# Notice

***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.*

RTA Yarwun Pty Ltd
123 Albert Street
BRISBANE QLD 4000

Your reference: EPPR00926513

Our reference: 101/0006008|n4743187|CA34297

19 August 2016

Dear Mr McGibbon

**Take notice:** that under the *Environmental Protection Act 1994* (the Act) this environmental protection order (EPO) is issued to RTAY Yarwun Pty Ltd (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Heritage Protection (the department).

The EPO is issued in respect to the activities of RTAY Yarwun Pty Ltd at 975 Hanson Road, Yarwun, QLD, 4680 on land described as Lot 1 SP144430 (the premises).

### A. Grounds

This EPO is issued on the following grounds:

- The administering authority is satisfied, because of an environmental evaluation conducted by the person, unlawful environmental harm is being, or is likely to be, caused.

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

- RTA Yarwun Pty Ltd (RTAY) is permitted to undertake ERA 60 Waste Disposal, in order to dispose of residue from the process of alumina refining at the premises. The residue is disposed of in a tailings dam in the area known as the Residue Management Area (RMA).
- RTAY observed two areas of groundwater expression in 2013:
    - An area to the north of the RMA boundary, outside of the RTAY tenure, called the Northern Groundwater Expression (NGE).
    - An area to the northeast of the RMA boundary, on the RTAY tenure and within a car park and fire water dams, called the Fire Water Dam Expression (FWDE).



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- At a meeting on 26 August 2014 RTAY informed the department of the two groundwater expressions first observed in 2013 to the north and northeast of the RMA; the NGE and the FWDE.
- Departmental officers inspected the NGE on Friday 5 September 2014 and observed an area with water ponding on the surface of the land surrounded by approximately 7ha (as estimated by RTAY) of dead vegetation. Departmental officers undertook water quality sampling of the ponded water at the NGE and results found high salinity (53.8 mS/cm).
- RTA Yarwun Pty Ltd provided (the department) with a report titled Investigation of dead vegetation north of the RTA Yarwun RMA dated October 2014 (Report number 590404001561-1). The report found that multiple lines of evidence clearly show the death of the vegetation is a result of salt scalding from the naturally saline groundwater expression in the area north of the RMA. The report found that decant water from the RMA was not present in the groundwater expressed in the impacted area.
- The department issued an Environmental Evaluation (EE) Notice to RTA Yarwun Pty Ltd on 15 April 2015. The EE broadly required the source, cause and extent of groundwater expressions associated with the residue management area to be investigated.
- RTA Yarwun Pty Ltd submitted an EE Report to the department on 14 October 2015.
- The EE Report identified the likely cause of the groundwater expressions as groundwater pressure in the foundation materials beneath the RMA and progressive mounding of underlying naturally saline groundwater within the foundation materials beneath the RMA. The increased downward pressure of the tailings is thought to be compressing the natural ground underlying the RMA. A comparison of the chemical signatures of water from toe drains, various piezometers, the Firewater dam and RMA decant water was undertaken in addition to geophysical surveying. All seepage, piezometer and dam water samples were found to be groundwater and not seepage from the RMA.
- The Report also indicates the location of the RMA dam in the valley floor is potentially limiting the movement of groundwater from the topographic high in the east, resulting in increased pressures in the vicinity of the dam.
- The EE Report identified both groundcover and tree vegetation within and close to the site is being impacted by expressed saline groundwater. As a result of the expressed groundwater salt scalding has occurred in this area. Sump EC concentrations fluctuated between 20,000 and 50,000 µS/cm over the period December 2014-August 2015.
- The Queensland Government data set Biodiversity status of pre-clearing and remnant regional ecosystems series identifies vegetation at or immediately downstream of the groundwater expression as remnant vegetation containing Of Concern regional ecosystems (RE) 11.3.
- Environmental harm as defined by section 14 of the Environmental Protection Act 1994 is any adverse effect, or potential adverse effect (whether temporary or permanent and whatever magnitude, duration or frequency) on an environmental value.
- An environmental value, defined in section 9 of the Environmental Protection Act 1994 is a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety.
- The Of Concern regional ecosystem is considered to be a physical characteristic of the environment that is conducive to ecological health and therefore is an environmental value under section 9 of the Environmental Protection Act 1994.
- Based on the EE Report provided by RTA Yarwun Pty Ltd and observations made by departmental officers, the department is of the opinion that the operation of the RMA has caused and is likely to

continue to cause unlawful environmental harm. The department acknowledges the efforts RTAY have made to mitigate the environmental impact(s) of the groundwater expression via the implementation of the short term management strategy (STMS).

## B. Requirements

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

1. RTAY must develop and implement a Long Term Management Strategy (LTMS):

    a. By 22 December 2016, you must develop and provide the department with a copy of the pre-feasibility study for an appropriate LTMS to relieve the observed groundwater pressures and to prevent saline groundwater expression.
    b. By 30 May 2018, you must develop and provide the department with a copy of the feasibility study for an appropriate LTMS.
    c. You must implement the LTMS as soon as practically possible after the completion of the feasibility study to ensure sufficient data is available to determine the success of the LTMS.

    Any planned expansion of the Residue Management Area must be taken into consideration when planning for the LTMS to ensure management options are sufficient to prevent expression of groundwater.

2. By 1 November 2016, you must prepare and implement a groundwater-monitoring program to obtain long-term data of event and base flows over several wet seasons to assess the effectiveness of the LTMS.

    The groundwater-monitoring program must be developed by an appropriately qualified person in the fields of hydrogeology and groundwater sampling design.

3. Annually from commencement of the EPO, a groundwater monitoring report must be submitted to the administering authority ensuring that one full wet season (November – April) of data is captured in each report.

    The report must include but is not limited to:

    - Details of the monitoring undertaken, including details of the sampling framework applied;
    - Details of the groundwater analysis undertaken and quality assurance and quality control measures applied;
    - A summary of the monitoring results obtained; and
    - An interpretation, evaluation and explanation of the results by an appropriately qualified person in the field of water quality monitoring and assessment with determinations made as to the nature and extent of any environmental impact on the receiving environment and the success of the LTMS.

4. You must develop and submit to the administering authority a rehabilitation feasibility study for the impacted area (Lot 68 SP272417, Lot 8 SP245936, Lot 7 SP177782). The feasibility study is to be submitted at same time of requirement 1 (b) 30 May 2016. The feasibility study must be completed by a suitably qualified person.

    RTAY must submit a copy of the rehabilitation feasibility study to the administering authority and implement if deemed suitable by the department.

    RTAY must consider:

- The likely success of re-establishing a viable plant community; and
- The alternative of securing a biodiversity offset.
- Planned operational land use of the impacted area.

5. You must notify the administering authority as soon as practically possible of becoming aware of any monitoring result that indicates the presence of decant water from the RMA in groundwater and/or surface water.

6. By 1 November 2016, you must prepare and implement a surface water-monitoring program to assess the effectiveness of the implemented LTMS at preventing the contamination of receiving waters from saline groundwater expressions.

   The surface water-monitoring program must be developed by an appropriately qualified person and must include but is not limited to:

   - Monitoring of surface water quality must include but not limited to the following parameters:
     - Insitu monitoring pH, temperature, dissolved oxygen, electrical conductivity.
     - Laboratory analysed (NATA accredited) samples for major ions and metals (dissolved and total).
   - Sampling must include the following locations:
     - Site(s) immediately downstream of the saline groundwater expression area;
     - Upstream reference site(s);
   - Downstream monitoring site(s) that are representative of;
     - All downstream watercourses; and
     - All downstream water types, such as swamps, freshwater streams and estuaries.
   - Sampling must be undertaken monthly and within 48 hours of a heavy rainfall event (heavy rainfall event is defined as >35mm in 24 hours).
   - Review of the surface water monitoring results to ensure early detection of decant signatures in surface water.

7. From commencement of the EPO, a surface water monitoring report must be submitted to the administering authority by 31st July each calendar year the EPO is in effect ensuring that one full wet season (November - April) of data is captured in each report.

   The report must include but is not limited to:

   - Details of the monitoring undertaken, including details of the sampling framework applied;
   - Details of the analysis undertaken and quality assurance and quality control measures applied;
   - The following statistics for each parameter at each sampling location:
     - 20th percentile;
     - Median or 50th percentile;
     - 80th percentile;
     - Mean, minimum and maximum.
   - A summary of the monitoring results obtained; and

- An interpretation, evaluation and explanation of the results by an appropriately qualified person in the field of water quality monitoring and assessment with determinations made as to the nature and extent of any environmental impact on the receiving environment from the saline ground water expression.

8. The EPO will remain in force for a period of three years. From 30 September 2016 to 30 September 2019.

## 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:**

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

## D. Penalty

Failure to comply with an EPO is an offence.

1. The maximum penalty for an individual for wilfully contravening an EPO is 6250 penalty units, totalling $761,875 or five years imprisonment.
2. The maximum penalty for a corporation for wilfully contravening an EPO is 31,250 penalty units, totalling $3,809,375.
3. The maximum penalty for an individual for contravening an EPO is 4500 penalty units, totalling $548,550
4. The maximum penalty for a corporation for contravening an EPO is 22,500 penalty units, totalling $2,742,750

Failure to provide written notice to the buyer is an offence.

1. The maximum penalty for an individual is 50 penalty units, totalling $6095.
2. The maximum penalty for a corporation is 250 penalty units, totalling $30,475.

Failure to provide written notice within 10 business days of ceasing the activity to the department is an offence.

3. The maximum penalty for an individual is 50 penalty units, totalling $6095.
4. The maximum penalty for a corporation is 250 penalty units, totalling $30,475.

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

## E. Reviews and appeals

The provisions regarding review of decisions and appeals may be found in sections 519 to 539 of the Act.

A person who is dissatisfied with certain decisions of the department, may be able to apply to have the department review that original decision.

Generally, a request to have a decision reviewed must be made:

1. within 10 business days of the decision being notified to the person;
2. be supported by enough information to enable the department to decide the application for review; and
3. be made using the application for review of an original decision form (EM709).[1]

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 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 also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991.*

For further information about reviews and appeals see the information sheet - internal review and appeal to the Planning and Environment Court (EM1866). You may have other legal rights or obligations and should seek your own legal advice.

Should you have any queries in relation to the notice, please contact David Love on telephone number 49716508

Signature

19/9/16

Date

Rebecca Booker

Compliance Manager, Minerals

Delegate of the Chief Executive

Department of Environment and Heritage Protection

*Environmental Protection Act 1994*

**Enquiries:**

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[1] This is the publication number. The publication number can be used as a search term to find the latest version of a publication at <www.ehp.qld.gov.au>.