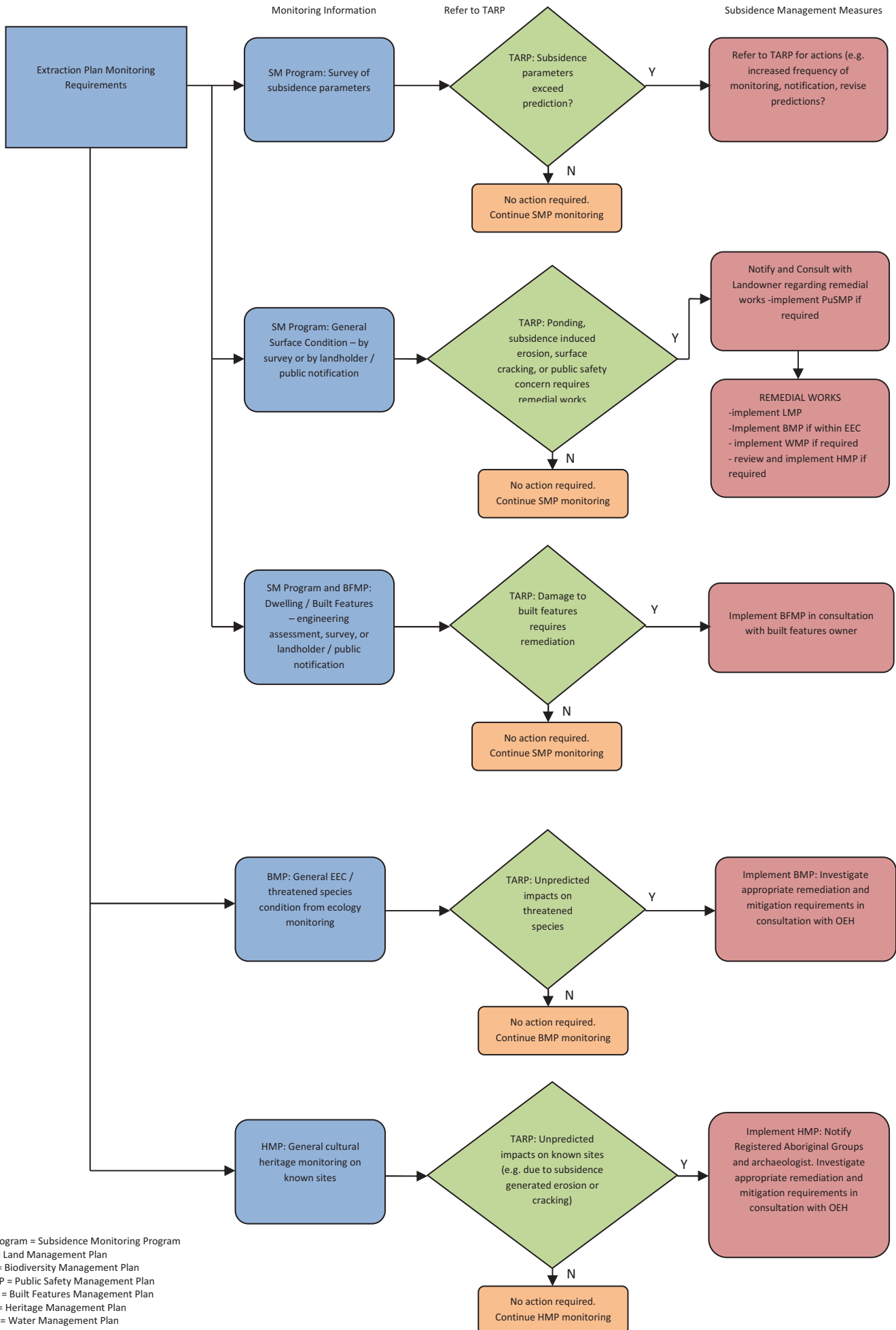


Appendix B

Extraction Plan Flowchart & TARP

EXTRACTION PLAN SUBSIDENCE MONITORING & MANAGEMENT FLOWCHART – PANELS 27 to 35



		ABEL MINE – TRIGGER ACTION RESPONSE PLAN (TARP) SUBSIDENCE MANAGEMENT PANEL 27 TO PANEL 35		
			CONTAINMENT / REMEDIATION MEASURES	ADAPTIVE MANAGEMENT MEASURES & CONTINGENCY PLANS
Triggers	SUBSIDENCE PARAMETERS	Normal LESS THAN MAXIMUM PREDICTED	Monitoring as per SM Program	
		Trigger Level 1 EXCEEDS MAX PREDICTED SUBSIDENCE PARAMETERS FOR EACH PANEL (by less than 15%)	Monitoring as per SM Program Notify OM, TSM and ECM	Review subsidence predictions based on monitoring data
		Trigger Level 2 EXCEEDS MAX PREDICTED SUBSIDENCE PARAMETERS FOR EACH PANEL (by more than 15%)	Notify P&E and DTRIS Notify affected landholders and/or infrastructure owners	Increase frequency of subsidence parameter monitoring Update subsidence predictions based on monitoring data Update impact assessment on natural and built features Review mine plan including panel width and pillar widths in consultation with P&E and DTRIS Review and update Extraction Plan
	PRINCIPAL RESIDENCES (PROTECTED)	Normal LESS THAN MAXIMUM PREDICTED 20mm	Monitoring as per SM Program & BFMP	
		Trigger Level 1 EXCEEDS MAX PREDICTED SUBSIDENCE PARAMETERS 20mm	Notify OM, TSM and ECM Notify P&E and DTRIS Notify affected landholder	Increase frequency of subsidence parameter monitoring Update impact assessment on principal residence Review mine plan including Subsidence Control Zones in consultation with P&E and DTRIS Review and update Extraction Plan
	BUILT FEATURES (PRIVATE PROPERTY)	Normal No damage requiring remediation	Monitoring as per Individual Built Features Management Plans (BFMP)	
		Trigger Level 1 Built Feature experience damage below Safe Serviceable Repairable (SSR) criteria	Notify landholder Assist landholder with information to aid in MSB claim Monitoring as per Individual Built Features Management Plans (BFMP) Implement measures as per the BFMP	Review impact assessment based on observed damage Review landholder BFMP
		Trigger Level 2 Built Feature experiences damage above Safe Serviceable Repairable (SSR) criteria	Notify landholder Notify P&E and DTRIS Assist landholder with information to aid in MSB claim Implement measures as per the BFMP	Update impact assessment based on observed damage Review landholder BFMP
	BUILT FEATURES (INFRASTRUCTURE) (POWERLINES, TELECOMMUNICATIONS & PUBLIC ROADS)	Normal No damage requiring remediation	Monitoring as per Individual Built Features Management Plans (BFMP)	
		Trigger Level 1 Built Feature experience damage below Safe Serviceable Repairable (SSR) criteria	Notify infrastructure owner Assist infrastructure owner with information to aid in MSB claim Monitoring as per Individual Built Features Management Plans (BFMP) Implement measures as per the BFMP	Review impact assessment based on observed damage Review individual BFMP for services in conjunction with Infrastructure owner to ensure these remain safe and serviceable
		Trigger Level 2 Built Feature experience damage above Safe Serviceable Repairable (SSR) criteria	Notify infrastructure owner Notify DTRIS Assist infrastructure owner with information to aid in MSB claim Monitoring as per Individual Built Features Management Plans (BFMP) Implement measures as per the BFMP	Update impact assessment based on observed damage Review individual BFMP for services in conjunction with Infrastructure owner to ensure these remain safe and serviceable
	SURFACE IMPACTS THAT RESULTS IN PUBLIC SAFETY ISSUES	Normal Minor cracking as detailed in LMP	Monitoring as per SM Program, LMP and PuSMP	
		Trigger Level 1 Moderate cracking, surface irregularities (ie humps), unstable trees	Notify landowner in accordance with PuSMP Rehabilitate landform, land use and ecosystem function to that of existing pre mining in accordance with LMP in consultation with landowner	Review impact assessment based on observed damage
		Trigger Level 2 Major cracking, surface irregularities (ie humps), erosion	Notify landowner in accordance with PuSMP Rehabilitate landform, land use and ecosystem function to that of existing pre mining in accordance with LMP in consultation with landowner	Update impact assessment based on observed damage Provide ongoing resources to prevent access to the affected area until remediation plan can be enacted
		Mass movement of steep slope	Notify DTRIS Implement public safety risk mitigation in accordance with PuSMP (notification, warning signs, traffic control)	Remediate in accordance with LMP
	WATERCOURSE MANAGEMENT (WATER QUALITY)	Normal		
		Trigger Level 1 Salinity (EC) levels above the trigger level occur for 3 consecutive months	Increase monitoring frequency of metals (Fe, Al, Mn) to monthly to establish whether water quality is being impacted by underground mining.	Review impact assessment
		Trigger Level 2 Fe, Al or Mn levels exceed the trigger level for 3 consecutive months	Investigate contaminant pathways to identify source of contamination through further assessment.	Develop mitigation plan to manage and remediate contamination
	WATERCOURSE MANAGEMENT (CHANNEL / BANK STABILITY)	Normal Minor cracking as detailed in LMP	Monitoring as per SM Program, LMP and PuSMP	
		Trigger Level 1 Moderate cracking in creek bed / banks, surface irregularities (i.e. humps), unstable trees, scouring of bed / banks	Rehabilitate landform, land use and ecosystem function to that of existing pre mining	Review impact assessment based on observed damage
		Trigger Level 2 Major cracking, surface irregularities (ie humps), major scouring of bed / banks	Rehabilitate landform, land use and ecosystem function to that of existing pre mining in accordance with LMP in consultation with landowner	Update impact assessment based on observed damage Provide ongoing resources to prevent access to the affected area until remediation plan can be enacted
	FLOOD AND PONDING	Normal No change in drainage or ponding	Monitoring as per SM Program and Land Management Plan	
		Trigger Level 1 Drainage or ponding impacts land use in a way it hadn't prior to subsidence or additional erosion due to change in water drainage patterns	Develop plan in consultation with landowner	Remediate in accordance with LMP
		Trigger Level 2 Ponding prevents access to property	Correct drainage to allow temporary access	Correct drainage flow to prevent future access issues
	CULTURAL HERITAGE	Normal No impact to identified sites	Monitoring as per HMP	
		Trigger Level 1 Remediation required in area of identified artefact Remediation encounters new Cultural Heritage site	Surface collection in accordance with HMP If sites found during remedial works notify Registered Aboriginal Parties and OEH, follow protocol in HMP	Temporary storage of sites for repositioning after works Complete Aboriginal Site Impact Recording Form per HMP
		Trigger Level 2 Subsidence impact on grinding groove		
	ECOLOGICAL MONITORING	Normal No impact of terrestrial flora and fauna	Monitoring as per Biodiversity Management Plan	
		Trigger Level 1 Isolated subsidence induced impact on terrestrial flora and fauna identified by Ecologist or SM Program	Develop remediation plan as appropriate in consultation with land owner	
		Trigger Level 2 Isolated subsidence induced impact on threatened terrestrial flora and fauna identified by Ecologist or SM Program	Determine if subsidence incident has occurred in consultation with specialists Review of monitoring data	Undertake corrective actions in consultation OEH and landowner Monitor after completion to ensure effectiveness
Responsibilities	OPERATIONS MANAGER	Ensure adequate resources are available to implement the Extraction Plan		
	TECHNICAL SERVICES MANAGER	Arrange monitoring as per the Built Features MP Arrange monitoring as per Land MP Arrange monitoring as per Public Safety MP Owner of the BFMP, LMP & PuSMP Owner of the Coal Resources Recovery Plan	Assist Built Feature owner with MSB claim Notify DRE and PSE of identified public safety issues Notify P&E and DRE of subsidence exceedance Notify landholder of subsidence exceedance Arrange temporary water replacement as required Arrange pre mining subsidence building inspections per BFMP	Update subsidence prediction and impact assessment as required Increase frequency of subsidence monitoring in consultation with PSE Signage and access restriction as per PuSMP Stabilise unstable structures Reduce safety hazards to that or pre mining Review mine plan as required in consultation with P&E and DRE
	ENVIRONMENT & COMMUNITY MANAGER	Arrange monitoring as per Biodiversity Management Plan Arrange monitoring as per HMP Arrange monitoring as per the Water Management Plan Owner of the BMP, HMP & WMP Seek access for monitoring programs	Rehabilitate landform in accordance with LMP, WMP, BMP and HMP Develop biodiversity remediation plan in consultation with land owner	Provide ongoing resources to prevent access to the affected area until remediation plan can be enacted Develop remediation strategy with OEH Correct drainage to prevent future access issues
	REGISTERED MINE SURVEYOR	Arrange monitoring as per Subsidence Monitoring Program Undertake subsidence monitoring as per SMP, LMP, BFMP and PuSMP		