Environmental Protection Act 1994

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

The Passage Holdings Pty Ltd (In liquidation) ACN 602 422 891
C/O SV Partners Pty Ltd
22 Market Street
Brisbane QLD 4000

3/41 Sturt Street
Townsville City QLD 4810

Our reference: STAT-E-100573232; C-CPLRC-100258900; 101/0015947

Tuesday, 30 January 2024

Attn: Michael Brennan and Dennis Offermans

Dear Directors

Take notice: that under the *Environmental Protection Act 1994* (EP Act) this environmental protection order (EPO) is issued to The Passage Holdings Pty Ltd (in liquidation) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment, Science and Innovation (the department).

The EPO is issued with respect to the activity of storing dredge spoil on land described as Lot 170 on Plan SP177389 (the premises).

A. Grounds

This EPO is issued on the following grounds:

1. The department requires you to take reasonable measures to secure compliance with the general environmental duty. The general environmental duty is detailed in section 319 of the EP Act, which states the following:

   A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).

2. The department requires you to take reasonable measures to secure compliance with section 440ZG(a) of the EP Act, which states the following:

   A person must not—

   (a) unlawfully deposit a prescribed water contaminant—

   (i). in waters; or

   (ii). in a roadside gutter or stormwater drainage; or

ABN 46 640 294 485

(iii) At another pace, and in a way, so that the contaminant could reasonably be expected to wash, blow, fall or otherwise move into waters, a roadside gutter or stormwater drainage;

Example of a place for subparagraph (iii)—

A building site where soil may be washed into an adjacent roadside gutter

The facts and circumstances forming the basis for these grounds are:

1. You are the registered owner of the premises.
2. The premises includes several historic dredge spoil ponds containing spoil material from dredging campaigns in the Port Hinchinbrook marina and Stony Creek undertaken at various periods in time.
3. The storage of this spoil material within the dredge spoil ponds (the Ponds) is an ongoing activity for which you are responsible.
4. In May 2022, the department received a notification alleging the release of contaminants from the eastern most dredge spoil storage ponds on the premises. Contaminants were alleged to be entering the adjacent Girramay National Park (the Park).
5. Under the *Vegetation Management Act 1999* Regional Ecosystem framework, the Park is mapped as a palustrine wetland comprising of *Melaleuca viridiflora* open forest to open woodland with eucalypt emergent (or sparse eucalypt overstory). Furthermore, the Park is within the Hinchinbrook Channel nationally important wetland, which is included in the definition of waters under Schedule 1– Environmental Values and Water Quality Objectives for the Tully, Murray and Hinchinbrook Island River Basins of the *Environmental Protection Policy (Water and Wetland Biodiversity) 2019* (EPP Water and Wetland Biodiversity). As such, the receiving environment is considered to meet the definition of 'waters' for the purposes of the EP Act.
6. In response to the notification, authorised officers of the department have undertaken regular monitoring and sampling of surface waters and soils at relevant locations since May 2022.
7. Authorised officers have regularly observed the passive (gravity induced) release of waters from the Ponds into the Park via a breach in the bund wall (PHD2, Latitude -18.288813, Longitude 146.050815, see Appendix 1: Maps - Figure 1 – Sample locations).
8. Laboratory analysis of water samples collected by the department indicate high concentrations of ferrous iron (Fe^{2+}) within waters being released from the Ponds (i.e., a liquid containing suspended or dissolved solids). These concentrations were up to two (2) orders of magnitude greater than the 20^{th}-50^{th}-80^{th} percentile water quality objectives for iron in surface waters as listed within Table 2.4 of the EPP Water and Wetland Biodiversity Schedule 1– Environmental Values and Water Quality Objectives for the Tully, Murray and Hinchinbrook Island River Basins[1] (See Appendix 2: Sample Results – Table *1* and Table *2*).
9. When exposed to oxygen, ferrous iron oxidises to ferric iron (Fe^{3+}), which can result in a reduction in dissolved oxygen concentration in waters (i.e., a chemical that causes a chemical oxygen demand).
10. Ferric iron compounds are insoluble and settle out of the water as an iron floc (i.e., a sediment).
11. Precipitated ferric iron compounds (rust coloured staining and slime deposition) have been observed along the flow path of waters released from the Ponds and within the Park. Sedimentation has the potential to smother aquatic organisms and/or vegetation.

[1] Available online at https://environment.des.qld.gov.au/management/water/policy/wet-tropics. Water quality objectives for iron in surface waters are listed in Table 2.4 on page 57 of 85.

12. Sampling conducted in December 2023 identified releases from the Ponds (believed to be equivalent of the 'first flush') as being characterised with an acidic pH of 3.2 (i.e., less than 6.5).
13. Schedule 10 of the *Environmental Protection Regulation 2019* defines prescribed water contaminants as including:
    1. *a chemical, or chemical waste containing and chemical*
       Examples—
       a. *biocide, including herbicide, fungicide and pesticide*
       b. *chemical that causes biochemical or chemical oxygen demand*
       c. *per and poly-fluoroalkyl substances (PFAS)*
    3. *a liquid containing suspended or dissolved solids*
    4. *ashes, clay, gravel, sediment, stones and similar organic or inorganic matter*
    7. *a substance that has a pH outside the range of 6.5 to 8.5*

    Note: underlining added for emphasis.
14. Indicative soil sampling from within the Ponds has indicated that the dredge spoil contains a level of acidity that, in accordance with the Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines Version 5[2], requires management at the extra high treatment category (See Appendix 2: Sample Results – Table 3, Table 4 and Figure 2).
15. Untreated acid sulfate soils have the potential to generate sulfuric acid, which can poison plants and kill fish and other aquatic organisms. In addition, the oxidation of acid sulfate soils has the potential to mobilise large quantities of iron, aluminium and heavy metals, which can cause environmental impacts.
16. Schedule 14 of the EP Act states that:
    1. *Environmental harm is any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance.*
    2. *Environmental harm may be caused by an activity—*
       a. *whether the harm is a direct or indirect result of the activity; or*
       b. *whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.*
17. Under the EPP Water and Wetland Biodiversity, mapped environmental values associated with Dallachy, Meunga and Kennedy Creek fresh waters (inclusive of the Park), include aquatic ecosystems and visual recreation.
18. The breach in the bund wall reduces any designed containment capability of the Ponds, with the associated release of contaminants repeatedly observed by authorised officers of the department.
19. A review of publicly available aerial imagery indicates that the breach in the bund wall occurred on or before 22 September 2017.
20. The department has not identified any measures that you have taken to prevent or minimise the potential adverse impact of the spoil material within the ponds on the Park.
21. Given the facts and circumstances detailed above, the department considers that you have failed to take all reasonable and practical measures to prevent and minimise the harm or likely harm from carrying out the activity (the general environmental duty).

[2] Available online at https://www.publications.qld.gov.au/dataset/acid-sulfate-soil-guidelines/resource/6d880993-4b80-45e3-9110-5c24fa7a7e75.

22. The department also considers that you have contravened a prescribed provision, being 440ZG of the EP Act, by unlawfully depositing a prescribed water contaminant in waters.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. By **13 February 2024**, you must engage an appropriately qualified person to:
   a) assess the breach in the pond wall at PHD2, as illustrated in Appendix 1; and
   b) prepare a plan for the repair of the breach to a standard that will prevent the release, or potential for release, of contaminants to waters at PHD2.
2. By **27 February 2024**, you must provide a copy of the plan meeting the content of Requirement 1 to the department via email at ESTownsville@des.qld.gov.au.
3. By **5 March 2024**, you must implement the plan for the repair of the breach in the pond wall at PHD2.
4. By **19 March 2024**, you must notify the department of the practical completion of the repair of the breach in the pond wall via email at ESTownsville@des.qld.gov.au.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the EP Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

It is important that you know the impact to you personally as an individual or as a corporation for not meeting your obligations.

Failure to comply with an EPO is an offence.

- The maximum penalty for wilfully contravening an EPO is 6,250 penalty units, totalling $967,500 or five years imprisonment for an individual or $ 4,837,500 for a corporation.
- The maximum penalty for contravening an EPO is 4,500 penalty units, totalling $619,200 for an individual or $3,096,000 for a corporation.

Failure to provide written notice to the buyer of the existence of the order is an offence.

- The maximum penalty is 50 penalty units, totalling $7,740, for an individual or $38,700 for a corporation.

Failure to provide written notice to the department within 10 business days of ceasing the activity to which an environmental protection order relates is an offence.

- The maximum penalty is 50 penalty units, totalling $7,740 for an individual or $38,700 for a corporation.

Section 3 of the *Penalties and Sentences Regulation 2015* prescribes the monetary value of a penalty unit.

E. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the EP Act.

A person who is dissatisfied with an original decision made by the Department of Environment, Science and Innovation (the department) may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the Internal Reviews and Appeals Information Sheet (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term)

A request for review or appeal is to be made using the approved form 'Application for review of original decision' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term.

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment, Science and Innovation: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

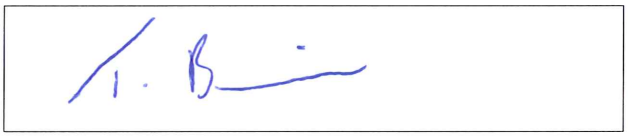
Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

You may have other legal rights or obligations and should seek your own legal advice.

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact James Sadler – A/Compliance Delivery Manager on 0436 945 978 or ESTownsville@des.qld.gov.au.



Signature

30/01/2024

Date

Tim Brain

Manager (Compliance)

Delegate of the Chief Executive

Department of Environment, Science and Innovation

Environmental Protection Act 1994

Enquiries: James Sadler

COMPLIANCE CENTRE: Townsville

Ph: 0436 945 978

Email: ESTownsville@des.qld.gov.au

Appendix 1: Maps



Figure 1: Sample locations

Appendix 2: Sample Results

Table 1: Iron concentrations at PHD2

Date	Total iron (mg/L)	Dissolved iron (mg/L)	Ferrous iron (mg/L)
3/06/2022	20	18.2	16.4
16/06/2022	6.99	7.55	6.36
01/09/2022	3	1	0.96
04/04/2023	11.9	11	11.4
25/05/2023	5.47	5.21	5.21
28/06/2023	15.8	9.08	9.38
06/07/2023	5.29	5.23	3.35
21/12/2023	17.8	16.1	11.6

Table 2: Iron concentrations percentiles at PHD2 and water quality objectives

	Total iron (mg/L)	Iron WQO (mg/L)
20th percentile	5.36	0.01
50th percentile	9.45	0.05
80th percentile	17.00	0.20

Table 3: Acid sulfate soils sampling within the Ponds at DP

Depth (mm)	pH_{KCl}	Actual acidity (%S)	Retained acidity (%S)	Potential acidity (%S)	Net acidity (%S)	Action criteria (>1,000t)
0-30	3.7	0.28	0.24	0.007	0.53	0.03
30-180	4.0	0.21	0.05	0.788	1.04	0.03
190-200	4.3	0.10	0.04	0.046	0.19	0.03
200-320	4.3	0.12	<0.02	0.030	0.16	0.03
320-400	4.3	0.12	0.05	0.396	0.56	0.03
400-460	5.2	0.04	-	0.248	0.28	0.03
460-650	7.1	<0.02	-	0.120	0.12*	0.03

* Typo within the provided certificate of analysis by ALS
- Retained acidity not measured for samples with pH_{KCl} >4.5

Table 4: Acid sulfate soils sampling within the Ponds at DP1

Depth (mm)	pH_{KCl}	Actual acidity (%S)	Retained acidity (%S)	Potential acidity (%S)	Net acidity (%S)	Action criteria (>1,000t)
0-100	4.0	0.22	0.04	0.078	0.33	0.03
170-270	4.3	0.10	0.04	0.075	0.21	0.03
270-360	4.2	0.12	0.07	0.074	0.26	0.03
360-500	4.4	0.09	0.07	0.347	0.51	0.03
500-790	6.0	<0.02	-	0.572	0.58	0.03

- Retained acidity not measured for samples with pH_{KCl} >4.5

Disturbed ASS (t)[2]	Net Acidity, expressed in %S and mol H^+/t units[1]													
	0.03 *18*	**0.06** *36*	**0.1** *62*	**0.2** *125*	**0.4** *250*	**0.6** *375*	**0.8** *500*	**1** *625*	**1.5** *940*	**2** *1250*	**2.5** *1560*	**3** *1870*	**4** *2500*	**5** *3120*
1	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.2
10	0	0	0	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.2	1.4	1.9	2.3
50	0.1	0.1	0.2	0.5	0.9	1.4	1.9	2.3	3.5	4.7	5.9	7.0	9.4	12
100	0.1	0.3	0.5	0.9	1.9	2.8	3.7	4.7	7.0	9.4	12	14	19	23
250	0.4	0.7	1.2	2.3	4.7	7.0	9.4	12	18	23	29	35	47	59
500	0.7	1.4	2.3	4.7	9.4	14	19	23	35	47	59	70	94	117
1000	1.4	2.8	4.7	9.4	19	28	37	47	70	94	117	140	187	234
2000	2.8	5.6	9.4	19	37	56	75	94	140	187	234	281	374	468
5000	7.0	14	23	47	94	140	187	234	351	468	585	702	936	1170
10 000	14	28	47	94	187	281	374	468	702	936	1170	1404	1872	2340
50 000	70	140	234	468	936	1404	1872	2340	3510	4680	5850	7020	9361	11701
100 000	140	281	468	936	1872	2808	3744	4680	7020	9361	11701	14041	18721	23401

L	Low treatment (<0.1 t $CaCO_3$)[3]
M	Medium treatment (0.1 to 1 t $CaCO_3$)
H	High treatment (1 to 5 t $CaCO_3$)
VH	Very High treatment (5 to 25 t $CaCO_3$)
XH	Extra High Treatment (>25 t $CaCO_3$)

TABLE NOTES

1. Net Acidity is the sum of the Potential Acidity plus Actual Acidity plus Retained Acidity. Potential Acidity is measured using Chromium Reducible Sulfur (S_{CR}) or Peroxide Oxidisable Sulfur (S_{POS}). For samples with pH <6.5, the Actual Acidity must also be measured using Titratable Actual Acidity (TAA). The Retained Acidity of soils with pH<4.5 and/or if jarosite or other insoluble sulfate minerals must be estimated using calculations based on Net Acid Soluble Sulfur (S_{NAS}) or Residual Acid Soluble Sulfur (S_{RAS}). If the ANC of the soil is corroborated by appropriate testing (e.g. via slab incubation tests), the ANC can be used in Net Acidity calculations.
2. An approximate soil weight (tonnes) can be obtained by multiplying the volume of soil (in cubic meters, m^3) by bulk density (BD, t/m^3). Dense fine sandy soils may have a BD up to 1.8, and hence 100 m^3 of such soil may weigh up to 180 t. If soil BD is unknown, use 1.7 t/m^3 or refer to Table 5.1 in Sullivan *et al.* (2018b). In these calculations, figures should be converted to dry soil mass, since laboratory results are reported on a dry weight basis.
3. Application amounts are for pure fine $CaCO_3$, assuming a neutralising value (NV) of 100% and using a safety factor of 1.5. A factor that accounts for Effective Neutralising Value must be used for commercial grade aglime. See ASS Tip 18.

Figure 2: Treatment categories and pure $CaCO_3$ requirements based on Net Acidity of soils. Extracted from the Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines V5.