

2 August 2019

Hon Matthew Swinbourn MLC
Parliament House
4 Harvest Terrace
WEST PERTH WA 6005

Dear Mr Swinbourn

RE: PETITION No. 122 – STORAGE OF LITHIUM TAILINGS

Thank you for the opportunity to provide comment with regards to Petition No. 122 - Storage of Lithium Tailings. Please accept my apologies for the delayed response. With regards to the terms of the petition, as you may be aware the Shire of Dardanup referred the application from Cleanaway, to the Department of Water and Environment Regulation (DWER) for a works approval to store lithium tailings at Lot 2 Banksia Road, Dardanup, to the Environmental Protection Authority (EPA) for formal assessment.

On 8 July 2019 the EPA made a decision not to undertake a formal assessment. The Council of the Shire of Dardanup on 17 July 2019 resolved to formally appeal this decision based on the following grounds:

1. Economic and cultural impacts;
2. Water quality;
3. Characterisation of tailings;
4. Air quality;
5. Classification/storage of tailings;
6. Cumulative impacts; and
7. Design of tailings storage cell.

I attach the Shire's documents provided to the Appeals Convenor for your information. The Shire is hopeful that the EPA will undertake a formal, complete and detailed assessment of the potential impacts on the environment and human health.

The Shire is not currently in receipt of a Development Application for this proposal, however the Shire is expecting this to be received in due course. Therefore, the Shire is not able to provide further comments on this proposal at this stage.

Please do not hesitate to contact me directly on 0427 930 524, or at ceo@dardanup.wa.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "André".

MR ANDRÉ SCHÖNFELDT
Chief Executive Officer



Government of Western Australia
Office of the Appeals Convenor
Environmental Protection Act 1986

Office use
only

Date Stamp

Appeal Form

This form is for use in all appeals made under Part VII of the *Environmental Protection Act 1986*.

Form epl 28Aug18

1. Name of appellant

Name of appellant:

Shire of Dardanup

2. Proposal, land or premises to which appeal relates

Proposal description:

Cleanaway Banksia Road Landfill - New Tailings Storage Cell

Location:

Lot 2 Banksia Road, Crooked Brook

Name of proponent/owner:

Cleanaway Solid Waste Pty Ltd

3. Type of appeal

In this section, identify the decision/report to which your appeal relates, and include the relevant agency reference or report number (where applicable).

Environmental Protection
Authority

Minister for Environment

Report or assessment number: CMS17609

Date published/advertised: 8 July 2019

☒ Decision not to assess a proposal

☐ Report and recommendations

☐ Other (please specify):

☐ Implementation conditions

Department of Water and
Environmental Regulation
(DWER)

Department of Mines,
Industry Regulation and
Safety (some clearing
permits)

Local government (some
environmental protection
notices and noise
approvals)

Name of decision making agency (e.g. DWER):

Type of appeal:

1. Native vegetation permits, notices CPS No:

☐ Refusal to grant a permit

☐ Conditions of permit

☐ Grant of a permit

☐ Amendment, suspension of permit

☐ Requirements of a vegetation
conservation notice

☐ Amendment of a vegetation
conservation notice

2. Licences and works approvals Lic/WA No.

☐ Refusal to grant licence/works approval

☐ Conditions of licence/works approval

☐ Amendment, suspension, revocation

3. Environmental protection notices/closure notices Ref:

☐ Requirements of a notice

☐ Amendment of a notice

4. Other type of appeal – please specify:

☐

4. Release of appeal and supporting documentation

Pages 1-4 of this Form and any supporting documentation will be provided to the agency whose decision is the subject of this appeal. If you are not the proponent or occupier of the relevant premises, the first four pages of this Form and all supporting documentation will also be provided to the proponent or occupier to provide it with the opportunity to respond to any issues raised. Pages 1-4 of this Form and all supporting documentation may be published after the determination of the appeal.

If you are of the view that your name should not be provided to the proponent or other party to an appeal, please attach a separate letter to the Appeals Convenor requesting your name be withheld pending the determination of appeals, setting out the reasons for the request (e.g. disclosure of name may prejudice employment). Please note that with the exception of withdrawn appeals, the names of all appellants will be published after the determination of appeals, consistent with regulation 8 of the *Environmental Protection Regulations 1987*.

5. Grounds of appeal and outcomes sought

Why do you want the Minister to review the decision, report or recommendations?

Please provide a statement of grounds on which you object to the decision, report or recommendations. This should be a precise list of issues you wish to be considered. Each issue should include sufficient detail to allow the Appeals Convenor to ascertain the basis for your concern.

What outcome are you seeking?

Please also identify what outcome you are seeking from the appeal, that is, what decision do you want the Minister to make. Use this section of the form to identify what solutions or measures you would like to see included to make the proposal environmentally acceptable to you.

Guidance on completing this section

Use plain English and identify only those issues that are of concern to you. Also clearly identify the part or aspect of the decision or report which you object to. As your grounds of appeal can be made public, do not use emotive or defamatory language. The following is an example of how to set out your appeal:

Sample appeal ground:	<i>Acid Sulphate Soils: excavations associated with the proposal will expose "high risk" acid sulphate soils (see page 12 of EPA report). The conditions recommended by the EPA for management of these soils are considered to be inadequate for the following reasons:</i> <i>1. [state reasons]</i>
Sample outcome sought:	<i>It is recommended that any approval conditions include the following:</i> <i>1. Requirement that the proponent [describe]</i>

Ground 1 (Insert title)

Economic and Cultural Impacts

Describe concern:

The Shire is concerned that implementation of the tailings disposal proposal will result in adverse economic and cultural impacts for the Dardanup community and may result in reduced land values and a change in perception of the region which impacts on its attractiveness as a residential and tourist destination.

See attached document No 1 for further information.

Outcome sought:

The Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.

Did you raise this ground of appeal through an earlier public submission period?

☐ Yes

☒ No

If "yes", provide: Date of submission

Submission made to:

Ground 2

(Insert title)

Water Quality

Describe concern:

The lithium tailings have been the subject of very limited chemical and leachate testing and as result the Shire is concerned that there is a risk of severe surface and groundwater contamination in the event of a cell-liner failure or poor management of the material.

There are already concerns regarding stormwater management at the facility impacting native vegetation adjacent to the site resulting from inadequate management of runoff.

See attached document No 1 for further information.

Outcome sought:

The Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.

Did you raise this ground of appeal through an earlier public submission period?

☐ Yes☒ No

If "yes", provide: Date of submission

Submission made to:

Ground 3

(Insert title)

Characterisation of Tailings

Describe concern:

The lithium tailings analysed by Ramboll came from a limited sample of tailings reportedly taken from a lithium hydroxide monohydrate process plant in China. The Shire is not convinced that these samples and the associated chemical analyses are wholly representative of the tailings that will be received at the Banksia Road facility, produced at the Albemarle Lithium processing plant.

In addition, only 20 samples were subject to chemical analysis and then only for a limited range of analytes. This number of samples is not sufficient to accurately characterise the tailings and assess the potential environmental risk that they represent.

See attached document No 1 for further information.

Outcome sought:

The Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.

Did you raise this ground of appeal through an earlier public submission period?

☐ Yes☒ No

If "yes", provide: Date of submission

Submission made to:

Ground 4

(Insert title)

Air Quality

Describe concern:

In addition to dust produced during the construction of the storage cell and leachate pond, the proposal involves transporting and tipping of large quantities of tailings (up to 522,000 tpa) at the facility. As the product is finely divided, there is a significant risk for dust to be emitted from the facility and impact surrounding areas.

See attached document No 1 for further information.

Outcome sought:

The Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.

Did you raise this ground of appeal through an earlier public submission period?

☐ Yes☒ No

If "yes", provide: Date of submission

Submission made to:

Please note: if there is insufficient space, attach a separate sheet of paper using the above format.

6. Supporting documentation

All relevant supporting information should be numbered and attached to your appeal as listed below. Please also identify to which appeal ground(s) the information relates.

Please lodge two copies of all attachments (unless sent by email).

Electronic documents should be in PDF or Microsoft Word format, with no document exceeding 10MB in size.

No.	Title or description of supporting information	Appeal ground
1.	Shire of Dardanup Appeal	1 - 7
2.	Appeal Grounds 5 - 7	5 - 7
3.		
4.		
5.		
6.		

7. Address and contact details of appellant and contact person

Name (same as 1 above):	Shire of Dardanup	
Address:	PO Box 7016 - 1 Council Drive Eaton WA 6232	
Daytime contact number:	9724 0000	Mobile number:
Fax number:		Email: records@dardanup.wa.gov.au

Contact person/representative use this section where appeal is lodged by an organisation/company, or is represented by an agent

Name:	Brenton Scambler	
Address:	as above	
Daytime contact number:	9724 0000	Mobile number:
Fax number:		Email: records@dardanup.wa.gov.au

8. Appeal fee

For most types of appeal under Part VII of the *Environmental Protection Act 1986*, the appellant must pay the applicable appeal fee. Details of the fee applicable to the different appeal types is available from the Appeals Convenor's website www.appealsconvenor.wa.gov.au or by telephoning (08) 6364 7990 during business hours.

Fee payment can be made by cash (only for hand delivered appeals), cheque/money order (made payable to "Office of the Appeals Convenor") or by credit card via BPoint on our website.

Payment options:

- ☐ Please find attached cash/cheque/money order in the sum of \$_____ being the fee for this appeal.
- ☐ Credit card payment (online) – access www.appealsconvenor.wa.gov.au, select *Pay Appeal Fee* and follow the prompts.

Please include:


- Full name
- Description of payment
- Contact phone number (10 digits)

Before submitting this form, record the payment information below:

Receipt no: 9545 9791 639	Payment date: 22-Jul-2019
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9. Signature

In signing this form, the appellant/representative confirms the accuracy of matters contained herein and acknowledge the release statement under item 4. **All appeals must be signed.**

Signature of appellant/agent: 	Date: 22-Jul-2019
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10. Time for lodging appeal

All appeals must be received by 11.59pm on the closing date (5pm if delivered in person or by mail). Each appeal has a different closing date – refer to www.appealsconvenor.wa.gov.au for more information.

It is your responsibility to ascertain the closing date for the appeal and ensure your appeal is lodged within that time. **Late appeals cannot be accepted.**

11. Lodging the appeal and additional information

You can lodge your appeal by post, hand delivery, email or fax:

Address: Level 22 Forrest Centre
221 St Georges Terrace
PERTH WA 6000

Telephone: (08) 6364 7990

Fax: (08) 6364 7999

Email: admin@appealsconvenor.wa.gov.au

Internet: www.appealsconvenor.wa.gov.au

Office use only:

22 July 2019

Office of the Appeals Convenor
Level 22 Forrest Centre
221 St Georges Terrace
PERTH WA 6000

APPEAL OF EPA DECISION TO “NOT ASSESS” – CLEANAWAY BANKSIA ROAD LANDFILL – NEW TAILINGS STORAGE CELL – EPA ASSESSMENT CMS17609

Attention Appeals Convenor,

The Shire of Dardanup (the Shire) wishes to formally appeal the EPA's decision to not assess Cleanaway's proposal to accept and store lithium tailings at its Banksia Road landfill facility.

Background

The EPA advertised the lithium tailings proposal for a seven-day public comment period, during which 243 submissions were made. A total of 224 of the submissions requested the EPA to formally assess the proposal at the level of Public Environmental Review, with another 5 submissions requesting an Environmental Review (no public review) and 5 requesting an Assessment on Referral Information. The number of submissions received on the referral demonstrates a significant level of community interest in this proposal that requires further consideration.

The Shire has received numerous expressions of concern from the community regarding the lithium tailings proposal. The key areas of concern raised are:

- Social surroundings and human health - odour, dust and silicates, safety issues with traffic, negative impacts to local businesses and reduced land values in proximity to the landfill;
- Inland waters - management of stormwater runoff and potential groundwater contamination;
- Air quality - potential impacts from dust and dust monitoring;
- Terrestrial Fauna and Flora and Vegetation - potential indirect impacts to fauna and vegetation on lands reserved for conservation surrounding the landfill; and
- Cumulative impacts of future expansions and potential re-use of the lithium tailings in the future.

Appeal Grounds

The grounds on which the Shire wishes to appeal the EPA decision are detailed below.

Ground 1: ECONOMIC AND CULTURAL IMPACTS

The Shire is concerned that implementation of the tailings disposal proposal will result in adverse economic and cultural impacts for the Dardanup community and may result in reduced land values and a change in perception of the region which impacts on its attractiveness as a residential and tourist destination.

The key factors contributing to this concern are:

- The substantial volume of tailings that forms part of the proposal when the existing landfill operation is already one of the biggest in the State and where there is already a significant level of community complaint regarding traffic, odour, water pollution and litter;
- The fact that the landfill already receives municipal waste from across the State including the Perth Metropolitan region and Barrow Island, tailings from the Cristal facility located in Australind and will now receive this material from a facility sited in Kemerton. This leads to a perception at Dardanup is a dumping ground for other people's waste.
- The fact that the waste concerned is more appropriately considered as mine tailings and should not be directed for disposal in high quality rural land; and
- The increase in heavy vehicle traffic required to deliver the tailings on rural roads which already carry the existing heavy vehicle traffic for the landfill.

These issues collectively result in the potential for a significant adverse economic and social outcome if the proposal is implemented.

Ground 2: WATER QUALITY

The proposal will result in the disposal of up to 522,000 tonnes of mine tailings on the disposal cell, in addition to the Cristal tailings that are already received at the site. The lithium tailings have been the subject of very limited chemical and leachate testing and as result the Shire is concerned that there is a risk of severe surface and groundwater contamination in the event of a cell-liner failure or poor management of the material.

There are already concerns regarding stormwater management at the facility impacting native vegetation adjacent to the site resulting from inadequate management of runoff.

The Shire is also concerned that the current water quality monitoring and management program is not sufficient to detect groundwater contamination or cumulative impacts of PFAS resulting from the landfill facility.

Seepage or release of leachate from the storage cell or the leachate storage pond have the potential to contaminate soil and groundwater in and around the site. Given the scale of the proposal, these matters require greater scrutiny than would be the case if the proposal were only assessed under Part V of the Environmental Protection Act. In support of these concerns, on 17 July 2019, a news report appeared in the Australian newspaper reporting that the DWER had refused approval for Mineral Resources to expand operations at its Wodgina lithium facility due to concerns regarding a leaking tailings dam. The article cited concerns regarding lithium, tungsten and uranium being present in the process water conveyed to the dam with tailings which was resulting in contamination of underlying groundwater.

Ground 3: CHARACTERISATION OF TAILINGS

The lithium tailings analysed by Ramboll came from a limited sample of tailings reportedly taken from a lithium hydroxide monohydrate process plant in China. The Shire is not convinced that these samples and the associated chemical analyses are wholly representative of the tailings that will be received at the Banksia Road facility, produced at the Albemarle Lithium processing plant.

In addition, only 20 samples were subject to chemical analysis and then only for a limited range of analytes. This number of samples is not sufficient to accurately characterise the tailings and assess the potential environmental risk that they represent.

A further concern is that the proponent's Works Approval document does not contain information regarding the radioactivity level of the materials in the lithium tailings. The fact that the spodumene ore from Greenbushes and the mine tailings and concentrates derived from the processing of this ore contains elevated levels of radioactivity has been discussed in publicly available reports and was also the subject of a parliamentary question by Senator Giz Watson in 2007.

The Shire is of the view that these concerns regarding radioactivity provide another strong ground for the EPA to revise its decision that a formal assessment is not required for this proposal.

Ground 4: AIR QUALITY

In addition to dust produced during the construction of the storage cell and leachate pond, the proposal involves transporting and tipping of large quantities of tailings (up to 522,000 tpa) at the facility. As the product is finely divided, there is a significant risk for dust to be emitted from the facility and impact surrounding areas.

Dust has the potential to be generated from the tailings cell during operation due to the mechanical operation of dozers spreading and compacting the tailings, truck movements, unloading of tailings and wind erosion from the tailings surface as the material dries. Dust emissions can potentially smother surrounding vegetation leading to vegetation and habitat degradation or loss. They can also cause amenity or health impacts to nearby sensitive human receptors.

Dust emissions have the potential to cause amenity or health impacts to nearby human receptors. This is a particular concern when the toxicity of the tailings has not been properly characterised. The Shire is concerned that dust management and monitoring has not been sufficiently investigated and addressed. Concerns also exist regarding the proposal to use leachate derived from the tailings for dust management. There is no consideration of the potential for spray drift from the leachate to result in off-site impacts nor is any data presented with respect to the nature or concentration of contaminants present in the leachate. Of further concern are statements within the dust management plan prepared by Strategen, which indicates that 24 hour dust monitoring will only occur 3 months pre and post construction of the tailings cell. After this period dust monitoring will only be undertaken on a visual basis. This visual assessment of dust monitoring is of significant concern to both the Shire and the community as during certain times of the year dust emissions are severe enough to be seen leaving the premises.

Ground 5: CLASSIFICATION / STORAGE OF TAILINGS

The Shire considers that the lithium tailings should be considered a Mining residue and dealt with under the appropriate mining legislation. The Shire is also of the view that other management options should be considered rather than simply dumping the tailings in a landfill. Options could include further analysis and processing of the tailings to produce useful products such as additives for concrete. It is understood that this is the approach that has been taken for the Tanqi Lithium hydroxide facility in Kwinana where all the tailings are proposed to be re-used.

The Shire considers that a formal assessment of the Cleanaway tailings proposal would provide the EPA with the opportunity for a more strategic assessment of the management of the tailings produced in lithium production facilities that are not co-located with the mine site.

Ground 6: CUMULATIVE IMPACTS

The Shire is concerned that the EPA did not consider the significance of the proposal in relation to the current operations at the landfill site and the cumulative impacts arising from these existing operations at the site.

Noise is already a significant concern to the community. If this proposal is implemented, the landfill site will be receiving an estimated additional 300,000 tpa of waste (lithium tailings) with a significant number of additional trucks (approximately 40 daily) delivering the waste to site. There will also be additional mobile equipment on site to receive and stack the tailings, this will increase noise levels in and around the landfill facility.

As indicated above, there are existing concerns regarding dust emissions from the landfill site which will only increase as a result of the lithium tailings proposal being implemented.

The increase in heavy vehicles visiting the site, in addition to an existing large volume of heavy vehicle traffic on the Shire roads represents a real adverse impact for the Dardanup community in terms of both safety and amenity.

The new cell will also impact the visual amenity of the surrounding land as the tailings are being stacked high in the existing landfill form and will increase the height of the landform by roughly 25m from 88 m AHD to 113 m AHD. This reinforces the large scale of this proposal and supports the Shire's argument that it is regionally and environmentally significant and should, therefore, be formally assessed under Part IV of the Environmental Protection Act.

Ground 7: DESIGN OF TAILINGS STORAGE CELL

The proposal involves the placement of more than 500,000 tonnes of lithium tailings on top of existing waste cells and adjoining the Cristal tailings cell to a total height of 25 metres above the surrounding ground levels. Little information has been presented regarding the stability of the underlying waste and tailings and also the structural integrity of the perimeter embankments to handle the lateral loads imposed by this huge mass of tailings.

The stacking of materials with different engineering properties on top of one another can result in shear failures and also may increase the complexity of leachate management due to perching of stormwater or leachate.

The Shire is therefore concerned that the design of the tailings storage cell has not been described in sufficient detail for the structural integrity of the cell to be assessed and considers that an assessment under Part V of the Act will not adequately address this concern.

OUTCOME SOUGHT

In view of the matters raised above, the Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.

Should you wish to discuss or clarify any of the matters above, please do not hesitate to contact Manager Development Services Mr Brenton Scambler by telephone on 9724 0349 or email on brenton.scambler@dardanup.wa.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "Brenton Scambler".

MR BRENTON SCAMBLER

Manager Development Services

Ground 5	<i>CLASSIFICATION / STORAGE OF TAILINGS</i>
Describe Concern	<p>The Shire considers that the lithium tailings should be considered a Mining residue and dealt with under the appropriate mining legislation. The Shire is also of the view that other management options should be considered rather than simply dumping the tailings in a landfill. Options could include further analysis and processing of the tailings to produce useful products such as additives for concrete. It is understood that this is the approach that has been taken for the Tanqi Lithium hydroxide facility in Kwinana where all the tailings are proposed to be re-used.</p> <p>See attached document No 1 for further information.</p>
Outcome Sought	In view of the matters raised above, the Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.
Did you raise the ground of appeal through an earlier public submission period	No

Ground 6	<i>CUMULATIVE IMPACTS</i>
Describe Concern	<p>The Shire is concerned that the EPA did not consider the significance of the proposal in relation to the current operations at the landfill site and the cumulative impacts arising from these existing operations at the site.</p> <p>See attached document No 1 for further information.</p>
Outcome Sought	In view of the matters raised above, the Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.
Did you raise the ground of appeal through an earlier public submission period	No

Ground 7	<i>DESIGN OF TAILINGS STORAGE CELL</i>
Describe Concern	The proposal involves the placement of more than 500,000 tonnes of lithium tailings on top of existing waste cells and adjoining the Cristal tailings cell to a total height of 25 metres above the surrounding ground levels. Little information has been presented regarding the stability of the underlying waste and tailings and also the structural integrity of the perimeter

	<p>embankments to handle the lateral loads imposed by this huge mass of tailings.</p> <p>See attached document No 1 for further information.</p>
Outcome Sought	<p>In view of the matters raised above, the Shire requests that the Minister directs the EPA to formally assess the Cleanaway proposal under Part IV of the Environmental Protection Act with a public comment period of at least 4 weeks and preferably 8 weeks.</p>
Did you raise the ground of appeal through an earlier public submission period	<p>No</p>