Environmental Justice Australia

3 August 2021

The Honourable Stephen Miles MP
Deputy Premier of Queensland

Ms Toni Power
Queensland Coordinator-General

By email: deputy.premier@ministerial.qld.gov.au; toni.power@coordinator-general.qld.gov.au;

Dear Deputy Premier and Ms Power

Mackay Conversation Group complaint – significant apparent erosion and sediment control breaches on the Adani rail corridor

We write on behalf of Mackay Conservation Group regarding apparent significant erosion and sediment control breaches which it has become aware of in a large and low-lying area of the Adani rail line.

The information provided to our client by two separate sources in the last month raises credible and serious concerns that the erosion and sediment control conditions imposed on the Adani rail project by the Coordinator-General at both the EIS and SDA approval phases (including Stated Condition 7 and Condition 13 (APC20202/013)) are not being adhered to by Adani's contractors.

As you will appreciate, a failure to prevent erosion and sediment deposits presents well-recognised and significant risks for landholders as well as the health of the waterways through which the rail line is being constructed. Our client seeks your urgent intervention and investigation of these matters. In our view, your swift action is critical and reinforced by the findings by Water Technology in May this year - experts engaged by the Coordinator-General's - that 'it is highly likely that' a failure by Adani to make 'reasonable and practical' preparations where works were occurring in watercourses 'led to the unnecessary delivery of excess sediment directly to the watercourse'.[i]

As we set out below, water is again moving across and beyond – without, in many cases, any apparent erosion or sediment control - uncovered and disturbed soils along the rail corridor. We understand that these large tracts of soil (stretching approximately 2kms) have remained exposed now for over a month.

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Background

In June 2021, our client received information regarding active erosion and a failure to implement erosion, sediment and stormwater management consistent with the conditions imposed on the Adani Rail Project, as well as the relevant Environmental Management Plan (particularly the Erosion and Sediment Control Plan (**ESCP**) and Stormwater Management Plan (**SMP**)). These serious concerns relate to the rail corridor construction area from Serpentine Creek to Chainage 266 and do not arise in relation to an extreme rain event or monsoonal flooding. The information our client received also identified that:

- Despite a 22mm rainfall event occurring at the rail project on 16 June 2021, it was clear sediment and erosion control measures had been removed in the relevant area, were not being replaced, and disturbed areas along the rail corridor had not been rehabilitated.
- Workers were observed pumping water from within the rail alignment into waterways.
- There were no appropriate erosion and sediment controls in place other than immediately at Serpentine Creek, and no controls in place at critical, other, points.
- A further rain event was imminent, but precautionary measures had not been put in place.

Subsequently, our client received a series of photos which we annex here as well as video footage, which reveal very similar, and concerning issues. At a high level, we note that apparently contrary to the EMP, SMP and ESCP, these images show:

- An approximately 2km stretch of land with disturbed, uncovered, light and texture contrast soils susceptible to erosion without any or appropriate sediment controls in place. This includes an almost complete absence of what we understand to be the 'Type 2' sediment controls which the IECA guidelines classify as suitable for capturing silt.[ii]
- Large amounts or turbid water ponding on the rail line without sediment traps established on either their entry or exit points, leading to a high risk of this contaminated water running off and affecting neighbouring land and waterways.
- Areas where, merely by reference to the size and number of the culverts in the area, large amounts of water is expected to move across the rail corridor, but there are either no or grossly inadequate controls in place to prevent the water from merely running across the corridor and into the surrounding land and waterways.
- Areas where it is clear that erosion has occurred, and water and sediment have broken through the inadequate bunding on the rail line, leading to water and sediment seeming to have run onto the neighbouring land.

Summary of issues of concern

At the outset, we note our client is concerned that the latest information which it has received relates again to land from Serpentine Creek to Chainage 266. As you are aware, this is a stretch of approximately 2kms of low-lying land characterised by highly erodible, light soils, which the Coordinator-General's EIS report recognised can contain excessive salt and sodium levels.[iii] As the EIS Report recognised, these areas were anticipated to experience significant volumes of rain water flowing over the land either in natural drainage features or across the surface of it. Accordingly, in the Coordinator-General's EIS assessment and SDA approval process, specific conditions were imposed to '**prevent** soil loss and deposition beyond significantly disturbed land'. We draw your attention, for example to:

- Stated Condition 7 imposed under s 39 of the *State Development and Public Works Organisation Act 1971* (Qld) (**SDPWO Act**).

> **Condition 7. Sediment and Erosion Control**
>
> (a) Measures must be implemented and maintained to minimise stormwater entry onto significantly disturbed land.
>
> (b) Sediment and erosion control measures to prevent soil loss and deposition beyond significantly disturbed land must be implemented and maintained.
>
> (c) The measures required by conditions (a) and (b) must be in accordance, to the greatest practicable extent, with the International Erosion Control Association Best Practice Erosion and Sediment Control document; and

- Condition 13 (and, in relation to Rail Package 1 and 3, conditions 10 and 12) imposed under s 87E of the SWDPO Act during the SDA approval process, and requiring the preparation of a delated project specific Environmental Management Plan, including an Erosion and Sediment Control Plan and Stormwater Management Plan. As you identified in your 14 May 2021 letter to our client, this EMP 'must be implemented and works undertaken as required in the EMP on an ongoing basis'.

While it is not within our client's means to provide an expert analysis of the enclosed photos, our clients bring the following matters to your attention (without intending to exhaustively outline their broad and high level concerns, summarised above):

- **Image 21:** There is no sediment control work on the exit of the pond in the centre of the left hand side of the image. There are no erosion control banks, water control banks or vegetative control to stop soil erosion from water travelling along the rail corridor.

- **Images 24, 25 and 28:** There is no evidence of any sediment or erosion control works in these images. The left hand side of image 24 also appears to show the deposition of fine sand, silt or clay particles out of the rail corridor, as a result.

- **Image 29:** The two dams in the image are holding a large amount of very turbid water. However, there is no apparent detention pond works and no specific measures in place for trapping sediment at the discharge points of these dams. There are no works around inlet and outlet of the pipes. Our client understands that compliant conduct would have, at least, included erosion and sediment control works as a part of an overflow system with some geotextile fabric to control erosive flows.

- **Images 31, 33, 34, 35:** Two ponds in these images appear to be collecting discharge from pipes along the rail corridor, but there is no sediment trap on the exit of those two ponds. It appears that water is also able to and may be flowing from Dam 1 to Dam 2. In the context of the anonymous sources' report about contractors pumping water off the rail corridor and directly into waterways, our client is also concerned about a visible pump in these images.

- **Images 37 and 39:** These images show a storage structure collecting water from pipes on the corridor. However there is no sediment control works on the inlet or the outlet of this structure. It also appears that fine soils are present in the ponds outside the rail corridor (see the left hand side of the image). The bunding banks in this image also appear to have been damaged, with evidence of erosion. This suggests that water has broken out of the rail corridor and the contaminated water has travelled into the ponds outside the rail corridor.

- **Image 40:** It appears that the bunding bank in this image is damaged and has been washed away at a point near the top of the image (above the water truck). It also appears that water has escaped from the rail corridor at this point, with evidence of dirty water in the ponds outside the rail corridor. There is no visible evidence of sediment control works at the point of the water breaking out. On the right hand side of the image, another apparent breach of the bunding bank appears, with visible water again outside the rail corridor.

- **Images 42 and 44:** These images show a lot of exposed soil with no evidence of sediment or erosion control works. Apart from the bunding bank on each side there is no control of water flow, with the effect that water will be expected to run uncontrolled across the rail corridor, with obvious consequential risks of erosion.

- **Images 45 and 48 (these images are the reverse of 31, 33, 34 & 35):** Again, these images show extensive ponding. There is visible damage to the bank near the excavator. No erosion or sediment control works are evident on the exits of the dams pictured. A break in the bank is evident in the top left of image 48 especially.

- **Video 49:** In the middle of the shot on the left hand side, it appears there is a water entry point onto the rail corridor. Another entry point also appears at the top of the image. Water appears to have broken through the bunding bank at those two locations. Higher in the shot, ponds collecting water are also visible, but these ponds have no control works on them. Water appears to be breaking through and leaving the rail corridor in the footage towards the end of the video.

- **Image 50:** There is no evidence of sediment or erosion control works. There is wash evident on the bank, and there appears to be a breach in the bunding bank on the left hand side.

- **Video 53:** This video shows a large expanse of uncovered soil and some pondage of water on the rail corridor. There is no visible sediment control works until the point of the creek. The two small sediment controls appear insufficient for the anticipated amount of water expected to be moving across the area.

- **Images 54 and 56:** The large banks of pipes in this image indicate that a similarly large quantity of water will be moving across the rail corridor. However, the two small structures in the image are insufficient to manage the volumes of anticipated water, and to allow sediment to settle or to trap it.

- **Images 60, 61, 63, 64 and 65:** These images show disproportionately small control structures for the size and number of the water pipes in the area.

- **Image 66:** There is a pond of turbid water in this image without measures in place to allow the fine soils to settle before it discharges.

- **Image 67:** This image shows a large pond of very turbid water without erosion or sediment control works.

- **Image 68**: Damage to a roadside bank is evident in this image, with fine soils apparent on the adjoining land to the right of the right hand side of the fenceline.

- **Image 70 (this image is a reverse of image 68)**: Three control works are evident on the left hand side of this image. However, overtopping and damage of the bunding bank are also clear, showing the current measures are insufficient to manage the erosion and sediment control issues.

Requesting your urgent and comprehensive regulatory response

Our client seeks your urgent intervention and investigation of the issues raised above and identified in the annexed images.

As you will be aware, pursuant to ss 157B(2) and (3) of the SDWPO Act where the Coordinator-General reasonably believes that an enforceable condition (including those identified above) is being or has been contravened, she may issue an enforcement notice requiring the recipient of that notice to cease particular activities (for a particular period or indefinitely).

In light of the matters raised above and against the background of previous credible concerns about the management of flood, erosion, and sediment risks at the Adani rail corridor, our client considers that an a

notice to cease work until further remedial work and inspection can occur is an appropriate regulatory response.

Seeking information regarding your ongoing monitoring and further assessment of the Adani project

Thank you for your indication in your letter dated 14 May 2021, that experts engaged by the Coordinator-General's office had also identified increased turbidity levels between upstream and downstream water quality monitors between December 2020 and February 2021. In that letter you indicated that further assessment was being undertaken by your office of the cause of this turbidity and whether it is within the allowable threshold.

Our clients also understand from your public statements following your May Investigation of erosion and sediment risks raised in relation to the Adani Project that your office would also conduct 'continuing monitoring' of the Project to ensure full compliance with the erosion and sediment control requirements which you have imposed.

We would be grateful for an update on the assessments regarding turbidity and your ongoing monitoring activities. As you would appreciate, both matters are of particular and additional concern to our clients in light of the matters raised in this letter.

Yours sincerely,

Hollie Kerwin
Senior Specialist Lawyer

Copy to:
The Honourable Meaghan Scanlon, Minister for the Environment and the Great Barrier Reef: environment@ministerial.qld.gov.au;
Mr David Stolz, Assistant Queensland Coordinator-General: david.stolz@coordinator-general.qld.gov.au

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[i] Water Technology, *Erosion and Sediment Management Investigation - Carmichael Rail Network – Bravus Mining and Resources* (May 2021), 6.
[ii] See, Erosion and Sediment Control Plan, 31.
[iii] EIS Report, 281.

ANNEXURE 1

Mackay Conservation Group

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3 August 2021

Photographs showing lack of sediment and erosion control measures at Adani's North Galilee Basin Rail Project.

These photographs were taken between Serpentine Creek and Chainage 266, on the 6th of July 2021.

This document does not include video footage. Video footage and further images can be viewed here : Dropbox folder - shared - 6-7-2021 - Serpentine Ck and West

(Photos credit: Frontline Action on Coal)

Pic No	Xcoord (GDA94)	Ycoord (GDA94)	
21	542288.955	7614002.94	 **Looking west** **There is no sediment control work on the exit of the pond in the centre of the left hand side of the image. There are no erosion control banks, water control banks or vegetative control to stop soil erosion from water travelling along the rail corridor.**

ANNEXURE 1

24	**542072.991**	**7613985.171**	 **Same as 25** **There is no evidence of any sediment or erosion control works in these images. The left hand side of image 24 also appears to show the deposition of fine sand, silt or clay particles out of the rail corridor, as a result.**
25	**542072.991**	**7613985.171**	 **Looking west**

ANNEXURE 1

29	**541654.907**	**7614126.824**	 **Looking west** **The two dams in the image are holding a large amount of very turbid water. However, there is no apparent detention pond works and no specific measures in place for trapping sediment at the discharge points of these dams. There are no works around inlet and outlet of the pipes. Our client understands that compliant conduct would have, at least, included erosion and sediment control works as a part of an overflow system with some geotextile fabric to control erosive flows.**
31	**541520.184**	**7614114.117**	 **Looking west** **Two ponds in these images appear to be collecting discharge from pipes along the rail corridor, but there is no sediment trap on the exit of those two ponds. It appears that water is also able to and may be flowing from Dam 1 to Dam 2. In the context of the anonymous sources' reports about contractors pumping water off the rail corridor and directly into waterways, our client is also concerned about a visible pump in these images.**

ANNEXURE 1

33	**541235.47**	**7614115.004**	 **Looking west**
34			 **Between 33 and 36 looking more down**

ANNEXURE 1

35			 **Between 33 and 36 looking more down**
37	**541131.989**	**7614127.618**	 **These images show a storage structure collecting water from pipes on the corridor. However there is no sediment control works on the inlet or the outlet of this structure. It also appears that fine soils are present in the ponds outside the rail corridor (see the left hand side of the image). The bunding banks in this image also appear to have been damaged, with evidence of erosion. This suggests that water has broken out of the rail corridor and the contaminated water has travelled into the ponds outside the rail corridor.**

ANNEXURE 1

39			
40			 **Same position as 39 looking more up and west** **It appears that the bunding bank in this image is damaged and has been washed away at a point near the top of the image (above the water truck). It also appears that water has escaped from the rail corridor at this point, with evidence of dirty water in the ponds outside the rail corridor. There is no visible evidence of sediment control works at the point of the water breaking out. On the right hand side of the image, another apparent breach of the bunding bank appears, with visible water again outside the rail corridor.**

ANNEXURE 1

42	**541044.403**	**7614136.115**	 **Looking down, west** **These images show a lot of exposed soil with no evidence of sediment or erosion control works. Apart from the bunding bank on each side there is no control of water flow, with the effect that water will be expected to run uncontrolled across the rail corridor, with obvious consequential risks of erosion.**
44	**540790.264**	**7614161.605**	 **Looking west**

ANNEXURE 1

45	**540924.903**	**7614174.5**	 **Looking east back towards pics 36-39** **These images are the reverse of 31, 33, 34 & 35): Again, these images show extensive ponding. There is visible damage to the bank near the excavator. No erosion or sediment control works are evident on the exits of the dams pictured.**
46	**540924.903**	**7614174.5**	

ANNEXURE 1

48			 **Looking east back towards pics 36-39** **A break in the bank is evident in the top left of image 48 especially.**
50	**541678.816**	**7614029.988**	 **Looking down, east..** **There is no evidence of sediment or erosion control works. There is wash evident on the bank, and there appears to be a breach in the bunding bank on the left hand side.**

ANNEXURE 1

54	**543356.01**	**7614289.304**	 **Same as 55** **The large banks of pipes in this image indicate that a similarly large quantity of water will be moving across the rail corridor. However, the two small structures in the image are insufficient to manage the volumes of anticipated water, and to allow sediment to settle or to trap it.**

Pic No	Xcoord (GDA94)	Ycoord (GDA94)	
56	**543356.01**	**7614289.304**	 **Similar to 55, best shot of 3 detention outflows with geotextile fabric (there are 2 other detention outflows in video 53 before these)**

ANNEXURE 1

58	**543455.851**	**7614353.729**	 **Looking east**
60			 **Further east from 58 showing 4th detention outflow** **These images show disproportionately small control structures for the size and number of the water pipes in the area.**

ANNEXURE 1

61			 **Further east from 58 showing 4th detention outflow**
63			 **Showing a bit of 4th and all of 5th detention outflow**

ANNEXURE 1

64	**543670.633**	**7614416.878**	 **Showing 5th and 6th detention outflows**
65			 **Same as 64**

ANNEXURE 1

66			 **Flying east looking east from 64 to 69** **There is a pond of fairly turbid water in this image without measures in place to allow the fine soils to settle before it discharges.**
67			 **Same as 66** **This image shows a large pond of very turbid water without erosion or sediment control works.**

Note: see below for map referencing photographed locations

ANNEXURE 1


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25
21
55
58
64
69
Serpentine Ck
Glen Avon Rd
sentinelhub
1000 m