



# Report and recommendations of the Environmental Protection Authority



**Roe Highway Extension  
– inquiry under section 46 of the  
*Environmental Protection Act 1986*  
to amend Ministerial Statement 1008**

**Main Roads Western Australia**

Report 1684

June 2020

## **Inquiry under section 46 of the *Environmental Protection Act 1986***

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of changing the implementation conditions in Ministerial Statement 1008 relating to the Roe Highway Extension.

Section 46(6) of the *Environmental Protection Act 1986* 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
- (b) any other recommendations that it thinks appropriate.

The following is the EPA's report to the Minister pursuant to s. 46(6) of the *Environmental Protection Act 1986*.



Dr Tom Hatton  
Chairman

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# 1. The proposal

Main Roads Western Australia (WA) (the proponent) recently completed construction of the Roe Highway Extension to Murdoch Drive.

The original proposal was to extend Roe Highway from Kwinana Freeway to Stock Road. The Environmental Protection Authority (EPA) assessed the proposal at the level of Public Environmental Review, releasing its Report and Recommendations (Report 1489) to the Minister for the Environment in September 2013. The EPA considered the following key environmental factors required detailed evaluation:

- Inland Water Environmental Quality
- Hydrological Processes
- Flora and Vegetation
- Terrestrial Fauna
- Amenity (Noise)
- Offsets.

In applying the *Statement of Environmental Principles, Factors and Objectives* (EPA 2020b) these factors are now represented by:

- Inland Waters
- Flora and Vegetation
- Terrestrial Fauna
- Social Surroundings.

The EPA concluded that the proposal would meet the EPA's objectives provided the EPA's recommended conditions were implemented by the proponent.

The then Minister for Environment approved the proposal for implementation, subject to the implementation conditions of Ministerial Statement 1008 (MS 1008) (2 July 2015).

## Previously approved changes to the proposal

In 2017 the Western Australian Government decided to discontinue the extension of the Roe Highway, west of Bibra Drive. The construction of the Murdoch Drive connection was to continue. This subsequently resulted in two applications from the proponent to change the proposal. These changes are set out below.

In January 2018, the proponent requested minor changes to allow for additional clearing and disturbance around the Murdoch Drive connection. The EPA Chairman recommended to the Minister for Environment that the minor changes could be authorised under s. 45C of the *Environmental Protection Act 1986* (EP Act). The Minister for Environment approved the minor changes on 25 May 2018 (Attachment 1 to MS 1008).

In May 2018, the proponent requested to split the authorised development envelope into two zones, one east of Bibra Drive for the construction and operation of the Murdoch Drive connection to Roe Highway and one west of Bibra Drive for the rehabilitation of areas previously cleared as part of the proposal. The requested change sought to remove authorisation to construct a road from Bibra Drive west to Stock Road.

The EPA Chairman, under delegation, approved the s. 45C application on 12 December 2018 (Attachment 2 to MS 1008).

The changed proposal, including the extent of the rehabilitation and construction and operation zones, is shown in Figure 1.





Figure 1(a): Rehabilitation Zone within the Roe Highway Extension to Murdoch Drive development envelope





Figure 1(b): Rehabilitation Zone and Construction and Operation Zone within the Roe Highway Extension to Murdoch Drive development envelope

## 2. Requested changes to conditions

In May 2018, following the request by the proponent to change the proposal pursuant to s. 45C of the EP Act to amend the construction of the Roe Highway Extension and the extent of areas to be rehabilitated, the Minister for Environment sought advice from the EPA on the implementation conditions of MS 1008 and requested that the EPA inquire into, and report under s. 46(1) of the EP Act on the suitability of the implementation conditions for the Roe Highway Extension proposal and whether any of them should be changed.

This report satisfies the requirements of the EPA's inquiry.

In August 2018, the proponent requested the following changes to the implementation conditions of MS 1008:

- deletion of conditions referring to obsolete elements of the original proposal
- amendment of conditions to reflect the changed proposal
- deletion of conditions no longer required
- addition of conditions to allow for rehabilitation of cleared areas west of Bibra Drive
- minor amendments to reflect changes to agency names, guidance documents and removal of references to obsolete strategies and plans (Main Roads Western Australia 2018).



### 3. Inquiry into changing conditions

The EPA has discretion as to how it conducts this inquiry. In determining the extent and nature of this inquiry, the EPA had regard to information such as:

- the currency of its original assessment (EPA Report 1489)
- requirements of MS 1008
- previous changes to the proposal pursuant to s. 45C of the EP Act
- information provided by the proponent
- plans approved under MS 1008
- advice from relevant decision-making authorities
- compliance reports from the proponent.

#### EPA procedures

The EPA followed the procedures in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* (State of Western Australia 2016) and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual* (EPA 2020a).

## 4. Inquiry findings

The EPA considered that the following are the key environmental factors relevant to the change to conditions:

- Inland Waters
- Flora and Vegetation
- Terrestrial Fauna
- Social Surroundings.

The EPA has also provided advice on changes to offset requirements and standard conditions. Appendix 1 contains a detailed assessment table of the changes to conditions.

### 4.1 Inland Waters

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

#### Conclusions from EPA Report 1489

In assessing the potential impacts of the Roe Highway Extension proposal on Inland Waters, the EPA considered that the key environmental issues were associated with:

- disturbance of acid sulphate soils (ASS)
- ongoing impacts from road runoff during the operation of the proposal
- alterations to the groundwater regime and wetland water levels resulting from groundwater abstraction or dewatering
- potential for the road structure to interrupt groundwater and surface water flows.

The EPA considered that there remained the potential for residual indirect impacts to the quality and hydrology of surface and groundwater from the construction and operation of the proposal.

To manage the potential residual indirect impacts, the EPA recommended the following conditions:

- Condition 7 relating to construction impacts to Inland Waters, including the preparation and implementation of a Construction Environmental Management Plan (CEMP) to minimise impacts to inland waters environmental quality.
- Condition 8 requiring a Drainage Management and Monitoring Plan (DMMP) to ensure pre-construction groundwater quality is maintained.
- Condition 9 ensuring impacts to wetland quality associated with implementation of the proposal are minimised through implementation of a Wetland Monitoring and Management Plan (WMMP).
- Condition 12 requiring that the significant residual impacts to wetlands be offset (refer to section 3.5).

## Assessment of the recommended change to conditions

The EPA considers that the following current environmental guidance is relevant to its assessment of the proposal for this factor:

- *Environmental Factor Guideline – Inland Waters* (EPA 2018).

Having regard to the changed proposal and the relevant information, the EPA recommends that conditions 7 (Construction), 8 (Drainage) and 9 (Wetlands) are deleted and replaced with the recommended conditions set out below.

### Construction

The changed proposal no longer crosses Roe Swamp. It is appropriate that condition 7-2 (regarding ‘top down’ bridge construction methods) be deleted as it is no longer relevant.

Construction of the Murdoch Drive connection has been completed and excavation, abstraction and dewatering are no longer required. Therefore, conditions 7-3, 7-4 and 7-5 (regarding minimising construction impacts on water quality and hydrology) can be deleted.

Construction of the Murdoch Drive connection has been completed and relevant parts of the CEMP have been implemented by the proponent during construction. Therefore, the CEMP required by condition 7-6 is no longer required because the actions and measures in the Plan are only relevant to the construction phase. It is also recommended that conditions 7-7 through 7-11 relating to construction can be deleted.

In view of the above, the EPA recommends that condition 7 be deleted.

### Drainage

Condition 8-1 requires that impacts to groundwater quality from the ongoing operation of the proposal are maintained relative to pre-construction conditions. As this potential impact is still relevant to the changed proposal, the objective of condition 8-1 has been retained in recommended condition 5-1(1).

Implementation of the approved DMMP is still required to ensure impacts to groundwater quality from ongoing operation of the proposal are maintained. The EPA recommends condition 5-2(1) that requires the proponent to implement post-construction monitoring relevant to the Construction and Operation Zone as detailed in the DMMP (Strategen Environmental 2016a).

The EPA recommends conditions 5-3, 5-4 and 5-5 that require the proponent to implement contingency actions as required, fulfil the reporting requirements of the approved DMMP and continue to implement the DMMP until the objective specified in condition 5-1(1) has been achieved.

In view of the above, the EPA recommends that condition 8 be replaced with recommended conditions 5-1(1) and 5-2(1) regarding managing ongoing drainage impacts.

## Wetlands

Condition 9-1 requires that impacts to wetland quality associated with the implementation of the proposal are minimised. As this potential impact is still relevant to the changed proposal, the objective in condition 9-1 has been retained in the recommended condition 5-1(2).

The EPA recommends condition 5-2(2) that requires the proponent to implement post-construction monitoring relevant to the Construction and Operation Zone detailed in the WMMP (Strategen Environmental 2016d).

The EPA recommends conditions 5-3, 5-4 and 5-5 that require the proponent to implement contingency actions as required, fulfil the reporting requirements of the approved WMMP and continue to implement the WMMP until the objective specified in condition 5-1(2) has been achieved.

In view of the above, the EPA recommends that condition 9 be replaced with recommended conditions 5-1(2) and 5-2(2) regarding managing potential impacts on wetland quality.

## 4.2 Flora and Vegetation

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

### Conclusions from EPA Report 1489

In Report 1489 the EPA considered the flora and vegetation of the proposal area to be regionally significant in relation to its structural complexity, floristic assemblages, gradations from wetland to upland and in terms of the ecological pattern it represents. The EPA considered that there would be significant residual impacts to flora and vegetation due to the clearing of native vegetation.

The EPA noted in Report 1489 that the significant residual impacts of the original proposal on Flora and Vegetation would be:

- clearing of 97.8 ha of native vegetation which includes 5.4 ha of Beeliar Regional Park and 7 ha of Bush Forever Site 244
- clearing of 6.8 ha of protected wetlands
- fragmentation of wetland vegetation.

To manage the potential and significant residual impacts, the EPA recommended the following conditions:

- Condition 6 requiring an Infrastructure Plan to ensure the final road alignment and detailed design did not result in any additional clearing.



- Condition 7 to manage construction impacts.
- Condition 10 requiring a Baseline Flora and Vegetation Condition Survey, a Flora and Vegetation Monitoring and Management Plan (FVMMP) and a Vegetation Rehabilitation Plan for areas temporarily cleared.
- Condition 12 requiring that the significant residual impacts to Flora and Vegetation be offset (refer to section 3.5).

## Assessment of the recommended change to conditions

The EPA considers that the following current environmental guidance is relevant to its assessment of the proposal for this factor:

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

Having regard to the changed proposal and the relevant information, the EPA is recommending that conditions 6 (Infrastructure Plan), 7 (Construction), and 10 (Flora and Vegetation) are deleted and replaced with new conditions as set out below.

### Infrastructure Plan

Condition 6-1 requires that the proponent demonstrate the proposal is designed and constructed consistent with the authorised extent through implementation of conditions 6-2 and 6-3.

The Infrastructure Plan required by condition 6-2 was approved by the CEO on 18 November 2016.

The EPA notes that construction of the Murdoch Drive connection portion of the proposal has been completed. The proponent provided the spatial data for the changed proposal required by condition 6-3 on 19 June 2020.

As the infrastructure elements of the changed proposal have been completed, the EPA recommends that condition 6 regarding the Infrastructure Plan, is no longer required and can be deleted.

### Construction

Construction of the Murdoch Drive connection has been completed and relevant parts of the CEMP have been implemented. Therefore, the CEMP required by condition 7-6 is no longer required. The EPA recommends that conditions 7-6 through 7-11 relating to the CEMP be deleted.

The EPA is recommending condition 5-6 to ensure that ground disturbance or construction activities have not resulted in the spread or introduction of any disease or pathogen.

### Flora and vegetation

Condition 10-1 requires that ongoing implementation of the proposal does not cause any detectable adverse effects on flora and vegetation communities outside the zone of indirect impacts.

The approved FVMMP is still required to be implemented for the changed proposal to ensure that the ongoing operation of the proposal does not cause any detectable adverse effects on flora and vegetation communities outside the zone of indirect impacts. The EPA notes that the potential impacts on vegetation health that are to be managed as part of the FVMMP are:

- localised indirect hydrological changes due to compaction
- edge effects such as shading, dust and weeds (Strategen Environmental 2015a).

Relevant to the changed proposal, the FVMMP identifies monitoring sites located directly west of Bibra Drive and in the area of native vegetation south east of the Kwinana Freeway Roe Highway intersection (Strategen Environmental 2015a).

The EPA therefore recommends condition 5-1(3) (which retains the original objective of minimising indirect impacts on vegetation) and condition 5-2(3) to require the proponent to continue implementing post-construction monitoring relevant to the Construction and Operation Zone detailed in the approved FVMMP.

The EPA further recommends conditions 5-3, 5-4 and 5-5 to ensure that the proponent implements contingency actions as required, fulfils the reporting requirements of the approved FVMMP and continues to implement the FVMMP until the objective specified in condition 5-1(3) has been achieved.

In addition, the EPA considers that the Vegetation Rehabilitation Plan (appended to the approved FVMMP) is still required for disturbed areas within the Construction and Operation Zone. The EPA therefore recommends condition 5-7 requiring the implementation of the approved Vegetation Rehabilitation Plan for areas that have been temporarily cleared within the Construction and Operation Zone.

### 4.3 Terrestrial Fauna

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

#### Conclusions from EPA Report 1489

In assessing the potential impacts of the Roe Highway Extension proposal on Terrestrial Fauna, the EPA noted that the terrestrial fauna values in the area are the excellent quality banksia woodland to the east, the north-south linkages between the wetland habitats and the east-west linkages that connect the Bassendean Dunes, Spearwood Dunes and Wetland Complexes.

The EPA noted in Report 1489 that the significant residual impacts of the original proposal on Terrestrial Fauna would be:

- loss of foraging habitat for Carnaby's and forest red-tailed black cockatoo
- loss of approximately 249 potential nesting trees (approximately 2.5 ha) for the two listed cockatoo species
- fragmentation of fauna habitat.

To manage the potential and significant residual impacts, the EPA recommended the following conditions:

- Condition 11 requiring that the proposal is implemented to facilitate movement of fauna within Beeliar Regional Park and minimise impacts as a result of fragmentation, through implementation of a Fauna Management Plan (FMP).
- Condition 12 requiring that the significant residual impacts to Terrestrial Fauna be offset (refer to section 3.5).

## Assessment of the recommended change to conditions

The EPA considers that the following current environmental guidance is relevant to its assessment of the proposal for this factor:

- *Environmental Factor Guideline – Terrestrial Fauna* (EPA 2016c).

Having regard to the changed proposal and the relevant information, the EPA recommends that condition 11 (Fauna) is deleted and replaced with the recommended conditions as set out below.

## Fauna

Condition 11-1 requires that the proposal is implemented to facilitate movement of fauna within Beeliar Regional Park and minimise impacts as a result of fragmentation. To meet condition 11-1, the proponent was required to prepare an FMP that was to include:

- surveyed locations and frequency of fauna underpasses
- details of the size and shape of underpasses
- an ongoing program of inspections and maintenance
- a trapping and translocation program for target species
- assessment of the need for noise barriers between Bibra Drive and Progress Drive and associated management actions and contingency measures
- details of the visual barriers to be installed between North Lake and Bibra Lake.

The EPA notes that conditions relating to trapping and translocation, noise mitigation and visual barriers as they relate to Terrestrial Fauna are no longer required given that:

- activities associated with construction are completed and trapping and translocation are no longer required
- no road will be constructed west of Bibra Drive and noise mitigation between Bibra Drive and Progress Drive is no longer relevant
- no road will be constructed west of Bibra Drive therefore visual barriers are no longer relevant.

The FMP required by condition 11-2 was approved in October 2016. The proponent continued to implement the FMP in accordance with condition 11-3. One fauna

underpass has been constructed within the Construction and Operation Zone. All other requirements of the approved FMP (Strategen Environmental 2016b) are relevant to the construction of a road west of Bibra Drive which is no longer authorised under the changed proposal.

In light of the changed proposal and the stage of the proposal, the EPA recommends that condition 11 be deleted.

The EPA is recommending condition 5-8 requiring the proponent to routinely inspect and maintain the fauna underpass constructed at the Kwinana Freeway Roe Highway intersection.

## 4.4 Social Surroundings

The EPA's environmental objective for this factor is *to protect social surroundings from significant harm*.

### Conclusions from EPA Report 1489

In assessing the potential impacts of the Roe Highway Extension proposal on Social Surroundings, the EPA noted that the proposal would be located in a residential environment and would result in noise impacts from construction and operation on surrounding residents.

The EPA noted agency advice that the prepared noise management plan specifying notional noise wall heights was acceptable. The EPA further noted that the proponent proposed to prepare a construction noise and vibration management plan prior to construction. The EPA was of the understanding that the proponent would monitor traffic noise immediately following construction and then annually for three years to determine the accuracy of predicted noise emissions and the adequacy of noise mitigation.

To limit noise impacts, the EPA recommended the height of noise walls be finalised prior to construction and included in the Infrastructure Plan required by condition 6-2. Condition 6-3 requires that the proponent is to provide spatial data for the constructed key elements of the proposal as set out in Schedule 1.

### Assessment of the recommended change to conditions

The EPA considers that the following current environmental guidance is relevant to its assessment of the proposal for this factor:

- *Environmental Factor Guideline – Social Surroundings* (EPA 2016b).

The EPA notes that the proponent has previously proposed to monitor traffic noise immediately post-construction and then annually for three years. Monitoring will determine the accuracy of the predicted noise emissions and the adequacy of noise mitigation. If monitoring indicates that current noise mitigation is not sufficient the proponent will consider upgrading noise barriers adjacent to affected areas.

As discussed above, the Infrastructure Plan required by condition 6-2 was approved by the CEO on 18 November 2016 and the proponent has provided the spatial data



for the changed proposal required by condition 6-3. As the infrastructure elements of the changed proposal have been completed, the EPA recommends that condition 6 regarding the Infrastructure Plan, is no longer required.

The EPA notes that the document *Peer Review – Roe Highway Extension* referred to in condition 6-8 is concerned with noise modelling and noise mitigation design of the Roe Highway Extension between Kwinana Freeway and Stock Road. Given the change to the proposal, the document is considered no longer relevant. The EPA therefore recommends condition 6-8 is no longer required.

In light of the changed proposal and the stage of the proposal, the EPA recommends that condition 6 be deleted.

## 4.5 Offsets

### Conclusions from EPA Report 1489

In assessing the potential impacts of the Roe Highway Extension proposal, the EPA considered that after all avoidance and minimisation actions have occurred, the following significant residual impacts remained:

- Clearing of 97.8 hectares (ha) of remnant native vegetation that included:
  - 78 ha of foraging habitat for Carnaby's cockatoo
  - 73 ha of foraging habitat for red-tailed black cockatoo
  - 2.5 ha of potential black cockatoo nesting habitat
  - 5.4 ha of Beeliar Regional Park
  - 7 ha of Bush Forever site 244.
- Impacts to 6.8 ha of wetlands, including Conservation Category Wetlands.
- Fragmentation of:
  - fauna habitat
  - assemblages for priority fauna
  - Swan Coastal Plain significant bird species habitat
  - migratory birds and significant wetland bird species habitat.

To counteract the significant residual impacts the EPA recommended conditions 12-2 to 12-5 requiring the proponent submit and implement a Land Acquisition and Management Plan (LAMP).

To further counterbalance the significant residual impacts of the proposal, in addition to the LAMP, the proponent was required to:

- prepare and implement a Wetland Restoration Plan
- transfer 14.5 ha of land into Beeliar Regional Park
- prepare an Arum Lily Control Program for the transferred land
- prepare and implement a *Typha orientalis* Control Program for Thomson's Lake.

## Assessment of the recommended change to conditions

The EPA notes that the potential impacts of the proposal have reduced since the original proposal was assessed. The EPA further notes that the proponent no longer has authorisation to construct a road west of Bibra Drive. However, clearing has occurred within the development envelope west of Bibra Drive and there has been an impact to native vegetation, black cockatoo habitat, Beeliar Regional Park and wetlands.

To 1 July 2019, the proponent reported that 44 ha of native vegetation had been cleared in the development envelope that included 2 ha of Conservation Category Wetlands, 0.2 ha of wetlands (mapped under the previous Environmental Protection (Swan Coastal Plain Lakes) Policy) and 36 ha of black cockatoo habitat.

Based on the considerations below, the EPA is recommending that condition 12 is replaced with a new condition that requires the approved LAMP and *Typha orientalis* Control Program to continue to be implemented until the CEO advises that implementation is no longer required.

## Land Acquisition and Management Plan

The proponent submitted the LAMP required by condition 12-2 in November 2016. The LAMP was approved as meeting the requirements of condition 12-4. The proponent continues to implement the LAMP in accordance with condition 12-3.

The EPA considers that significant residual impacts to Inland Waters, Flora and Vegetation and Terrestrial Fauna remain and recommends that the LAMP continue to be implemented without amendment for 20 years from the date the LAMP was approved. The EPA therefore recommends that condition 12 is replaced with recommended condition 7 in relation to Offsets.

## Wetland Restoration Plan

The proponent proposed to undertake restoration of Horse Paddock Swamp and weed control at North Lake as mitigation measures for the original proposal. The EPA noted that this offset would occur in situ and adjacent to the proposal. The EPA considered that this would assist in addressing fragmentation caused by the proposal by improving the quality of habitat available around the site (Report 1489). The EPA therefore recommended the Wetland Restoration Plan to outline the specific details of the offset.

Given that a road will no longer be constructed west of Bibra Drive and that no permanent fragmentation will occur within the Beeliar Regional Park, the EPA recommends that the Wetland Restoration Plan (required by conditions 12-6 and 12-7) is no longer relevant.

This also includes the transfer of land required by condition 12-10. The requirement to transfer 14.5 ha of unused road reserve into Beeliar Regional Park was proposed to offset the loss of Bush Forever and Beeliar Regional Park. However, in light of the

changed proposal, the EPA considers that the requirement to transfer land is no longer required.

### Arum Lily Control Program

Prior to the transfer of land referred to in condition 12-10 occurring, the proponent proposed to implement an Arum Lily Control Program over the area. The program was to occur over three years following completion of construction and provide enhancement works for the transferred land.

Given the transfer of land is no longer relevant and the significant residual impacts of the proposal are being addressed by the implementation of the LAMP (AECOM 2016) as approved for the original proposal, the EPA considers that the Arum Lily Control Program is no longer required to be implemented by the proponent.

### *Typha orientalis* Control Program

The proponent further proposed to undertake a *Typha orientalis* Control Program at Thomson's Lake, which forms part of the Beeliar Regional Park. As an offset, the EPA considered that the program would improve the quality of habitat available around the proposal site noting that Thomson's Lake is a Ramsar listed wetland (Report 1489).

The *Typha orientalis* Control Program required by condition 12-14 was approved by the CEO in August 2016 (Strategen Environmental 2015b). The proponent continues to implement the *Typha orientalis* Control Program in accordance with condition 12-16.

The EPA considers that the implementation of the *Typha orientalis* Control Program should continue in order to contribute towards counterbalancing the short-term fragmentation impacts of the proposal within the Beeliar Regional Park. The work undertaken by the proponent at Thomson's Lake has included planting of native wetland flora species, contributing to fauna habitat in the area.

The EPA notes that the requirements of conditions 12-14 and 12-15 are being implemented. The EPA considers that the proponent should continue to implement the *Typha orientalis* Control Program until the CEO provides notice in writing that the completion criteria of the Program have been achieved. This will ensure that the control program is fully implemented.

In view of the above, the EPA recommends that condition 12 is deleted and replaced with condition 7.

## 4.6 Rehabilitation Zone

The changed proposal, shown in Figure 1, includes a Rehabilitation Zone west of Bibra Drive. In order for the proponent to implement the proposal, it must rehabilitate cleared areas in the Rehabilitation Zone.

The EPA recommends condition 6 Rehabilitation Zone (Bibra Drive to Stock Road) requiring the proponent to ensure that the impacts from clearing of native vegetation

within the Rehabilitation Zone are rehabilitated so that the condition of the native vegetation is the same as it was prior to clearing (recommended condition 6-1).

The EPA is aware that a range of community based organisations, government departments, tertiary institutions and members of the broader community have collaborated to develop and implement a rehabilitation management plan for the area of the development envelope west of Bibra Drive. The rehabilitation management plan sets out objectives for the restoration of the site and community engagement (Emerge Associates 2018). The Rehabilitating Roe 8 Advisory Committee provides ongoing input and guidance to all aspects of the rehabilitation project.

Recognising the work undertaken to date by the community, the Rehabilitating Roe 8 Working Group and the Rehabilitating Roe 8 Advisory Committee, the EPA recommends condition 6-2. The condition requires the proponent to undertake ongoing consultation with the Rehabilitating Roe 8 Advisory Committee about the measures and actions required to assist in achieving the outcome specified in recommended condition 6-1.

The EPA further recommends that the proponent be required to submit progress reports every five years to demonstrate progress towards rehabilitating the direct and indirect impacts from clearing of native vegetation within the Rehabilitation Zone (recommended conditions 6-3 and 6-4).

## 4.7 Standard conditions

MS 1008 contains standard conditions not related to the key environmental factors. The EPA's recommendations regarding the standard conditions are summarised below.

- Condition 1 (Proposal Implementation) specifies the manner in which the proposal is to be implemented. The EPA recommends that this condition be retained in order to prescribe how the proposal is to be implemented.
- Condition 2 (Contact Details) specifies that the proponent shall notify the CEO of any change of its name, physical, postal and electronic address. The EPA considers that this condition remains relevant and valid to the current proposal and should be retained.
- Condition 3 (Time Limit for Proposal Implementation) specifies the time limit for implementation of the proposal. Implementation of the proposal has commenced, and construction of the Murdoch Drive connection is complete. The EPA considers that condition 3 be deleted.
- The EPA recommends condition 3 (Compliance Reporting). This is a standard condition requiring the proponent to submit annual compliance reports. The proponent will need to prepare a Compliance Assessment Plan that reflects the recommended conditions.
- The EPA recommends condition 4 (Public Availability of Plans and Reports). This is a standard condition applied to all contemporary statements requiring the proponent to make publicly available plans and reports required under the statement.



## 5. Conclusions and recommendations

The proponent has requested that certain conditions of MS 1008 be deleted, amended or added to reflect the changed proposal which:

- removes the authorisation to construct a road carriageway west of Bibra Drive
- includes the rehabilitation of areas west of Bibra Drive cleared during implementation of the original proposal.

### Conclusions

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

- in light of the changed proposal and the stage of development, a number of conditions are no longer relevant and can be removed, and other conditions would need to be amended so that they are more suitable and relevant
- a new condition is introduced to ensure the rehabilitation of cleared areas in the Rehabilitation Zone is undertaken and meets a specified environmental outcome
- it is appropriate to replace all conditions in MS 1008 with those discussed in this report and outlined in Appendix 2, to simplify reporting.

### Recommendations

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment under s. 46 of the EP Act:

1. Replace all the original conditions in Ministerial Statement 1008 with new implementation conditions in the manner provided for in the attached recommended Statement.
2. After complying with s. 46(8) of the EP Act, the Minister may issue a statement of decision to change all conditions in Ministerial Statement 1008 in the manner provided for in the attached recommended Statement (Appendix 2).

## References

AECOM 2016, *Roe Highway Extension: Land Acquisition and Management Plan*, prepared for Main Roads Western Australia, Perth, WA.

Emerge Associates 2018, *Rehabilitation management plan: Roe 8 cleared areas*, prepared for Rehabilitating Roe 8 Steering Committee, Perth, WA.

EPA 2016a, *Environmental Factor Guideline – Flora and Vegetation*, Environmental Protection Authority, Perth, WA.

EPA 2016b, *Environmental Factor Guideline – Social Surroundings*, Environmental Protection Authority, Perth, WA.

EPA 2016c, *Environmental Factor Guideline – Terrestrial Fauna*, Environmental Protection Authority, Perth, WA.

EPA 2018, *Environmental Factor Guideline – Inland Waters*, Environmental Protection Authority, Perth, WA.

EPA 2020a, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.

EPA 2020b, *Statement of Environmental Principles, Factors and Objectives*, Environmental Protection Authority, Perth, WA.

Main Roads Western Australia 2018, *Request to change implementation conditions under the Environmental Protection Act 1986*, unpublished report, Perth, WA.

State of Western Australia 2016, *Western Australian Government Gazette*, No. 223, 13 December 2016.

Strategen Environmental 2015a, *Roe Highway Extension: Flora and Vegetation Monitoring and Management Plan*, prepared for Main Roads Western Australia, Perth, WA.

Strategen Environmental 2015b, *Roe Highway Extension: Typha orientalis Control Program*, prepared for Main Roads Western Australia, Perth, WA.

Strategen Environmental 2016a, *Roe Highway Extension: Drainage Management and Monitoring Plan*, prepared for Main Roads Western Australia, Perth, WA.

Strategen Environmental 2016b, *Roe Highway Extension: Fauna Management Plan*, prepared for Main Roads Western Australia, Perth, WA.

Strategen Environmental 2016c, *Roe Highway Extension: Wetlands Monitoring and Management Plan* prepared for Main Roads Western Australia, Perth, WA.

## **Appendix 1: Assessment of recommended changes to implementation conditions of Ministerial Statement 1008**

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
1-1 When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Column 3 of Table 2 in Schedule 1, unless amendments to the proposal and the authorised extent of the proposal has been approved under the EP Act.	Retained – condition 1 Amended to remove reference to Column 3 and reference to amendments to the proposal
<b>Contact Details</b>	
2-1 The proponent shall notify the CEO of any change of its name, physical address or postal address for the serving of notices or other correspondence within twenty eight (28) days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.	Retained – condition 2 Amended to include reference to the proponent’s electronic address.
<b>Time Limit for Proposal Implementation</b>	
3-1 The proponent shall not commence implementation of the proposal after the expiration of five (5) years from the date of this statement, and any commencement, prior to this date, must be substantial.	Deleted – Implementation of the proposal has commenced, and construction of the Murdoch Drive connection is complete.
3-2 Any commencement of implementation of the proposal, on or before five (5) years from the date of this statement, must be demonstrated as substantial by providing the CEO with written evidence, on or before the expiration of five (5) years from the date of this statement.	
<b>Compliance Reporting</b>	
4-1 The proponent shall prepare, submit and maintain a Compliance Assessment Plan to the CEO at least six (6) months prior to the first Compliance Assessment Report required by condition 4-6, or prior to implementation, whichever is sooner.	Retained – condition 3 This is a standard condition requiring the proponent to submit annual compliance reports.
4-2 The Compliance Assessment Plan shall indicate: (1) the frequency of compliance reporting; (2) the approach and timing of compliance assessments; (3) the retention of compliance assessments;	Retained – condition 3 This is a standard condition requiring the proponent to submit annual compliance reports.

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<b>Proposal Implementation</b>	
<p>(4) the method of reporting of potential non-compliances and corrective actions taken;</p> <p>(5) the table of contents of Compliance Assessment Reports; and</p> <p>(6) public availability of Compliance Assessment Reports.</p>	
<p>4-3 After receiving notice in writing from the CEO that the Compliance Assessment Plan satisfies the requirements of condition 4-2 the proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 4-1.</p>	
<p>4-4 The proponent shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 4-1 and shall make those reports available when requested by the CEO.</p>	
<p>4-5 The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that potential non-compliance being known.</p>	
<p>4-6 The proponent shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this statement addressing the twelve (12) month period from the date of issue of this statement and then annually from the date of submission of the first Compliance Assessment Report. The Compliance Assessment Report shall:</p> <p>(1) be endorsed by the proponent's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf;</p> <p>(2) include a statement as to whether the proponent has complied with the conditions;</p> <p>(3) identify all potential non-compliances and describe corrective and preventative actions taken;</p> <p>(4) be made publicly available in accordance with the approved Compliance Assessment Plan; and</p>	<p>Retained – condition 3</p> <p>This is a standard condition requiring the proponent to submit annual compliance reports. Amended wording to require the proponent <i>submit to the CEO, by 2 October annually or as agreed in writing by the CEO, Compliance Assessment Reports that address the preceding twelve (12) month period from 2 July</i> to align with current reporting timeframes as requested by the proponent.</p>



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(5) indicate any changes to the Compliance Assessment Plan required by condition 4-1.	
<b>Public Availability of Data</b>	
5-1 Subject to condition 5-2, within a reasonable time period approved by the CEO of the issue of this statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the CEO, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this statement.	Retained – condition 4 Amended to reflect revised standard and contemporary wording: Subject to condition 4-2, the proponent shall make publicly available on its website, and in any manner approved in writing by the CEO, the plans and reports referred to in conditions 3-1, 3-4, 3-6, 5-2, 5-7, 6-3 and 7-1.
5-2 If any data referred to in condition 5-1 contains particulars of: (1) a secret formula or process; or (2) confidential commercially sensitive information; the proponent may submit a request for approval from the CEO to not make this data publicly available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publicly available.	Retained – condition 4 Amended to reflect revised standard and contemporary wording: If any <i>parts of the plans and reports</i> referred to in condition 4-1 contains particulars of...
<b>Infrastructure Plan</b>	
6-1 The proponent shall demonstrate that the proposal is designed and constructed consistent with the authorised extent(s) as referred to in Column 3 of Table 2 in Schedule 1, through the implementation of conditions 6-2 and 6-3.	Delete – Construction of the changed proposal is complete. The proponent has submitted spatial data to demonstrate that the proposal is designed and constructed consistent with the authorised extent of the changed proposal.

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<p>6-2 Prior to commencement of construction, unless otherwise agreed by the CEO, the proponent shall prepare an Infrastructure Plan which is to be approved by the CEO. The Infrastructure Plan shall include:</p> <p>6-2(1) the alignment, dimensions and locations of the key proposal elements as referred to in Columns 1 and 2 of Table 2 in Schedule 1</p> <p>6-2(2) the final height of the noise walls as referred to in Table 2 of Schedule 1, consistent with the Noise Management Plan (AECOM) dated 11 July 2012</p> <p>6-2(3) an assessment of the need for noise walls or other noise mitigation measures between Bibra Drive and Progress Drive, consistent with the Western Australian Planning Commission's State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning, to ensure that there are no adverse impacts of operational noise on the existing buildings occupied by the Cockburn Wetlands Education Centre and the Native Arc Animal Rescue Centre on Hope Road, or the dual use pathway located between Bibra Lake and the Roe Highway Extension</p> <p>6-2(4) a framework of management and contingency actions including timeframes for their implementation, consistent with the Western Australian Planning Commission's State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning, should it be determined that noise walls or other mitigation measures are required</p> <p>6-2(5) areas of native vegetation to be retained within the development envelope; and</p> <p>6-2(6) spatial data for 6-2(1), 6-2(2), 6-2(3) and 6-2(5), and if relevant 6-2(4).</p>	<p>Delete – Construction of the changed proposal is complete. The Infrastructure Plan was prepared and approved by the CEO.</p>
<p>6-3 The proponent shall provide spatial data for the constructed key elements of the proposal as set out in Columns 1 and 2 of Table 2 in Schedule 1 to the CEO, two (2) months following the completion of construction.</p>	<p>Delete – the proponent has advised that construction is complete. Spatial data for the changed proposal was provided 19 June 2020.</p>
<p>6-4 The proponent may review and revise the Infrastructure Plan to the requirements of the CEO.</p>	<p>Delete – the Infrastructure Plan is no longer required as construction of the changed proposal is complete.</p>

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<b>Proposal Implementation</b>	
<p>6-5 The proponent shall review and revise the Infrastructure Plan as and when directed by the CEO.</p> <p>6-6 The proponent shall implement the approved revisions of the Infrastructure Plan required by conditions 6-4 and 6-5.</p> <p>6-7 The Infrastructure Plan required by condition 6-2 shall be made publicly available in a manner approved by the CEO.</p>	
<p>6-8 The document Peer Review – Roe Highway Extension, Report No. 11061867-01, dated 19 September 2011 by Lloyd George Acoustics shall be made publicly available prior to the commencement of construction in a manner approved by the CEO.</p>	<p>Delete – the referred to peer review, reviews the noise modelling undertaken for the original proposal and is no longer representative of predicted noise of the changed proposal. The condition is no longer relevant.</p>
<b>Construction (Inland waters environmental quality, Hydrological processes and Flora and vegetation)</b>	
<p>7-1 The proponent shall ensure that impacts from construction on wetland hydrology, water quality and flora and vegetation are minimised, through the implementation of conditions 7-2 to 7-10.</p>	<p>Delete – no longer required, construction of the changed proposal is complete. No further impacts from construction are expected.</p>
<p>7-2 The proponent shall construct the Roe Swamp bridge identified in Table 2 of Schedule 1 using ‘top down’ construction methods.</p> <p>7-3 The proponent shall not abstract groundwater during construction within 1.5 kilometres of the wetland boundaries of North Lake, Bibra Lake and Roe Swamp as identified in the most up to date Geomorphic Wetland Swan Coastal Plain dataset (custodians the Department of ).</p> <p>7-4 The proponent shall not undertake dewatering activities prior to or during construction of the proposal.</p> <p>7-5 The proponent shall minimise excavation activities in the development envelope in areas mapped as ‘high to moderate’ using the most up to date Acid Sulfate Soils risk mapping by the Department of Environmental Regulation.</p>	<p>Delete – No longer required.</p> <ul style="list-style-type: none"> <li>• Roe Swamp bridge will not be constructed.</li> <li>• Construction is complete and no further groundwater abstraction is expected.</li> <li>• Construction is complete and no further dewatering is expected.</li> <li>• Construction is complete and no further excavation activities are expected associated with construction of the proposal.</li> </ul>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
7-6 Prior to commencement of construction the proponent shall prepare a Construction Environmental Management Plan to minimise impacts from construction on Inland Waters environmental quality and Flora and Vegetation, to the requirements of the CEO, on advice of the Department of Environmental Regulation.	Delete – No longer required, construction is complete and the Construction Environmental Management Plan is no longer relevant.
7-7 The Construction Environmental Management Plan shall:	Delete – No longer required, construction is complete and the Construction Environmental Management Plan is no longer relevant.
7-7 (1) include measures to control weeds and dust during construction to minimise the impacts on flora and vegetation;	Delete – No longer required, construction is complete and no further indirect impacts from construction are expected.
7-7 (2) outline the protocols and procedures to be implemented to ensure diseases and pathogens, such as <i>Phytophthora cinnamomi</i> , are not introduced into disease free areas of the proposal area during construction;	Delete – No longer required, construction is complete and introduction of diseases and pathogens from construction activities is not expected.  <b>Condition 5-6</b> retains post-construction mapping and monitoring event (first wet season – June to August) for dieback to determine whether ground disturbance or construction activities have resulted in the spread or introduction of dieback.
7-7 (3) address testing of soils and groundwater to determine treatment regimes and management for acid sulfate soils and other contaminants; and	Delete – No longer required, construction is complete. Activities related to testing and treating soils and groundwater are no longer considered relevant.
7-7 (4) address the requirements of the Department of Environment Regulation's Acid Sulfate Soil Guidelines Series Identification and Investigation of Acid Sulfate Soils and Acidic Landscapes (2009) and Treatment and Management of Soils and Water in Acid Sulfate Soil Landscapes (2011), or any approved update of these guidelines.	Delete – No longer required, construction is complete and no further disturbance of acid sulfate soils for construction purposes is required. The condition is no longer considered relevant.

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>7-8 The proponent may review and revise the Construction Environmental Management Plan to the requirements of the CEO.</p> <p>7-9 The proponent shall review and revise the Construction Environmental Management Plan as and when directed by the CEO.</p> <p>7-10 The proponent shall implement the approved revisions of the Construction Environmental Management Plan required by conditions 7-8 and 7-9.</p> <p>7-11 The Construction Environmental Management Plan required by condition 7-6 shall be made publicly available in a manner approved by the CEO.</p>	<p>Delete – No longer required, construction is complete and there is no further need to manage indirect impacts that may occur due to construction activities.</p>
<b>Drainage (Inland Waters Environmental Quality)</b>	
<p>8-1 The proponent shall ensure that impacts to groundwater quality from the ongoing operation of the proposal are maintained relative to pre-construction conditions established in baseline surveys required by condition 8-3.</p>	<p>Delete – Retained in recommended condition 5-1</p> <p>The objective of the condition is retained within <b>condition 5</b> Construction and Operation (Flora and Vegetation, Terrestrial Fauna, Inland Waters and Social Surroundings).</p> <p><b>Condition 5-1(1)</b> states the proponent shall ensure that: impacts to groundwater quality from the ongoing operation of the proposal are maintained relative to pre-construction conditions.</p> <p>The proponent will be required to demonstrate the objective of the condition has been achieved based on the results of baseline surveys previously undertaken.</p>
<p>8-2 Prior to commencement of construction, the proponent shall prepare a Drainage Management and Monitoring Plan to the requirements of the CEO, on advice of the Department of Water. The Drainage Management and Monitoring Plan shall:</p>	<p>The proponent prepared the DMMP required by condition 8-2 to the requirements of the CEO prior to commencement of construction and collected baseline data and implemented the approved DMMP. The proponent continues to implement the DMMP and has commenced post-construction monitoring.</p>



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<b>Proposal Implementation</b>	
	<p>Delete – The Drainage Management and Monitoring Plan has been prepared to the requirements of the CEO. The CEO approved the Plan for implementation.</p> <p>The proponent will be required to implement the post-construction monitoring detailed in the approved DMMP.</p>
8-2 (1) when implemented, substantiate whether condition 8-1 is being met;	<p><b>Delete – Recommended condition 5-2</b> requires that the proponent continue to implement post-construction monitoring relevant to the Construction and Operation Zone.</p> <p><b>Recommended Condition 5-5</b> requires that post-construction monitoring continue for a minimum of three years in order to demonstrate that the objectives specified in condition 5-1(1) has been achieved.</p>
8-2 (2) identify the locations, capacity and dimensions of bioretention and infiltration basins consistent with the Water Management Strategy (AECOM) dated 16 January 2013;	Delete – The Water Management Strategy (January 2013) is obsolete. The condition is no longer relevant.
<p>8-2 (3) include ongoing maintenance measures to ensure the bioretention and infiltration basins are performing effectively;</p> <p>8-2 (4) include protocols and procedures for baseline monitoring of groundwater levels and groundwater quality;</p> <p>8-2 (5) include protocols and procedures for monitoring contaminant and nutrient levels within the bioretention and infiltration basins;</p>	<p><b>Delete – Recommended condition 5-2</b> requires that the proponent continue to implement post-construction monitoring relevant to the Construction and Operation Zone.</p> <p><b>Recommended condition 5-3</b> requires that if post-construction monitoring indicates that the targets and actions specified in the plans are not being met, the proponent shall implement the required contingency actions.</p>

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<p>8-2 (6) include protocols, procedures and locations for monitoring contaminants and nutrient levels of groundwater upstream and downstream of the bioretention and infiltration basins;</p> <p>8-2 (7) identify criteria to trigger implementation of management measures to remediate contaminants within the bioretention and infiltration basins and ensure the basins are performing effectively;</p> <p>8-2 (8) include management measures referred to in condition 8-2(7); and</p> <p>8-2 (9) determine the timing and frequency of reporting to the CEO.</p>	<p><b>Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met.</p>
<p>8-3 Prior to commencement of construction, the proponent shall implement the approved Drainage Management and Monitoring Plan in order to collect baseline data and continue implementation until otherwise agreed by the CEO.</p>	<p>Delete – The proponent has implemented the approved plan and has collected baseline data. The proponent continues to implement the plan and recommended <b>condition 5-2</b> requires that the post-construction monitoring continues to be implemented.</p>
<p>8-4 The proponent may review and revise the Drainage Management and Monitoring Plan to the requirements of the CEO.</p> <p>8-5 The proponent shall review and revise the Drainage Management and Monitoring Plan as and when directed by the CEO.</p> <p>8-6 The proponent shall implement the approved revisions of the Drainage Management and Monitoring Plan required by conditions 8-4 and 8-5.</p> <p>8-7 The Drainage Management and Monitoring Plan required by condition 8-2 shall be made publicly available in a manner approved by the CEO.</p>	<p><b>Delete – Recommended Table 3 of Schedule 1</b> defines the plan as the currently approved version and any subsequent revisions as approved in writing by the CEO.</p> <p><b>Recommended condition 5-5</b> requires that the proponent continue to implement post-construction monitoring for a minimum of three years.</p> <p><b>Recommended condition 4</b> requires that for the remainder of the life of the proposal the proponent shall make publicly available all environmental plans and reports required under the new statement.</p>
<b>Wetlands (Inland Waters Environmental Quality)</b>	
<p>9-1 The proponent shall ensure that impacts to wetland quality associated with the implementation of the proposal are minimised, through implementation of conditions 9-2 to 9-9.</p>	<p>Delete – Retained in recommended condition 5-1</p> <p>The objective of the condition is retained within recommended <b>condition 5</b> Construction and Operation</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
	<p>(Flora and Vegetation, Terrestrial Fauna, Inland Waters and Social Surroundings).</p> <p><b>Recommended condition 5-1(2)</b> states the proponent shall ensure that: impacts to wetland quality associated with implementation of the proposal are minimised.</p>
<p>9-2 The proponent shall undertake a Baseline Wetland Condition Survey prior to commencement of construction to the requirements of the CEO on advice from the Department of Parks and Wildlife and the Department of Water. The Baseline Wetland Condition Survey shall:</p> <p>9-2 (1) have regard for Ramsar wetlands within the broader Beeliar Wetlands system;</p> <p>9-2 (2) cover Bibra Lake, Roe Swamp and North Lake areas adjacent to the road;</p> <p>9-2 (3) identify the indicators of wetland quality including physicochemical parameters and bio-indicators; and</p> <p>9-2 (4) include protocols to measure the indicators of wetland quality as identified in condition 9-2(3) including duration, timing and frequency.</p>	<p>Delete – The proponent undertook a baseline wetland condition survey. No further baseline studies are required and the condition is no longer relevant.</p> <p>The Baseline Wetland Condition Survey required by condition 9-2 and the reporting of the results required by condition 9-3 have been completed. The proponent prepared the WMMP required by condition 9-4 to the requirements of the CEO.</p> <p>Implementation of the WMMP is still required to ensure impacts to wetland quality of Roe Swamp associated with implementation of the proposal are minimised.</p>
<p>9-3 Prior to commencement of construction, the proponent shall report the results of the Baseline Wetland Condition Survey required by condition 9-2 to the CEO.</p>	<p>Delete – The proponent reported the findings of the baseline wetland condition survey. The condition is no longer relevant.</p>
<p>9-4 Prior to commencement of construction, the proponent shall prepare a Wetlands Monitoring and Management Plan to the requirements of the CEO, on advice from the Department of Parks and Wildlife and the Department of Water. The Wetlands Monitoring and Management Plan shall:</p> <p>9-4 (1) when implemented, substantiate whether condition 9-1 is being met;</p> <p>9-4 (2) include the location of monitoring and reference sites;</p> <p>9-4 (3) include protocols for monitoring the indicators as identified under condition 9-2(3);</p>	<p>Delete – The WMMP has been prepared to the requirements of the CEO. The CEO approved the Plan for implementation. The condition is no longer required.</p>

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<b>Proposal Implementation</b>	
<p>9-4 (4) determine the trigger levels for indicators of wetland quality to achieve the requirements of condition 9-1;</p> <p>9-4 (5) include protocols for monitoring wetland quality against the trigger levels identified in condition 9-4(4); and</p> <p>9-4 (6) identify management and contingency measures, including timeframes for their implementation, in the event that trigger levels identified under condition 9-4(4) are not met.</p>	
<p>9-5 Prior to commencement of construction, the proponent shall implement the approved Wetlands Monitoring and Management Plan, and continue implementation until otherwise agreed by the CEO.</p>	<p>Delete – The proponent implemented, and continues to implement, the approved plan.</p> <p><b>Recommended condition 5-2</b> requires that the proponent continue to implement post-construction monitoring relevant to the Construction and Operation Zone.</p> <p><b>Recommended condition 5-5</b> requires that post-construction monitoring continue for a minimum of three years in order to demonstrate that the objectives specified in condition 5-1(2) has been achieved.</p>
<p>9-6 The proponent may review and revise the Wetlands Monitoring and Management Plan to the requirements of the CEO.</p> <p>9-7 The proponent shall review and revise the Wetlands Monitoring and Management Plan as and when directed by the CEO.</p> <p>9-8 The proponent shall implement the approved revisions of the Wetlands Monitoring and Management Plan required by conditions 9-6 and 9-7.</p>	<p><b>Delete – Recommended Table 3 of Schedule 1</b> defines the plan as the currently approved version and any subsequent revisions as approved in writing by the CEO.</p> <p><b>Recommended condition 5-5</b> requires that the proponent continue to implement post-construction monitoring for a minimum of three years.</p>
<p>9-9 In the event that the monitoring indicates that the trigger criteria specified in the Wetlands Monitoring and Management Plan have been exceeded the proponent shall:</p>	<p><b>Delete – Recommended condition 5-3</b> requires that if post-construction monitoring indicates that the targets and actions specified in the plans are not being met, the</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>9-9 (1) immediately implement the management and/or contingency actions specified in the Wetlands Monitoring and Management Plan and continue implementation of those actions until the trigger criteria are being met, or until the CEO has confirmed by notice in writing that it has been demonstrated that the outcome in condition 9-1 is being and will continue to be met and implementation of the management and/or contingency actions is no longer required;</p> <p>9-9 (2) investigate to determine the likely cause of the trigger criteria being exceeded and to identify any additional contingency actions required to prevent the trigger criteria being exceeded in the future; and</p> <p>9-9 (3) provide a report to the CEO within seven days of an event, referred to in condition 9-9, occurring. The report shall include:</p> <p>9-9(3) (a) details of management and/or contingency actions implemented; and</p> <p>9-9(3) (b) the findings of the investigation required by condition 9-9(2).</p>	<p>proponent shall implement the required contingency actions.</p> <p><b>Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met.</p> <p><b>Recommended condition 5-5</b> requires that post-construction monitoring continue for a minimum of three years in order to demonstrate that the objectives specified in condition 5-1(2) has been achieved.</p>
<p>9-10 The proponent shall submit the monitoring results required by condition 9-4, referenced against the environmental quality objective specified in condition 9-1 and the trigger levels specified in condition 9-4(4), to the CEO as part of the annual compliance reporting required by condition 4.</p>	<p><b>Delete – Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met.</p>
<p>9-11 The Wetlands Monitoring and Management Plan required by condition 9-4 shall be made publicly available in a manner approved by the CEO.</p>	<p><b>Delete – Recommended condition 4</b> requires that for the remainder of the life of the proposal the proponent shall make publicly available all environmental plans and reports required under the new statement.</p>
<b>Flora and Vegetation</b>	
<p>10-1 The proponent shall ensure that the ongoing implementation of the proposal does not cause any detectable adverse effects on flora and vegetation communities outside of the 'zone of indirect impacts' as shown in Figure 2 and described in Schedule 1.</p>	<p>Delete – Retained in recommended condition 5-1</p> <p>The objective of the condition is retained within recommended <b>condition 5</b> Construction and Operation (Flora and Vegetation, Terrestrial Fauna, Inland Waters and Social Surroundings).</p>



Ministerial Condition	Assessment and Evaluation of Recommended Changes
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	<b>Recommended condition 5-1(3)</b> states the proponent shall ensure that: ongoing implementation of the proposal does not cause any detectable adverse effects on flora and vegetation communities within the Beeliar Regional Park and Conservation Category Wetlands adjacent to the <b>Construction and Operation Zone</b>
<p>10-2 The proponent shall undertake a Baseline Flora and Vegetation Condition Survey prior to commencement of construction to the requirements of the CEO on advice from the Department of Parks and Wildlife. The Baseline Flora and Vegetation Condition Survey shall:</p> <p>(1) use plot based surveys of the area outside the ‘zone of indirect impacts’, including immediately outside the ‘zone of indirect impacts’, and reference site locations;</p> <p>(2) identify the indicators of flora and vegetation health including the condition and composition of flora and vegetation communities and correlative environmental parameters including soil moisture within the survey area; and</p> <p>(3) include protocols to measure the indicators of flora and vegetation health including duration, timing and frequency.</p>	<p>To meet condition 10-1, the proponent was required to undertake a baseline flora and vegetation condition survey, report the results of the baseline flora and vegetation condition survey, prepare a FVMMP and implement the approved FVMMP. The proponent has completed the requirements of conditions 10-2 through 10 4 and continues to implement the FVMMP. Conditions 10-6 through 10-11 set out requirements relative to the FVMMP.</p> <p>Delete – The proponent undertook a baseline flora and vegetation condition survey. No further baseline studies are required. The condition is no longer relevant as construction is complete.</p>
<p>10-3 Prior to commencement of construction, the proponent shall report the results of the Baseline Flora and Vegetation Survey required under condition 10-2 to the CEO.</p>	<p>Delete – The proponent reported the findings of the baseline flora and vegetation condition survey. The condition is no longer relevant.</p>
<p>10-4 Prior to commencement of construction, the proponent shall prepare a Flora and Vegetation Monitoring and Management Plan to the requirements of the CEO, on advice from the Department of Parks and Wildlife. The Flora and Vegetation Monitoring and Management Plan shall:</p> <p>(1) when implemented, substantiate whether the requirements of conditions 10-1 are being met;</p>	<p>Delete – The Flora and Vegetation Monitoring and Management Plan has been prepared to the requirements of the CEO. The CEO approved the Plan for implementation.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>(2) include the location of impact and reference vegetation condition plots;</p> <p>(3) include protocols for monitoring the indicators as identified in condition 10-2(2);</p> <p>(4) determine the trigger levels for the indicators of flora and vegetation condition to apply to the area outside the 'zone of indirect impacts';</p> <p>(5) include protocols for monitoring flora and vegetation condition against the triggers levels identified in condition 10-4(4);</p> <p>(6) identify management and contingency measures, including timeframes for their implementation, in the event that trigger levels identified under condition 10-4(4) are not being met; and</p> <p>(7) include a Vegetation Rehabilitation Plan consistent with the Rehabilitation Strategy – Roe Highway Extension (AECOM) dated 11 July 2012 for areas that have been temporarily cleared within the development envelope.</p>	<p>Recommended condition 5-7 requires the proponent to implement the Vegetation Rehabilitation Plan for areas that have been temporarily cleared within the Construction and Operation Zone. The Vegetation Rehabilitation Plan is defined in recommended Table 3 of Schedule 1 as Appendix 3 of the approved FVMMP.</p> <p>The condition is no longer required.</p>
<p>10-5 Prior to commencement of construction, the proponent shall implement the approved Flora and Vegetation Monitoring and Management Plan, and continue implementation until otherwise agreed by the CEO.</p>	<p>Delete – The proponent implemented, and continues to implement, the approved plan.</p> <p><b>Recommended condition 5-2</b> requires that the proponent continue to implement post-construction monitoring relevant to the Construction and Operation Zone.</p> <p><b>Recommended condition 5-3</b> requires that if post-construction monitoring indicates that the targets and actions specified in the plans are not being met, the proponent shall implement the required contingency actions.</p> <p><b>Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>10-6 The proponent may review and revise the Flora and Vegetation Monitoring and Management Plan to the requirements of the CEO.</p> <p>10-7 The proponent shall review and revise the Flora and Vegetation Monitoring and Management Plan as and when directed by the CEO.</p>	<p><b>Delete – Recommended Table 3 of Schedule 1</b> defines the plan as the currently approved version and any subsequent revisions as approved in writing by the CEO.</p>
<p>10-8 The proponent shall implement the approved revisions of the Flora and Vegetation Monitoring and Management Plan required by conditions 10-6 and 10-7.</p>	<p>Delete: The proponent implemented, and continues to implement, the approved plan.</p>
<p>10-9 In the event that the monitoring indicates that the trigger criteria specified in the Flora and Vegetation Monitoring and Management Plan have been exceeded the proponent shall:</p> <p>(1) immediately implement the management and/or contingency actions specified in the Flora and Vegetation Monitoring and Management Plan and continue implementation of those actions until the trigger criteria are being met, or until the CEO has confirmed by notice in writing that it has been demonstrated that the outcome in condition 10-1 is being and will continue to be met and implementation of the management and/or contingency actions is no longer required;</p> <p>(2) investigate to determine the likely cause of the trigger criteria being exceeded and to identify any additional contingency actions required to prevent the trigger criteria being exceeded in the future; and</p> <p>(3) provide a report to the CEO within seven days of an event, referred to in condition 10-9, occurring. The report shall include:</p> <p>(a) details of management and/or contingency actions implemented; and</p> <p>(b) the findings of the investigation required by condition 10-9(2).</p>	<p><b>Delete – Recommended condition 5-3</b> requires that if post-construction monitoring indicates that the targets and actions specified in the plans are not being met, the proponent shall implement the required contingency actions.</p> <p><b>Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met.</p> <p>The condition is no longer required.</p>
<p>10-10 The proponent shall submit the monitoring results required by condition 10-4, referenced against the environmental quality objective specified in condition 10-1 and the trigger levels specified in condition 10-4(4), to the CEO as part of the annual compliance reporting required by condition 4.</p>	<p><b>Delete – Recommended condition 5-4</b> requires that the proponent ensures that the reporting requirements of the plans are met. The condition is no longer required.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
10-11 The Flora and Vegetation Monitoring and Management Plan required by condition 10-4 shall be made publicly available in a manner approved by the CEO.	<b>Delete – Recommended condition 4</b> requires that the proponent shall make publicly available all environmental plans and reports required under the new statement. The condition is no longer required.
<b>Fauna</b>	
11-1 The proponent shall ensure that the proposal is implemented to facilitate movement of fauna within Beeliar Regional Park and minimise impacts as a result of fragmentation, through implementation of conditions 11-2 to 11-6.	Delete – Retained in recommended condition 5-8 The objective of the condition is retained within <b>recommended condition 5-8</b> requiring the proponent to routinely inspect and maintain the fauna underpass constructed at the Kwinana Freeway Roe Highway intersection to ensure the underpass is performing effectively.  The condition is no longer required.
11-2 Prior to commencement of construction, unless otherwise agreed by the CEO, the proponent shall prepare a Fauna Management Plan to the requirements of the CEO on advice of the Department of . The Fauna Management Plan shall: 11-2 (1) provide the surveyed locations and frequency of the fauna underpasses necessary to meet the requirements of condition 11-1; 11-2 (2) detail the size, shape and furniture within the fauna underpasses; 11-2 (3) provide an ongoing program of inspections and maintenance to ensure the underpasses are performing effectively; 11-2 (4) include a trapping and translocation program for target fauna species, which includes the southern brown bandicoot ( <i>Isodon obesulus fusciventer</i> ) and black cockatoos, or as otherwise agreed by the CEO; 11-2 (5) identify objectives and monitoring protocols to measure the success of trapping and translocation program required by condition 11-2(4);	Delete – The Fauna Management Plan has been prepared to the requirements of the CEO. The CEO approved the Plan for implementation.  <b>Recommended condition 5-8</b> requires the proponent to routinely inspect and maintain the fauna underpass constructed at the Kwinana Freeway Roe Highway intersection to ensure the underpass is performing effectively.  As no road is proposed between Bibra and Progress Drives for the changed proposal, parts of the condition are no longer relevant.

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>11-2 (6) identify management and contingency measures, including timeframes for their implementation in the event that objectives of the trapping and translocation program in condition 11-2(4) are not being met;</p> <p>11-2(7) assess the need for noise barriers or other noise mitigation measures between Bibra Drive and Progress Drive to ensure that noise does not adversely impact fauna;</p> <p>11-2 (8) should noise barriers or noise mitigation measures be required as a result of condition 11-2(7), identify management and contingency measures, including timeframes for their remediation, to be implemented in the event that noise levels are having an adverse impact on fauna</p> <p>11-2 (9) detail the visual barriers to be installed to reduce the risk of vehicle strikes to birds between North Lake and Bibra Lake; and</p> <p>11-2 (10) determine the timing and frequency of reporting to the CEO.</p>	
<p>11-3 Prior to commencement of construction, unless otherwise agreed by the CEO, the proponent shall implement the approved Fauna Management Plan required by condition 11-2, to the satisfaction of the CEO.</p>	<p>Delete – The proponent implemented, and continues to implement, the approved plan.</p> <p>The condition is no longer required.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>11-4 The proponent may review and revise the Fauna Management Plan to the requirements of the CEO.</p> <p>11-5 The proponent shall review and revise the Fauna Management Plan as and when directed by the CEO.</p> <p>11-6 The proponent shall implement the approved revisions of the Fauna Management Plan required by conditions 11-4 and 11-5.</p> <p>11-7 The proponent shall submit the outcomes of the trapping and translocation program required by conditions 11-2(4) and any management or contingency measures implemented as required by condition 11-2(6) to the CEO as part of the annual compliance reporting required by condition 4 and annually to the Department of .</p> <p>11-8 The Fauna Management Plan required by condition 11-2 shall be made publicly available in a manner approved by the CEO.</p>	<p>Delete – The Fauna Management Plan is no longer required. Trapping and translocation is no longer required.</p>
<b>Residual Impacts and Risk Management Measures</b>	
<p>12-1 In view of the significant residual impacts to the environment, including impacts to threatened species, priority flora, fauna habitat, migratory birds, native vegetation, wetlands, Beeliar Regional Park and Bush Forever sites, as a result of implementation of the proposal, the proponent shall undertake the following requirements relating to offsets as outlined in condition 12-2 to 12-16.</p>	<p>Delete – Condition 12 is deleted in its entirety and replaced with <b>recommended condition 7</b>.</p> <p>The EPA's original assessment considered that the following residual impacts were significant and required offsetting:</p> <ul style="list-style-type: none"> <li>clearing of 97.8 ha of native vegetation, including 5.4 ha of the Beeliar Regional Park and 7 ha of Bush Forever site 244</li> <li>loss of 78 ha of cockatoo foraging habitat and 2.5 ha of potential nesting habitat</li> <li>clearing of 6.8 ha of wetlands</li> <li>fragmentation of wetlands and fauna habitat.</li> </ul>

Ministerial Condition	Assessment and Evaluation of Recommended Changes			
Proposal Implementation				
	Changes to the proposal under s45C of the EP Act changed the development envelope to define a construction and operation zone (C&O zone) and a rehabilitation zone (Rehab zone). The amendment resulted in a change to the extent of clearing that could occur within the development envelope. There remains a need to counterbalance the significant residual impacts of the proposal to native vegetation, cockatoo habitat and wetlands.			
	Clearing to 01/07/19	Native veg	Cockatoo habitat	Wetlands
	Rehab zone	17.05	17.05	1.67
	C&O zone	26.77	18.97	0.37
	Total	43.82	36.02	2.04
Land Acquisition and Management Plan				
12-2 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall submit a Land Acquisition and Management Plan to the requirements of the CEO.	Delete – The intent of the condition is retained. <b>Recommended condition 7-1</b> requires the proponent to continue to implement the approved Land Acquisition and Management Plan			
12-3 The proponent shall implement the Land Acquisition and Management Plan, prior to commencement, or as otherwise agreed by the CEO, until the CEO advises implementation may cease.	Delete – The proponent implemented, and continues to implement, the approved plan. The proponent reported that the acquisition of the land identified in the LAMP was funded by Main Roads WA prior to the commencement of pre-construction works. The proponent will be required to continue to implement the approved plan for 20 years from the date of			



Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
	approval of the LAMP through <b>recommended condition 7-2.</b>
<p>12-4 The Land Acquisition and Management Plan shall:</p> <p>12-4 (1) identify at least 234 hectares of land to be acquired;</p> <p>12-4 (2) demonstrate that individual land parcels to be acquired are at least 100 hectares in area;</p> <p>12-4 (3) identify the environmental attributes of the land to be acquired which must contain:</p> <p>12-4(3) (a) at least 234 hectares of <i>Calyptrorhynchus latirostris</i> (Carnaby's Cockatoo) and 219 hectares of <i>Calyptrorhynchus banksii naso</i> (Red-tailed Black Cockatoo) potential foraging habitat;</p> <p>12-4(3) (b) at least 7.5 hectares of <i>Calyptrorhynchus latirostris</i> (Carnaby's Cockatoo) and <i>Calyptrorhynchus banksii naso</i> (Red-tailed Black Cockatoo) potential breeding habitat;</p> <p>12-4(3) (c) at least 7 hectares of Conservation Category Wetland areas and an appropriate buffer;</p> <p>12-4(3) (d) unless subject to condition 12-4(4) remnant native vegetation similar or better than the vegetation association being impacted by the proposal; and</p> <p>12-4(3) (e) an assemblage of fauna and flora species similar to those being impacted.</p> <p>12-4 (4) detail a Rehabilitation Plan for any areas identified in 12-4(1) that require rehabilitation measures. The Rehabilitation Plan on advice of the Department of shall:</p> <p>12-4(4) (a) identify the areas to be rehabilitated;</p> <p>12-4(4) (b) outline the objectives and targets to be achieved;</p> <p>12-4(4) (c) outline timeframes and responsibilities for implementation;</p> <p>12-4(4) (d) outline the funding schedule and financial arrangements; and</p>	<p>Delete – The Land Acquisition and Management Plan has been prepared to the requirements of the CEO. The CEO approved the Plan for implementation. The condition is no longer required.</p> <p>The LAMP identifies that the Rehabilitation Plan required by condition 12-4(4) was not required as the offset requirements had been met by existing habitat.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>12-4(4) (e) outline monitoring, reporting and evaluation mechanisms.4(4)</p> <p>12-4 (5) detail the arrangements and funding for the ongoing management of the land acquired on advice from the Department of ; and</p> <p>12-4 (6) include monitoring and reporting requirements.</p>	
<p>12-5 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall acquire, or fully fund the acquisition of, the land identified in the approved Land Acquisition and Management Plan for the purpose of conservation.</p>	<p>Delete – The proponent has fulfilled the requirements of the condition. The condition is no longer required.</p>
<b>Wetland Restoration Plan</b>	
<p>12-6 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall prepare a Wetland Restoration Plan to the requirements of the CEO.</p> <p>12-7 The Wetland Restoration Plan identified in condition 12-6, shall include details on:</p> <p>12-7 (1) activities to be undertaken including the final area to be rehabilitated and restored;</p> <p>12-7 (2) timeframes for undertaking management activities;</p> <p>12-7 (3) roles and responsibilities;</p> <p>12-7 (4) funding arrangements for implementation of the plan;</p> <p>12-7 (5) monitoring and reporting requirements; and</p> <p>12-7 (6) completion criteria.</p> <p>12-8 The Wetland Restoration Plan identified in condition 12-6 shall apply to the areas delineated in Figure 3.</p> <p>12-9 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall implement the Wetland Restoration Plan until the CEO advises implementation may cease.</p>	<p>Delete – The condition is no longer required.</p> <p>The proponent proposed to undertake restoration of 8.4 ha of Horse Paddock Swamp and weed control over 5 ha of North Lake over a period of 5 years. The offset was to be undertaken in situ adjacent to the proposal and would have assisted in addressing fragmentation caused by the proposal by improving the quality of the habitat available around the proposal site.</p> <p>Fragmentation of the Beeliar Wetlands is no longer considered an impact of the proposal. The land acquired in compliance with condition 12-5 contained a total of 18.8 ha of Conservation Category Wetland. The offset provided under condition 12-5 is considered adequate to offset the clearing undertaken to date.</p> <p>Further, the implementation of the Rehabilitating Roe 8: Rehabilitation Plan should result in the restoration of native vegetation within the Beeliar Regional Park and will lessen the impact of the clearing undertaken under Ministerial Statement 1008.</p> <p>Given:</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
	<ul style="list-style-type: none"> <li>the reduction in impact on CCW</li> <li>the restoration of the areas within the Beeliar Regional Park</li> </ul> <p>the significant residual impact on CCW is considered adequately offset by condition 12-4(3)(c) and the <i>Typha orientalis</i> control program. Therefore, the Wetland Restoration Plan is considered no longer required.</p>
<p>12-10 The proponent shall transfer 14.5 hectares of land as shown in Figure 4 into Beeliar Regional Park. This transfer shall commence within twelve (12) months of the completion of the proposal.</p>	<p>Delete – The condition is no longer required.</p> <p>The area depicted in Figure 4 of Statement 1008 as the area to be returned to Beeliar Regional Park Conservation and Protection Zone is the same or effectively similar to that shown in Schedule 1 – Plan (indicative only) of the Metropolitan Region Scheme (Beeliar Wetlands) Bill 2018 and shown as excluded from Primary Regional Roads reserve and Urban zone and included in Parks and Recreation reserve.</p> <p><a href="http://www.parliament.wa.gov.au/parliament/bills.nsf/BillProgressPopup?openForm&amp;ParentUNID=E9785248E5EF162F4825833D00347712">http://www.parliament.wa.gov.au/parliament/bills.nsf/BillProgressPopup?openForm&amp;ParentUNID=E9785248E5EF162F4825833D00347712</a></p> <p>This transfer will occur outside of the implementation of this statement. As an offset it is intended to offset the loss of conservation area from the ultimate Roe proposal. Current proposal will result in a net increase in conservation land, with little to no loss of Bush Forever or Beeliar Regional Park. Further, the area of the Beeliar Regional Park north of Hope Road and West of Bibra Drive has been registered as an A-Class Reserve as announced 16 May 2020.</p>
<b>Arum Lily Control Program</b>	

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
12-11 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall prepare an Arum Lily Control Program for the land referred to in condition 12-10 to the requirements of the CEO.	Delete – The proponent prepared the Arum Lily Control program prior to the commencement of construction. The Arum Lily Control program is no longer required as the land referred to in condition 12-10 will not be transferred by the proponent and will be managed by another agency. The condition is no longer required.
12-12 The Arum Lily Control program required by condition 12-11 must include details on: 12-12 (1) an assessment and mapping of the existing Arum Lily infestation; 12-12 (2) activities to be undertaken; 12-12 (3) timeframes for undertaking management activities; 12-12 (4) roles and responsibilities; 12-12 (5) funding arrangements for implementation of the program; 12-12 (6) monitoring and reporting requirements; and 12-12 (7) completion criteria.	Delete – The proponent prepared the Arum Lily Control Program to the requirements of the CEO. The condition is no longer required.
12-13 The proponent shall commence implementation of the Arum Lily Control Program, within twelve (12) months of completion of the proposal, until the CEO advises implementation may cease.	Delete – The Arum Lily Control Program is no longer required to be implemented by the proponent. The condition is no longer required.
<b><u>Typha orientalis</u> Control Program</b>	
12-14 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall prepare a <i>Typha orientalis</i> Control Program for Thomsons Lake to the requirements of the CEO.	Delete – The intent of the condition is retained. <b>Recommended condition 7-1</b> requires the proponent to continue to implement the approved <i>Typha orientalis</i> Control Program

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<p>12-15 The <i>Typha orientalis</i> Control Program identified in condition 12-14 shall include:</p> <p>12-15 (1) an assessment and mapping of the existing <i>Typha orientalis</i> infestation;</p> <p>12-15 (2) activities to be undertaken;</p> <p>12-15 (3) timeframes for undertaking management activities;</p> <p>12-15 (4) roles and responsibilities;</p> <p>12-15 (5) funding arrangements for implementation of the program;</p> <p>12-15 (6) monitoring and reporting requirements; and</p> <p>12-15 (7) completion criteria.</p>	<p>Delete – The proponent prepared the <i>Typha orientalis</i> Control program to the requirements of the CEO.</p> <p>The condition is no longer required.</p>
<p>12-16 Prior to commencement of construction, or as otherwise agreed by the CEO, the proponent shall implement the <i>Typha orientalis</i> Control Program and continue implementation until the CEO advises implementation may cease.</p>	<p>Delete – The proponent implemented, and continues to implement, the approved plan. The proponent will be required to continue to implement the approved plan until the CEO has provided notice in writing that the completion criteria of that Program have been achieved through recommended <b>condition 7-3</b>.</p>
<b>Rehabilitation</b>	
<p><b>Recommended 6-1</b> The proponent shall ensure that the direct and indirect impacts from clearing of native vegetation within the <b>Rehabilitation Zone</b> are <b>rehabilitated</b> so that the condition of the native vegetation is the same as it was prior to clearing within the <b>Rehabilitation Zone</b>.</p>	<p>Condition to reflect environmental outcome to be achieved within the Rehabilitation Zone.</p> <p>Schedule 1 in Attachment 2 of Ministerial Statement 1008 amends the development envelope to define a rehabilitation zone to allow for the rehabilitation of areas cleared as part of the original proposal and no longer required for road construction</p>
<p><b>(Recommended) 6-2</b> The proponent shall undertake ongoing consultation with the Rehabilitating Roe 8 Advisory Committee about the measures and actions required to meet the environmental outcomes in condition 6-1.</p>	<p>Condition to reflect work undertaken to date by the Rehabilitating Roe 8 Working Group, the Rehabilitating Roe 8 Steering Committee and the Rehabilitating Roe 8 Advisory Committee.</p>

Ministerial Condition	Assessment and Evaluation of Recommended Changes
<b>Proposal Implementation</b>	
<b>(Recommended) 6-3</b> The proponent shall submit a progress report every five (5) years to the CEO to demonstrate progress towards the achievement of the outcomes in condition 6-1.	Condition to require reporting against the environmental outcome
<b>(Recommended) 6-4</b> The first progress report shall be submitted within six (6) months of the publication of this Statement and then by 2 October every five (5) years thereafter or as agreed in writing by the CEO, until the CEO confirms by notice in writing that the outcome in 6-1 has been achieved and progress reporting may cease.	Condition to require reporting against the environmental outcome

## Appendix 2: Identified Decision-Making Authorities and recommended environmental conditions

### Identified Decision-Making Authorities

The following decision-making authorities have been identified for the purposes of s. 45 as applied by s. 46(8) of the *Environmental Protection Act 1986*:

Decision-Making Authority	Legislation (and approval)
1. Minister for Environment	Flora/fauna protected in Crown Land under the <i>Biodiversity Conservation Act 2016</i> (Taking of flora and fauna)
2. Minister for Transport	Approval for work on roads under the <i>Main Roads Act 1930</i>
3. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> (S. 18 clearances)
4. Minister for Lands	Transfer of Crown Land under the <i>Land Administration Act 1997</i> (Consent to enter and develop)
5. Minister for Planning	<i>Planning and Development Act 2005</i> (Scheme amendments)
6. Minister for Education	Consent to enter
7. City of Cockburn	<i>Planning and Development Act 2005</i> (Development approval)
8. City of Melville	<i>Planning and Development Act 2005</i> (Development approval)
9. Western Australian Planning Commission	Taking Order for leases Consent to enter Transfer of freehold land
10. Western Power	Consent to enter Transfer of freehold lands
11. Housing Authority of Western Australia	Licence to enter Transfer of freehold lands

Note: In this instance, agreement is only required with DMAs 1 to 6 since these DMAs are Ministers.



## **Recommended Environmental Conditions**

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

#### **ROE HIGHWAY EXTENSION TO MURDOCH DRIVE**

**Proposal:** The proposal is to extend Roe Highway from its current terminus at Kwinana Freeway in Jandakot to Murdoch Drive in Murdoch. The proposal will consist of the construction of a dual carriageway road with two lanes in each direction, separated by a concrete barrier in place of a median strip and all associated road connections, road furniture, lighting, drainage and structures. Areas of the development envelope depicted in Figures 1(a) and 1(b) as Rehabilitation Zone will be rehabilitated.

**Proponent:** Main Roads Western Australia  
Australian Company Number 50 860 676 021

**Proponent Address:** Waterloo Crescent  
EAST PERTH WA 6004

**Report of the Environmental Protection Authority:** 1684

**Preceding Statement/s Relating to this Proposal:** 1008

This Statement authorises the implementation of the proposal described and documented in Tables 1 and 2 of Schedule 1. The implementation of the proposal is subject to the following implementation conditions and procedures which replace and supersede all previous conditions and procedures of Statement 1008 and details definitions of terms and phrases used in the implementation conditions and procedures.

#### **1 Proposal Implementation**

1-1 When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Table 2 in Schedule 1.

#### **2 Contact Details**

2-1 The proponent shall notify the CEO of any change of its name and physical, postal and electronic address for the serving of notices or other correspondence within twenty eight (28) days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal

address is that of the principal place of business or of the principal office in the State.

### **3 Compliance Reporting**

- 3-1 The proponent shall prepare and maintain a Compliance Assessment Plan, which is submitted to the CEO at least six (6) months prior to the first Compliance Assessment Report required by condition 3-6, or no later than 2 April 2021.
- 3-2 The Compliance Assessment Plan shall indicate:
- (1) the frequency of compliance reporting;
  - (2) the approach and timing of compliance assessments;
  - (3) the retention of compliance assessments;
  - (4) the method of reporting of potential non-compliances and corrective actions taken;
  - (5) the table of contents of Compliance Assessment Reports; and
  - (6) public availability of Compliance Assessment Reports.
- 3-3 After receiving notice in writing from the CEO that the Compliance Assessment Plan satisfies the requirements of condition 3-2 the proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 3-1.
- 3-4 The proponent shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 3-1 and shall make those reports available when requested by the CEO.
- 3-5 The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that non-compliance being known.
- 3-6 The proponent shall submit to the CEO, by 2 October annually or as agreed in writing by the CEO, Compliance Assessment Reports that address the preceding twelve (12) month period from 2 July. The Compliance Assessment Reports shall:
- (1) be endorsed by the proponent's CEO or a person delegated to sign on the CEO's behalf;
  - (2) include a statement as to whether the proponent has complied with the conditions;
  - (3) identify all potential non-compliances and describe corrective and preventative actions taken;

- (4) be made publicly available in accordance with the approved Compliance Assessment Plan; and
- (5) indicate any proposed changes to the Compliance Assessment Plan required by condition 3-1.

#### **4 Public Availability of Plans and Reports**

4-1 Subject to condition 4-2, the proponent shall make publicly available on its website, and in any manner approved in writing by the CEO, the plans and reports referred to in conditions 3-1, 3-4, 3-6, 5-2, 5-7, 6-3 and 7-1.

4-2 If any parts of the plans and reports referred to in condition 4-1 contains particulars of:

- (1) a secret formula or process; or
- (2) confidential commercially sensitive information,

the proponent may submit a request for approval from the CEO to not make those parts of the plans and reports publicly available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publicly available.

#### **5 Construction and Operation Zone (Murdoch Drive Connection)**

5-1 The proponent shall ensure that:

- (1) impacts from ongoing operation of the proposal are managed such that groundwater quality is maintained relative to pre-construction conditions;
- (2) impacts to wetland quality associated with implementation of the proposal are minimised; and
- (3) ongoing implementation of the proposal does not cause any detectable adverse effects on flora and vegetation communities within areas of native vegetation adjacent to the **Construction and Operation Zone**.

5-2 In order to meet the objectives of condition 5-1 the proponent shall implement post-construction monitoring relevant to the **Construction and Operation Zone**, detailed in the following Plans, which the CEO has approved by notice in writing:

- (1) Section 2 and Appendix 1 of **Drainage Management and Monitoring Plan**;
- (2) Section 2, Appendix 1 and the Addendum of **Wetlands Monitoring and Management Plan**; and
- (3) Section 3 of **Flora and Vegetation Monitoring and Management Plan**.

- 5-3 If the post-construction monitoring indicates that the targets and actions specified in **the Plans** are not being met, the proponent shall implement the contingency actions in:
- (1) Section 3 of **Drainage Management and Monitoring Plan**;
  - (2) Section 3 of **Wetlands Monitoring and Management Plan**; and
  - (3) Section 4 of **Flora and Vegetation Monitoring and Management Plan**.
- 5-4 The proponent shall ensure the reporting requirements of **the Plans** are met as specified in:
- (1) Section 4 of **Drainage Management and Monitoring Plan**;
  - (2) Section 4 of **Wetlands Monitoring and Management Plan**; and
  - (3) Section 6 of **Flora and Vegetation Monitoring and Management Plan**.
- 5-5 The proponent shall continue to implement post-construction monitoring for three (3) years, or as otherwise agreed by notice in writing by the CEO, in order to assess whether the objectives specified in condition 5-1 have been achieved and until the CEO has advised in writing that post-construction monitoring is no longer required.
- 5-6 The proponent shall:
- (1) determine whether ground disturbance or construction activities have resulted in the spread or introduction of any disease or pathogen, by undertaking appropriate mapping and monitoring during the first wet season (June to August) following the completion of construction;
  - (2) submit a report to the CEO on the outcomes of the mapping and monitoring within three (3) months of the completion of mapping and monitoring; and
  - (3) undertake remedial actions to manage or mitigate any spread or introduction attributable to the proposal.
- 5-7 The proponent shall implement the **Vegetation Rehabilitation Plan** for areas that have been temporarily cleared within the **Construction and Operation Zone**.
- 5-8 The proponent shall routinely inspect and maintain the fauna underpass constructed at the Kwinana Freeway Roe Highway intersection to ensure the underpass is performing effectively.

## **6 Rehabilitation Zone (Bibra Drive to Stock Road)**

- 6-1 The proponent shall ensure that the direct and indirect impacts from clearing of native vegetation within the **Rehabilitation Zone** are **rehabilitated** so that the condition of the native vegetation is the same as it was prior to clearing within the **Rehabilitation Zone**.
- 6-2 The proponent shall undertake ongoing consultation with the **Rehabilitating Roe 8 Advisory Committee** about the measures and actions required to meet the environmental outcome in condition 6-1.
- 6-3 The proponent shall submit a progress report every five (5) years to the CEO to assess progress towards the achievement of the outcome in condition 6-1.
- 6-4 The first progress report shall be submitted within six (6) months of the publication of this Statement and then by 2 October every five (5) years thereafter or as agreed in writing by the CEO, until the CEO confirms by notice in writing that the outcome in condition 6-1 has been achieved and progress reporting may cease.

## **7 Offsets**

- 7-1 In order to counterbalance the significant residual impacts of the Proposal, the proponent shall continue to implement:
  - (1) **Land Acquisition and Management Plan**; and
  - (2) **Typha orientalis Control Program**.
- 7-2 The proponent shall continue to implement the **Land Acquisition and Management Plan** for twenty (20) years from 30 November 2016.
- 7-3 The proponent shall continue to implement the **Typha orientalis Control Program** until the CEO has provided notice in writing that the completion criteria of that Program have been achieved.

Table 1: Summary of the Proposal

<b>Proposal Title</b>	Roe Highway Extension to Murdoch Drive
<b>Short Description</b>	<p>The proposal is to extend Roe Highway from its current terminus at Kwinana Freeway in Jandakot to Murdoch Drive in Murdoch. The proposal will consist of the construction of a dual carriageway road with two lanes in each direction and all associated road connections, road furniture, lighting, drainage and structures.</p> <p>Areas of the development envelope shown in Figures 1(a) and 1(b) as Rehabilitation Zone will be rehabilitated.</p>

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Authorised Extent
Clearing and disturbance	Located within the proposal development envelope as shown in Figure 1(a) and 1(b). Includes clearing for road, drainage and noise walls.	<p>Within the 174.6 ha development envelope:</p> <ul style="list-style-type: none"> <li>a 88.8 ha construction and operation zone – clearing and disturbance of less than 26.8 ha</li> <li>a 85.8 ha rehabilitation zone – no additional clearing and disturbance.</li> </ul>
Rehabilitation	Rehabilitation Zone located within the development envelope as shown in Figures 1(a) and 1(b).	Areas cleared as part of the original proposal within the Rehabilitation Zone.

Table 3: Abbreviations and Definitions

Acronym or Abbreviation	Definition or Term
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or their delegate.
Construction and Operation Zone	A defined zone within the development envelope to allow for the construction and operation of the Murdoch Drive connection to Roe Highway (as shown in Figure 1(b)).
Drainage Management and Monitoring Plan	Roe Highway Extension: Drainage Management and Monitoring Plan, prepared for Main Roads Western Australia, Stragen Environmental, August 2016, Document No: D16#678393 Rev 1, including the Roe Highway Extension: Addendum to Drainage Monitoring and Management Plan, Metropolitan Road Improvement Alliance, January 2020 Rev 1, or subsequent revisions as approved in writing by the CEO.
EPA	Environmental Protection Authority

EP Act	<i>Environmental Protection Act 1986</i>
Flora and Vegetation Monitoring and Management Plan	Roe Highway Extension: Flora and Vegetation Monitoring and Management Plan, prepared for Main Roads Western Australia, Strategen Environmental, December 2015, Document No: D16#632109 Rev 2, or subsequent revisions as approved in writing by the CEO.
ha	Hectare
Infrastructure Plan	Roe Highway Extension: Infrastructure Plan, prepared for Main Roads Western Australia, AECOM, November 2016, Document No: D16#721927 Rev 3.
Land Acquisition and Management Plan	Roe Highway Extension: Land Acquisition and Management Plan, prepared for Main Roads Western Australia, AECOM, November 2016, Document No: D16#689759 Rev 4, or subsequent revisions as approved in writing by the CEO.
Rehabilitated	The end result of rehabilitation as defined in the WA Environmental Offsets Guidelines as repair of ecosystem processes and management of weeds, disease or feral animals.
Rehabilitating Roe 8 Advisory Committee	The community engagement group or forum that succeeded the Rehabilitating Roe 8 Working Group and Rehabilitating Roe 8 Steering Committee following approval of the <i>Rehabilitation Management Plan: Roe 8 Cleared Areas</i> , prepared for Rehabilitating Roe 8 Steering Committee available from <a href="https://www.cockburn.wa.gov.au/Waste-and-Environment/Rehabilitating-Roe-8">https://www.cockburn.wa.gov.au/Waste-and-Environment/Rehabilitating-Roe-8</a>
Rehabilitation Zone	A defined zone within the development envelope to allow for the rehabilitation of areas cleared as part of the Roe Highway Extension proposal approved under Ministerial Statement 1008 and to remove authorisation to construct a road west of Bibra Drive (as shown in Figure 1(a) and Figure 1(b)).
the Plans	The Plans specified in condition 5-2.
<i>Typha orientalis</i> Control Program	Roe Highway Extension: <i>Typha orientalis</i> Control Program, prepared for Main Roads Western Australia, Strategen Environmental, December 2015, Document No: D16#524350 Rev 2, or subsequent revisions as approved in writing by the CEO.
Vegetation Rehabilitation Plan	Appendix 3 to the Flora and Vegetation Monitoring and Management Plan: Roe Highway Extension: Vegetation Rehabilitation Plan, prepared for Main Roads Western Australia, Strategen Environmental, December 2015, Filename: MRO15099_07 R002 Rev 1 – 17 December 2015 Final Revised Report, or subsequent revisions as approved in writing by the CEO.
Wetlands Monitoring and Management Plan	Roe Highway Extension: Wetlands Monitoring and Management Plan prepared for Main Roads Western Australia, Strategen Environmental, November 2016, Document No: D16#681813 Rev 5, including the Roe Highway Extension: Addendum to Wetlands Monitoring and Management Plan, Metropolitan Road Improvement Alliance, March 2019 Rev 0, or subsequent revisions as approved in writing by the CEO.



**Figures (attached)**

Figure 1(a) Rehabilitation Zone within the Roe Highway Extension to Murdoch Drive development envelope

Figure 1(b) Rehabilitation Zone and Construction and Operation Zone within the Roe Highway Extension to Murdoch Drive development envelope

Coordinates defining the: development envelope as shown in Figure 1(a) and Figure 1(b) of Schedule 1 are held by the Department of Water and Environmental Regulation, Document Reference Number DWERDA-042245.



Figure 1(a) Rehabilitation Zone within the Roe Highway Extension to Murdoch Drive development envelope





Figure 1(b) Rehabilitation Zone and Construction and Operation Zone within the Roe Highway Extension to Murdoch Drive development envelope