



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

Our ref: 097/09  
Your ref:  
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Telephone: (08) 6467 5190  
Date: 1 September 2010

Mr Tony Brun  
Chief Executive Officer  
City of Geraldton-Greenough  
PO Box 101  
GERALDTON WA 6531

**PLANNING  
FILE COPY**

CGG



Dear Mr Brun

**APPEAL AGAINST REPORT AND RECOMMENDATIONS – CITY OF GERALDTON-  
GREENOUGH TOWN PLANNING SCHEME NO. 1A AMENDMENT 4 – BRAND  
HIGHWAY, CAPE BURNEY (REPORT 1326)**

As you are aware, an appeal was lodged in objection to the Environmental Protection Authority's report and recommendations for the above scheme.

The Minister for Environment has now determined this appeal, and a summary of the reasons for decision is attached for your information. A copy of this information is also available to the public in the Department of Environment and Conservation's library and on our website.

Yours sincerely

Anthony Sutton  
APPEALS CONVENOR

enc.

CITY OF GERALDTON-GREENOUGH RECORDS SECTION	
REC'D.....	3 SEP 2010
REG. No. ....	10/0444511
FILE No. ....	WP/00860
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Environmental Protection Act 1986

**Hon Donna Faragher JP MLC**  
**Minister for Environment**

## **Minister's Appeal Determination**

### **APPEAL AGAINST ENVIRONMENTAL PROTECTION AUTHORITY REPORT AND RECOMMENDATIONS - REPORT 1326 - CITY OF GERALDTON TOWN PLANNING SCHEME NO. 1A AMENDMENT 4, BRAND HIGHWAY, CAPE BURNEY**

#### **Purpose of this document**

This document sets out the Minister's decision on an appeal lodged against the Environmental Protection Authority (EPA) report and recommendation on the above Scheme. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at [www.appealsconvenor.wa.gov.au](http://www.appealsconvenor.wa.gov.au)

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<b>Appellant:</b>	Coffey Environments on behalf of Bayform Holdings Pty Ltd
<b>Responsible Authority:</b>	City of Geraldton-Greenough
<b>Proposal Description:</b>	To amend City of Geraldton-Greenough Town Planning Scheme No.1A by rezoning Lots 1945, 5843, 1268, 1358, 1, 1925, 2453, 4201, 6852, 708, 3, 4200, 4201, Victoria Location 11939, and portion of Lot 2466 from various local scheme reserves and zones, to 'Development' zone.
<b>Appeal Outcome:</b>	The Minister partially allowed the appeal
<b>Date of Decision:</b>	31 August 2010

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### **REASONS FOR MINISTER'S DECISION**

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One appeal was received in relation to the EPA's report.

Pursuant to section 106 of the *Environmental Protection Act 1986* (the EP Act), the Minister obtained a report from the EPA on the matters raised in the appeal. The Minister also received a report from the Appeals Convenor, which sets out the background and other matters relevant to the appeal.

The Minister understood that the City of Geraldton-Greenough (the City) has proposed to amend City of Geraldton-Greenough Town Planning Scheme No.1A (TPS No.1A) by rezoning Lots 1945, 5843, 1268, 1358, 1, 1925, 2453, 4201, 6852, 708, 3, 4200, 4201,



Victoria Location 11939, and the portion of Lot 2466 contained within TPS No.1A from various local scheme reserves and zones, to 'Development' zone.

The Minister noted that the grounds detailed in the appeal were against the EPA's assessment of the three key environmental factors assessed in the EPA report (Coastal Processes, Foreshore Reserve and Native Vegetation) and the 'Other Advice' provided by the EPA with respect to Aboriginal heritage.

The Minister understood that, as an outcome to the appeal, the appellant would support the imposition of various conditions relating to the key environmental factors. Essentially, the outcome being sought was that the issues identified in the EPA report are resolved through the Subdivision Guide Plan and subdivision stages of the planning process.

The Minister's consideration of the matters raised in the appeal is detailed below followed by the Minister's determination.

## **CONSIDERATION OF APPEAL**

### **Ground 1: Coastal Processes**

By this ground of appeal, the appellant disagreed that there is considerable uncertainty about the contribution of sand from the Southgate Dune to the stability of beaches north of the Amendment area. In addition, the appellant contended that the EPA has made an assumption that the whole of the Southgate Dune will be stabilised, and therefore this sediment source will be removed after development.

In considering this issue, the Appeals Convenor concluded that the EPA was justified in coming to the view that it has not been demonstrated the Amendment can meet its objective for Coastal Processes. The Appeals Convenor advised that the EPA could not have been confident that the Amendment meets its objective for Coastal Processes given the uncertainty of the contribution of sand from the Southgate Dune to beaches to the north of the Amendment area, and in light of the characteristics of the proposed Amendment as submitted to the EPA.

Noting that the Amendment area encompasses the whole of the Southgate Dune, and having regard to the draft Subdivision Guide Plan submitted, the Minister agreed with the Appeals Convenor that it was reasonable that the EPA should contemplate that the rezoning of the area to 'Development' would result in the stabilisation of much, perhaps not all, of the Southgate Dune.

The Minister noted that the appellant would support conditions requiring, among other things, a sediment budget analysis being undertaken at the Subdivision Guide Plan stage; and that a foreshore reserve be provided in accordance with the findings of this analysis and the requirements of Statement of Planning Policy 2.6 *State Coastal Planning Policy* (SPP 2.6). In this regard, the Minister agreed with the Appeals Convenor that given the uncertainties associated with this element of the Amendment, additional information is required before it can be determined whether the EPA's environmental objectives can be met.

Accordingly, the Minister considered that it is appropriate for further investigation to be undertaken to determine the implications of any development to the contribution of sand from Southgate Dune to beaches north of the Amendment area. This information will be considered prior to a final decision on whether to proceed with the Scheme Amendment and, if so, the conditions to which implementation should be subject.



## **Ground 2: Foreshore Reserve**

By this ground of appeal, the appellant expressed concern regarding the EPA's expectation that the coastal setback assessment should have regard for alternative sea level rise predictions to that in SPP2.6; and with the conclusion drawn by the EPA that 'there is not sufficient confidence in the calculation of coastal setbacks for the Foreshore Reserve which would allow for protection of the coast from possible sea level rise over the coming years'.

In relation to this ground of appeal the Minister agreed with the Appeals Convenor that the EPA's caution was appropriate, especially noting advances in knowledge about the impact of climate change on sea level rise. Accordingly, the Minister was of the view that it is appropriate for possible changes in sea level to be the subject of further consideration.

## **Ground 3: Native Vegetation**

By this ground of appeal, the appellant expressed concern regarding the EPA's use of information from the Geraldton Region Flora and Vegetation Study. In addition, the appellant submitted that the EPA failed to understand that it is assessing a change in land use zoning, not the draft Subdivision Guide Plan. The appellant also considered that the EPA failed to consider or acknowledge the conservation benefits to be derived from the Land Exchange Agreement between the State of Western Australia and Bayform Holdings Pty Ltd which would result in the transfer of approximately 422 hectares of vegetated land south of Greenough River in return for the 214 hectares of Southgate Dunes.

The Minister agreed with the Appeals Convenor that the conclusions drawn by the EPA in relation to this factor are sound and reasonably based on information from the Geraldton Region Flora and Vegetation Survey. The Minister considered that it would be contrary to the EPA's environmental objectives to disregard information which identified the presence of regionally significant vegetation within the Amendment area.

The Minister also agreed with the Appeals Convenor that it is reasonable that the EPA should seek reassurance, through the Amendment process, as to which areas of regionally significant vegetation are to be retained. The Minister considered it inappropriate, in this case, to defer this task to the Subdivision Guide Plan stage of the planning process given the significance of the vegetation potentially impacted.

With respect to the Land Exchange Agreement, the Minister noted that whilst the Environmental Review draws attention to this Agreement and the possible conservation benefits, the Minister noted the EPA's advice that the Agreement does not form part of the Amendment proposal and therefore it was not considered as part of its assessment.

## **Ground 4: Aboriginal Heritage**

With respect to this element of the appeal the Minister noted that the EPA did not form any conclusions in relation to Aboriginal heritage but rather stated an expectation that ethnographic and archaeological surveys of the area would be completed to the satisfaction of the Department of Indigenous Affairs prior to any subsequent amendment being initiated. On this basis, the question of whether the work already undertaken and reported in the Environmental Review is adequate is considered by the Minister to be a question for the developer and the Department of Indigenous Affairs.



## APPEAL DETERMINATION

Taking into account the information provided, the Minister was of the view that the EPA was justified in adopting a precautionary approach to the proposed Amendment particularly given the uncertainties relating to coastal processes and the adequacy of the foreshore reserve in catering for predicted sea level rise. The Minister was also of the view that the Amendment should secure areas of regionally significant vegetation utilising the information from the Geraldton Region Flora and Vegetation Survey.

However, the Minister noted the appellant's willingness to undertake a sediment budget analysis at the Subdivision Guide Plan stage of the planning process with the intent of providing a foreshore reserve in accordance with the findings of this analysis and the requirements of SPP2.6. Whilst the Minister did not support the deferral of these investigations to the planning process, the Minister allowed the appeal to the extent that the appellant is provided an opportunity to submit the outcomes of further investigations and analysis aimed at addressing the uncertainties relating to coastal processes.

With respect to the adequacy of the foreshore reserve in catering for predicted sea level rise, whilst this matter could be resolved at the Subdivision Guide Plan stage of the planning process, given the interrelationship between this issue and that of coastal processes, the Minister considered it appropriate that these matters be addressed concurrently.

The Minister determined that the appellant's further work should be undertaken in consultation with the Department of Transport having regard to the former Department for Planning and Infrastructure's recommendation to the EPA that the sediment budget within the Tarcoola Embayment be reassessed and include, among other things, photogrammetry assessment utilising the most recent available aerial photography. The Minister has sought the advice of the Minister for Transport on the necessary scope of works and process to be followed and the outcome of this will be communicated to the appellant in due course.

Finally, with further work being undertaken with respect to coastal processes and the foreshore reserve, there is also an opportunity at this stage for the identification of regionally significant vegetation to be retained and appropriately secured. The Minister concurred with the Appeals Convenor that this task should not be deferred to the Subdivision Guide Plan stage of the planning process given the significance of the vegetation potentially impacted. The Minister's expectation is that the appellant will seek input from the DEC to inform any submission as to which areas should be retained and secured.

Upon completion and submission of the outcomes of the appellant's further work, the Minister intends to consult her colleagues on the adequacies of the coastal studies, and management measures proposed; and with the DEC regarding the appellant's proposal as to which areas of regionally significant vegetation should be retained. At this point, the Minister for Planning and Minister for Environment will be in a position to make an informed decision on whether to proceed with the Scheme Amendment, and if so, the conditions to which implementation should be subject.

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Note: this decision is published pursuant to the terms of regulation 8 of the *Environmental Protection Regulations 1987*.

Preparing officers: Renee Zuks

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Office of the Appeals Convenor  
Environmental Protection Act 1986

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**REPORT TO**  
**MINISTER FOR ENVIRONMENT**

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**APPEAL AGAINST ENVIRONMENTAL PROTECTION AUTHORITY  
REPORT AND RECOMMENDATIONS**

**CITY OF GERALDTON-GREENOUGH TOWN PLANNING SCHEME  
NO.1A AMENDMENT 4 – BRAND HIGHWAY, CAPE BURNEY**

**Proponent:**

**City of Geraldton-Greenough**

Appeal number 97 of 2009

**January 2010**

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## Introduction

This report deals with an appeal lodged against the Environmental Protection Authority (EPA) report and recommendations (EPA Report) on the City of Geraldton-Greenough Town Planning Scheme No.1A (TPS No.1A) Amendment No. 4 – Brand Highway, Cape Burney (Amendment). The appeal was lodged by Coffey Environments Pty Ltd on behalf of Bayform Holdings Pty Ltd (the appellant).

This document is the Appeals Convenor's formal report to the Minister for Environment (the Minister) under section 109(3) of the *Environmental Protection Act 1986* (the Act).

## Proposal description and background

The City of Geraldton-Greenough proposes to amend TPS No.1A by rezoning Lots 1945, 5843, 1268, 1358, 1, 1925, 2453, 4201, 6852, 708, 3, 4200, 4201, Victoria Location 11939, and the portion of Lot 2466 contained within TPS No.1A from various local scheme reserves and zones, to 'Development' zone. The Amendment was initiated in February 2005 and subsequently referred to the EPA.

The Amendment area is approximately 779 hectares (ha) located approximately 6 kilometres (km) south of Geraldton. It is bounded by the Brand Highway to the east, Greenough River to the south and Indian Ocean to the west in the locality of Cape Burney (Figure 1).

As described in the EPA Report, a large parabolic dune, referred to as the Southgate Dune, is located in the northern part of the Amendment area (Figure 2). The majority of the Southgate Dune is located on Victoria Location 11939. The Amendment area also contains approximately 250 ha of remnant vegetation.

Future development within the 'Development' zone would need to be in accordance with an approved Subdivision Guide Plan. The EPA's consideration of the proposed Amendment included consideration of a draft Subdivision Guide Plan (Figure 3), however, it was noted by the EPA that this Plan requires subsequent approval and is subject to modification.

Following the referral of the Amendment by the Greenough Shire Council in 2005, the EPA determined that it should be formally assessed and, in doing so, issued Environmental Review Instructions outlining the environmental factors to be addressed as part of the Environmental Review.

An Environmental Review process ensued and the resultant Environmental Review report was advertised concurrently with the proposed Amendment for a 42 day period commencing on 5 January 2009 and concluding on 16 February 2009. A Response to Submissions was submitted to the EPA on 30 March 2009 and the EPA subsequently released its report and recommendations to the Minister on 25 May 2009. The EPA concluded that the Amendment cannot meet its environmental objectives for Coastal Processes, Foreshore Reserve and Native Vegetation. The EPA recommended, therefore, that the Minister not issue a statement that the Amendment may be implemented. It was in relation to this report that the appeal was received.

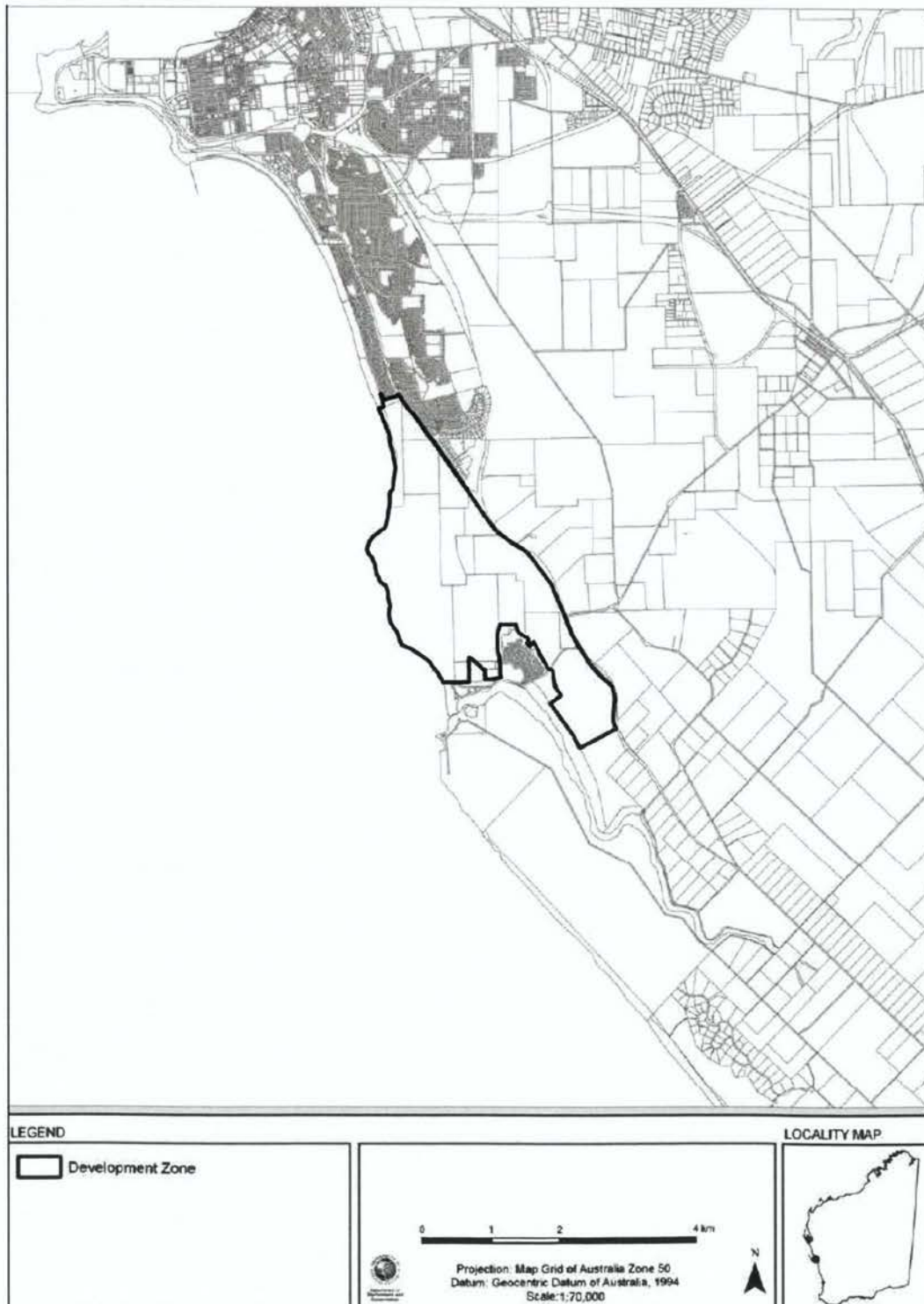
## Overview of appeal process

Pursuant to section 106 of the Act, a report was obtained from the EPA in September 2009 on the matters raised in the appeal. A representative of the Office of the Appeals Convenor met with the appellant to discuss the appeal. A meeting was also had with representatives of the City of Geraldton-Greenough in Geraldton and the Department of Planning in Perth. A site visit was also conducted.



The environmental appeals process is a merits based process. For appeals against EPA report and recommendations, appeals normally consider the environmental merits of the assessment by the EPA based on objectives as set by the EPA as well as other environmental factors. Questions of environmental significance, relevance of factors, additional information not considered by the EPA, technical errors and attainment of policy objectives are normally central to appeals.

**Figure 1: Location of Amendment area**  
(Source: EPA Report 1326)

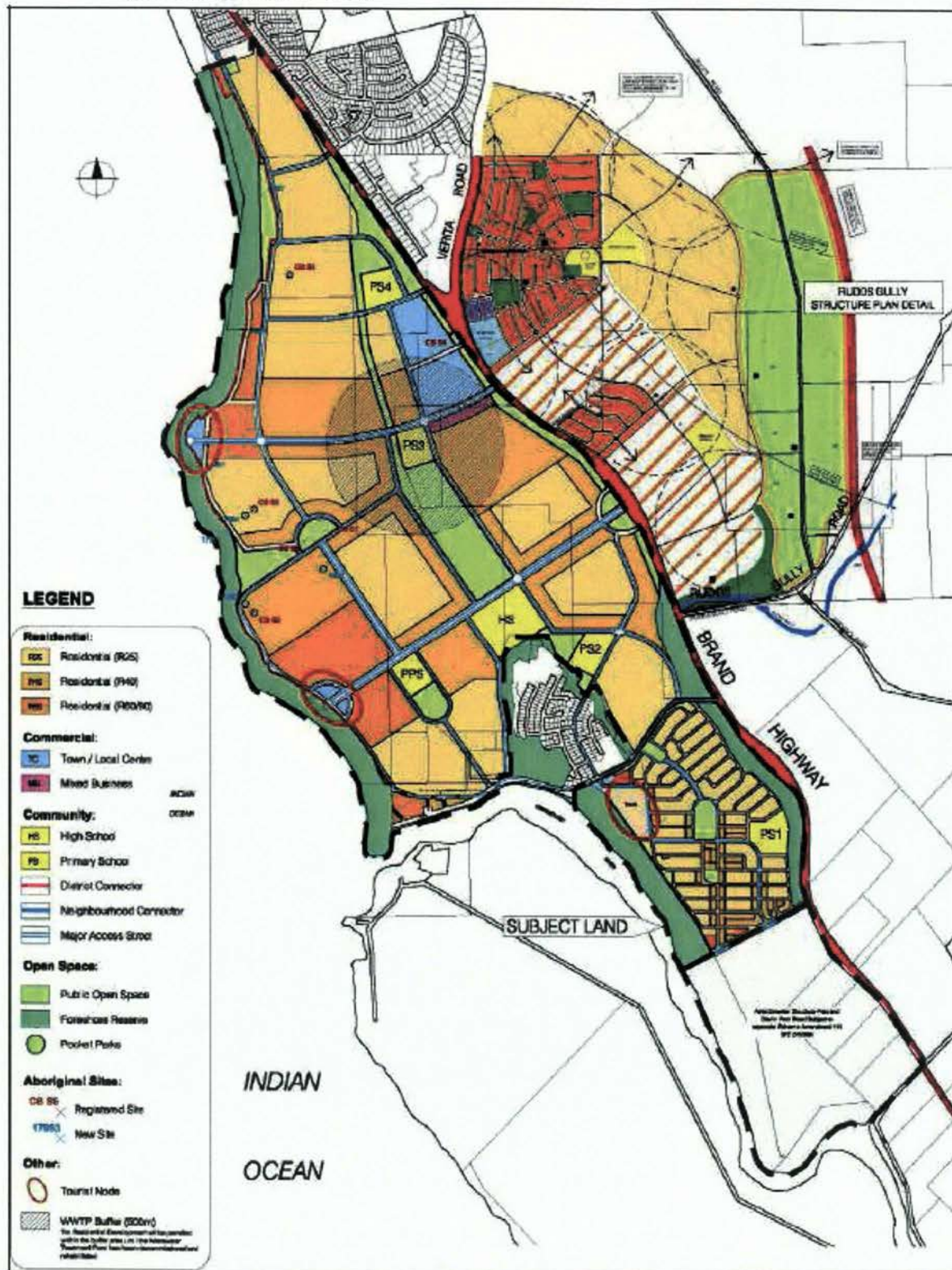


**Figure 2: Southgate Dune within the Amendment area**  
 (Source: EPA Report 1326)





**Figure 3: Draft Subdivision Guide Plan**  
(Source: EPA Report 1326)





## **Grounds of appeal**

The appellant submitted grounds of appeal against the EPA's assessment of the three key environmental factors assessed in the EPA Report, those factors being:

1. Coastal processes;
2. Foreshore reserve; and
3. Native vegetation.

The appellant also submitted grounds of appeal against the 'Other Advice' provided with respect to:

4. Aboriginal heritage.

The grounds of appeal are detailed below, followed by the EPA's advice in relation to each, and the Appeals Convenor's consideration and recommendations.

The proponent, the City of Geraldton-Greenough, also commented on the matters raised in the appeal. The City's comments are detailed under the heading 'Additional Information' following the EPA's advice on each appeal ground.

### Other Matters

In addition to grounds of appeal relating to the above key environmental factors, the appellant expressed concern about delays in the EPA process which, the appellant considered, have had a significant bearing on the EPA's assessment of the Amendment. The appellant's concerns about the delays in the EPA's process are not related to the environmental merits of the Amendment therefore this report does not consider this matter.

The appellant also sought to highlight that it has entered into an agreement with the State of Western Australia to exchange approximately 422 ha of vegetated land south of Greenough River for approximately 214 ha of land comprising Victoria Location 11939 otherwise known as Southgate Dune. The appellant advised that Victoria Location 11939 is currently in Crown ownership therefore issues associated with stabilisation of Southgate Dune are the responsibility of the State Government.

The appellant explained that the Land Exchange Agreement will result in the transfer of Southgate Dune to Bayform Holdings Pty Ltd in return for a vegetated site approximately double in area and would require the developer to stabilise the Dune. It was submitted that the implementation of the Land Exchange Agreement would transfer liability for stabilising Southgate Dune from the State Government to Bayform Holdings Pty Ltd. The appellant also identified that an added benefit of the Agreement would be the consolidation of Crown ownership of land south of Greenough River and private land to the north.

## **Appeal Ground 1 - Coastal processes**

The appellant noted the EPA's view that there is considerable uncertainty about the knowledge of the contribution of sand from the Southgate Dune to the stability of beaches north of the Amendment area. The appellant considered that the EPA has made an assumption that the whole of the Southgate Dune will be stabilised, and therefore this sediment source will be removed after development.

The appellant disagreed with this position, submitting the following reasons:



- The EPA's position relies heavily on input from the Department for Planning and Infrastructure<sup>1</sup> (DPI) which claimed that estimated sediment export from the Southgate Dune by the then Department of Planning and Urban Development (DPUD) in 1990, was 34,000 m<sup>3</sup>/yr. Using a similar photogrammetry method to that used by DPUD, MP Rogers & Associates estimated the extent of the contribution to the littoral drift from the Southgate Dune to be between 4,000 m<sup>3</sup>/yr and 23,000 m<sup>3</sup>/yr with the most likely contribution being 10,000 m<sup>3</sup>/yr. The MP Rogers & Associates sediment budget estimates were completed in 1998 taking into account the 1990 DPUD work. The EPA has not acknowledged that the MP Rogers & Associates' estimates supersede the DPUD estimates, nor is there any discourse about the adequacy of MP Rogers & Associates' studies.
- The EPA's position assumes that the whole of the Southgate Dune is important for maintaining sediment feed to the beaches in the Tarcoola Embayment cell located to the north of the Amendment area. The appellant stated that the whole of the Southgate Dune is not important to the protection of sediment feed to northern beaches with a portion of the Dune System contributing to the littoral drift while the balance is causing nuisance problems to residences south of Geraldton and will eventually engulf the Brand Highway. The nuisance issue is recognised by the EPA on Page 12 of the EPA Report, although the appellant stated that it is somewhat contradictory to the earlier Section 3.2 which states that stabilisation of the Dune System will stop or significantly reduce the sand feed to beaches north of the Amendment area. The appellant stated that the EPA offers no solutions for stabilisation, nor does it acknowledge who will fund the work, particularly given that much of the Southgate Dune is vested in the Crown.
- The question that needs to be considered is whether there is sufficient land within the proposed foreshore reserve to maintain sediment feed to northern beaches. The appellant stated that this point can be explored at subsequent planning stages (i.e. Structure Plan / Subdivision Guide Plan stages) by undertaking additional sediment budget investigations and, if necessary, adding additional land to the foreshore reserve to protect the ecological function of the Southgate Dune.
- The EPA has failed to recognise that the coastal setback assessment by MP Rogers & Associates adopted the precautionary principle by adding a security factor (of 10 m) to the extent of the foreshore line to protect against any uncertainties.
- Even if it is assumed that the DPUD's estimate is correct (i.e. 34,000 m<sup>3</sup>/yr contribution from Southgate Dune), the appellant stated that the sediment contribution from Southgate Dunes would occupy a physical area of 3.4 km long by 10 metres (m) wide by 1 m high. The MP Rogers & Associates' safety factor provides an additional 10 m of foreshore reserve over the length of the Amendment area coastline (approximately 4.7 km), thereby protecting the sediment supply function being provided by the Southgate Dune.
- The appellant submitted that the EPA failed to acknowledge the point that the Southgate Dune was not contributing sediment to the littoral drift until the mid 1950s. Prior to the mid 1950s, there was a vegetated dune blocking sediment feed. In approximately 1958 the Southgate Dune broke through this barrier. Therefore, conditions pre 1958 are the best representation of what would happen to beach stability north of the Amendment area if the Southgate Dune were to be stabilised. During 1942 to 1956 some localised erosion occurred near the southern end of Tarcoola Beach, however, Mahomets and Tarcoola generally accreted over this period, while Back Beach remained stable. Development in the Amendment area would not necessarily stabilise the whole of Southgate Dunes. A portion of the Dune System would be retained in the foreshore reserve and could remain as bare sand. The appellant stated that this information was reinforced in the Response to

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1 From July 1 2009 the Department for Planning and Infrastructure became the Department of Planning and the Department of Transport. For the purpose of this report, the previous Department for Planning and Infrastructure and current Department of Planning and Department of Transport are collectively referred to as the DPI.



### Submissions.

- The EPA Report (Page 7) states that the stabilisation of the Southgate Dune will stop or significantly reduce the sediment supply to northern beaches. This statement suggests that the EPA believe the whole of Southgate Dune will be stabilised, which the appellant submitted is incorrect. The creation of a foreshore reserve up to 174 m in width in places will include sections of the Southgate Dune that are, and will continue to contribute to the littoral drift. As outlined above, the MP Rogers & Associates' safety factor provides an additional 10 m of foreshore reserve over the length of the Amendment area coastline (approximately 4 km), thereby protecting the sediment supply function currently being provided by the Southgate Dune.

The appellant's preferred outcome is that the EPA recognises that development in the Amendment area will not result in the stabilisation of the whole of the Southgate Dune system, and that maintenance of sediment contribution can be achieved through the provision of an adequate foreshore reserve. In order to demonstrate this point the appellant would support the following conditions as an outcome to the appeal:

- That a sediment budget analysis for the Tarcoola Embayment be undertaken in consultation with the DPI at the Subdivision Guide Plan stage;
- That a foreshore reserve is provided in accordance with the coastal setback assessment requirements of SPP 2.6 and the findings of the sediment budget analysis described above; and
- That a Foreshore Management Strategy be prepared at Subdivision Guide Plan stage to the satisfaction of the DPI and the DEC.

### EPA Advice

The EPA acknowledged that potentially not all of Southgate Dune is contributing to the sediment feed to northern beaches, and that the Dune is causing nuisance problems to residents south of Geraldton. However, the EPA considered that areas of Southgate Dune are currently acting as a sediment source to the beaches north of the development, outside of the Amendment area. The EPA advised that this issue is significant as stabilisation of the Southgate Dune, as proposed by the Amendment, would potentially stop or significantly reduce this sand feed and this may result in erosion of the beaches to the north. The EPA advised that the proponent has not been able to demonstrate satisfactorily the amount of area necessary to maintain this feed sand.

The EPA advised that the *Planning and Development Act 2005* describes that the general objects of a local planning scheme are: making suitable provision for the improvement, development and use of land in the local planning scheme. Accordingly, the scheme should properly identify areas to be reserved or developed, and potential land uses. The EPA was of the view that these fundamental decisions should not be deferred to the later stages of planning such as subdivision as proposed by the appellant. The EPA advised that the resolution of areas to be reserved or developed and potential land uses ensures that there is certainty for the developer and that the scheme can meet the requirements of planning and environmental legislation.

In relation to the appellant's view that stabilisation of Southgate Dune will address the existing nuisance dust and windblown sand, the EPA advised that, while true, this may only serve to shift the problem to future residents of any subsequent subdivision. The EPA advised that knowledge and confidence in the predictions of sand necessary to feed littoral drift are required in order to define areas necessary to be left as 'bare sand.' A consequence of this will be that development will need to be sufficiently set back from these areas to ensure nuisance dust and windblown sand problems are not continued in areas to be developed.



The EPA advised that it received advice from the DPI that the Southgate Dune System is located in the larger Tarcoola Embayment sediment cell, and that a clear understanding of the sediment dynamics and budget within this cell, and the role of the Southgate Dune as a sediment source and sink, is essential to understanding the coastal impacts of the proposed development. The Environmental Review report advises that the beaches north of the Southgate Dune have generally been accreting at 40,000 m<sup>3</sup>/yr. The DPI understood that the original estimates of the contribution of sand from the Southgate Dune to the Tarcoola Embayment were undertaken by the then DPUD in 1990, identifying a 34,000 m<sup>3</sup>/yr contribution. The EPA advised that the Environmental Review used a similar photogrammic assessment to review this estimate and determined the contribution to be between 4,000 and 23,000 m<sup>3</sup>/yr, with a 'most likely' estimate of 10,000 m<sup>3</sup>/yr. This 10,000 m<sup>3</sup>/yr estimate was used in the subsequent work for the Environmental Review. It was the DPI's view that the impact of the development on the Tarcoola Embayment sediment cell has not been adequately addressed.

While the appellant claims that the estimates produced in the Environmental Review should supersede that of the DPUD, the EPA is concerned that there is such a substantial difference in the estimates of the contribution of sand to littoral drift from the Southgate Dune. In addition, the Environmental Review did not provide the certainty about which areas of the Dune are contributing to the sediment budget, and whether the areas to be retained in the foreshore reserve will provide an adequate amount of sediment to protect the northern beaches outside of the Amendment area from erosion. Consequently, the EPA concluded there is considerable uncertainty about the knowledge of the contribution of sand from the Southgate Dune and that it has not been demonstrated with sufficient confidence that erosion of the beaches to the north of the Amendment area will not occur. In addition, no management mechanisms were provided or outlined should these impacts occur.

In relation to the appellant's concern that the EPA has not provided solutions for stabilising the Dune System in order to address existing nuisance dust and windblown sand issues, or acknowledged who will fund the work, the EPA advised that, under the Act, it must report to the Minister on the environmental factors relevant to the scheme and make recommendations in that report as it sees fit. The EPA noted the advice provided in Section 4.3 of its Report that active management of the Southgate Dune is still required and an interim strategy needs to be developed to protect the Brand Highway, the residences likely to be impacted by windblown sand and native vegetation that is being smothered by the northward movement of the Dune.

The EPA also noted the advice provided in Section 4.3 of its Report that it is not aware of any studies undertaken with regard to the regional context of the Southgate Dune, and that it would support coastal studies being undertaken at a regional scale to provide an understanding of the contribution of the Dune System to coastal processes and coastal dynamics in this region.

The EPA remained of the view that it has not been demonstrated that the proposed Amendment can be managed to meet its objectives for Coastal Processes and Foreshore Reserves. The EPA noted the conditions suggested by the appellant as an outcome to the appeal, including a requirement for a sediment budget analysis for the Tarcoola Embayment, and a Foreshore Management Plan. The EPA advised that, whilst not supporting approval at this time, any action to address these matters should be prepared in consultation with the DPI. These investigations may inform a subsequent new amendment that properly identifies areas to be reserved and developed and appropriate scheme provisions.

#### Additional Information

The City of Geraldton-Greenough (the City) refuted the statement made by the appellant that '[i]n reality the whole of Southgate Dunes is not important to the protection of sediment feed to the northern beaches'.



The City considered that the *Coastal Vulnerability Analysis and Risk Assessment Study*<sup>2</sup> (Risk Assessment) will provide an independent examination of the sand budget of coastal sediment cells and long shore marine sand drift. The City submitted that, bearing in mind that any ramifications of reduced sand feed to the northern areas would ultimately require the City to take action, the City considers it premature to allow the Amendment until such time as the Risk Assessment is complete, giving a clearer indication of the type and cost of remedial works, if required, should the natural dune system be interrupted.

### Consideration

With respect to the key factor of 'Coastal Processes', the EPA concluded that:

...there is considerable uncertainty about the knowledge of the contribution of sand from the Southgate Dune and it has not been demonstrated with sufficient confidence that erosion of the beaches to the north of the development area will not occur.

The appellant disagreed that there is considerable uncertainty about the knowledge of contribution of sand from the Southgate Dune to the stability of beaches north of the amendment area.

It is considered that two issues are raised by this ground of appeal:

- 1) The contribution of sand from the Southgate Dune to beaches to the north of the Amendment area; and
- 2) The consequence, to beaches north of the Amendment area, of removing all or part of this sand supply through implementation of the Amendment.

On the first question, the appellant was concerned about the EPA's use of estimates of sediment export from the Southgate Dune by the DPUD in 1990. The appellant was of the view that sediment budget estimates by MP Rogers & Associates' in 1998 supersede the earlier estimates by the DPUD. The appellant was also concerned that there was no discourse about the adequacy of the MP Rogers and Associates' studies.

It is considered that, regardless of whether or not the MP Rogers & Associates' study was more technically competent or advanced to have the effect of superseding the early investigation by DPUD, this study itself is not recent. The DPI recommended to the EPA that the sediment budget within the Tarcoola Embayment be reassessed and include, among other things, photogrammetry assessment utilising the most recent available aerial photography. Importantly, the noted that the accuracy of photogrammetry has significantly increased over the years.

In the absence of a current study using the most up-to-date information and techniques, and in light of the significant variation between the estimates arising from the previous two studies, it is considered reasonable the EPA formed the view that the knowledge of contribution of sand from the Southgate Dune is uncertain. Further, it is considered that reference to the situation prior to the mid 1950s when the Southgate Dune was apparently not contributing sediment to littoral drift provides insufficient weight to alleviate these uncertainties and it is considered unreasonable that the EPA should be asked to rely upon this information to form its conclusions on the potential impact of the proposed Amendment on Coastal Processes.

In contrast to the appellant's view, the Appeals Convenor does not see any assumption made on the EPA's part that the whole of Southgate Dune is important for maintaining sediment feed to the beaches north of the Amendment area. The EPA noted more broadly that the

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<sup>2</sup> A study that will provide an examination of the sand budget between the Greenough River and Buller River and longshore marine sand drift (City of Geraldton-Greenough Council Minutes, 24 March 2009).



Southgate Dune is acting as a sediment source to beaches north of the Amendment area. The EPA Report states that:

A clear understanding of the sediment dynamics and budget within this cell, and the role of the Southgate Dune as a sediment source and sink is essential to understanding the coastal impacts of the proposed development.

The EPA did not take to assume which areas of the Dune are important for maintaining the sediment feed to the northern beaches.

With respect to the second question above, knowledge of the contribution of sand from the Southgate Dune to beaches north of the Amendment area is first required to determine the potential consequence to these beaches of removing all or part of this supply. As noted above, this sand contribution is uncertain. It is also appropriate that an understanding of a proposal's characteristics would also be needed to determine the potential consequences of its implementation.

Following from the above, it is noted that the EPA had regard for a draft Subdivision Guide Plan (SGP) that had been prepared for the Amendment area. The EPA was aware that the draft SGP requires subsequent approval and is subject to modification. Noting that the Amendment area encompasses the whole of the Southgate Dune, and having regard to the draft SGP, it is considered reasonable for the EPA to contemplate or assume that the rezoning of the area to 'Development' would result in the stabilisation of much, perhaps not all, of the Dune. Further reason for such an assumption is supported by the statement in the Environmental Review report that stabilisation of the Southgate Dune is a condition in the State Agreement between the State of Western Australia and the appellant.

It is noted that the EPA's assessment of Coastal Processes did not acknowledge the developer's intention to identify a foreshore reserve consistent with the MP Rogers and Associates' recommended coastal setback for retention in public open space at the Subdivision Guide Plan stage of the planning process. The appellant submitted that the creation of a foreshore reserve will include sections of the Southgate Dune that are contributing, and will continue to contribute to littoral drift.

The appellant submitted that the question that needs to be considered is whether there is sufficient land within the proposed foreshore reserve to maintain sediment feed to the northern beaches. Relevant to this point, the appellant considered that the EPA failed to recognise that the coastal setback assessment by MP Rogers & Associates adopted the precautionary principle by adding a security factor of 10 m to the extent of the foreshore line to protect against any uncertainties. The Appeals Convenor understands that the coastal setback assessment recommended this factor of safety because, as stated in the Coastal Setback Study (M P Rogers and Associates, 2006, p.8), 'the available data made it difficult to predict whether the beaches to the north of the Amendment area would remain stable or erode if the sediment supply from Southgate Dune was removed.' It is not clear how this safety factor was calculated and determined to be sufficient to ensure that the beaches to the north of the Amendment area remain stable.

Continuing on the question of whether there is sufficient land within the proposed foreshore reserve to maintain sediment feed to the northern beaches, the appellant advised that it is willing to support a condition that requires that a sediment budget analysis for the Tarcoola Embayment be undertaken in consultation with the DPI at the Subdivision Guide Plan stage of the planning process; and that a foreshore reserve is provided in accordance with the findings of this sediment budget analysis. The appellant is willing to undertake this further sediment budget analysis notwithstanding that it is confident that the sand contribution estimates by MP Rogers & Associates in 1998 are accurate.

The EPA was of the view that fundamental decisions about areas to be reserved or



development should not be deferred to later stages of the planning process. This view was supported by the City which has expressed strong objection to what it described as a 'deferral' type approach. The City contended, among other things, that a reliance on the Town Planning Scheme textural provisions of a 'Development' zone would dilute the importance of the issues and the ability of the EPA and the Minister to adequately and properly assess the proposal.

### **Appeal Ground 2 - Foreshore reserve**

The appellant noted the following statements in Section 3.3 of the EPA Report:

...sea level rise predictions were undertaken using the current sea level rise figures from SPP 2.6....

The EPA notes that the 0.38m rise in sea levels over a 100 year time horizon is under review. Therefore, the EPA expects that the coastal setback assessment and coastal processes should have regard for alternate predictions.

The appellant regarded the EPA's position on sea level rise as problematic for the following reasons:

- Statement of Planning Policy 2.6 *State Coastal Planning Policy* (SPP 2.6) nominates a 0.38m sea level rise factor in coastal setback calculations;
- There is no requirement for the developer to consider alternative sea level rise scenarios in excess of policy requirements;
- The coastal setback assessment and the Environmental Review were completed prior to the commencement of any review of SPP 2.6 or predicted sea level rise data; and
- There has been no public consultation on the proposed amendments and therefore uncertainty exists as to what these are or whether they will proceed as drafted.

The appellant also noted the conclusion on Page 8 of the EPA Report that 'there is not sufficient confidence in the calculation of coastal setbacks...'. The appellant refuted this conclusion on the following basis:

- The DPI advised the EPA that the coastal setback assessment completed by MP Rogers & Associates was 'on balance generally considered reasonable to allow for the protection of the coast under current policy'; and
- The refinement of a coastal setback line has little relevance to the Amendment which seeks to rezone the Amendment area to 'Development'. The determination of a suitable coastal setback (or foreshore reserve) is generally undertaken at the Structure Planning / Subdivision Guide Plan stage which has not yet occurred and therefore the setback line can be determined during the next stage of planning with regard for the coastal planning policies that prevail at that time.

The appellant would support the following conditions as an outcome to the appeal:

- That a foreshore reserve is provided in accordance with the coastal setback assessment requirements of SPP 2.6 and the findings of a sediment budget analysis for the Tarcoola Embayment; and
- That a Foreshore Management Strategy be prepared at Subdivision Guide Plan stage to the satisfaction of the DPI and the DEC.



### EPA Advice

The EPA explained that, while the DPI advised that the coastal setback assessment completed for the Environmental Review was, on balance, generally considered reasonable to allow for protection of the coast under current policy, the assessment was not undertaken in accordance with SPP 2.6. In view of this, the EPA submitted that it cannot advise that the foreshore reserve is in accordance with SPP 2.6.

The EPA advised that the coastal setback will need to satisfy the requirements of SPP 2.6 and, as noted in the EPA Report, SPP 2.6 is under review. The EPA considered that the fact the coastal setback assessment was completed prior to the commencement of any review of sea level rise data is of minimal significance. The EPA advised that the adequacy of the foreshore reserve is ultimately determined by the DPI as part of the subsequent implementation of the Amendment and according to the State Planning Policy that prevails at the time. The DPI would require demonstration, as part of this process, of how the coastal setback complies with the SPP 2.6 and policy relating to sea level rise at the time of determining the coastal setback and subsequent foreshore reserve.

The Amendment proposes to rezone the entire area to 'Development' instead of separate zones and reserves which would be consistent with environmental and landscape values, and statutory planning documents. The EPA considered it important to include in its Report advice that the Foreshore Reserve should follow a practical line rather than an alignment that so closely follows the calculated coastal setback as depicted in the draft Subdivision Guide Plan. In effect this would result in a smoothing of the line to achieve a practical and manageable foreshore reserve boundary.

The EPA stated that, whilst the appellant advises that a Foreshore Management Plan is prepared at the subdivision stage, the EPA considered that the intention of an Amendment is to demonstrate that the impacts associated with a proposed development can be managed. The EPA advised that it does not support important management measures being deferred until after the preparation of an amendment, or the referral of an amendment which does not contain provisions within the text outlining the management mechanisms to be implemented. Management measures must be addressed when the amendment is referred to the EPA and through the subsequent environmental review where the EPA is assessing the amendment.

The EPA advised that the resolution of the Foreshore Reserve is not a reason by itself to recommend against the Amendment, however, where the other relevant environmental factors have also not been addressed satisfactorily, the EPA has recommended against the Amendment being implemented. The EPA advised that coastal setbacks should be addressed in consultation with DPI including confirmation that the foreshore reserve is adequate. The outcome of this consultation may inform a subsequent new amendment that properly identifies areas to be reserved and developed and appropriate scheme provisions.

### Additional Information

The City submitted that, whilst the developer may contend that there is no requirement to consider alternative sea level rise scenarios, it would be remiss of the City, the Western Australian Planning Commission (WAPC) and EPA to not consider alternative scenarios. The City considered that this requirement has been mandated by the WAPC's State Planning Framework.

### Consideration

The appellant raised two areas of concern in relation to the EPA's assessment of the Foreshore Reserve. The appellant is concerned with the EPA's expectation that the coastal setback assessment should have regard for alternative sea level rise predictions to that in SPP2.6; and with the conclusion drawn by the EPA that 'there is not sufficient confidence in



the calculation of coastal setbacks for the Foreshore Reserve which would allow for protection of the coast from possible sea level rise over the coming years'. Both concerns relate to the issue of sea level rise.

In forming its opinion that it has not been demonstrated that the Amendment area can meet its objective for Foreshore Reserve, the EPA stated that it had particular regard to information provided by the DPI (see page 9 of EPA Report). The DPI's advice was that, whilst the setback assessment was not undertaken in accordance with SPP2.6, the setback values proposed are, on balance, 'generally considered reasonable to allow for protection over the coming 100 years under current policy.' The DPI supported the total setbacks proposed. The Appeals Convenor considers that, if regard was had only to the advice provided by the DPI, a different opinion may have been justified. However, the EPA's opinion on the Foreshore Reserve appears also to be based on a view that the calculation of coastal setbacks has not adequately considered possible sea level rise over the coming years. The EPA stated an expectation that coastal setbacks should have regard for alternate predictions of sea level rise to that currently provided for in SPP 2.6.

The appellant considered the EPA's position on sea level rise as problematic for reasons that SPP 2.6 nominates a 0.38m sea level rise factor for coastal setback calculations; there is no requirement the developer to consider alternative sea level rise scenarios; the coastal setback assessment and the Environmental Review were completed prior to the commencement of any review of SPP 2.6 or predicted sea level rise data; and there has been no public consultation on the proposed policy amendments therefore uncertainty exists as to what these are or whether they will proceed as drafted.

The Appeals Convenor has previously commented on this issue of considering alternative sea level rise scenarios in the context of SPP 2.6 (see Appeals Convenors Report on appeal numbers 90 to 143 of 2008). SPP 2.6 states that the Policy is to 'be applied to each case under consideration on its merits using the best available information, commonsense and a precautionary approach.' The Appeals Convenor considers that the best available information on sea level rise would be that from the latest report of the Intergovernmental Panel on Climate Change (IPCC) Working Group being the Fourth Assessment Report, of 2007.

Notwithstanding the foregoing, the Appeals Convenor notes the EPA's advice that the adequacy of the foreshore reserve is ultimately determined by the DPI as part of the subsequent implementation of the Amendment and according to the State Planning Policy that prevails at the time. On this basis, it seems that the EPA may be satisfied, in this instance, for the issue of sea level rise to be addressed through the planning process.

Whilst the EPA advised that the resolution of the Foreshore Reserve is not a reason by itself to recommend against the Amendment, however, it explained that, where the other relevant environmental factors have also not been satisfactorily addressed, it has recommended against the Amendment being implemented. It is considered that this position is reasonable noting that there are uncertainties about the potential impacts of the Amendment on Coastal Processes (specifically the potential impacts on beaches to the north of the Amendment area through the stabilisation of Southgate Dune or part thereof); and that the determination of an adequate foreshore reserve, if the Amendment were to be implemented, would need to take these Coastal Processes into account.

As an outcome to the appeal, the appellant advised that it would support conditions requiring the provision of a foreshore reserve in accordance with the requirements of SPP 2.6 and the findings of a sediment budget analysis for the Tarcoola Embayment; and the preparation of a Foreshore Management Strategy at the Subdivision Guide Plan stage. It is considered that, whilst the EPA may be satisfied that the determination of an appropriate setback to allow for the protection of the coast from possible sea level rise can be adequately addressed through the planning process, the EPA would not support the deferral of Coastal Processes matters previously discussed.



### Appeal Ground 3 - Native vegetation

The appellant noted that the EPA's assessment of this factor relies heavily on information derived from the Geraldton Region Flora and Vegetation Study (GRFVS). The appellant submitted the following concerns regarding the use of information collected from the GRFVS:

- The survey work for the GRFVS was undertaken in Spring 2008 and the results have not been published, therefore the appellant is unable to verify the accuracy of the survey work or the EPA's interpretation of the results including the assertion that *Eucalyptus obtusiflora* subsp. *dongarraensis* (Mallee) community is present in the Amendment area. The Flora and Vegetation survey conducted for the Environmental Review did not identify this species as being present in the Amendment area. It did, however, record planted specimens of *Eucalyptus platypus* subsp. *platypus*.
- The EPA Report claims to show the extent of the Mallee community and vegetation Association 371 in Figure 4 based on findings from the GRFVS, yet Figure 4 does not distinguish between the Mallee community and vegetation Association 371.
- The surveys conducted for the Environmental Review, and the preparation of the Environmental Review document, were all completed prior to the commissioning of the GRFVS. The results of the GRFVS have not yet been published therefore the appellant expressed the view that it is unreasonable to expect a comparison with the findings of the GRFVS in the Environmental Review report.

The appellant noted the comment on Page 9 of the EPA Report that the draft Subdivision Guide Plan identifies Public Open Space areas, but does not identify which areas will retain native vegetation for conservation. The appellant also noted the statement on Page 10 of the EPA Report that the 'Amendment has not demonstrated which areas of vegetation are to be retained nor has it established mechanisms as to how these areas will be protected in the future'.

The appellant regarded these statements to be irrelevant to the Amendment or inaccurate for the following reasons:

- The EPA has failed to understand that it is assessing a change in land use zoning, not the draft Subdivision Guide Plan. The form of the draft Subdivision Guide Plan is likely to change following further detailed planning. It is through this process that greater clarity will be achieved with respect to vegetation retention.
- It appears that the EPA wants the Amendment to set out different zonings and reservations for the Amendment area. The EPA must recognise that the Amendment proposes to create a single land use zoning to facilitate flexible planning for of the amendment area. The Subdivision Guide Plan process that follows will identify land use zonings and reservations, including areas of environmental significance for retention.
- The Environmental Review report as clearly stated that remnant vegetation will be retained in Public Open Space and that Vegetation Management Plans will be prepared at subdivision stage to the satisfaction of the WAPC on advice from the Department of Environment and Conservation (DEC).

The appellant also noted the following statement in the EPA Report:

The ER [Environmental Review] also estimates that there is approximately 250 ha worth of remnant vegetation in the subject area, however it also states that 250 ha of remnant vegetation will be impacted as a result of development.

The appellant considered that:



- The EPA's statement has taken information from the Environmental Review report out of context, and that the Review report states that development of the Amendment area has the *potential* to impact on 250 ha of native vegetation. The appellant considered that the EPA's reporting is alarmist.
- While the Amendment to 'Development' zone will facilitate development, and clearing of native vegetation will occur, the development in the Amendment area will not clear all of the remnant vegetation present. Subsequent planning stages (i.e. Subdivision Guide Plan / Structure Planning stages) will identify areas of native vegetation for retention.
- The EPA has failed to consider or acknowledge the conservation benefits to be derived from the Land Exchange Agreement between the State of Western Australia and Bayform Holdings Pty Ltd which will result in the transfer of approximately 422 ha of vegetated land south of Greenough River in return for the 214 ha of Southgate Dunes. Victoria Location 2584 provides a vegetated contiguous link between the coast and Greenough. Its transfer into State ownership will consolidate land ownership with adjacent Crown land in return for approximately 214 ha of denuded, mobile dune.

The appellant's preferred outcomes are that:

- The findings of the GRFVS are published, or made available to the affected landholders;
- The EPA states its expectation regarding vegetation retention in the Amendment area; and
- In its assessment, the EPA acknowledges the conservation benefits to be derived from the Land Exchange Agreement between the State of Western Australia and Bayform Holdings Pty Ltd.

The appellant would support the following conditions as an outcome to the appeal:

- That a Vegetation Retention Strategy be prepared at Subdivision Guide Plan stage to the satisfaction of the DEC, with regard to the findings of the GRFVS; and
- Vegetation Management Plans to be prepared at subdivision stage to the satisfaction of the local government and the DEC for areas of remnant native identified for retention.

#### EPA Advice

The EPA advised that Geraldton has been substantially cleared for agricultural purposes, and little remnant vegetation remains. Urban expansion in Geraldton is rapidly progressing with urban development either proposed or underway over much of the coastal strip. The EPA advised that it supported the commissioning of the GRFVS to identify areas supporting regionally significant vegetation in order to appropriately designate these areas for conservation and incorporate those areas identified in a vegetation inventory. This will ensure that development proceeds in an orderly manner and that the environmental values of the region are maintained.

The EPA advised that, at the time it was writing its report and recommendations, preliminary information from the GRFVS was available which the EPA used to draw its conclusions with regard to Native Vegetation. This preliminary information identified a Mallee dominated community (*Eucalyptus obtusiflora* subsp. *dongarraensis*) within the Amendment area which has not been found to occur anywhere else in the Geraldton region. The EPA also advised that the Environmental Review did not list all of the Beard vegetation associations within the Amendment area despite the fact that Association 371 is poorly represented with only 10.1% pre-European extent remaining in Western Australia. The EPA understands that none of this Association is protected in the conservation estate. The GRFVS also rated the condition of



remnant vegetation in the northern most area of the site as 'Excellent', while it was rated as 'Very Good' in the Environmental Review. The EPA considered that this information could have easily been identified in the Environmental Review through adequate flora and vegetation surveys. The EPA judged that the GRFVS is more technically competent than the work undertaken for the Amendment. The EPA also explained that section 48C of the Act (Powers of the Authority in relation to assessment of schemes) allows the EPA to make such investigations and inquiries as it thinks fit. This includes the use of information that is made available to the EPA.

The EPA considered that it clearly outlined in its Report that the removal of vegetation from the Amendment area, through development, has the potential to further fragment this remnant vegetation. The EPA advised that the Amendment has not demonstrated which areas of vegetation are to be retained nor has it established mechanisms to demonstrate how these areas will be protected into the future as the Amendment proposes a rezoning of the entire Amendment area to 'Development' instead of separate zones and reserves which would be consistent with the environmental and landscape values, and statutory planning documents.

The EPA was of the view that the appellant's argument that these matters should be deferred until the later stages of planning is contrary to the intent of the *Environmental Protection Act 1986* and the *Planning and Development Act 2005*. The EPA advised that these Acts were amended in 1996 with the specific intention of ensuring environmental matters were addressed up front as part of the decision making on scheme amendments. The EPA was of the view that areas of regionally significant vegetation should be established as part of developing the Amendment including recommendations for appropriate reservations. While the EPA could make recommendations regarding areas to be retained, the EPA was of the view that the developable area relating to the Amendment is already in question due to uncertainties regarding coastal processes. The EPA considered it inappropriate to make recommendations at this time regarding areas of vegetation to be retained, until the fundamental question about the extent to which Southgate Dune can be developed is resolved. The EPA also advised that it would expect any subsequent amendment to have regard for the information identified in the GRFVS about regionally significant vegetation.

The EPA understood that the report on the GRFVS is will be available to the public once the final report has been released.

The EPA acknowledged that the Land Exchange Agreement referred to by the appellant would potentially result in conservation benefits given that the 422 ha of land currently owned by Bayform Holdings Pty Ltd contains large areas of vegetated land. The EPA advised, however, that it is required to consider the Amendment as referred by the Responsible Authority and the potential environmental impacts associated with the development on its merits.

In relation to the appellant's support for the preparation of a Vegetation Retention Strategy and Vegetation Management Plan at subdivision stage, the EPA reiterated its earlier advice that it does not support important management measures being deferred until after the preparation of an amendment, or the referral of an amendment which does not contain provisions within the text outlining the management mechanisms to be implemented. The EPA advised that management measures must be addressed when the amendment is referred to the EPA or through the Environmental Review where the EPA is assessing the amendment.

#### Additional Information

The City considered that the latest studies and information available at the time should be used to assess the proposed Amendment. The City stated that the GRFVS has substantially progressed and to not compare findings with this work would be almost considered negligent.



### Consideration

As noted by the appellant, the EPA took into account information from the GRFVS in its assessment of the proposed Amendment. The GRFVS is being delivered by the WAPC and the DPI, in partnership with the DEC and other agencies. The Appeals Convenor understands that the GRFVS technical report will soon be released.

Taking into account the information from the GRFVS, the EPA concluded that the potential impacts on poorly represented vegetation associations and communities within the Amendment area have not been adequately addressed.

As noted by the EPA, section 48C of the Act provides for the EPA to make such investigations and inquiries as it thinks fit for the purpose of assessing a scheme. Whilst GRFVS data has yet to be released, information relevant the Amendment area was available to the EPA at the time of its assessment. Noting that it is the EPA's objective to protect the environment, it is considered reasonable for the EPA to take this information into account.

Whilst the appellant did not contend the EPA should have disregarded the information from the GRFVS, the appellant was concerned by the use of this information by virtue that it was unable to verify the accuracy of the survey work or the EPA's interpretation of the results or to compare the findings of the GRFVS with the survey work undertaken for the Environmental Review. In this regard, it is noted that the EPA has judged that the GRFVS is more technically competent than the work undertaken for the Amendment.

The appellant is also concerned about Figure 4 in the EPA Report (Extent of Significant Vegetation Associations and Mallee Community) as it does not distinguish between the Mallee community and vegetation Association 371 referred to in the EPA's assessment. In relation to this element of the appeal, it is considered that Figure 4 could be improved by distinguishing between the Mallee community and vegetation Association 371. This would have provided some clarity to the appellant as to the location of the areas of regionally significant vegetation identified in the EPA's assessment. The Office of the Appeals Convenor has compared Figure 4 to vegetation mapping provided by the DPI from the GRFVS. It appears that the area delineated in Figure 4 includes, but extends beyond, the Mallee community and vegetation Association 371. Nevertheless, it is considered that the discrepancy is not so significant to be of consequence to the EPA's conclusions.

As noted by the appellant, the EPA stated that the 'Amendment has not demonstrated which areas of vegetation are to be retained nor has it established mechanisms as to show how these areas will be protected into the future.' The appellant is of the view that the matter of which areas of the site should be reserved for conservation is more appropriately a matter for the next stage of the planning process, being the Subdivision Guide Plan stage.

Whilst the appellant's contention may be appropriate for sites that do not contain large areas of regionally significant vegetation, it is considered reasonable in this case that the EPA should seek surety as to the management of the regionally significant vegetation identified through the GRFVS. Importantly, it is considered that the Amendment proposal should identify which areas of regionally significant vegetation are to be retained. The EPA Report is clear on this matter in which is stated that (p.10):

The EPA is of the view that the areas of regionally significant vegetation would be established as part of developing the Amendment including recommended appropriate reservations.

One of the appeal outcomes sought by the appellant was for the EPA to state its expectation regarding vegetation retention in the Amendment area. It is considered that the EPA's view on this matter is clearly stated in its Report (p.10):

While the EPA could make recommendations regarding areas to be retained, the developable



area relating to this Amendment is already in question as a result of uncertainties regarding coastal processes. It is not considered appropriate to make recommendations at this time regarding areas of vegetation to be retained until the fundamental question about the extent to which the dune can be developed is resolved.

The EPA reiterated this view in its appeal advice.

The appellant also submitted concern regarding the following statement in the EPA Report (p.10):

The [Environmental Review] also estimates that there is approximately 250 ha worth of remnant vegetation in the subject area, however it also states that 250 ha of remnant vegetation will be impacted as a result of development.

The Appeals Convenor referred to the Environmental Review report to clarify this matter. The Environmental Review identifies the potential impacts of the proposed Amendment. With respect to Vegetation Communities and Flora, the Environmental Review states that (ATA Environmental, 2008, p.18):

Re-zoning the subject land to 'Development' will facilitate future development of the subject land. Urban and associated development within the amendment area has the potential to impact directly on approximately 250ha of remnant vegetation through clearing.

The Environmental Review report also identifies proposed management measures. With respect to Vegetation Communities and Flora, the Environmental Review states (ATA Environmental, 2008, p.18):

Representative areas of native vegetation on the subject land will to be [sic] retained in Public Open Space will be identified in at the Structure Plan stage. The developer will prepare a Vegetation Management Plan at subdivision stage to the satisfaction of the local authority on advice from the DEC.

From this information, it appears to be the intention of the appellant to retain some vegetation within areas of Public Open Space. The amount of vegetation and its location are not detailed. Thus, whilst there may be merit in the appellant's submission that implementation of the Amendment would not impact on 250 ha of native vegetation, the concerns expressed by the EPA in relation to regionally significant vegetation appear to be justified and should be considered as part of the Amendment.

The final contention submitted under this ground of appeal was that the EPA failed to consider or acknowledge the conservation benefits to be gained from the Land Exchange Agreement between the State and Bayform Holdings Pty Ltd. Whilst the Environmental Review draws attention to the Land Exchange Agreement and the conservation benefits to be gained from this, the Agreement does not form part of the Amendment proposal and the EPA therefore did not consider this as part of its assessment, rather it considered the Amendment on its own merits.

#### **Appeal Ground 4 Aboriginal Heritage**

The appellant submitted that the information contained in Section 4.2 (Aboriginal Heritage) of the EPA Report acknowledges that an archaeological survey was undertaken, yet suggests that insufficient work has been completed. The appellant refuted the EPA's position and the Department of Indigenous Affairs (DIA) advice, submitting the following reasons for this:

- Multiple archaeological and ethnographic investigations have been completed and the findings were reported in the Environmental Review.



- The investigations involved consultation with Aboriginal interest groups, archival research and on-ground inspections.
- The Environmental Review report also commits developers to preparing and implementing an Aboriginal Heritage Management Protocol to ensure site works are undertaken in a sensitive manner, and that a process is in place to deal with newly discovered sites.
- The Environmental Review states that, where possible, known Aboriginal Heritage Sites will be retained in Public Open Space and where disturbance is unavoidable the developer will be responsible for obtaining relevant clearances under section 18 of the *Aboriginal Heritage Act 1972*.

The appellant's preferred outcome for Aboriginal Heritage is that:

- The EPA acknowledges that appropriate investigations have been undertaken in the Amendment area.

The appellant would support the following conditions as an outcome to the appeal:

- That an Aboriginal Heritage Management Protocol is prepared at the Subdivision Guide Plan stage to the satisfaction of the DIA; and
- That the Aboriginal Heritage Management Protocol is implemented during all site works.

#### EPA Advice

The EPA considered it prudent to include the DIA's advice due to the significance of sand dunes to Aboriginal heritage and given there are 19 registered sites within the general area of Cape Burney and one site of significance within the Amendment area. In addition, the EPA advised that a significant number of submissions were received voicing concerns regarding the cultural significance of the sand dunes.

The EPA expressed its expectation that, in view of its overall conclusion that the proposed Amendment cannot be managed to be made environmentally acceptable, the work suggested by the DIA would be completed to its satisfaction prior to any subsequent amendment being initiated. Given the high level of public concern, the EPA considered that this advice is still relevant.

#### Consideration

The EPA did not identify Aboriginal Heritage as a key environmental factor requiring detailed evaluation in its Report. Notwithstanding this, the EPA provided advice in relation to this matter in light of a submission from the DIA. The EPA Service Unit provided the Office of the Appeals Convenor with a copy of the relevant submission from the DIA. In this submission, the DIA stated that:

It is possible that there are sites that have not yet been entered on the Register of Aboriginal sites. The *Aboriginal Heritage Act 1972* ("the Act") protects all Aboriginal sites in Western Australia whether they are known to the Department of Indigenous Affairs ("DIA") or not.

...

Prior to any proposed development activity, so that no site is damaged or altered (which would result in an offence under section 17 of the Act) it is recommended that suitably qualified consultants be engaged to conduct ethnographic and archaeological surveys of the area. This should ensure that all Aboriginal interest groups are consulted so that all sites on the designated land are avoided or identified.



The DIA's submission did not specifically comment on the adequacy or otherwise of the archaeological and ethnographic investigations already completed

With respect to the advice provided in the EPA Report, it is noted that the EPA did not form any conclusions in relation to this matter but rather stated a simple expectation that necessary work (ethnographic and archaeological surveys of the area) would be completed to the satisfaction of the DIA prior to any subsequent amendment being initiated. On this basis, the question of whether the work already undertaken and reported in the Environmental Review is adequate is ultimately a question for the developer and the DIA.

## Conclusion

The appellant submitted grounds of appeal against the EPA's assessment of the three key environmental factors identified for evaluation in the EPA Report, and other advice provided with respect to Aboriginal heritage.

With respect to Coastal Processes (Appeal ground 1), it is considered that the EPA could not have determined, with confidence, the likely impact of the Amendment on beaches to the north of the Amendment area and therefore could not have reasonably formed the conclusion that the proposed Amendment meets its objective for Coastal Processes. The EPA could not have formed this conclusion given the uncertainty of the contribution of sand from the Southgate Dune to beaches to the north of the Amendment area, and in light of the characteristics of the proposed Amendment as submitted to the EPA.

Noting that the Amendment area encompasses the whole of the Southgate Dune, and having regard to the draft SGP submitted, it is considered reasonable that the EPA should contemplate that the rezoning of the area to 'Development' would result in the stabilisation of much, perhaps not all, of the Southgate Dune.

As an outcome to the appeal, the appellant stated that it would support conditions requiring, among other things, that a sediment budget analysis be undertaken at the Subdivision Guide Plan stage; and that a foreshore reserve be provided in accordance with the findings of this analysis and with the requirements of SPP2.6. In this regard, the Appeals Convenor considers it unreasonable that the EPA should be expected to rely upon the imposition of conditions to address matters of such significance and, at the same time, have confidence that its environmental objectives will be met.

In addressing the uncertainties identified by the EPA, it is considered appropriate for further investigation to be undertaken to determine the implications of any development to the contribution of sand from Southgate Dune to beaches north of the Amendment area. Two options are suggested in this regard: first, the matter could, with the agreement of the Minister for Planning, be remitted to the EPA for further assessment and technical advice, noting the appellant's undertaking to commission sediment budget analysis at the Subdivision Guide Plan stage. Alternatively, the Minister may seek additional technical advice on the issue with a view to determining the uncertainties as part of her consultation with the Minister for Planning under section 48F of the Act. Without pre-empting the content of any such advice, the Minister may be satisfied that the implications of the proposed Amendment to coastal processes can be managed through conditions which may include securing a sufficient foreshore reserve such that coastal processes are maintained.

In relation to the issue of sea level rise (Appeal Ground 2), it is considered that the EPA's caution was appropriate, especially noting advances in knowledge about the impact of climate change on sea level rise. Given the interrelationship between this issue and that of coastal processes discussed above, any uncertainties in the coastal setback assessment could be clarified through the provision of further technical advice. This may include, for example, the determination of additional setback requirements taking account of alternative sea level rise scenarios.



With respect to Native Vegetation (Appeal ground 3), it is considered, overall, that the conclusions drawn by the EPA in relation to this factor are sound and reasonably based on information from the GRFVS. It is considered that it would be contrary to the EPA's objective to protect the environment to disregard the information from the GRFVS which identified the presence of regionally significant vegetation within the Amendment area.

Further to the above, it is considered reasonable that the EPA should seek surety as to which areas of regionally significant vegetation are to be retained. It is considered inappropriate, in this case, to defer this task to the Subdivision Guide Plan stage of the planning process given the significance of the vegetation potentially impacted. However, similar to Coastal Process issues previously discussed, there remains an opportunity, through any subsequent condition setting process, to identify areas of regionally significant vegetation to be retained and for this vegetation to be secured through appropriate conditions to be inserted in the TPS No.1A text.

With respect to the element of the appeal concerning the advice provided by the EPA with respect to Aboriginal Heritage (Appeal ground 4), it is noted that the EPA did not form any conclusions in relation to this matter but rather stated an expectation that necessary work (ethnographic and archaeological surveys of the area) would be completed to the satisfaction of the DIA prior to any subsequent amendment being initiated. On this basis, the question of whether the work already undertaken and reported in the Environmental Review is adequate is ultimately a question for the developer and the DIA.

## Options

The options available to the Minister in determining the appeal are as follows:

- 1) (a) Dismiss the appeal on the basis that the appeal, in substance, does not resolve the issues identified in the EPA Report; and  
(b) Determine, with the the agreement of the Minister for Planning, to direct the EPA under section 48E(1) of the Act to reassess the Amendment.

With this option, it is considered appropriate that the developer be advised of the expectation that it will provide further information to the EPA to address the issues associated with Coastal Processes, the Foreshore Reserve and Native Vegetation as identified in the EPA's and Appeals Convenor's reports.

- 2) (a) Allow the appeal to the extent that there is an opportunity, through the subsequent condition setting process, to resolve or otherwise address the uncertainties regarding Coastal Processes, to determine an adequate Foreshore Reserve and to identify areas of Native Vegetation to be retained; and  
(b) Pursuant to section 48F of the Act, consult the Minister for Planning and, if possible, obtain agreement as to the conditions, if any, to which the Amendment should be subject if the Amendment is to be implemented.

Jean-Pierre Clement  
A/APPEALS CONVENOR

Prepared by:  
Renee Zuks, Appeals Assessor



## References

ATA Environmental (2008) *City of Geraldton-Greenough TPS No.1A Amendment No.4 Environmental Review (EPA Assessment No.1561) Volume 1 – Report*. Prepared for the City of Geraldton-Greenough, December 2008.