



WESTERN AUSTRALIA

MINISTER FOR THE ENVIRONMENT

Ass # 870

Bull # 753

State # 370

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**ROUTE ALIGNMENT FOR PERTH TO DARWIN NATIONAL HIGHWAY & FAST
TRANSIT ROUTE, AND EXCISION OF LAND FROM STATE FOREST NO. 65 &
PRIORITY 1 SOURCE PROTECTION AREA FOR URBAN DEVELOPMENT (870)**

**MAIN ROADS WESTERN AUSTRALIA
&
ELLENBROOK MANAGEMENT PTY LTD**

Only the option for this proposal described as the "preferred route" in Environmental Protection Authority Bulletin 753 may be implemented, subject to the following conditions:

1 Proponent Commitments

The proponent has made a number of environmental management commitments in order to protect the environment.

- 1-1 In implementing the proposal, the proponent shall fulfil the commitments made in the Public Environmental Review and in response to issues raised following public submissions, provided that the commitments are not inconsistent with the conditions or procedures contained in this statement. These commitments are consolidated in Environmental Protection Authority Bulletin 753 as Appendix 6. (A copy of the commitments is attached.)

2 Implementation

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.

- 2-1 Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

3 Risk Assessment

Information concerning the risk of contamination of groundwater resources, the Swan River, wetlands and other areas, arising from acute impacts and cumulative impacts, is required to provide the basis for a management plan.

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- 3-1 Prior to commencement of construction of the road between Reid Highway and Maralla Road, the proponent shall undertake a risk assessment study for both episodic spillages of pollutants (large discrete events), and cumulative impacts of long term road use (eg. hydrocarbons) to provide the basis for environmental management. The study shall include, but not be limited to the following:
- (1) risk assessment primarily for contamination of Priority 1 and 2 groundwater areas and the Lexia wetlands, but also having regard for implications for other wetlands, Ellen Brook and the Swan River;
 - (2) road drainage issues; and
 - (3) impacts on water quality from existing and proposed Water Authority bores in the vicinity of the highway.
- 3-2 Subject to the results of the risk assessment study required by condition 3-1, the proponent shall prepare a management strategy for both acute spillages of pollutants and cumulative impacts, to the requirements of the Environmental Protection Authority on advice of the Water Authority of Western Australia.
- 3-3 The proponent shall implement the management strategy required by condition 3-2.

4 Important Groundwater Areas

The reservation and development of the Perth-Darwin National Highway alignment ("preferred route"), the public transport route, and the excision of land from State Forest No. 65 for urban development, and land in Whiteman Park proposed for rural development, within the Gnanagara Mound Crown Land Policy Area and the Priority 1 Source Protection Area of the Mirrabooka Underground Water Pollution Control Area, may proceed in certain circumstances.

- 4-1 Prior to commencement of construction of the road, and prior to subdivision of land proposed to be zoned "urban" in the Metropolitan Region Scheme, the proponent shall complete studies to show that construction and operation of the highway, the public transport route and urbanisation in this area will not adversely affect the water quality and quantity of the Priority 1 Source Protection areas for groundwater.
- 4-2 The proponent shall neither commence construction of the road nor subdivide the land proposed to be zoned "urban" in the Metropolitan Region Scheme, until suitable arrangements are finalised with the Lands and Forests Commission for the land to be excised from State Forest.
- 4-3 The proponent shall neither commence construction of the road nor subdivide the land proposed to be zoned "urban" in the Metropolitan Region Scheme, until suitable arrangements are finalised with the Water Authority of Western Australia for all land to be excised from the Priority 1 Source Protection areas for groundwater. These arrangements should neither permit a net reduction in the total area of Crown land of the Water Reserve, nor a reduction in water quality and quantity for public water supply.

Note: The above studies and arrangements (required by conditions 4-1, 4-2 and 4-3) shall be carried out to meet the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Water Authority of Western Australia, the Department of Conservation and Land Management, the Lands and Forests Commission and the Department of Planning and Urban Development, as appropriate.

5 Drainage and Nutrient Management

Water quality and quantity management is required on the State Forest land proposed for urbanisation, to protect groundwater, wetlands, Ellen Brook and the Swan River.

- 5-1 Prior to subdivision, the proponent shall establish environmental criteria and objectives for water quality and quantity, to the requirements of the Environmental Protection Authority on advice of the Water Authority of Western Australia, the Department of Conservation and Land Management, the Swan River Trust and the Shire of Swan.

The criteria and objectives shall be based on a review of the work undertaken for the adjacent Ellenbrook and Egerton urban development projects and modified as appropriate, and shall include, but not be limited to, consideration of:

- (1) the protection of water quality in the groundwater, wetlands, Ellen Brook and the Swan River from nutrients, pesticides and pollutants; and
 - (2) water level criteria which will ensure the maintenance of wetland function and protect adjoining land uses.
- 5-2 Prior to development, the proponent shall prepare an Environmental Management Programme in consultation with the Water Authority of Western Australia for nutrient and drainage management which is consistent with the environmental criteria and objectives required by condition 5-1, and which includes the development of a comprehensive monitoring, management and reporting programme, to meet the requirements of the Department of Environmental Protection on advice of the Water Authority of Western Australia, the Swan River Trust, the Department of Conservation and Land Management and the Shire of Swan.
- 5-3 The proponent shall implement the Environmental Management Programme required by condition 5-2.

6 Areas Set Aside for Conservation

The Parks and Recreation reservation for the Lexia Wetlands conservation area which contains important wetlands and vegetation, should be protected.

- 6-1 The proponent shall modify the location of the carriageway and drainage basins within the road reserve created under the Metropolitan Region Scheme Amendment No 950/33 so that they are either east or south of the general ridgeline which defines the edge of the basin which contains the Lexia wetlands, to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection.

Note: In locations where the Road Reserve is north and west of the ridgeline and this general requirement is not feasible, the carriageway and drainage basins may be located as far east and south as practicable.

- 6-2 The proponent shall modify the location of the interchange so as not to impact on the Lexia wetlands, to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection.
- 6-3 Prior to commencement of construction North of Gnangara Road, the proponent shall only design and construct any access from the Highway to the Lexia Wetlands conservation area subject to a management plan for the conservation area, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.

7 Wildlife Underpasses

- 7-1 Prior to commencement of construction, as part of a fauna and habitat survey along the highway alignment, the proponent shall investigate and report on the need for wildlife underpasses between the Caversham Air Base and Whiteman Park, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.

- 7-2 Subject to condition 7-1, the proponent shall prepare design plans for incorporation of wildlife underpasses between the Caversham Air Base and Whiteman Park, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.
- 7-3 Prior to commencement of construction, the proponent shall prepare design plans for wildlife underpasses between the Lexia Wetlands conservation area and the Sawpit Gully area, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.
- 7-4 The proponent shall implement the plans required by conditions 7-2 and 7-3.

8 Wetlands and Conservation Areas

North of Maralla Road, wetlands should be protected and if the 'alternative' alignment deviating eastwards in the vicinity of Warbrook Road is selected, the habitat of the Western Swamp Tortoise and its catchment should be protected.

- 8-1 Prior to selection of the final alignment north of Maralla Road, the proponent shall prepare a strategy for protection of the wetlands on the site, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.

This strategy shall include, but not be limited to the following:

- (1) the feasibility of modifying the Controlled Access Highway Reservation (and hence the alignment of the highway) so as to avoid, or reduce, the environmental impacts on wetlands;
- (2) details of wetland replacement;
- (3) the timing of any wetland replacement; and
- (4) wetland management, including a monitoring plan.

- 8-2 The proponent shall implement the strategy required by condition 8-1.

- 8-3 The proponent shall ensure that the habitat, including water quality, of the Western Swamp Tortoise (*Pseudemydura umbrina*) and the catchment are protected from adverse impacts associated with construction and operation of the 'alternative' alignment for the Highway.

- 8-4 Prior to commencement of construction North of Maralla Road, to achieve the objectives of condition 8-3, the proponent shall prepare a detailed drainage management strategy for the Twin Swamps Nature Reserve, to the requirements of the Department of Environmental Protection on advice of the Department of Conservation and Land Management.

- 8-5 The proponent shall implement the strategy required by condition 8-4.

9 Proponent

These conditions legally apply to the nominated proponent.

- 9-1 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the

proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

10 Compliance Auditing

In order to ensure that environmental conditions and commitments are met, an audit system is required.

- 10-1 The proponent, in consultation with the Department of Environmental Protection, shall prepare an Audit Programme, which includes requirements for the preparation of periodic Compliance Reports.
- 10-2 The proponent shall subsequently implement the Audit Programme required by condition 10-1.

Procedure

- 1 The Department of Environmental Protection is responsible for verifying compliance with the conditions contained in this statement, with the exception of conditions stating that the proponent shall meet the requirements of either the Minister for the Environment or any other government agency.
- 2 If the Department of Environmental Protection, other government agency or proponent is in dispute concerning compliance with the conditions contained in this statement, that dispute will be determined by the Minister for the Environment.

Kevin Minson MLA
MINISTER FOR THE ENVIRONMENT

25 OCT 1994

**Proponent's
Environmental Management Commitments**

ROUTE ALIGNMENT FOR PERTH TO DARWIN
NATIONAL HIGHWAY & FAST TRANSIT ROUTE,
AND
EXCISION OF LAND FROM STATE FOREST NO. 65
& PRIORITY 1 SOURCE PROTECTION AREA
FOR URBAN DEVELOPMENT (870)

MAIN ROADS WESTERN AUSTRALIA
&
ELLENBROOK MANAGEMENT PTY LTD

TABLE 9.1
 SUMMARY OF COMMITMENTS

Commitment Number	Issue	Commitment	Operator	Management Strategies	Phase	Proposed Authority
1	Legal Requirements	The Proponent will undertake to fulfil all management commitments described in this PER in accordance with applicable State laws and regulations with standards and procedures agreed with the State.	Main Roads and Ellersbrook Management	Not applicable	Strategic Planning	EPA
2	Environmental Management	Ellersbrook Management will undertake to manage the State forest area proposed for rezoning in a manner consistent with the environmental criteria and management strategies developed for the Ellersbrook project, in accordance with commitments made by the Proponent for that project.	Ellersbrook Management	Rider to criteria and stipulations cited in Borranian Shale Corridor (1994)	Operational	EPA, CALM, WAWA
3	System & Conservation Areas	Main Roads will undertake to avoid indirect impacts on System 6 conservation areas.	Main Roads	Minimize the encroachment on Whitman Park. Use appropriate fencing along the boundary between Whitman Park and the highway to reduce the potential for native fauna road kills. Control the quantity and quality of stormwater discharged into Whitman Park.	Strategic Planning Operational	DPUD Main Roads, CALM
4	Regionally Significant Vegetation	Main Roads will minimize disturbance to regionally significant vegetation adjacent to the consensus route. Areas disturbed by construction of the consensus route will be rehabilitated by Main Roads as soon as practicable. An EMP to address rehabilitations will be prepared prior to construction.	Main Roads	Restrict the clearing of remnant vegetation to the minimum area necessary for permanent road works, and confine temporary works areas as far as possible to previously cleared areas. Identify on construction phase cultural vegetation and isolated trees adjacent to the proposed route that can be retained, prior to the commencement of clearing. Erect temporary fences to protect residual vegetation and isolated trees adjacent to the consensus route from trucks and road damage by vehicles. Rehabilitate areas disturbed by the construction of the consensus route with native species.	Strategic Planning and Operational Operational Operational Operational	EPA, WAWA Main Roads, CALM Main Roads, CALM Main Roads, CALM
5	Significant Flora	Main Roads will minimize disturbance to significant flora in the vicinity of the consensus route. In the event that significant flora species are found in the corridor, an EMP will be developed in consultation with CALM.	Main Roads	Conduct a flora survey along the proposed route alignment during the clearing season and during the definition of the corridor for the road to determine the presence of significant flora. Develop an EMP in consultation with CALM if any such plants are found in the corridor.	Strategic Planning Strategic Planning	CALM, EPA CALM, EPA
6	Significant Fauna	Main Roads will undertake to avoid disturbance of known or suspected fauna. In the event that any significant fauna or fauna habitat are found in the corridor, an EMP will be developed in consultation with CALM and the WA Museum.	Main Roads	Undertake a survey of fauna and fauna habitat along the consensus route.	Strategic Planning	CALM, WA Museum, EPA
7	Wetlands	Main Roads will undertake to avoid disturbance of lakes protected by the Environmental Protection (Swamp Coastal Plains Lakes) Policy and minimize disturbance of other wetlands in the vicinity of the consensus route. An EMP that will address the management of wetlands affected by the consensus route will be prepared in consultation with the EPA and the Water Authority of Western Australia.	Main Roads	Develop an EMP for the management of fauna habitat. Confirm the conservation status of affected wetlands.	Strategic Planning Strategic Planning	CALM, EPA EPA, WAWA
8	Priority 1 Source Protection Areas	Main Roads will undertake to minimize the risk of contamination of Priority 1 Source Protection Areas. Provisions to achieve the objective will be described in an EMP.	Main Roads	Prepare an EMP that will address the management requirements of affected wetlands. Prepare an EMP	Strategic Planning Strategic Planning	EPA, WAWA EPA, WAWA

TABLE 9.1
(continued)

Construction Number	Issue	Construction	Operator	Management Strategies	Phase	Responsible Agency
9	Groundwater Quality	Disbrook Management will undertake to manage groundwater quality in the area of State Forest proposed for remediation to a manner consistent with the environmental criteria, sediment and drainage management plans approved for the Disbrook development, and environmental management amendments made subsequent to those approvals.	Disbrook Management	<p>Protect discharge of contaminants (e.g. sediment) to Priority 1 Source Protection Area.</p> <p>Remove the boundaries of Priority 1 Source Protection Areas with a buffer of Priority 2 Source Protection Areas. The proposed alignment of the Priority 2 boundary will provide at least a 500m buffer to the nearest Latta section here, the section of Duwamish (including, water disposal area, intensive agriculture, golf courses or water pollution control ponds) will be located within Priority 1 Source Protection Areas.</p> <p>Control urban development near to rehabilitated streamage.</p> <p>Design of domestic sewage in the special rural sewage order with approved, on-site effluent disposal technology incorporating disinfection and nutrient removal capabilities.</p> <p>Maintain groundwater quality in Priority 1 Source Protection Areas in accordance with ARDEC guidelines for raw water for drinking water supply.</p> <p>Design of stormwater control and management of Priority 1 areas by using local water pollution control ponds under infiltration basins of appropriate design to achieve sediment objectives.</p> <p>Amendment of individual basins with red sand as a water treatment measure.</p> <p>Maintain predevelopment water balance.</p>	<p>Strategic Planning</p> <p>Strategic Planning and Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p>	<p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p> <p>EPA, WAWA</p>
10	Groundwater Levels	Disbrook Management will undertake to achieve the objectives for ground-water level management developed for the Disbrook project for the area of State Forest proposed for remediation.	Disbrook Management	<p>Maintain anaerobic storage and utilization of stormwater.</p> <p>Mitigate generation of runoff and encourage localized recharge.</p> <p>Deployment use of vegetation to slow and filter runoff.</p> <p>Aim to infiltrate both of stormwater runoff.</p> <p>Utilize subsoil drainage to control maximum water levels in the superficial aquifer.</p>	<p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p> <p>Operational</p>	<p>EPA, WAWA</p> <p>WAWA</p> <p>WAWA</p> <p>WAWA</p> <p>WAWA</p>
11	Nature Export	For the State Forest exchange area, Disbrook Management will undertake to achieve the nature export management objectives developed for the Disbrook project so that nutrient discharges from the site to Edson Brook and the upper reaches of the Swauk River will be minimized and the trophic status of the Swauk River will not be adversely affected.	Disbrook Management	<p>Priming and engineering design as discussed in Berman Dishes Carlson (1994).</p>	<p>Strategic Planning and Operational</p>	<p>WAWA</p>
12	Drainage Lines	Main Roads will undertake to minimize the impact of the sensitive route on the function, habitat and biota supported by drainage lines caused by that route.	Main Roads	<p>Site criteria to maintain the flow characteristics of all drainage lines affected by the highway construction.</p> <p>Maintain riparian vegetation in the vicinity of road crossing where possible.</p> <p>Rehabilitate fringing vegetation disturbed by highway construction to maintain the continuity of fauna corridors.</p> <p>Provide fauna underpasses where necessary to facilitate fauna movement.</p>	<p>Operational</p> <p>Operational</p> <p>Operational</p>	<p>WAWA, EPA</p> <p>Main Roads, CALM</p>

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Public Environmental Review
Port Darwin National Highway, Road Highway to Muckles

TABLE 9.1
(continued)

Constraint Number	Issue	Commitment	Owner	Management Strategy	Phase	Proposed Author
21	Aboriginal Heritage	Main Roads will undertake an archaeological and ethnographic survey of the proposed main alignment and prepare an EARP that will address any significant Aboriginal sites found in that area.	Main Roads	Undertake an archaeological and ethnographic survey prior to installation of land requirements for the route. Develop an EARP if significant Aboriginal sites are found in the vicinity of the consensus route. In consultation with the relevant Aboriginal communities. Compliance by Main Roads with all legal requirements regarding disturbance of Aboriginal sites.	Strategic Planning Strategic Planning	Department of Aboriginal Sites Department of Aboriginal Sites
22	Aboriginal Heritage	Main Roads will comply with the requirements of the Aboriginal Heritage Act 1972-1984.	Main Roads	Comply with requirements to minimize the impact of the construction and operation of the consensus route on private property. Locate the land alignment along property boundaries where possible, thereby reducing property severance. Revised site work to a maximum of 150 hours per length, with a maximum of 100 hours per day between 7.00am and 5.00pm.	Operational	Department of Aboriginal Sites
23	Existing Communities and Land Uses	Main Roads will undertake to minimize the effects of construction of the consensus route on existing communities and landuses.	Main Roads	Consult with landowners to minimize the impact of the construction and operation of the consensus route on private property. Locate the land alignment along property boundaries where possible, thereby reducing property severance. Revised site work to a maximum of 150 hours per length, with a maximum of 100 hours per day between 7.00am and 5.00pm.	Strategic Planning Strategic Planning Operational	Main Roads, DPUD Main Roads, DPUD Main Roads
24	Existing Communities and Land Uses	Diabrook Management will undertake to continue the existing community consultation programme established as part of the approval process for the Diabrook project, to review the impacts and identify management requirements for the State owned land severance and resulting proposal.	Diabrook Management	Continue the existing Diabrook development community consultation programme	Strategic Planning	Diabrook Management
25	Barriers	Main Roads will undertake to maintain the impact of the alignment of the consensus route on existing recreational facilities and areas.	Main Roads	No special management strategies are considered necessary	Strategic Planning	Main Roads
26	Drainage Structures	Main Roads undertake to consult with the Water Authority in locating drainage structures within Wetland Protection Zones	Main Roads	Refer proposal for drainage structures to the Water Authority	Operational	WAWA