

 BMA BHP Billiton Mitsubishi Alliance		<h2 style="text-align: center;">BROADMEADOW MINE</h2> <h3 style="text-align: center;">ISAAC RIVER SUBSIDENCE MANAGEMENT</h3> <h3 style="text-align: center;">TRIGGER ACTION RESPONSE PLAN</h3>			CONTROLLED DOCUMENT NO. BRM-TAR-00043 Version: 1.0 Status: Approved
Level	Green Normal	Yellow: Level 1 Response <i>Monitoring & preventative works</i>	Orange: Level 2 Response <i>Isolated significant works required</i>	Red: Level 3 Response <i>Large scale remediation activities required</i>	
TRIGGER CONDITION	No observed impact from watercourse subsidence.	Low level impacts including; <ul style="list-style-type: none"> - Minor bank erosion caused by subsidence - Vegetation dieback - Identified risk of erosion to pillar zones 	Isolated high level impact including; <ul style="list-style-type: none"> - Isolated severe erosion of banks and drainage lines - Damage to pile field zone - Damage to drop structure 	Significant impact to river including; <ul style="list-style-type: none"> - Mass bank failure - Stream migration - Complete failure of pile field/s - Complete failure of drop structure 	
ACTIONS					
Monitoring	<ul style="list-style-type: none"> - Annual Subsidence Monitoring - Piezometer monitoring 	<ul style="list-style-type: none"> - Pre wet season inspections - Post flow event inspections 	<ul style="list-style-type: none"> - Targeted RPEQ inspection 	<ul style="list-style-type: none"> - Full RPEQ inspection and review 	
Pre Subsidence Management	General land management activities including; <ul style="list-style-type: none"> - Weed control - Pest animal management - Grazing management - Fire management 	<ul style="list-style-type: none"> - Pillar zone pile field installation - Targeted bank vegetation establishment 			
Post Subsidence Remediation (indicative dependent on issue)	None required	<ul style="list-style-type: none"> - Minor drainage works including rock chutes - Minor bank remediation works including ripping - Targeted vegetation establishment 	<ul style="list-style-type: none"> - Installation of additional piles and rock armouring at pillar zones - Review and implement (where appropriate) RPEQ recommendations - Targeted river bed reshaping works and rock armouring of lower banks - Repair of drop structure - Large scale vegetation establishment campaign 	Major remediation works including; <ul style="list-style-type: none"> - Review design/redesign and construction of grade control structures and pile field installations - Large scale whole of panel bank battering works, subsoil treatment, top soiling and vegetation establishment 	
Management Strategy Review	None required	Annual review and improvement of remediation designs and strategy	Update of adaptive management strategy and review of SMP Risk Assessment	Full review of Subsidence Management Plan	