Tarago Action Plan Routine Inspection Checklist

Date:	20-Apr-23	UGL RL Environmental Representative completing inspection[1]:	[redacted]
Start time:	8:31 AM		
Finish time:	9:23 AM		
Weath	11.3°C, wind 17 km/hr ENE, 87% humidity, 0.0mm rain since 9am yesterday, cloudy, chance of fog/rain, light winds		BoM
Date and volume of maximum rainfall in a 24hr period since last inspection?			
Date:	30-Mar-23		
Max volume (mm) in 24hr period:	18.2		

General Site Observations

Is airborne dust from site evident?

No airborne dust was visible (**Photo 1**)

Is sediment run-off evident that is not captured by sediment controls?

No. Some evidence of sediment was observed in pooled water on site downgradient of the middle culvert (**Photos 6 - 7**), however there was no evidence of run-off of this water from site. No evidence of sediment run-off past northern and southernmost rail culverts (**Photos 2 - 5**).

Is surface water discharging from site?

Yes. Surface water discharging at a very slow rate from southern culvert. Some pooled water observed on site and immediately dowstream of middle culvert but not discharging off site. No surface water at northern culvert (**Photos 2-7**)

Is there evidence of excavation or other works non-compliant with the Action Plan?

No

Other observations?

As per recommendation from the March Inspection Checklist (dated 15-Mar-23), vegetation maintenance on the stockpile was conducted (**Photo 24**). Additionally as per recommendation from the previous Inspection Checklist (dated 28-Mar-23), minor marker layer exposure noted in two places on the eastern side of the stockpile has been patched (**Photos 22 - 23**).

Minor marker layer exposure was noted in three places on the western side of the stockpile (**Photos 19 - 21**). Ramboll recommends repairing these by patching with sand and cement mixture. UGL representative on site was notified of location and marked these with spray paint.

Evidence of erosion was noted upgradient of the southern most culvert (**Photo 25 - 26**) however no evidence of sediment was found in water flowing offsite at southern culvert. Ramboll recommends replacing ground cover material (ballast) if further erosion occurs or sediment is visible in the downstream surface water of the southern culvert.

Evidence of build up of sediment in some rock armoury and silt fences upgradient of southern and middle culverts (**Photos 27 - 30**). Ramboll recommends removing silt build up on fences using a shovel and replacing rocks with sediment build up in rock armouries.

Ramboll notes that the major damage to the silt fencing uphill of the rail line (western side) and to the south of the middle culvert remains (**Photo 11**). Ramboll recommends this silt fencing be replaced as soon as possible.

s	Control	Inspection	Corrective Action

[1]Action Plan inspections must be completed by a UGL Representative suitably trained and experienced in application and management of erosion and sediment controls including stockpile management.

s	Control	Yes	No	Corrective Action
5.1	Is Exclusion Zone signage present as recommended on Figures 2a - 2e Appendix 1 to demarcate contamination in the rail formation and adjacent soils?	Yes (**Photos 17 - 18**)		
	Is Exclusion Zone signage undamaged?	Yes, signage was in good condition (**Photos 17 - 18**)		
	Are sediment controls present in/adjacent each rail culvert?	Yes, rock checks and rock armour observed upgradient of each culvert (**Photos 8, 11, 12, 16**). Silt fencing west of former woodlawn siding and along cess drain feeding the south and middle culverts (**Photos 9 - 10, 14**).		
	If sediment is present what is the estimated depth of sediment?	Minor sediment present in pooled water on site (**Photo 6**) (~3mm), sediment present on silt fencing and rock checks (~2cm) (**Photos 27 - 30**)		
	Are sediment controls still functional?	Yes, with the exception of silt fencing located south west of middle culvert (**Photo 11**). Refer to 'Other Observations' for recommendations.		
	Is the existing stockpile covered securely to prevent surface water infiltration?	Yes		
	Are cracks present in the capping of the existing stockpile? If so record the width and length of cracks in written form and through photographs and consolidate with this checklist.	Yes, minor hairline cracking is present on the stockpile (observed during an inspection 15/03/23), these remain stable and are not expected to adversely affect cap competency in current condition.		
	Are there signs of erosion or sediment run-off on or relating to the existing stockpile? If so record in written form and through photographs and consolidate with this checklist.	No. No erosion of, or sediment from the stockpile was observed.		
	Are there signs of vegetation on the existing stockpile? If so record in written form and through photographs and consolidate with this checklist.	No, weeds previously growing out of stockpile had been removed due to vegetation maintenance (**Photo 24)**.		
	Is geofabric marker layer visible beneath capping of the existing stockpile? If so record in written form and through photographs and consolidate with this checklist. If marker layer is visible rectification work is required.	Yes, geofabric marker layer visible in three locations on west of stockpile. Location and size detailed in **Photos 19 - 21**, refer to 'Other Observations' section for recommendations.		
7.3	Have any additional stockpiles of contaminated material been created?	No		
	Are additional stockpiles placed away from drainage lines, gutters, stormwater pits or inlets?	n/a no additional stockpiles		
	Are stockpiles covered securely to prevent surface water infiltration?	n/a no additional stockpiles		
	Are stockpiles positioned on level surfaces with construction of bunds to control water ingress / egress.	n/a no additional stockpiles		

[1]Action Plan inspections must be completed by a UGL Representative suitably trained and experienced in application and management of erosion and sediment controls including stockpile management.

Photo 1: Picture of railway station facing south west. No airborne dust visible in air or on surfaces.

Photo 2: Immediately downgradient of southernmost culvert. Very slow surface water run off from site. Water was clear with no turbidity and no visible sediment. High reeds and vegetation adding natural filters for sediment.

Title:	**Tarago Rail Yard Inspection**	**Approved:** **SM**	**Project-Nr.:** **318001704**	**Date:** **April 2023**
Site:	**Tarago, NSW**			
Client:	**UGL Regional Linx**			

Photo 3: Inlet of culvert under Golburn street, downgradient of southernmost culvert on site, showing evidence of minor surface water run off on site. Water is clear with no observable sediment.

Photo 4: Outlet of culvert under Golburn street, downgradient of southernmost culvert on site, showing evidence of minor surface water run off on site. Water remains clear with no observable sediment.

Photo 5: Downgradient of northernmost culvert facing private property, showing no evidence of surface water run off on site and no evidence of sediment from previous surface water on site.

Photo 6: Downgradient of middle culvert. Pooled water but no evidence of current surface water run off on site. Minor sediment run off visible in pooled water on site.

Photo 7: Causeway downgradient of middle culvert showing no evidence of current surface water run off on site. No visible sediment on road or vegetation nearby.

Photo 8: Upgradient of southernmost culvert showing evidence of minor surface water run off on site. No visible sediment observed beyond rock armoury.

Photo 9: Upgradient of southernmost culvert showing silt fencing used as control measures for sediment control.

Photo 10: Rock checks and silt fences running alongside former Woodlawn siding towards the middle culvert. Moderate sediment build up on rock checks or fencing.

Title:	**Tarago Rail Yard Inspection**	**Approved:** **SM**	**Project-Nr.:** **318001704**	**Date:** **April 2023**
Site:	**Tarago, NSW**			
Client:	**UGL Regional Linx**			

Photo 11: Rock checks and silt fences running alongside former Woodlawn siding towards the middle culvert. Major damage to silt fencing remaining on southern side. No evidence of sediment build-up in rock armoury.

Photo 12: Upgradient of middle culvert showing minor signs of sediment in rock checks but no surface water discharge from site.

Title:	**Tarago Rail Yard Inspection**	**Approved:** **SM**	**Project-Nr.:** **318001704**	**Date:** **April 2023**
Site:	**Tarago, NSW**			
Client:	**UGL Regional Linx**			

Photo 13: Upgradient of middle culvert facing west, showing pooling on site in Mulwaree River tributary. Water is clear with no signs of turbidity and sediment.

Photo 14: Silt fencing north of the middle culvert. Some erosion evidence of soil and build up of sediment on silt fencing.

Photo 15: Geofabric filter over drain inlet between the main and loop lines as per recommendations from Inspection Checklist dated 15-Mar-23. Evidence of sediment capture.

Photo 16: Upgradient of northernmost culvert, showing sediment control measures of rock armoury

Photo 17: Exclusion zone signing placed periodically along contamination areas. Reverse side of more signing can be seen on opposite side of railway track.

Photo 18: Additional exclusion zone signing placed periodically along contamination areas. Reverse side of more signing can be seen on opposite side of railway track.

Photo 19 Hairline cracking in stabilised sand applied to the stockpile for capping. Geofabric marker layer visible. UGL on site representative was notified and marked this with spray paint. Approximately 10cm x 2cm.

Photo 20. Geofabric marker layer visible in stockpile capping UGL on site representative was notified and marked this with spray paint. Approximately 10cm x 2cm.

Photo 21. Geofabric marker layer visible in stockpile capping UGL on site representative was notified and marked this with spray paint. Approximately 8cm x 1.5cm.

Photo 22. Geofabric marker layer previously visible has been patched as per recommendations from Inspection Checklist dated 28-Mar-23.

Photo 23. Geofabric marker layer previously visible has been patched as per recommendations from Inspection Checklist dated 28-Mar-23.

Photo 24. Vegetation maintenance nearby the stockpile had been undertaken. Overgrown weeds and grass cleared from capping and surrounding base.

Photo 25. Visible evidence of erosion created by loss of ground cover (ballast material on top) upgradient of southernmost culvert. No visible evidence of sediment in water downstream of culvert despite erosion evidence.

Photo 26. Visible evidence of erosion due to silt fencing diverting water. No visible evidence of sediment in water downstream of culvert despite erosion evidence. Ramboll recommends removal of silt above fencing to allow better water flow.

Photo 27. Build-up of sediment in rock armoury. Ramboll recommends replacing new rock armoury.

Photo 28. Build-up of sediment in rock armoury. Ramboll recommends adding additional rocks to armoury.

Photo 29. Build-up of sediment in silt fencing armoury. Ramboll recommends removing silt above fencing using a shovel.

Photo 30. Build-up of sediment in silt fencing armoury. Ramboll recommends removing silt above fencing using a shovel.

Title:	**Tarago Rail Yard Inspection**	**Approved:** **SM**	**Project-Nr.:** **318001704**	**Date:** **April 2023**
Site:	**Tarago, NSW**			
Client:	**UGL Regional Linx**			