

7 August, 2023

Dear [REDACTED],

Re: Direction made under condition A5 of Sydney Metro Western Sydney Airport project (SSI-10051) for Erosion and Sediment Control

Reference is made to the Sydney Metro General Correspondence, *Sydney Metro WSA - SBT - Dept of Planning and Environment's Direction made under condition A5 of SMWSA Project (SSI-10051) for Erosion and Sediment Control* (Ref No: SMWSASBT-SMD-GEN000465) dated 9 June 2023.

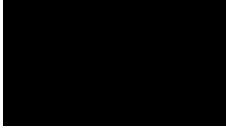
The SBT Contractor provides the below status table in response to the actions undertaken by the SBT Contractor for the 5 June 2023, Planning Secretary's Directions to Sydney Metro.

Direction		Status 07/08/23
1	You shall submit to DPE a first audit of the erosion and sediment control measures (the measures) as installed on each active construction site comprising the Station Box and Tunnelling Stage of the project. The audit shall be conducted between 25 May and 30 June 2023 (inclusive) and submitted to DPE on or before 7 July 2023. This audit shall be conducted by a CPESC. The audit shall assess the adequacy of the measures having regard to Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Subplan.	Audits of the implementation of ERSED controls at all off-airport sites were undertaken on 29 May and 9 June 2023. The audit was conducted by [REDACTED] CPESC and Director of SEEC. Report sent on 7 July 2023.
2	You shall submit to DPE a second audit of the erosion and sediment control measures (the measures) as installed on each active construction site comprising the Station Box and Tunnelling Stage of the project. The audit shall be conducted within July 2023 and no less than 4 weeks after the first audit required by Direction 1. The second audit shall be submitted to DPE on or before 7 August 2023. This audit shall be conducted by a CPESC. The audit shall assess the adequacy of the measures having regard to Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Subplan.	[REDACTED] attended and assessed the adequacy of the measures having regard to Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Subplan on 27 July 2023 for the second audit. Report attached.
3	If an audit prepared under Directions 1 or 2 identifies any deficiencies in the measures, you shall submit to DPE with that audit a detailed response to each deficiency including: - What rectification works are proposed to address the deficiency; and - The timeframe for the rectification works to be completed; and - Where relevant, justification for why recommendations of the CPESC will not be implemented.	The audit prepared under Direction 2 identified actions. A detailed response has been prepared and included with this correspondence. Response Report attached.
4	The audit and response required by this direction are to be provided to the Environmental Representatives for the project within 24 hours of submission to DPE.	Provided to [REDACTED] with this correspondence.
5	You shall publish this direction on the project website within 7 days. The document shall remain available to the public on the project website for the life of that website in accordance with the conditions of the Approval.	The direction was published on the below website within 7 days. CPB Contractors - Sydney Metro - Western Sydney Airport, Station Boxes and Tunnelling Works
6	You shall publish the audits and responses required by this direction on the project website within 7 days of submitting them to DPE. The document shall remain available to the public on the project website for the life of that website as required by the conditions of SSI-10051.	This first audit and response published on 14 July 2023 at CPB Contractors - Sydney Metro - Western Sydney Airport, Station Boxes and Tunnelling Works The second audit and response will be published on the same website by 14 August 2023.

The SBT Contractor provides the following documents attached with this correspondence:

1. *Soil Conservationist Inspection of Erosion and Sediment Controls; Various Sites, Airport Metro SBT; 27 July 2023, dated 4 August 2023* (SMWSASBT-CPG-SWD-SW000-EN-RPT-295271)
2. *CPBGs Detailed Response to Audit Actions.* (SMWSASBT-CPG-SWD-SW000-EN-RPT-295272)

Yours sincerely,



Approvals, Environment & Sustainability Manager

Sydney Metro Western Sydney Airport
Station Boxes and Tunnelling Works



STRATEGIC ENVIRONMENTAL
AND ENGINEERING CONSULTING

www.seec.com.au

CPBG JV

By email: [REDACTED]

our reference: 21000264-ESCR-10-20230804

your reference:

04 August 2023

CC: [REDACTED]

Dear [REDACTED]

**Soil Conservationist Audit of Erosion and Sediment Controls;
Western Sydney Airport Metro SBT; 27 July 2023**

On 27 July 2023 I conducted an independent site inspection and audit of the erosion and sediment control measures across CPBG JV's Western Sydney Airport Metro SBT Project sites (SSI-10051). During these inspections I was accompanied by [REDACTED] and, at various times, site supervisors, engineers or environmental coordinators/advisors.

The inspection was conducted to satisfy the requirement for a second audit of erosion and sediment control measures across the site, in accordance with a Direction Notice issued by the NSW Department of Planning and Environment (DPE) (DPE reference: SSI-10051, issued 5 June 2023).

The first audit was conducted in June and is detailed in my previous report (SEEC reference: 21000264-ESCR-04-06-20230628). This report provides a summary of my second audit of the erosion and sediment control measures across the SBT worksites. It includes an assessment of whether the items raised in my previous report have been closed out.

In completing the second audit and preparing this report, I undertook the following:

- An inspection of all active sites associated with CPBG JV's works on SSI-10051.

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- An assessment of the adequacy of erosion and sediment control measures at each site, having regard to Approval Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Plan.
- A review of items raised in my previous audit report. Those items included a comprehensive summary of recommendations for rectification, improvement, maintenance or repair where deficiencies were identified in the erosion and sediment control measures.
- Provision of positive feedback, where I believed measures warranted such feedback.
- A review of the close-out timing based on items raised in my previous audit report. The recommended timings were considerate of the weather forecast at the time of making those recommendations, and the relative risk of non-compliance with relevant Approval Conditions.




No new actions or recommendations were identified in the second audit.





Overall, erosion and sediment control is well-managed across the sites inspected/audited.





I note that very little rainfall has occurred since the first audit (14.6mm in June and 6.8mm in July, based on data from the Bureau of Meteorology's Badgery's Creek station).

I noted that all items from my previous audit have been closed out or will be closed out imminently. Mitigating factors such as asbestos contamination have impeded the close out of some of the items previously raised. Where items had not been closed out, CPBG JV were able to advise me of their plan to imminently address those issues, and I am satisfied that the risk of pollution is adequately managed and minimised.







The following table provides a summary of my assessment of erosion and sediment control across the project sites. It provides details of how each item raised in my previous audit report was closed out, along with positive feedback where relevant.






No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
1.	St Marys	Positive feedback: Excellent use of long-term ground cover (concrete) to create a stable site.		Positive feedback	N/A	N/A	N/A
2.	St Marys	Positive feedback: Excellent wheel wash facilities and appears to be working well. Little or no sediment tracking offsite.		Positive feedback	N/A	N/A	N/A
3.	St Marys	Positive feedback: Multiple levels of control around pit in laydown yard.		Positive feedback	N/A	N/A	N/A




No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
	See above	See above		Additional controls installed at this stormwater pit: nib wall plus coir logs to allow dirty water to be directed to the WTP instead of into the pit.	N/A		Yes
4.	St Marys	Runoff from the wheel wash trickles through the laydown yard and picks up small amounts of sediment on its way.		Continue to sweep the yard regularly and remove as much sediment as possible. Consider diverting runoff from the wheel wash to a sump close to the wheel wash for re-use or pumping to the WTP.	Two additional nib walls have been installed, one at the wheel wash and one just upslope of the stormwater pit. These nib walls reduce the amount of water flowing into this pit and allow water to be directed to the WTP instead.	 	Yes






No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
5.	St Marys	Moxy haul road shows significant sediment build-up. Sumps are in place, but ongoing sweeping is required.		Continue to sweep this clean prior to forecast rainfall to minimise the amount of sediment that runs to the sump. No other action is required here – the controls in place are appropriate.	Ongoing sweeping observed. Internal roadways were observed to be relatively free from sediment. Only minor discolouration observed (which is to be expected and is not a significant issue).	N/A	Yes.
6.	St Marys	Sump at entrance to moxy haul road. Risk of dirty water splashing over the kerb and missing the sump.		Extend the concrete lip on top of the kerb along the alignment shown (and as discussed onsite). Raise it by about 100mm.	Kerb raised and pump installed with float switch to direct dirty water to the WTP.		Yes
7.	St Marys	Positive feedback: Stockpiling is only occurring on the south side of the ridge in the concrete pad. This ensures that all sediment-laden runoff from the stockpiling area runs to the nib wall, not off to the north.		Positive feedback	N/A	N/A	N/A





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8.	St Marys	<p>Nib wall is working well to trap dirty water runoff from the stockpiling area.</p> <p>However, no materials should be stored here – they reduce the capacity of the sump created by the nib wall.</p>		Remove materials and bin from the nib wall sump area.	Materials removed from this area.		Yes
9.	St Marys	Sprinklers for dust suppression are great, but they throw a coarse spray. Should be a fine mist.		Adjust the sprinkler heads to a fine mist.	<p>CPBG JV advise that the sprinkler heads have been adjusted but cannot spray too fine a mist or the spray floats upwards in light breezes.</p> <p>Sprays observed to be appropriate to manage dust from stockpiles.</p>		Yes.
10.	Orchard Hills	Clean water drain ripped up by recent works.		Spray this area with polymer binder and seed.	The area has been covered with a combination of geofabric and polymer soil binder.		Yes




No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
11.	Orchard Hills	Fabric is incorrectly laid. Needs to be lapped correctly, similar to roof tiles.		Lap the fabric correctly so that water won't go under the fabric. Upslope fabric must go over the downslope fabric. Note that the chutes are fine otherwise – there's no need for rock as well.	Fabric on the inlet points to the basins has been re-laid correctly.		Yes
12.	Orchard Hills	Basin capacity needs to be checked to ensure it meets the ESCP minimum.		Basin has accumulated plenty of sediment, and needs to be de-silted if the capacity falls below the minimum required under the ESCP. Check capacity against the ESCP.	CPBG JV staff advise that basin capacity is adequate at this time, and will be monitored after each rain event.		Yes
13.	Orchard Hills	Backside of the stockpile site: Inadequate installation of silt fence – not dug in properly. And Stockpiles require ground cover to reduce the risk of erosion.		Install the silt fence properly – trench it firmly into the ground to at least 150mm. And Spray the backside (east face) of the stockpile with polymer binder.	Silt fence replaced. And East face of the stockpile has been sprayed with polymer soil binder.		Yes







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14.	Orchard Hills	Runoff from part of the stockpile would miss the basin.		Extend the bund as shown to ensure that as much as possible of the stockpile will direct runoff to the basin.	Bund installed as recommended.		Yes
15.	Orchard Hills	NE sediment basin spillway has a silt fence across it.		Re-jig the silt fence along the sides of the rock-lined spillway as shown in red. Remove the silt fence from across the rock spillway.	Silt fences re-positioned as recommended	N/A	Yes
16.	Orchard Hills	Eastern haul road – silt fences not dug in properly.		Install the silt fence properly – trench it firmly into the ground to at least 150mm	Silt fences have been replaced with concrete barriers.		Yes






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17.	Orchard Hills	<p>Eastern haul road:</p> <p>Coir logs require minor housekeeping.</p> <p>And</p> <p>Polymer binder is good but top-dressing it on the road makes it slippery and it doesn't last very long. Use an alternative methodology to get better results.</p>		<p>Tidy up the controls along this edge so they provide adequate filtering of dirty water runoff from the haul road.</p> <p>And</p> <p>In future, blend the trafficable polymer into the road by:</p> <ol style="list-style-type: none"> 1. Ripping the road to 100mm with a grader or a toothed excavator bucket. 2. Spraying the trafficable binder (e.g. Vital HR), then 3. Rolling the road to blend the polymer binder and the road material together. 	<p>Coir logs replaced and staked in place.</p> <p>Road material observed as stable, with minimal evidence of sediment washoff.</p>		Yes
18.	Orchard Hills	<p>Positive feedback:</p> <p>Good use of ground covers to establish clean water flowpaths.</p>		Positive feedback	N/A	N/A	N/A




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19.	Orchard Hills, far south of the site	Minimal controls in place along the southern boundary. Silt fences are poorly installed.		Ensure silt fences are properly installed: Trench them in at least 150mm deep. Returns at 20m intervals Posts at 2.5m centres (metal posts) or 1.5m centres (wooden posts)	Silt fences re-installed. Returns at 20m intervals to be established using sandbags once chipseal is complete.		Yes
20.	Orchard Hills, just north of Lansdowne Rd	Positive feedback: Good use of a temporary sump to detain dirty site water		Positive feedback	N/A	N/A	N/A
21.	Orchard Hills	The proposed vegetation removal along the eastern boundary should include mulch bunds (or earth bunds) along the eastern edge.		If possible, reuse the mulched vegetation to create a mulch bund at least 500mm high along the eastern edge of the cleared area.	Topsoil and mulch retained as ground cover in this area, with silt fence downslope and polymer binder sprayed over it.		Yes





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22.	Orchard Hills	Swale drain along western edge, south of Lansdowne Road is suitable as is, and does not need to be stabilised further.		No action required.	N/A I note this area is close to complete, and has extensive chipseal.		N/A
23.	Aerotropolis	The upslope catchment is being developed now, which will dramatically increase the amount of run-on into the Aerotropolis site. The clean water drain is still not complete.		The clean water drain should be completed and lined as soon as practicable. There is currently little or no rain on the forecast, so this is not a significant issue at this time. However, if the forecast changes and significant rain is likely, the present setup of this drain is likely to contribute to: A. A high risk of dirty water discharging from the site; and B. Additional volumes of water for the project to have to floc, test and discharge.	On 3 August 2023 CPBG JV staff advised that: “the swale is temporary and will be filled within 2 months (post handover to SSTOM) and a car park is to be constructed on the site. Therefore, as a temporary measure, the swale spillway has been desilted and 6 rock filter check dams installed. New silt fencing has been installed along the swale and the entire swale has had a “12 month” polymer seal applied to further minimise soil erosion. All		Yes




No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
				Completing this drain will take time, so should be prioritized as much as practicable.	surrounding exposed earth has also had an extra thick layer of polymer applied." Photos provided by CPBG JV staff to close out this item.		
24.	Aerotropolis	Clean water drain not lined. As a result, any water in this drain must be managed as dirty water.		<p>If this drain needs to be vegetated, it will need to be veneered with topsoil prior to seeding.</p> <p>Alternatively, a compost blanket could be sprayed onto the drain (note that the cost of compost blanket is generally quite high and the lead time could be long because of the quantities of compost that are required).</p> <p>A biodegradable mat or mesh (e.g. jute mesh) should be placed over the topsoil or compost blanket in the invert of the channel.</p> <p>If the channel doesn't require vegetation, consider using thick jutemat (700gsm), shotcrete or GCCM)</p>	See comments on Item 23, above.		Yes

No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
25.	Aerotropolis	<p>Stockpiles in the southern corner are not ground covered as per Blue Book guidelines.</p> <p>Note that this is a low risk in terms of sediment pollution, but is a potential non-conformance.</p>		Spray the stockpiles with soil binder (or an alternative ground cover)	<p>On 3 August 2023, CPBG JV staff advised that:</p> <p>“Stockpiles removed and entire area sprayed with a very thick layer of polymer and wrapped in silt fencing. Remaining topsoil stockpile has been covered with jute matting.”</p> <p>Photos provided by CPBG JV staff to close out this item.</p>	 	Yes
26.	Aerotropolis	Sediment basin spillway is not complete and doesn't extend to the boundary.		Extend the spillway all the way to the boundary discharge point, and fully line the spillway.	<p>On 3 August 2023, CPBG JV staff advised that:</p> <p>“CPBG has since implemented additional works on this spillway. Capacity has been significantly increased and spillway desilted and lined with geofabric with rock filter check dams installed. The spillway now extends to connect to the future clearwater swale. The entire swale has had a 12 month polymer seal</p>	 	Yes

No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
					<p>applied to further minimise soil erosion.”</p> <p>Photos provided by CPBG JV staff to close out this item.</p>		
27.	Aerotropolis	Spillway poorly constructed – the rock has filled up the swale.		Re-dig the spillway so that the finished level of the rock creates a trapezoidal profile and the water will flow in the channel, not around the sides of it.	<p>On 3 August 2023, CPBG JV staff advised that:</p> <p>“This Channel has been excavated to design levels. Rock check dams have been reshaped to direct flows to the centre of the spillway.”</p> <p>Photos provided by CPBG JV staff to close out this item.</p>		Yes
28.	Aerotropolis	Stockpile adjacent to the basin blocks a large amount of site water from reaching the basin.		Remove this stockpile and form up the drain to direct all site water into the basin.	<p>Access to this area was limited due to ACM and medium-impact material. That has now been addressed and on 3 August 2023, CPBG JV staff advised that:</p> <p>“Stockpiled material has been removed and works are currently underway in order to facilitate the continuation of the</p>		To be closed out shortly

No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
					<p>dirty water drain along eastern portion of site. Works along the eastern boundary are currently underway and are due to be completed prior to site handover to SSTOM. Upon the completion of earthworks along the eastern boundary, the drain will be finalized.”</p> <p>Photos provided by CPBG JV staff to demonstrate imminent close out of this item.</p>		
29.	Aerotropolis	Dirty water runoff from this batter would flow to the low point, where there are only minimal controls.		Finish off the batter, veneer it with topsoil and vegetate it.	<p>Additional works were required in this area to address ACM between the batter and the fenceline.</p> <p>The boxed-out area acts to retain sediment at the time of inspection, so the risk of harm is low.</p>		To be closed out shortly

No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
					CPBG JV staff advise that interim controls have been installed at key locations and that dirty water will continue to hold in the boxed out area.		
30.	Aerotropolis	Stockpile adjacent to the basin blocks a large amount of site water from reaching the basin.		Remove the stockpile and form up the drain to direct all site water into the basin.	Refer to comments on Item 28 – both stockpiles have been removed and the drain is underway.		To be closed out shortly
31.	Bringelly	Positive feedback: Basin appears to be stable, well-constructed and is being maintained appropriately.		Positive feedback	N/A	N/A	N/A

No	Location	Issue raised in previous audit	Photo (1 st audit)	Action or recommendation in first audit	Action taken by CPBG to close this issue	Photo (2 nd audit)	Closed out?
32.	Bringelly	Positive feedback: Good use of lined dirty water drains to direct site runoff into the basin.		Positive feedback	N/A	N/A	N/A
33.	Bringelly	Stockpiles in the western corner are not ground covered as per Blue Book guidelines. Note that this is a low risk in terms of sediment pollution, but is a potential non-conformance.		Spray the stockpiles with soil binder (or an alternative ground cover).	Stockpiles have been provided with jute mat covering on batters.		Yes

In my opinion, based on the summary reported in the above table and pending the imminent close out of various items at the Aerotropolis site (as noted in the above table), CPBG JV are complying with Approval Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Plan.

At the time of preparing this audit report, light showers were forecast for Saturday 5th and Sunday 6th August 2023. Less than 5mm of rain is forecast. In my opinion, the controls presently in place for the Aerotropolis site are adequate to manage the risk of dirty water discharge from the premises, even where items noted in the above table are not completely closed out. CPBG JV has implemented alternative erosion and sediment controls such as extensive use of polymer soil binder, instatement of bunds and check dams etc.) to ensure the risk of pollution is managed appropriately.






As such, I conclude that CPBG JV are complying with Approval Conditions E127 to E129 of SSI-10051 and the approved Soil and Water Management Plan.

If you would like to discuss any aspect of this report, please feel free to contact me on [REDACTED] or [REDACTED] or [REDACTED]

Yours faithfully,

[REDACTED]

[REDACTED] B.Sc. (Hons.) CPSS CPESC
Director, SEEC

No.	Location	SEEC Audit Report Comment	SEEC Photo (If Applicable)	SEEC Audit Report Recommendation	Open / Closed	CPBG Response / Action taken	Rectification works proposed (if not complete)	Timeframe	Justification for non response, where applicable	CPBG Update - Photo Evidence
28	Aerotropolis	Stockpile adjacent to the basin blocks a large amount of site water from reaching the basin.		Remove this stockpile and form up the drain to direct all site water into the basin.	In progress	Stockpiled material has since been removed (as demonstrated in the image) and works to are currently underway in order to facilitate the continuation of the dirty water drain along eastern portion of site as discussed further in Column H.	As demonstrated in the bottom image, works to fill the ACM remediation area and finalise the batter along the eastern boundary are currently underway and are due to be completed prior to site handover. Works to form up the drain to direct all site water to the sediment basin are currently underway, however will not be able to be completed until finalisation of the eastern batter (see item 29) is done as doing so would restrict access. Upon the completion of earthworks along the eastern boundary, the drain will be finalized.	14/08/2023	N/A	
29	Aerotropolis	Dirty water runoff from this batter would flow to the low point, where there are only minimal controls.		Finish off the batter, veneer it with topsoil and vegetate it.	In progress	The grassed area in this image is an ACM remediation area. The ACM impacted material has since been stripped from this location and works have progressed to fill the area and finalise the batter as demonstrated in Item 28. Temporary controls have been implemented as shown in the image provided.	Earthworks to fill the ACM remediation area and finalise the batter along the eastern boundary are currently underway. Upon finalisation of the batter, polymer will be applied for stabilisation.	Anticipated completion date 11/08/2023	N/A	
30	Aerotropolis	Stockpile adjacent to the basin blocks a large amount of site water from reaching the basin.		Remove the stockpile and form up the drain to direct all site water into the basin	In progress	At the time this image was taken, the stockpile visible in the image was formed intentionally to break up the catchment and limit flows to the remediation area adjacent the eastern boundary of the site. As noted in Item 28, the removal of the stockpile is complete.	Works to form up the drain to direct all site water to the sediment basin are currently underway, however will not be able to be completed until finalisation of the eastern batter (see item 29) is done as doing so would restrict access.	Removal of stockpile - Complete Swale drain to direct flows to basin anticipated completion 14/08/2023	N/A	