



**Haweswater Aqueduct Resilience Programme - Proposed Marl Hill
Section**

Environmental Statement

Volume 4

**Appendix 7.5: Earthworks Dewatering and Groundwater Flow
Disruption**

June 2021



Haweswater Aqueduct Resilience Programme - Proposed Marl Hill Section

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Location	Phase of works	Type of works	Name / Ref	Excavation works deeper than 1m (Y, N)	Depth excavation (m)	Max anticipated GW level (m BGL)	Dewatering expected (Y, N)	Zone of influence	SPZ identify	SPZ impact	SPZ Value	SPZ Magnitude	SPZ Significance	PWS identify	PWS impact	PWS Value	PWS Magnitude	PWS Significance	GWDE identify	GWDE impact	GWDE Value	GWDE Magnitude	GWDE Significance	Surface Water identify	Surface Water impact	Surface Water Value	Surface Water Magnitude																																		
Bonstone Compound	Enabling works phase	Lagoon	Bonstone Compound Attenuation Pond	Y	2	1	Y	4.24	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	No PWS identified within zone of influence.	n/a	n/a	n/a	n/a	No GWDE identified within zone of influence.	n/a	n/a	n/a	n/a	No surface water features identified within zone of influence.	n/a	n/a	n/a																																		
	Enabling works phase	Access track	Bonstone Compound Access Track / Haul Road	N		1	N	0.00	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	PWS4-1 located within the access road envelope.	Assumed no dewatering required for access road, therefore no dewatering impact expected, indirect effects possible due to ground disturbance and compaction.	Medium Sensitivity (fewer than 10 properties)	Major Adverse	Large	New Laithe north-downgradient of access road (High groundwater dependency).	Interception of groundwater flows in the short term.	medium (High gw dependence, not designated)	Moderate Adverse	Moderate	Watercourse 1365 located <10m south of access road at the Saldburn Road end.	Assumed no dewatering required for access road construction, therefore no dewatering impact is expected.	Low	n/a																																		
																												New Laithe south-directly in footprint of access road (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a	n/a																									
																																					New Laithe north-downgradient of access road (High groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (High gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a																
																																														New Laithe south-directly in footprint of access road (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a								
																																																						New Laithe north-downgradient of access road (High groundwater dependency).	Mobilisation of suspended solids.	medium (High gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a
	Blue gates- Low groundwater dependency.	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a																																																					
	Construction works phase	Open-cut	Bonstone Compound Connection - open cut section connecting the existing pipeline to the tunnel	Y	5	1	Y	16.97	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	No PWS identified within zone of influence.	n/a	n/a	n/a	n/a	No GWDE identified within zone of influence.	n/a	n/a	n/a	n/a	Watercourse 402 located approx. 9m north of the connection excavation.	Watercourse 402 is within radius of influence of groundwater drawdown, reduced contribution to baseflow expected during dewatering. However, abstracted water expected to be returned to Watercourse immediately downgradient, resulting in very localised impact on a small reach of the watercourse.	Low	Negligible																																		
	Construction works phase	Compaction	Bonstone Compound Area	N		1	N	0.00	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	Closest is PWS4-1 located within access road approx. 260m east.	Already affected by the access road so impact would not differ.	n/a	n/a	n/a	New Laithe north-downgradient of access road (High groundwater dependency).	Interception of groundwater flows in the short term.	medium (High gw dependence, not designated)	Moderate Adverse	Moderate	Watercourse 402	Assumed no dewatering required during construction of compound area, no dewatering impact expected, but indirect effects possible due to ground disturbance and compaction.	Low	n/a																																		
																												New Laithe south-directly in footprint of access road (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a																										
																																				New Laithe north-downgradient of access road (High groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (High gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a																		
New Laithe south-directly in footprint of access road (low groundwater dependency).																																												Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Moderate adverse	Slight	n/a	n/a	n/a											
																																																			New Laithe north-downgradient of access road (High groundwater dependency).	Mobilisation of suspended solids.	medium (High gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a			
																																																											New Laithe south-directly in footprint of access road (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)
New Laithe south-directly in footprint of access road (low groundwater dependency).	Interception of groundwater flows in the short term.	n/a	n/a	n/a	n/a	n/a	n/a																																																						
Braddup Compound Attenuation Pond	Lagoon	Braddup Compound Attenuation Pond	Y	2	1	Y	4.24	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	The exact location of PWS4-6 within the Braddup Compound is unknown so could be within the zone of influence.	Because the exact location of the spring is unknown, a worst case scenario would be a direct impact on the spring.	Medium Sensitivity (fewer than 10 properties)	Major Adverse	Large	No GWDE identified within zone of influence.	n/a	n/a	n/a	n/a	No surface water feature identified within zone of influence. Closest surface water feature approx. 60m east.	n/a	n/a	n/a																																			
Enabling works phase	Access track	Braddup Compound Access Track / Haul Road	N		1	N	0.00	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	The exact location of PWS4-6 within the Braddup Compound is unknown so could be within the zone of influence.	Because the exact location of the spring is unknown, a worst case scenario would be a direct impact on the spring.	Medium Sensitivity (fewer than 10 properties)	Major Adverse	Large	Braddup House- low groundwater dependency.	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Large	Unnamed watercourses 430, 431, 433, 436, 449, 463 and Sandy Ford Brook all cross the proposed access track/haul road (or are in close proximity).	Assumed no dewatering required during construction of access road, therefore no dewatering impact expected, but indirect effects possible due to ground disturbance and compaction. Access road already exists so minimal impact expected from widening works.	n/a	n/a																																			
																											Braddup House- low groundwater dependency.	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a																											
																																			Braddup House- low groundwater dependency.	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a																			
																																											Whinny Lane East- within works footprint (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a											

Location	Phase of works	Type of works	Name / Ref	Excavation works deeper than 1m (Y, N)	Depth excavation (m)	Max anticipated GW level (m BGL)	Dewatering expected (Y, N)	Zone of influence	SPZ identify	SPZ impact	SPZ Value	SPZ Magnitude	SPZ Significance	PWS identify	PWS impact	PWS Value	PWS Magnitude	PWS Significance	GWDE identify	GWDE impact	GWDE Value	GWDE Magnitude	GWDE Significance	Surface Water identify	Surface Water impact	Surface Water Value	Surface Water Magnitude	
Braddup Compound																			Whinny Lane East-within works footprint (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Moderate	n/a	n/a	n/a	n/a	
																			Whinny Lane East- south area (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a	
																			Whinny Lane East- south area (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a	
																			Whinny Lane East- north and upgradient (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a	
																			Whinny Lane East- north and upgradient (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																				Whinny Lane East-within works footprint (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a
																				Whinny Lane East-within works footprint (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a
																				Whinny Lane East- south area (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																				Whinny Lane East- south area (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																				Whinny Lane East-within works footprint (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a
																				Whinny Lane East-within works footprint (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a
																				Whinny Lane East- south area (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																				Whinny Lane East- south area (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																				Slaidburn road west-within works footprint (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a	n/a
																				Slaidburn road west-within works footprint (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Moderate	n/a	n/a	n/a	n/a
																				Slaidburn Road West-centre of site (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																				Slaidburn Road West-centre of site (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																				Slaidburn road west-within works footprint (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a
																				Slaidburn road west-within works footprint (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a
																				Slaidburn road west-within works footprint (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a
																			Slaidburn road west-within works footprint (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a	
Construction works phase	Overflow		New Ribblesdale North Well Overflow (Overflow at Braddup)	Y	5	1	Y	16.97	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	No PWS identified within zone of influence.	n/a	n/a	n/a	n/a	Braddup House-north east part of site directly within works footprint (low groundwater dependency).	Overflow dewatering (groundwater levels / flows).	low (low gw dependence, not designated)	Major Adverse	Large	Cow Hey Brook located approx. 10m west.	Cow Hey Brook is within range of the radius of influence of groundwater drawdown, a reduced contribution to baseflow would be expected during dewatering. However it would be expected that the abstracted water be returned to Cow Het Brook immediately downgradient, resulting in a very localised impact on a small stretch of the watercourse.	Medium	Minor Adverse	
Construction works phase	Open-cut		Braddup Compound Connection - open cut section connecting the existing pipeline to the tunnel	Y	5	1	Y	16.97	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	The exact location of PWS4-6 within the Braddup Compound is unknown so could be within the zone of influence.	Because the exact location of the spring is unknown, a worst case scenario would be a direct impact on the spring.	Medium Sensitivity (fewer than 10 properties)	Major Adverse	Large	Braddup House- east of site directly within works footprint (low groundwater dependency).	Open-cut connection dewatering (groundwater levels / flows).	low (low gw dependence, not designated)	Major Adverse	Large	No surface water feature identified within zone of influence. Closest surface water feature approx. 60m southwest.	n/a	n/a	n/a	n/a

Location	Phase of works	Type of works	Name / Ref	Excavation works deeper than 1m (Y, N)	Depth excavation (m)	Max anticipated GW level (m BGL)	Dewatering expected (Y, N)	Zone of influence	SPZ identify	SPZ impact	SPZ Value	SPZ Magnitude	SPZ Significance	PWS identify	PWS impact	PWS Value	PWS Magnitude	PWS Significance	GWDE identify	GWDE impact	GWDE Value	GWDE Magnitude	GWDE Significance	Surface Water identify	Surface Water impact	Surface Water Value	Surface Water Magnitude				
Braddup Compound	Construction works phase	Compaction	Braddup Compound Area	N		1	N	0.00	No SPZ identified within zone of influence.	n/a	n/a	n/a	n/a	The exact location of PWSA-6 within the Braddup Compound is unknown.	Because the exact location of the spring is unknown, a worst case scenario would be a direct impact on the spring.	Medium Sensitivity (fewer than 10 properties)	Major Adverse	Large	Braddup House- within works footprint (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Minor Adverse	Neutral	Cow Hey Brook crosses the compound in the west. Sandy Ford Brook and Watercourse 444 are close to compound perimeter.	Assumed no dewatering required during construction compound area, therefore no dewatering impact expected, but indirect effects possible due to ground disturbance and compaction.	Medium / High / Low	n/a				
																					Braddup House- downgradient of access track (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a		
																						Braddup House- downgradient of access track (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																						Braddup House- within works footprint (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																						Braddup House- within works footprint (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																						Braddup House- within works footprint (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																						Braddup House- within works footprint (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a	
																							Whinny Lane East- centre of site (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a	n/a
																							Whinny Lane East- centre of site (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Moderate	n/a	n/a	n/a	n/a
																							whinny lane east- downgradient of access track (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Moderate Adverse	Moderate	n/a	n/a	n/a	n/a
																							whinny lane east- downgradient of access track (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Moderate Adverse	Slight	n/a	n/a	n/a	n/a
																							Whinny Lane East- centre of site (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																							Whinny Lane East- centre of site (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																							Whinny Lane East- centre of site (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																							Whinny Lane East- centre of site (low groundwater dependency).	Mobilisation of suspended solids.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																							Slaidburn road- west within works footprint (moderate groundwater dependency).	Interception of groundwater flows in the short term.	medium (moderate gw dependence, not designated)	Major Adverse	Large	n/a	n/a	n/a	n/a
																							Slaidburn road west- within works footprint (low groundwater dependency).	Interception of groundwater flows in the short term.	low (low gw dependence, not designated)	Major Adverse	Moderate	n/a	n/a	n/a	n/a
																							Slaidburn road west- within works footprint (moderate groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																							Slaidburn road west- within works footprint (low groundwater dependency).	Accidental leaks / spills, of fuels and chemicals, including cement and sewage.	low (low gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a
																							Slaidburn road west- within works footprint (moderate groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Minor Adverse	Slight	n/a	n/a	n/a	n/a
																			Slaidburn road west- within works footprint (low groundwater dependency).	Mobilisation of suspended solids.	medium (moderate gw dependence, not designated)	Minor Adverse	Neutral	n/a	n/a	n/a	n/a				

Location	Surface Water Significance	Infrastructure / Building Identify	Infrastructure / Building Impact	Infra / Building Value	Infra / Building Magnitude	Infra / Building Significance	Cultural Heritage Identify	Cultural Heritage Impact	Heritage Value	Heritage Magnitude	Heritage Significance	Contaminated Land Identify	Contaminated Land Impact	Aquifer Value	Contamination Magnitude	Contamination Significance	
Bonstone Compound	n/a	No infrastructure / buildings within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	
	n/a	The access track already exists, but will be widened.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Neutral	No infrastructure / buildings within zone of influence.	n/a	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Compound has a slight overlap with historical Stockpile A to the south.	Assumed no excavation works will be undertaken during compound construction, therefore no dewatering or related impacts.	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Braddup Compound	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	
	n/a	The access track already exists, but will be widened.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	None identified within zone of influence.	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Location	Surface Water Significance	Infrastructure / Building Identify	Infrastructure / Building Impact	Infra / Building Value	Infra / Building Magnitude	Infra / Building Significance	Cultural Heritage Identify	Cultural Heritage Impact	Heritage Value	Heritage Magnitude	Heritage Significance	Contaminated Land Identify	Contaminated Land Impact	Aquifer Value	Contamination Magnitude	Contamination Significance
Braddup Compound	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Slight	Open cut section cuts across farm track at the north and southern extents.	Damage to track from the open cut crossing would be made good after the work. Dewatering effects would create no noticeable differential settlement.	Low (farm track serving a single property)	Negligible	Neutral	None identified within zone of influence.	n/a	n/a	n/a	n/a	n/a	None in zone of influence.	n/a	n/a	n/a
n/a	Open cut section cuts across farm track at the north and southern extents.	Damage to track from the open cut crossing would be made good after the work. Dewatering effects would create no noticeable differential settlement.	Low (farm track serving a single property)	Negligible	Neutral	None identified within zone of influence.	n/a	n/a	n/a	n/a	n/a	None in zone of influence.	n/a	n/a	n/a	n/a

Location	Surface Water Significance	Infrastructure / Building Identify	Infrastructure / Building Impact	Infra / Building Value	Infra / Building Magnitude	Infra / Building Significance	Cultural Heritage Identify	Cultural Heritage Impact	Heritage Value	Heritage Magnitude	Heritage Significance	Contaminated Land Identify	Contaminated Land Impact	Aquifer Value	Contamination Magnitude	Contamination Significance
Braddup Compound	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	None in zone of influence.	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a