



Report and recommendations of the Environmental Protection Authority



**Class II Landfill, Lot 7778 Diagram 209805,
1189 Wannamal Road South Proposal -
inquiry under section 46 of the *Environmental
Protection Act 1986* to amend Ministerial
Statements 796 and 975**

Fernview Environmental Pty Ltd

Report 1612

December 2017

ENVIRONMENTAL PROTECTION AUTHORITY
REPORT AND RECOMMENDATIONS TO THE MINISTER FOR
ENVIRONMENT

**CLASS II LANDFILL, LOT 7778 DIAGRAM 209805, 1189 WANNAMAL
ROAD SOUTH PROPOSAL - INQUIRY UNDER SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986 TO AMEND MINISTERIAL
STATEMENTS 796 AND 975**

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of changing the implementation conditions relating to the Class II Landfill, Lot 7778 Diagram 209805, 1189 Wannamal Road South, Cullalla, Shire of Gingin proposal.

The following is the EPA's Report and Recommendations (Report No. 1612) to the Minister pursuant to section 46(6) of the *Environmental Protection Act 1986* (the EP Act).

Section 46(6) of the EP Act requires the EPA Report to include:

- a) a recommendation on whether or not the implementation conditions to which the inquiry relates, or any of them, should be changed; and
- b) any other recommendations that it thinks appropriate.

Background

The Class II Landfill, Lot 7778 Diagram 209805, 1189 Wannamal Road South proposal is to construct and operate a landfill accepting Class II-type waste in Gingin, Western Australia. The proposal includes a landfill gas collection and utilisation plant. The EPA notes that Lot 7778 Diagram 209805 has been subdivided and the proposal is now located on Lot 98 on Deposited Plan 75926, Wannamal Road South.

The EPA assessed the proposal at the level of Environmental Protection Statement (EPS) and released its assessment report in May 2008 (Report No. 1287). The EPA identified the following key environmental factors relevant to the proposal:

- Ground and Surface Water Quality; and
- Flora and Vegetation.

In applying the EPA's *Statement of Environmental Principles, Factors and Objectives* (December 2016) these factors are now represented by:

- Inland Waters Environmental Quality; and
- Flora and Vegetation.

The EPA concluded in Report No. 1287 that the proposal could be managed to meet the EPA's objectives, provided there was satisfactory implementation by the proponent of their commitments and the EPA's recommended conditions.

The Minister for Environment approved the proposal subject to the implementation conditions of Ministerial Statement 796 dated 11 June 2009.

The proposal has been determined to be a Controlled Action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), and is currently being assessed by the Australian Government Department of the Environment and Energy.

Previously approved changes to conditions

Condition 3 of Ministerial Statement 796 has previously been changed under section 46 (s46) of the EP Act in order to extend the authorised timeframe for substantial commencement of the proposal by three years, to 11 June 2017 (Report No. 1510; Ministerial Statement 975 dated 2 July 2014).

Requested changes to conditions

Due to delays in obtaining other approvals including those required under the EPBC Act, the proponent for the proposal, Fernview Environmental Pty Ltd, has requested a further extension to the timeframe for substantial commencement.

In response, on 7 August 2017, the Minister for Environment requested that the EPA inquire into and report on the matter of changing the implementation conditions relating to the Class II Landfill, Lot 7778 Diagram 209805, 1189 Wannamal Road South, Cullalla, Shire of Gingin proposal (Ministerial Statements 796 and 975).

Application of relevant EPA Policies and Guidelines

In inquiring into the requested change to conditions, the EPA has considered and given due regard, where relevant, to its current and any applicable former environmental impact assessment policy and guidelines, noting that a number of published policies and guidelines pertaining to this proposal were considered but not determined to be relevant.

Inquiry into the requested change to conditions

The EPA typically recommends the Minister sets conditions on significant proposals that require them to be substantially commenced within a specified timeframe. Extending this timeframe requires the Minister to change the relevant conditions under s46 of the EP Act, and provides for the EPA to review and consider the appropriateness of the implementation conditions relating to the proposal, ensuring that:

- consideration is given to changes in environmental, scientific or technological knowledge that may have arisen since the initial assessment; and
- proposals are being implemented using best practice and contemporary methods so that the EPA objectives for the key environmental factors are met.

The EPA has discretion as to how it conducts its inquiry. The currency of the initial assessment and issue of the Ministerial Statement (that is, when it was published) is also instructive in determining the extent and nature of the inquiry under s46.

Inquiry findings

In conducting this inquiry, the EPA reviewed the information provided by the proponent, and the original EPA assessment of the proposal detailed in Report No. 1287. In considering whether it should recommend an extension of the authorised time limit for substantial commencement of the proposal, the EPA also considered whether there is any new relevant information in relation to the assessment of the potential impacts of the proposal.

Inland Waters Environmental Quality

The EPA's objective for this factor is *to maintain the quality of groundwater and surface water so that environmental values are protected.*

The proposed landfill is located on the Dandaragan plateau, with the site lying above the unconfined Poison Hill Aquifer which is in hydraulic connection with the Gingin Brook. Groundwater levels are approximately 15 metres below the proposed landfill liner levels. There are no surface water bodies on the site, the nearest water body being the head of the Gingin Brook approximately four (4) kilometres southwest of the site.

Having particular regard to the:

- placement of Class II-type waste in the landfill;
- design of the landfill liner and capping system exceeding specifications for a Class II landfill;
- leachate management and contingency measures; and
- Works Approvals and Licences required under Part V of the EP Act;

it was the EPA's opinion that the proposal could be managed to meet the EPA's environmental objective for this factor, provided that recommended Ministerial Conditions 1-3 (Proposal Implementation – types of waste accepted), and 6-1 to 6-5 (Ground and Surface Water) were implemented.

Relevant Policy and Guidance

The EPA considers that the following current environmental policy and guidance is relevant to its assessment of the requested change to conditions:

- Environmental Factor Guideline – *Inland Waters Environmental Quality* (EPA, December 2016).

This guideline was applied with regard to:

- application of the mitigation hierarchy to avoid or minimise impacts to inland water environmental quality, where possible;
- the environmental values which are potentially impacted and their significance;
- the pathways through which water quality may be impacted;
- the significance of the likely change to water quality as well as the environmental values affected by those changes, in the context of cumulative impacts and other relevant issues discussed in the guideline;
- whether the impacts to water quality are considered in the context of any published water quality criteria or standards, or appropriate criteria or standards are developed;
- whether all analyses are undertaken to a standard consistent with recognised published guidance and appropriate accreditation; and
- the risk to environmental values and whether proposed mitigation is technically and practically feasible.

The proponent has not proposed any changes to the design of the landfill, and Works Approvals and Licences required under Part V of the EP Act can also manage the potential impacts to groundwater and surface water.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed, through existing implementation conditions (Proposal Implementation – types of waste accepted), and 6-1 to 6-5 (Ground and Surface Water), together with the requirements of Part V of the EP Act.

Flora and Vegetation

The EPA's objective for this factor is *to protect flora and vegetation so that biological diversity and ecological integrity are maintained.*

EPA Report No. 1287 considered the potential impacts of clearing 60.3 hectares (ha) of native vegetation varying in condition from 'Degraded' to 'Very Good to Excellent'.

The vegetation on the proposed site is classified as part of the Cullalla Complex (as described by Heddle et al., 1980). At the time of the EPA's assessment approximately 47% of the pre-European extent of the Cullalla Complex remained, with 3.4% in secure tenure. No threatened flora or threatened ecological communities were identified on the site.

Having particular regard to the:

- extent of clearing representing approximately 0.5% of the remaining extent of the Cullalla Complex vegetation; and
- revegetation of the cap with selected native species;

it was the EPA's opinion that the proposal could be managed to meet the EPA's environmental objective for this factor provided that the recommended Ministerial Conditions were implemented.

Relevant Policy and Guidance

The EPA considers that the following current environmental policy and guidance is relevant to its assessment of the proposed changes to conditions:

- Environmental Factor Guideline – *Flora and Vegetation* (EPA, December 2016).

This guideline was applied with regard to:

- application of the mitigation hierarchy to avoid and minimise impacts to flora and vegetation, where possible;
- the flora and vegetation affected by the proposal;
- the potential impacts and the activities that will cause them, including direct and indirect impacts;
- the implications of cumulative impacts;
- whether surveys and analyses have been undertaken to a standard consistent with guidance;
- the scale at which impacts to flora and vegetation are considered;
- the significance of the flora and vegetation, and the risk to flora and vegetation;
- the current state of knowledge of flora and vegetation and the level of confidence underpinning the predicted residual impacts;
- whether proposed management and mitigation approaches are technically and practically feasible; and
- whether the proposal area will be revegetated in a manner that promotes biological diversity and ecological integrity.

The most recent statistics for the Cullalla complex published by the Department of Parks and Wildlife (now the Department of Biodiversity, Conservation and Attractions) are that 51.14% of the pre-European extent remains, with 3.93% of that within lands protected for conservation.

While these statistics show there has been no significant clearing of the Cullalla complex since the EPA's assessment of the proposal, the EPA notes that there has also not been a significant increase in the amount of Cullalla complex protected for conservation.

The vegetation within the proposal area has been previously impacted by clearing and repeated cattle grazing. EPA Report No. 1287 noted the proposal footprint had been located to minimise impacts on 'Excellent' condition vegetation, with the majority of vegetation to be cleared in 'Good' condition. Other management and mitigation measures, such as a 1.8 metre high fence with litter control capping, were proposed to further minimise impacts on flora and vegetation.

Ministerial Statement 796 currently authorises clearing of up to 61 ha of native vegetation. Since the EPA's assessment of the proposal, the proponent has changed the proposal footprint and reduced the required clearing to approximately 42.5 ha within a development envelope of 66.6 ha.

The EPA is satisfied that its objectives for this factor can be met, and the potential impacts of the proposal can be managed, through existing implementation conditions 1 (Proposal Implementation), 7 (Flora and Vegetation), 8 (Landfill Decommissioning and Post-closure Management Plan) and 9 (Financial assurance).

New Environmental Factor

The proponent's Environmental Protection Statement (EPS) identified the vegetation within the proposal area as potential feeding habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*), which at the time was listed as 'Endangered' under both the *Wildlife Conservation Act 1950* and the Commonwealth EPBC Act. The EPS concluded the proposal area did not have special significance for the species given the degraded condition of the vegetation, and the extensive availability of similar and better condition woodland and heath habitat present within the region, including the Boonanarring Nature Reserve located to the west of the proposal area. Terrestrial Fauna was not considered a key environmental factor in EPA Report No. 1287.

The conservation status of Carnaby's cockatoo has not changed since the EPA's original assessment, that is it is still listed as 'Endangered' under both Commonwealth and State legislation; however, the EPA considers there is now a much greater understanding of the threats facing the species particularly regarding the loss of habitat.

The Carnaby's Cockatoo Recovery Plan (Department of Parks and Wildlife, October 2013) outlines the key threatening processes affecting the species, including the clearing, fragmentation and degradation of feeding habitat on the Swan Coastal Plain. The Recovery Plan highlights the importance of protection and management of non-breeding habitat, and of improving the security and tenure of management of important areas of feeding habitat

through purchase and transfer of vesting, conservation covenants, or other appropriate means.

Avoidance of impacts to Carnaby's cockatoo habitat on the Swan Coastal Plain is also a key focus of the *Perth and Peel Green Growth Plan for 3.5 million – Draft Strategic Conservation Plan for the Perth and Peel Regions* (Government of WA 2015).

The EPA considers that the knowledge gained since the original assessment regarding the importance of suitable habitat to the survival and recovery of Carnaby's cockatoo, and the significant and continuing loss of such habitat, constitutes new relevant information. The EPA has accordingly considered Terrestrial Fauna as a new key environmental factor relevant to the proposal.

Terrestrial Fauna

The EPA's objective for this factor is *to protect terrestrial fauna so that biological diversity and ecological integrity are maintained.*

Relevant Policy and Guidance

The EPA considers that the following current environmental policy and guidance is relevant to its assessment of the proposed changes to conditions:

- Environmental Factor Guideline – *Terrestrial Fauna*;
- WA Environmental Offsets Policy (2011); and
- WA Environmental Offsets Guidelines (August 2014).

These policies and guidelines were applied in regards to:

- application of the mitigation hierarchy to avoid or minimise impacts to terrestrial fauna, where possible;
- the terrestrial fauna affected by the proposal;
- the potential impacts and the activities that will cause them, including direct and indirect impacts;
- whether surveys and analyses have been undertaken to a standard consistent with EPA technical guidance;
- the scale at which impacts to terrestrial fauna are considered;
- the significance of the terrestrial fauna and the risk to those fauna;
- the current state of knowledge of the affected species/assemblages and the level of confidence underpinning the predicted residual impacts;
- whether proposed management approaches are technically and practically feasible; and
- the principles for the use of environmental offsets.

The proponent has changed the original proposal layout to reduce the amount of native vegetation required to be cleared; however, the proposal will still require clearing of 42.5 ha of native vegetation that provides foraging habitat for a protected species. In accordance with the WA Environmental Offsets Guidelines (Government of WA, 2014), this constitutes a significant residual impact. Therefore, the EPA considers it appropriate to require an offset to counterbalance the loss of Carnaby's cockatoo foraging habitat.

As a landfill site the proposal also has the potential to attract feral animal species which in turn have the potential to cause detrimental impacts to native fauna. Given the close proximity of vegetated areas providing potential native fauna habitat, including the Boonanarring Nature Reserve, the EPA considers it appropriate to set a condition on the proposal requiring the proponent to prepare and implement a Feral Animal Environmental Management Plan.

The EPA considers its objectives for this factor can be met, given the proponent's efforts to avoid and minimise the impacts of clearing native vegetation, and through the addition of recommended implementation condition 10 (Environmental Offsets) to offset the residual impacts to Carnaby's cockatoo habitat, and condition 11 (Feral Animal Environmental Management Plan) to minimise the potential impacts of feral animals on native fauna.

EPA conclusions and recommendations

Conclusions

In relation to the environmental factors, and considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA concludes that:

- the impacts to the key environmental factors of Inland Waters Environmental Quality and Flora and Vegetation are considered manageable, based on the requirements of the existing implementation conditions of Ministerial Statement 796;
- there has been a change in the relevant environmental factors since the proposal was originally assessed by the EPA (Report No. 1287, May 2008), and Terrestrial Fauna is now also considered a key environmental factor;
- it is appropriate to require an offset to counterbalance the loss of 42.5 ha of Carnaby's cockatoo foraging habitat;
- it is appropriate to require the proponent to prepare a Feral Animal Environmental Management Plan; and
- it is appropriate to extend the authorised timeframe for substantial commencement of the proposal for another five (5) years.

Recommendations

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment under s46 of the EP Act:

1. That, while retaining the environmental requirements of the original conditions of Ministerial Statement 796, it is appropriate to change implementation condition 3, the authorised timeframe for substantial commencement of the proposal, and replace it with a new implementation condition extending the authorised timeframe for substantial commencement of the proposal for another five (5) years;
2. It is appropriate to apply an offset condition to the proposal to counterbalance the significant residual impacts to Carnaby's cockatoo habitat;
3. It is appropriate to apply a condition to the proposal requiring the proponent to prepare and implement a Feral Animal Environmental Management Plan; and
4. That, after complying with section 46(8) of the EP Act, the Minister issues a statement of decision to change the conditions of Statement 796 and Statement 975 in the manner provided for in the attached recommended Statement (Appendix 1).

References

- Environmental Protection Authority (2008) *Class II Landfill, Fernview Farm, Gingin Report and Recommendations of the Environmental Protection Authority number 1287*, EPA, Perth, WA.
- Environmental Protection Authority (2016a) *Environmental Factor Guideline – Flora and Vegetation*, EPA, Perth, WA.
- Environmental Protection Authority (2016b) *Environmental Factor Guideline – Inland Waters Environmental Quality*, EPA, Perth, WA.
- Environmental Protection Authority (2016c) *Environmental Factor Guideline – Terrestrial Fauna*, EPA, Perth, WA.
- Harewood, Greg (2016) *Black Cockatoo Habitat Assessment Lot 98 Wannamal Road South, Cullalla*, report prepared on behalf of Aurora Environmental, Perth, WA.
- Hedde EM, Loneragan OW and Havel JJ (1980) *Vegetation of the Darling System*. IN:DCE 1980 *Atlas of Natural Resources, Darling System, Western Australia*. Department of Conservation and Environment, Perth, WA.
- Government of Western Australia (2013) *Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan*, Department of Parks and Wildlife, Perth, WA.
- Government of Western Australia (2011) *WA Environmental Offsets Policy*, Government of Western Australia, Perth, WA.
- Government of Western Australia (2014) *WA Environmental Offsets Guidelines*, Government of Western Australia, Perth, WA.
- Government of Western Australia (2015) *Perth and Peel Green Growth Plan for 3.5 million – Draft Strategic Conservation Plan for the Perth and Peel Regions*. Government of Western Australia, Department of the Premier and Cabinet, Perth, WA.
- Government of Western Australia. (2017) *2016 South West Vegetation Complex Statistics. Current as of December 2016*. WA Department of Parks and Wildlife, Perth, WA.

Statement No. xxxx

RECOMMENDED ENVIRONMENTAL CONDITIONS

**STATEMENT TO CHANGE THE IMPLEMENTATION CONDITIONS APPLYING TO
A PROPOSAL
(Section 46 of the *Environmental Protection Act 1986*)**

CLASS II LANDFILL, LOT 7778 DIAGRAM 209805,
1189 WANNAMAL ROAD SOUTH, CULLALLA
SHIRE OF GINGIN

Proposal: To construct and operate a landfill accepting Class II-type waste. Six cells will be constructed with a total operational lifetime of not more than 30 years. A landfill gas collection system and utilisation plant facility will also be constructed.

The proposal is further documented in Schedule 1 of Ministerial Statement 796.

Proponent: Fernview Environmental Pty Ltd
Australian Company Number 617 674 469

Proponent Address: Unit 1/48 Kelvin Road, MADDINGTON WA 6109

Report of the Environmental Protection Authority: 1612

Preceding Statements Relating to this Proposal: 796, 975

Pursuant to section 45 of the *Environmental Protection Act 1986*, as applied by section 46(8), it has been agreed that the implementation conditions set out in Ministerial Statement No. 796 dated 11 June 2009 (Statement 796) and Ministerial Statement No. 975 dated 2 July 2014 (Statement 975) be changed as specified in this Statement.

All conditions of Statement 975 are deleted.

Condition 3 of Statement 796 is deleted and replaced with:

3 Time Limit for Proposal Implementation

- 3-1 The proponent shall not commence implementation of the proposal after the 13 June 2022, and any commencement, prior to this date, must be substantial.
- 3-2 Any commencement of implementation of the proposal, on or before 13 June 2022, must be demonstrated as substantial by providing the CEO* with written evidence, on or before 13 June 2022.

Condition 10 is added to Statement 796.

10 Environmental Offsets

- 10-1 The proponent shall provide an offset, being a portion of Lot 98 on Deposited Plan 75926, Wannamal Road South**, to counterbalance the significant residual impact to 42.5 hectares (ha) of foraging habitat for *Calyptorhynchus latirostris* (Carnaby's black cockatoo) as a result of implementation of the proposal.
- 10-2 Within twelve months of the publication of the Statement to change the implementation conditions relating to this proposal***, or as otherwise agreed in writing by the CEO, the proponent shall prepare and submit a Carnaby's Cockatoo Habitat Offsets Strategy to the CEO satisfying the requirements of condition 10-3.
- 10-3 The Carnaby's Cockatoo Habitat Offsets Strategy required by condition 10-2 shall:
 - (1) Identify the portion of Lot 98 Wannamal Road South that will comprise the offset area;
 - (2) Include a completed Commonwealth's Offset Assessment Guide (or its update) demonstrating how the offset area counterbalances the significant residual impact to 42.5 ha of *Calyptorhynchus latirostris* (Carnaby's black cockatoo) foraging habitat;
 - (3) Identify the environmental attributes of the offset area;
 - (4) Outline the process for ceding the offset area to the Crown for the purpose of conservation; and
 - (5) Identify:
 - (a) the nature and quantum of the upfront works associated with establishing the offset area;

- (b) a timeframe or schedule for the upfront works to be carried out;
 - (c) the quantum of the management of the offset area for no less than seven years, and of the portion of this to be contributed by the proponent; and
 - (d) the management body that will accept management responsibility for the offset area.
- 10-4 After receiving notice in writing from the CEO that the Carnaby's Cockatoo Habitat Offsets Strategy satisfies the requirements of condition 10-3, the proponent shall:
 - (1) take action to ensure the offset area is ceded to the Crown within twenty four (24) months of the publication of the Statement to change the implementation conditions relating to this proposal**; and
 - (2) implement the upfront works identified subject to condition 10-3(5)(a) in accordance with the timeframe or schedule identified subject to condition 10-3(5)(b).
- 10-5 Any changes to the aspects of the Carnaby's Cockatoo Habitat Offsets Strategy required by condition 10-3 must be approved in writing by the CEO.
- 10-6 The proponent shall implement the latest version of the Carnaby's Cockatoo Habitat Offsets Strategy which the CEO has confirmed by notice in writing satisfies the requirements of condition 10-3.

Condition 11 is added to Statement 796.

11 Feral Animal Environmental Management Plan

- 11-1 The proponent shall prepare and submit a Feral Animal Management Plan to the CEO that demonstrates how the proponent will achieve the following environmental objectives:
 - (1) Prevent, where practicable, and minimise the number of feral animals attracted to the proposal, including but not limited to rats, foxes and cats.
 - (2) Eradicate, where practicable, and minimise the number of feral animals within the proposal development area.
- 11-2 The Plan shall specify environmental objectives, management targets, management actions, monitoring and reporting to demonstrate that the objectives in condition 11-1 will be met.

- 11-3 The proponent shall submit the Plan to the CEO within six months of the publication of the Statement to change the implementation conditions relating to this proposal^{***}, or as otherwise agreed in writing by the CEO.
- 11-4 The proponent shall not commence operation of the landfill until the CEO has confirmed in writing that the Plan satisfies the requirements of conditions 11-1 and 11-2.
- 11-5 The proponent shall implement the most recent version of the Feral Animal Management Plan approved by the CEO.
- 11-6 Any changes to management targets, management actions, monitoring and reporting in the Feral Animal Management Plan must be approved by the CEO in writing.

* “CEO” is the Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.

** Coordinates defining Lot 98 Deposited Plan 75926, Wannamal Road South (formerly part of Lot 7778 on Diagram 209805) are held by the Department of Water and Environmental Regulation, Document Reference Number 2017-1512437377558.

*** The Statement published under section 45(5) of the *Environmental Protection Act 1986*, as applied by section 46(8), and relating to Report of the Environmental Protection Authority number 1612.