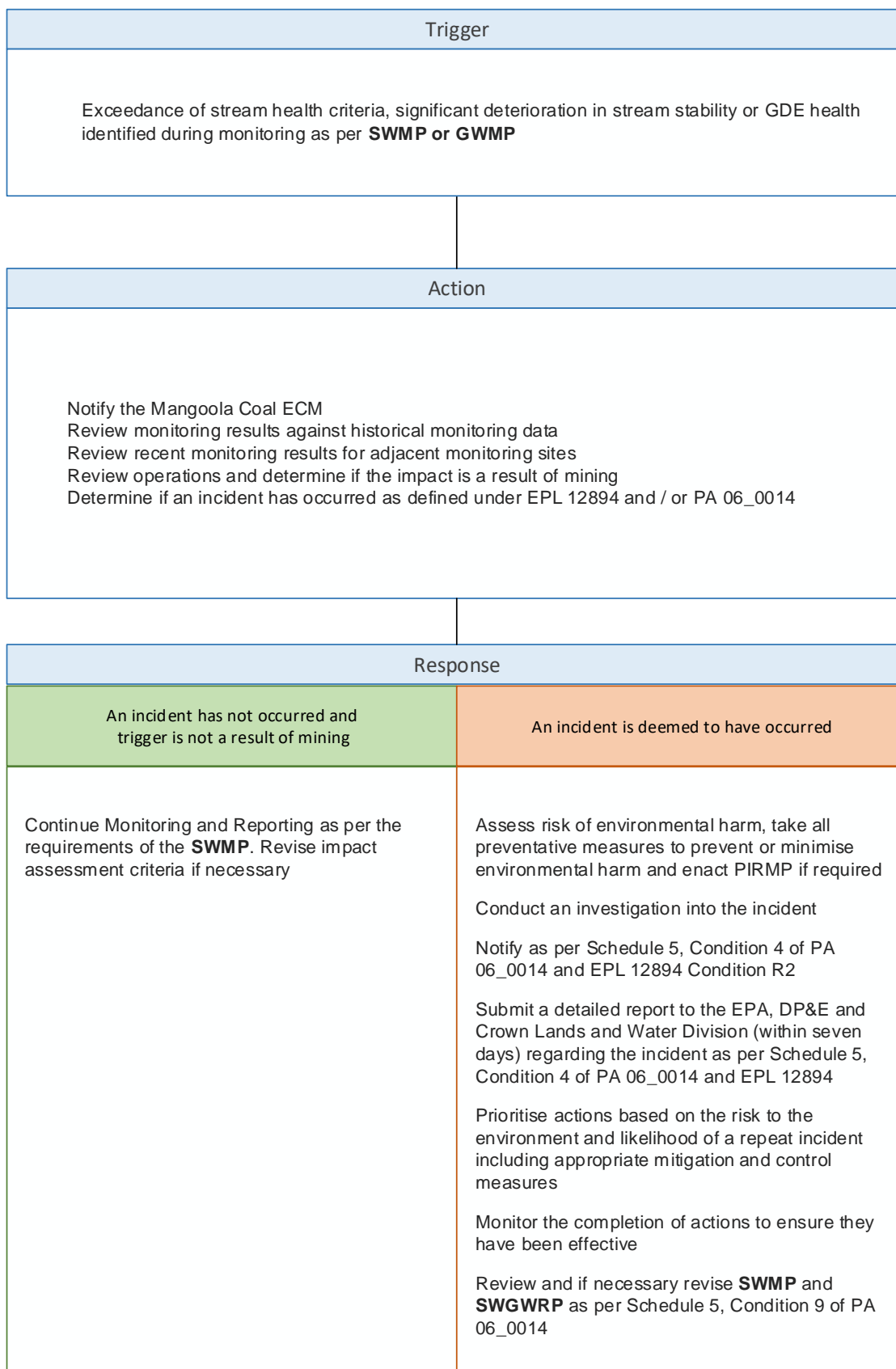


Figure 2.2

Discharge of Water from Dirty Water Management System

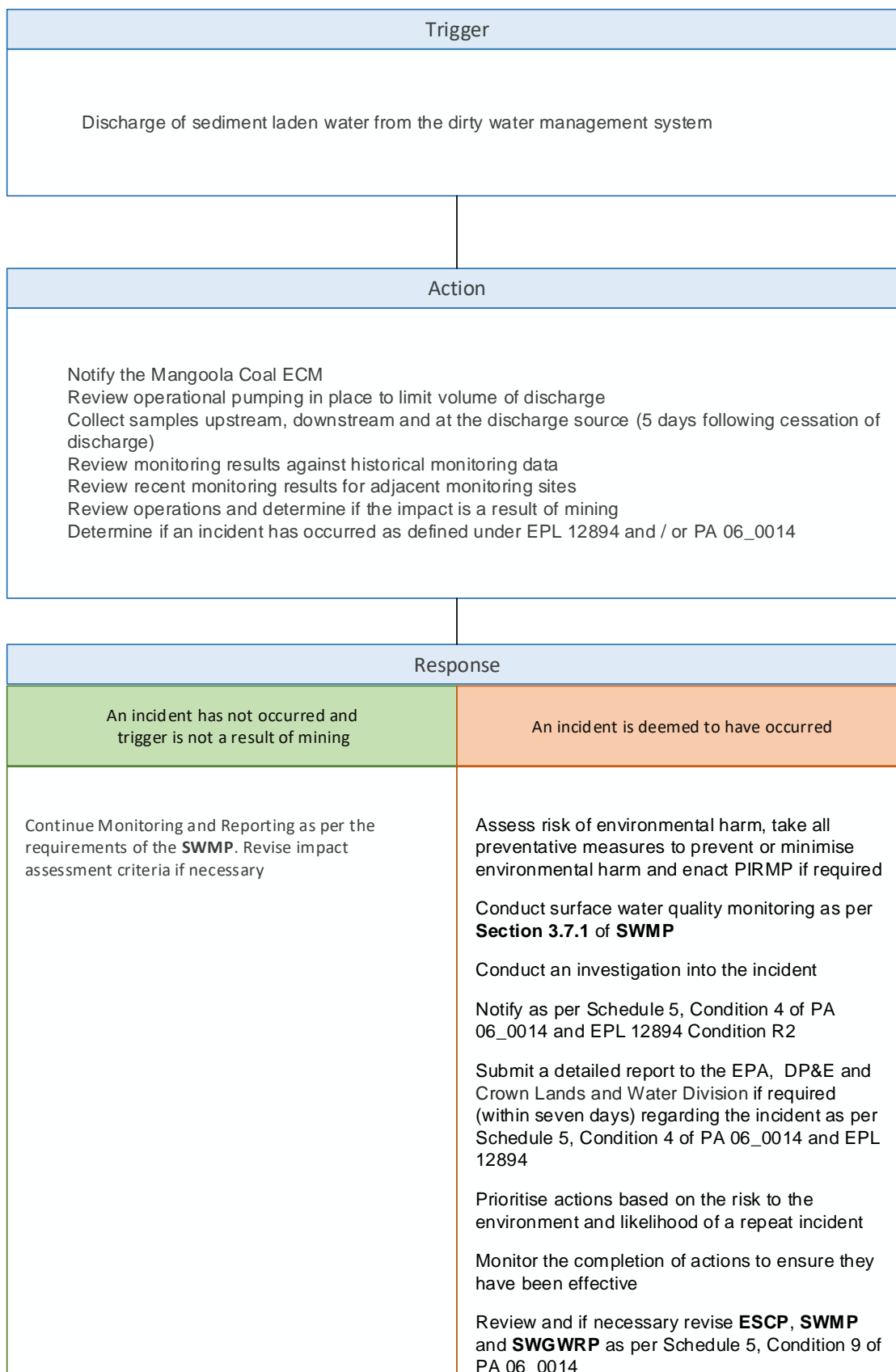


Figure 2.3

Discharge of Water from Saline Water Management System

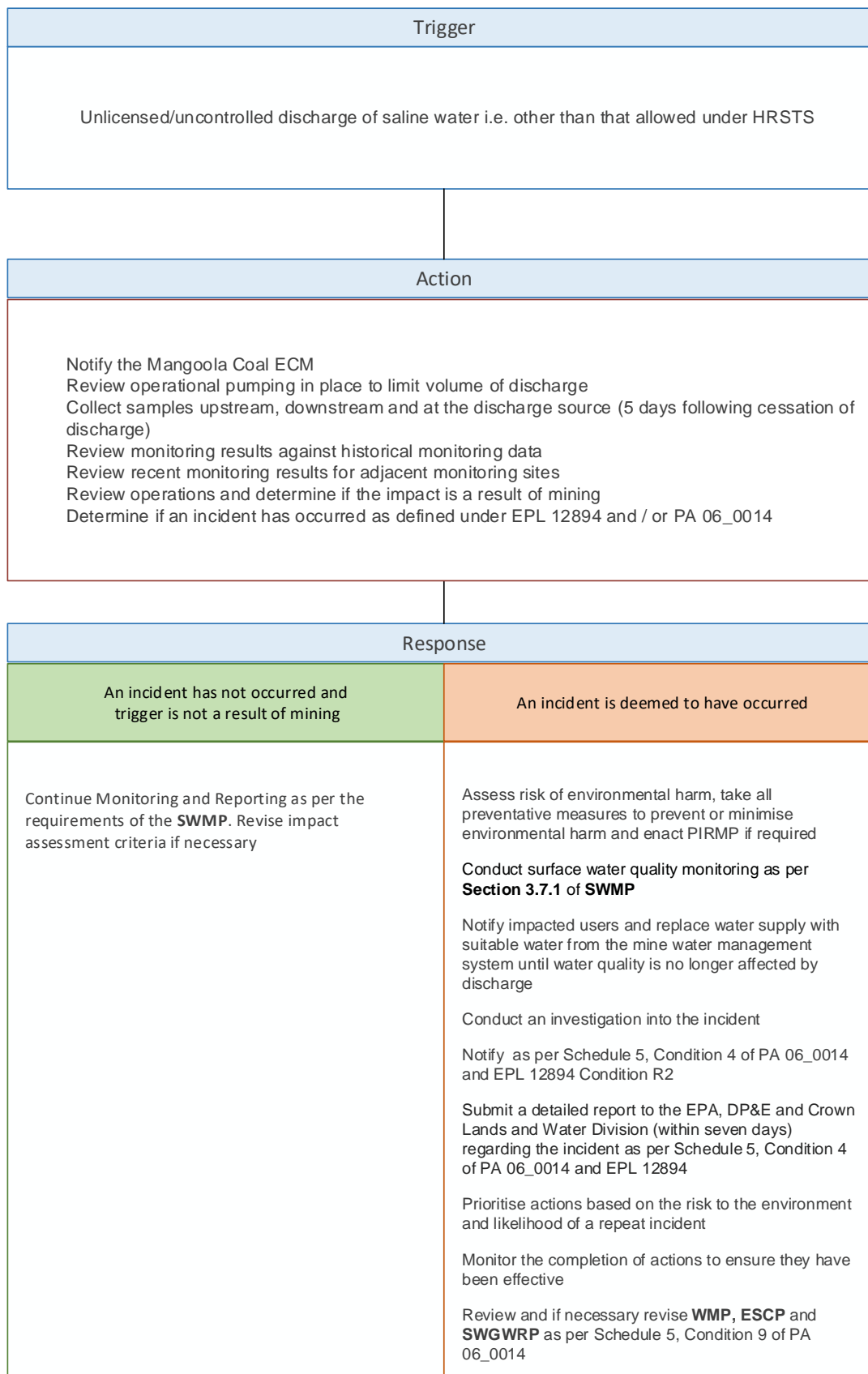


Figure 2.4

Surface Water Complaint

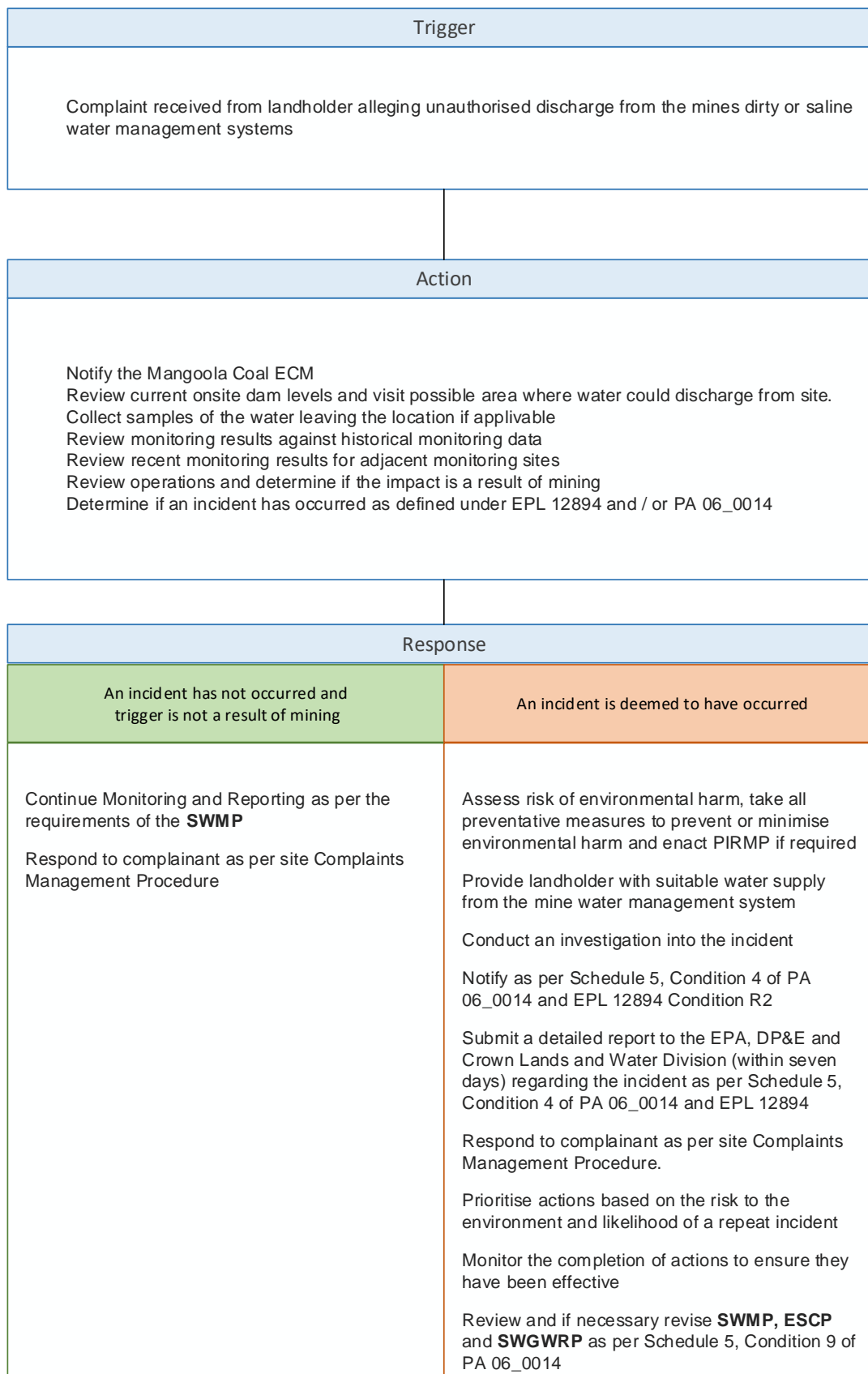


Figure 2.5

2.3 Groundwater Response Plans

Groundwater Management and Monitoring at Mangoola is outlined with the **WMP** and **GWMP**.

The TARP's outlined in **Figures 2.6 - 2.8** are implemented as per the predefined triggers listed in the **GWMP**.

Impact Assessment Criteria Exceeded for Quality and Standing Water Level

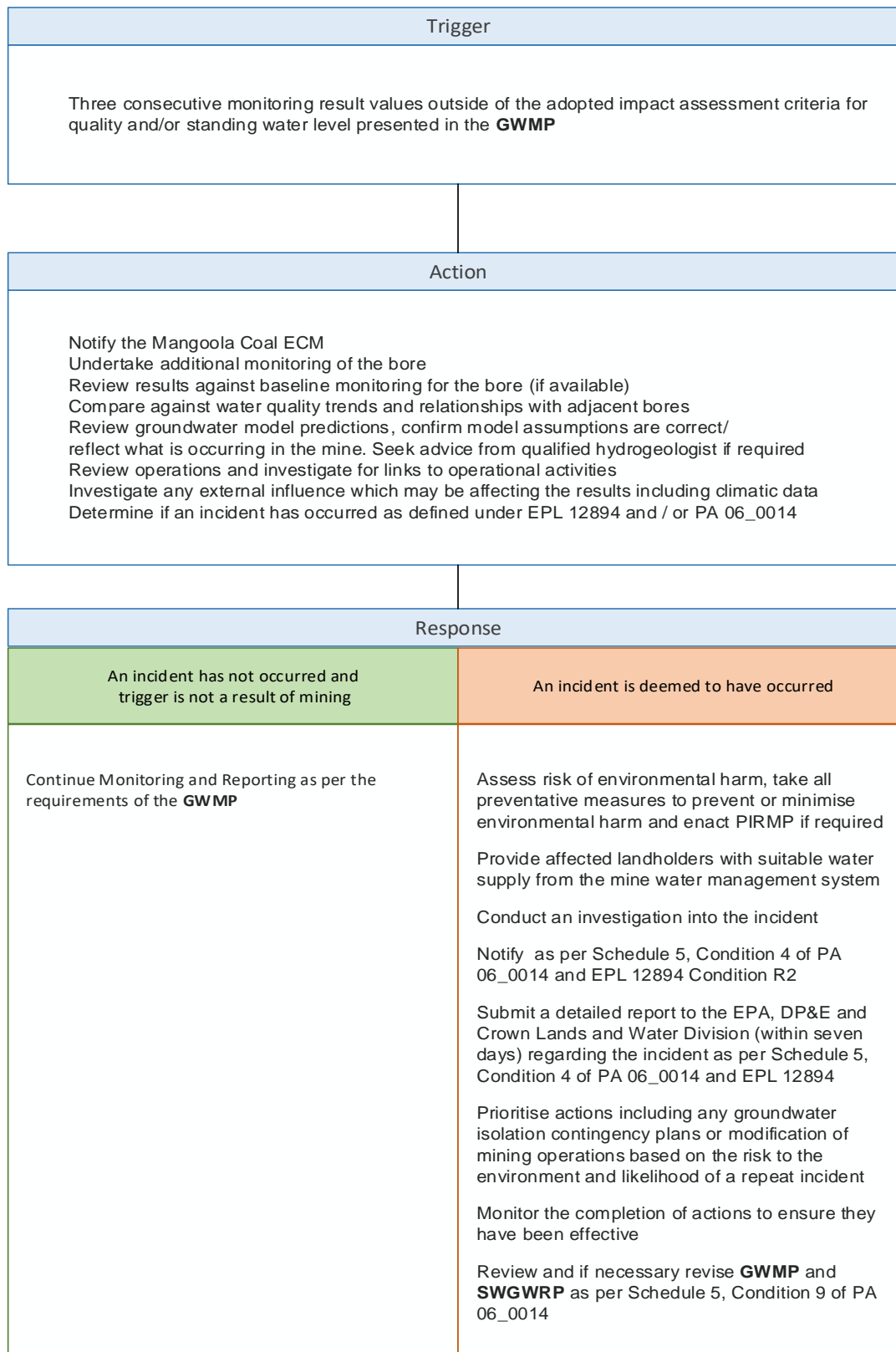


Figure 2.6

Groundwater extraction exceeding license limits or surface water inflows from Big Flat Creek

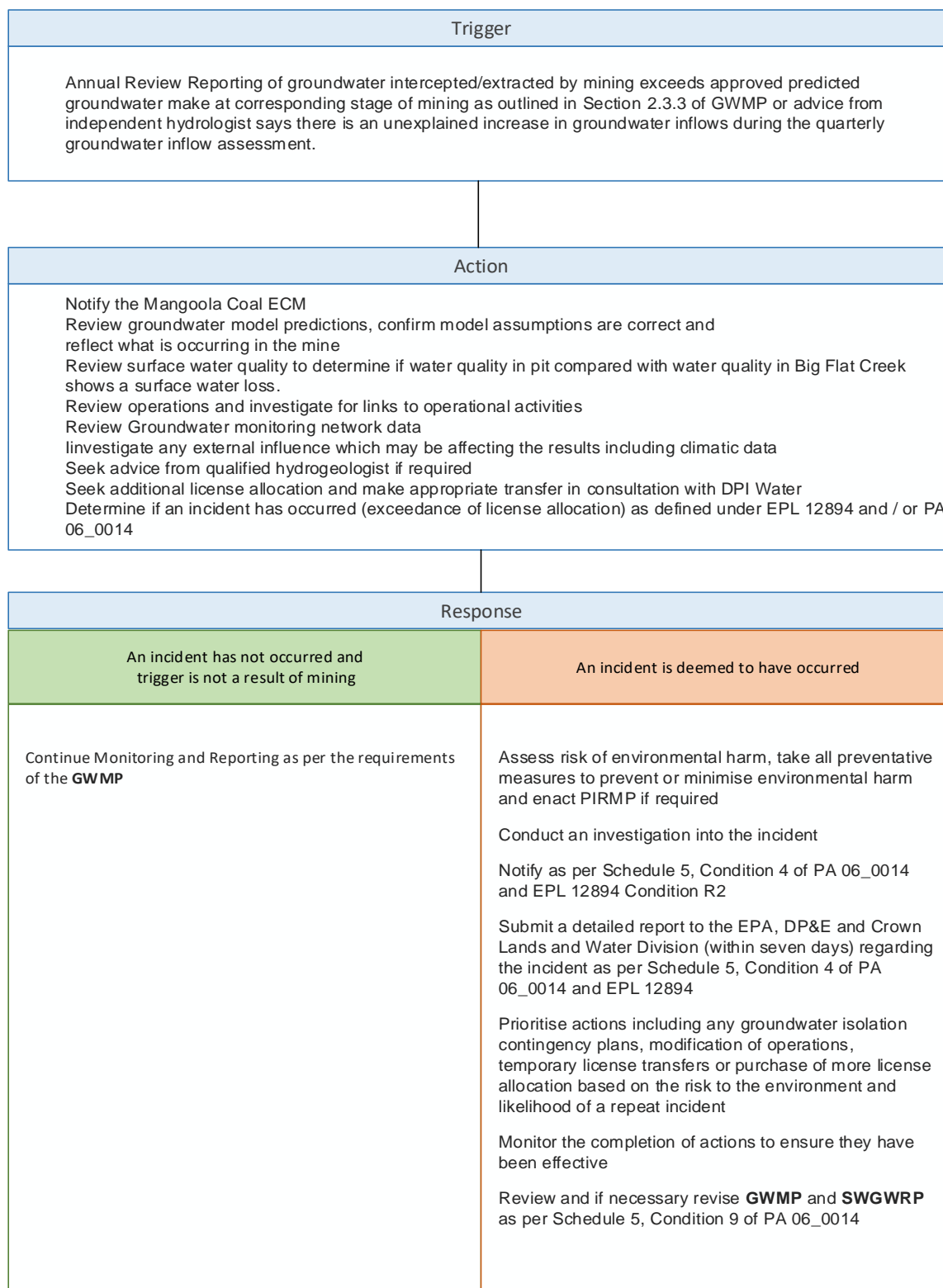


Figure 2.7

Groundwater Complaint

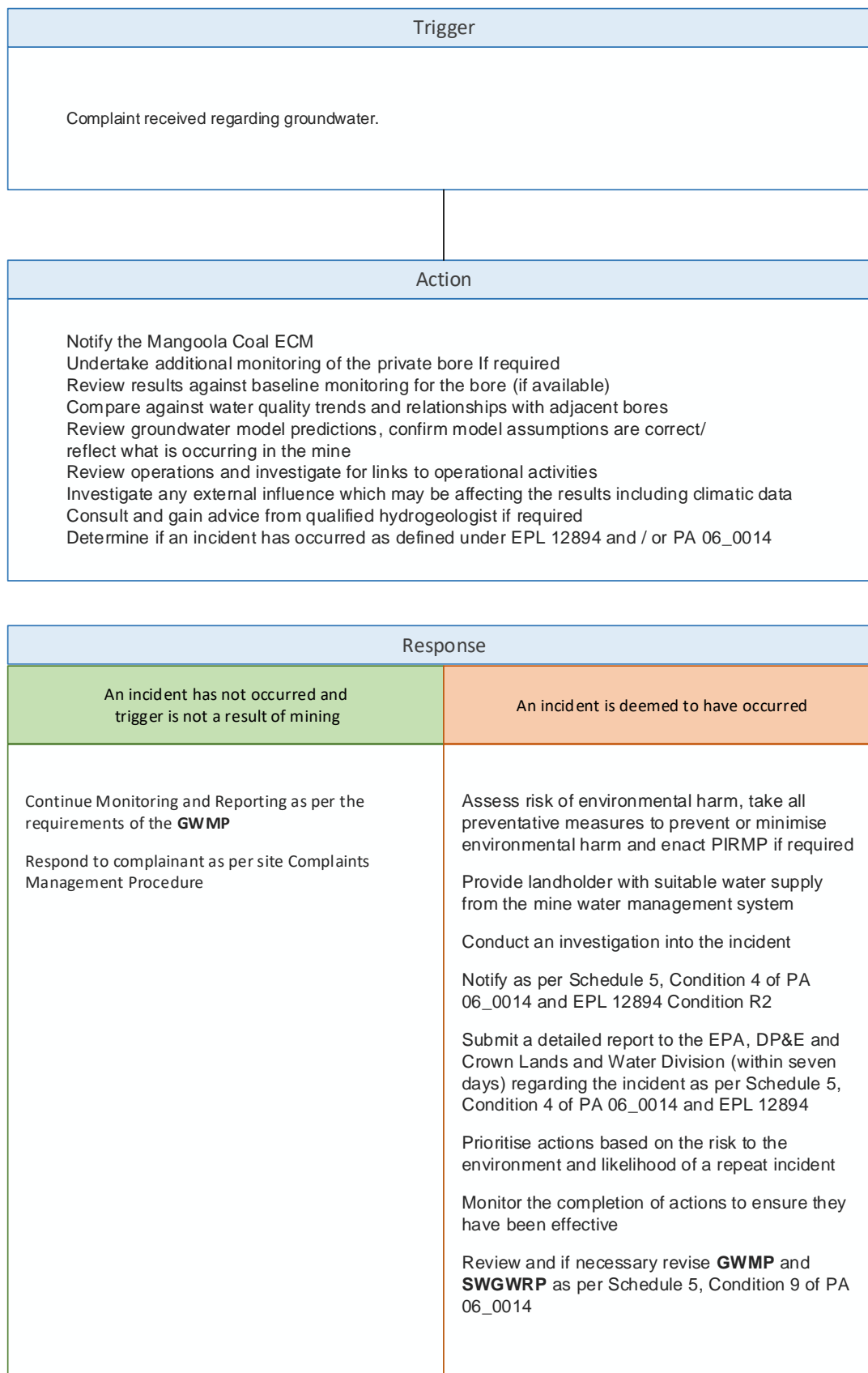


Figure 2.8

**Discharge of water from the Sandy Creek Farm Dams (SCFDs) and / or Raw
Water Dam Seepage Collection Sump (SCS)**

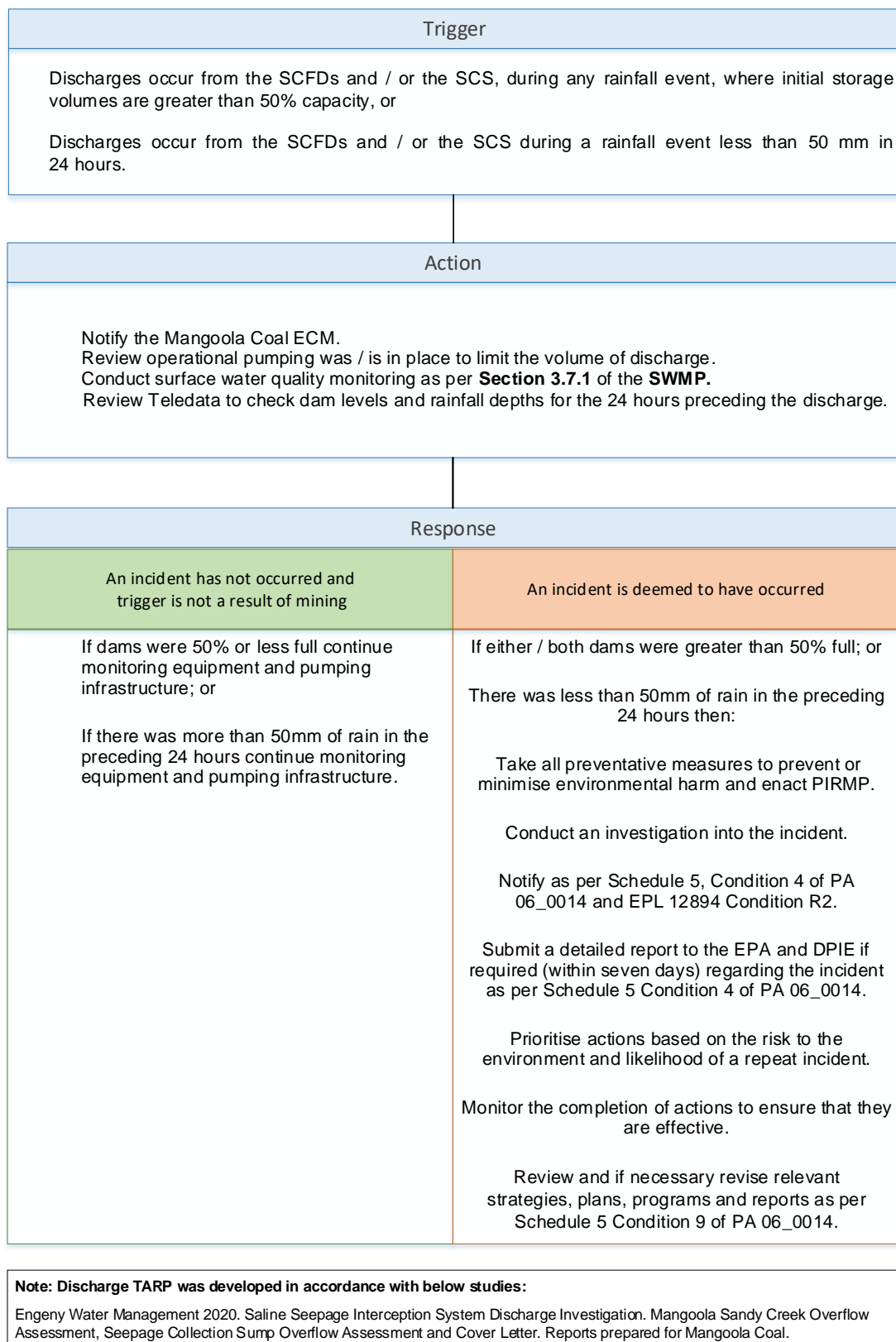


Figure 2.9

3 Reporting and Review

Reporting and review requirements are outlined in Section 9.0 of the **WMP**.

4 References

All references are included in **Section 10** of the **WMP**.

Appendix A – Authority Correspondence