Environmental Protection Authority

GOVERNMENT OF WESTERN AUSTRALIA

EPA REFERRAL FORM PROPONENT

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

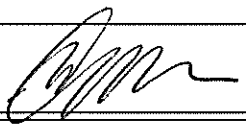
	Yes	No
Completed all the questions in Part A (essential).	✔	
Completed all applicable questions in Part B.	✔	
Included Attachment 1 – location maps.	✔	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	✔	
Included Attachment 3 – confidential information (if applicable).	NA	
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	✔	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment? ☐ Yes ☒ No ☐ Not sure
If yes, what level of assessment? ☐ Assessment on Proponent Information ☐ Public Environmental Review

PROPONENT DECLARATION (to be completed by the proponent)

I, Matthew Coppen declare that I am authorised on behalf of Main Roads Western Australia (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature 	Name (print) MATTHEW COPPEN
Position - Project Manager	Company - Main Roads Western Australia
Date - 15 April 2013	

PART A - PROPONENT AND PROPOSAL INFORMATION
(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	Main Roads Western Australia
Joint Venture parties (if applicable)	NA
Australian Company Number (if applicable)	N/A
Postal Address (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)	PO Box 5010 Bunbury WA 6231
Key proponent contact for the proposal: • name • address • phone • email	Matt Coppen (Project Manager) 470 Robertson Drive Bunbury WA 6231 Phone: (08) 9724 5632 matthew.coppen@mainroads.wa.gov.au
Consultant for the proposal (if applicable): • name • address • phone • email	Glenn Yeatman Principal Scientist RPS Environment and Planning Pty Ltd 1/8 Prince Street BUSSELTON WA 6280 T: 618 9754 2898 F: 618 9754 2085 E: glenn.yeatman@rpsgroup.com.au

1.2 Proposal

Title	Coalfields Highway Upgrade (15.90 – 26.34 SLK)
Description	Main Roads Western Australia (Main Roads) proposes to undertake roadwork on a 10.44 km section of the Coalfields Highway (15.90–26.34 SLK) to improve road safety and transport efficiency. The proposal will involve the re-alignment and construction of a 10.4km single carriageway road with 3.5m lanes and 1.5m sealed and 1.0m unsealed shoulders. The scope also includes construction of four passing lanes, three side road intersections, associated drainage works, a crossing of the northern reaches of Wellington Dam and landscaping. Attachment 1 shows the proposed realignments.
Extent (area) of proposed ground disturbance.	25 ha clearing footprint

Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	The project is expected to be constructed in four separate sections, with construction of the first two sections (Wellington Dam and Hamilton River) commencing in 2014. The two remaining sections will be constructed when funding becomes available.
Details of any staging of the proposal.	The project is expected to be constructed in four separate sections: ▪ Wellington Dam section – 15.90 to 18.80 SLK ▪ Gastaldo West section – 18.80 to 20.90 SLK ▪ Gastaldo East section – 20.90 to 23.70 SLK ▪ Hamilton River section – 23.70 to 26.30 SLK.
Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: • title of the strategic assessment; and • Ministerial Statement number.	No
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	The proposal involves the re-alignment of a 10.44km section of the existing Coalfields Highway and is considered as a standalone project; although it forms a component of the overall upgrade and road safety improvements of the Coalfields highway between Roelands and Collie. A sustained high crash rate, including six fatalities over the past five years, combined with poor road geometry and increasing traffic volumes requires an upgrade of this section of the highway to current highway standards. The proposed realignments will improve road safety and transport efficiency.
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	Main Roads is in the process of acquiring the approximately 40.52 ha of land required for the project, which includes 19.13 ha from the Wellington National park.
What is the current land use on the property, and the extent (area in hectares) of the property?	The 10.44 km project traverses existing highway, Wellington National Park and private property (Attachment 2).

1.3 Location

Name of the Shire in which the proposal is located.	Shire of Collie
For urban areas: • street address; • lot number; • suburb; and • nearest road intersection.	NA
For remote localities: • nearest town; and • distance and direction from that town to the proposal site.	Main Roads proposes to undertake roadwork on a section of the Coalfields Highway (15.90–26.34 SLK) approximately 18km west of Collie. The project occurs from Lullaby Road (1850m west of the Wellington Dam Road) to 1km east of the Wellington Dam. Refer Attachment 1
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD.	GIS Shapefile is included on attached CD.

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	No
If yes, is confidential information attached as a separate document in hard copy?	No

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.		No	
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.		Yes	
Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal

Conservation Commission of Western Australia	Acquisition of land from Wellington National Park	Yes	Bok Ho (DEC Lands Unit)
Department of Sustainability, Environment, Water, Population and Communities (DSEWPC)	Approval under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Application to be submitted concurrent with S38 referral. Informal discussions have commenced with DSEWPaC	Erin Pears and Mitchell Bouma of DSEWPaC
Department of Water (DoW)	Obtain a Bed and Banks Permit under the Rights in Water and Irrigation Act 1914	No (consultation has been undertaken with DoW)	Carol Anderson (DoW Bunbury)
Department of Indigenous Affairs (DIA)	Approval under Section 18 of the Aboriginal Heritage Act 1972	Yes Main Roads has approval (Attachment 4)	
Department of Environment and Conservation (DEC)	Clearing permit – expected to be required	Approval to clear under Clearing Permit 818 / 7	Native Vegetation Protection Branch -DEC

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

2.1 flora and vegetation;

2.2 fauna;

2.3 rivers, creeks, wetlands and estuaries;

2.4 significant areas and/ or land features;

2.5 coastal zone areas;

2.6 marine areas and biota;

2.7 water supply and drainage catchments;

2.8 pollution;

2.9 greenhouse gas emissions;

2.10 contamination; and

2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

(a) the source of the information; and

(b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

25 hectares

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

☐ Yes ✔ No **If yes**, on what date and to which office was the application submitted of the DEC?

CPS 818 approval will be sought if EPA decide not to formally assess the project

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

✔ Yes ☐ No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Reports attached (Attachment 4, Appendix 2, Appendix 3, Appendix 5):

- Level 1 Flora and Vegetation Survey (Brian Morgan) – with regard to EPA *Guideline No. 51* (EPA, 2004)
- *Lomandra whicherensis* Survey for the Proposed Coalfields Highway Realignment (Brian Morgan 2012)
- Flora and Vegetation Survey of the Wellington Dam Road Grey Sands (255DpWGs) Area (Brian Morgan 2012)
- Level 1 Flora and Vegetation Assessment for a Proposed Upgrade of Coalfields Highway (SLK 15.9-SLK 26.34) (Ekologica 2012)

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

✔ Yes ☐ No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

✔ Yes ☐ No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

The species listed in the table below were identified through DEC database searches as potentially occurring in the area. Of these species, only *Lomandra whicherensis* (P1) and *Millotia tenuifolia var. laevis* (P2) were identified in the area during flora surveys.

As well as surveys within the Coalfields alignment area, surveys were also undertaken within the Wellington National Park to determine the regional significance of *Lomandra whicherensis*. Overall, over 1600 plants were identified during the surveys (counted in about 100 discrete areas) (locations shown in attachment 2). Based on the 2013 project concept design it is expected that approximately 140 individual plants will be taken for roadworks required for the Wellington section.

Millotia tenuifolia var. laevis (Priority 2) was recorded from two locations during the 2011 survey, being within Lot 103 and on the southern side of the existing highway immediately west of Gastaldo Road. However, the proposed road realignment (15.9 – 26.34 SLK) is not expected to impact this species.

Taxon	Status	Preferred Habitat	Likelihood of Occurrence in Survey Area
Grevillea rara	R	Lateritic loam; creek lines	Low. (Very little creek line with remnant vegetation in survey area. Western part of the survey area comprises uplands with gravelly sandy soils rather than loams)
Jacksonia velveta	R	Brown gravelly loam, dry grey sand, ironstone. Slight hill slopes, ridges	Low to moderate. Some grey sand soils in the survey area. Range appears to be further east on the Darling Plateau
Sphaerolobium benetectum	P1	White gravelly sandy clay, sandy loam, granite, laterite. Ridges, swamps and undulating rises.	Low to moderate. Very limited known occurrence in the area. Mostly known from the south coast
Leucopogon sp. Collie (E.M. Bennett BUC 063)	P2	Seasonal damplands or sumps	Low: only known from two locations east of Collie. Very little seasonal dampland in the Coalfields Highway survey area. Plant low and spreading with distinctive chordate leaves
Thysanotus unicupensis	P2	No information available	?
Adenanthos cygnorum subsp. *chamaephyton*	P3	Grey sand, lateritic gravel	Moderate. Perennial plant with very distinctive habit
Calytrix pulchella	P3	Grey or white sand over laterite. Ridges, flats	Low. Little area of suitable soils in survey area. Presently known from east of Collie
Eryngium ferox ms	P3	Grey to brown loamy to sandy clay, brown cracking clay. Winter-wet flats, swamps, dried claypans, ridges	Low. Only a small area of poorly developed damplands in the survey area (marginal habitat)
Grevillea prominens	P3	Gravelly loam. Along creek lines	Low. Very little creek line in survey area (small length of creek line on southern boundary of survey area in blackbutt valley)
Meeboldina thysanantha ms	P3	Sand, swamps, creek banks	Low. Dampland and creek bank habitat is very limited in the survey area. A distinctive tall perennial rush
Stylidium rhipidium	P3	Sandy soils. Wet creek flats, swamps, granite outcrops	Low to moderate. Sandy dampland soils area present, albeit in small area
Synaphea hians	P3	Sandy soils. Rises	Moderate. At northern end of its range
Tetratheca parvifolia	P3	No information available	?
Acacia cuneifolia	P4	Sand, clay or loam over granite. Granite outcrops and hills, rocky watercourses	Low. No granite outcrops or evidence of shallow soils over granite in survey area
Acacia semitrullata	P4	White to grey sand, sometimes over laterite, clay. Sand plains, swampy areas	Low. Preferred habitat of sandy plains adjacent to damplands not present in survey area. A very distinctive perennial plant
Grevillea ripicola	P4	Sandy clay, clay or gravelly loam. Swampy flats, granite outcrops, along watercourses	Low. Little suitable habitat in survey area. Only a short section of creek line with sandy loam soils and a small area of marginal damplands
Lasiopetalum	P4	Lateritic gravelly soils, sandy clay. Flats,	Moderate. Gravelly lateritic soils present in the

Taxon	Status	Preferred Habitat	Likelihood of Occurrence in Survey Area
cardiophyllum		hillslopes	survey area
Pultenaea skinneri	P4	Sandy or clayey soils. Winter-wet depressions	Low. Only a small area of marginal damplands occurs within the survey area
Lomandra whicherensis	**P1**	**Jarrah forests**	**High. Identified in the area during flora surveys**
Millotia tenuifolia* var. *laevis	**P2**	**Granite or laterite soils**	**High. Identified in the area during flora surveys**
Stylidium lepidum	P3	Gravelly sand or loamy clay. Winter wet depressions	Low. Only a small area of marginal damplands occurs within the survey area
Stylidium acuminatum aubsp. Acuminatum	P1	Clayey sands over laterite. Hillslopes, ridges and valleys	Moderate. Gravelly lateritic soils present in the survey area
Logania sylvicola	P2	No information available	?
Calothamnus rupestris	P4	Gravelly skeletal soils, granite outcrops and rocks and hillsides.	Low. No granite outcrops or evidence of shallow soils over granite in survey area
Calothamnus graniticus subsp. Leptophyllus	P4	Clay over granite, lateritic soils. Hillsides	Low. No evidence of shallow soils over granite in survey area
Caladenia lodgeana	T	Black loam	Low to moderate. Very limited known occurrence in the area. Mostly known from the further south

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

☐ Yes ✔ No **If yes**, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

2.1.8 What is the condition of the vegetation at the site?

Of the total survey area extent of approximately 130 ha, 73.4 ha (57.2%) was considered to be remnant vegetation. Isolated paddock trees were not included as remnant vegetation.

Vegetation condition along the edge of the highway is variable, due largely to physical disturbance and consequent weed invasion. Grazing has impacted the condition of remnant vegetation in private property Lot 103, north of the highway, and it was consequently rated only as Good. The “edge effect” of increased physical disturbance and altered micro-climate and consequent weed invasion has impacted the condition of the narrow strip of vegetation along the north side of the highway and it has mainly been classed as Degraded to Good.

Vegetation condition is shown in Attachment 5.

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

A total of 44 native fauna species were recorded during the site fauna surveys. With respect to native vertebrate fauna, 21 mammals (including nine bat species), 104 bird, 41 reptile, nine frogs and three fish species have previously been recorded in the general area, some of which have the potential to occur in or utilise sections of the study area at time.

Four vertebrate species of conservation significance (listed as state or federal threatened/ migratory species or DEC priority species) were positively identified within the project site including:

- Forest Red-tailed Black Cockatoo
- Carnaby's Black Cockatoo
- Baudin's Black Cockatoo
- Rainbow Bee-eater

As the area to be cleared is linear, the impact of clearing on fauna or fauna habitat in general will be relatively small at any one location. With respect to fauna in general, no substantial impacts are anticipated as a consequence of the realignment being constructed. In cases where some impact is anticipated, the degree of the impact is expected to be very low and relates to the loss of small areas of habitat.

The proposed realignment is unlikely to impact upon the distribution and habitat resources currently available to indigenous fauna in the locality as the vegetation association is extensive in adjacent and greater areas. The vegetation association 'Medium Forest; jarrah-marri', is common across and beyond the site and was considered to represent "potential" black cockatoo foraging habitat for one or more of the three black cockatoo species in WA - all of which are known to frequent the area.

Black Cockatoos

The degree to which any one section of the route is utilised for foraging purposes would vary considerably based on species composition and density. Generally, the most dominant and widespread foraging species are Marri and Jarrah though in some areas other species are also present (e.g. Sheoak and Banksia). As this vegetation association is extensive in the region, the proposed realignment does not involve clearing vegetation that is necessary for the maintenance of significant fauna species.

Almost all areas of remnant native vegetation within and beyond the proposed project were considered to represent potential black cockatoo foraging habitat, as it contains a range of plant species documented as suitable habitat for the three species of black cockatoo. The project will require the clearing 25ha of potential foraging habitat.

Within the survey area, a total of 1195 trees with a diameter at breast height (DBH) of over 50 cm were identified, 77 of which were identified with hollows potentially suitable for

black cockatoos. No evidence of past or present nesting or overnight roosting by black cockatoos was observed during the surveys. Of the 1195 trees within the survey area with a DBH >50cm, 424 are expected to be cleared for roadworks, including 28 of the 77 trees with potential nest hollows.

Although the proposed action will impact on some significant black cockatoo habitat, removal of this habitat is not considered to be significant for the maintenance of local black cockatoo populations. Vegetation mapping indicates more than 30 000ha and 94 000 ha of potential foraging habitat and breeding habitat occurs within 10 and 20km of the project site respectively.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

✔ Yes ☐ No **If yes**, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Reports attached (Attachment 4, Appendix 8):

– Fauna Assessment, Coalfields Highway Realignment (Greg Harewood 2013)

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

✔ Yes ☐ No (please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

✔ Yes ☐ No **If yes**, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

Of the species identified as potentially occurring in the area by database searches, the table below identifies those species which have habitat present within the survey area. The attached fauna report (Attachment 4, Appendix 8) discusses these species in further detail as well as other species that have marginal habitat present in the area (Table below). The only species identified on site as discussed above are:

- Forest Red-tailed Black Cockatoo
- Carnaby's Black Cockatoo
- Baudin's Black Cockatoo
- Rainbow Bee-eater

Common Name	Scientific Name	Conservation Status	Likelihood of Occurrence and Habitat Present

Common Name	Scientific Name	Conservation Status	Likelihood of Occurrence and Habitat Present
Southern carpet python	*Morelia spilota imbricate*	S4, P4	Habitat is present. Possible occurrence
Peregrine falcon	*Falco peregrinus*	S4	Habitat is present. Possible occurrence
Bush stone curlew	*Burhinus grallarius*	P4	Habitat is present Unlikely to occur as locally extinct
Carnaby`s Black-Cockatoo	*Calyptorhynchus Latirostris*	S1 Endangered	Habitat is present. Known to occur
Baudin`s black cockatoo	*Calyptorhynchus baudinii*	S1 Vulnerable	Habitat is present. Known to occur
Forest red-tailed black cockatoo	*Calyptorhynchus banksii naso*	S1 Vulnerable	Habitat is present. Known to occur
Masked owl (SW population)	*Tyto n. novaehollandiae*	P3	Habitat is present. Possible occurrence
Fork-tailed swift	*Apus pacificus*	S3 Migratory	Habitat is present Unlikely to occur
Rainbow bee-eater	*Merops ornatus*	S3 Migratory	Habitat is present. Possible occurrence
Chuditch	*Dasyurus geoffroii*	S1 Vulnerable	Habitat is present. Possible occurrence
Numbat	*Myrmecobius fasciatus*	S1 Vulnerable	Habitat is present Unlikely to occur as locally extinct
Southern brush-tailed phascogale	*Phascogale tapoatafa ssp*	S1	Habitat is present. Possible occurrence
Southern brown bandicoot	*Isoodon obesulus fusciventer*	P5	Habitat is present. Possible occurrence
Western ringtail possum	*Pseudocheirus occidentalis*	S1 Vulnerable	Habitat is present. Possible occurrence
Western brush wallaby	*Macropus irma*	P4	Habitat is present. Possible occurrence
Western false pipistrelle	*Falsistrellus mackenziei*	P4	Habitat is present. Possible occurrence

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

The re-alignment of the existing crossing of Wellington Dam is an unavoidable component of the project as it is not possible to upgrade the existing road crossing to a suitable standard. This crossing will include the construction of a causeway and large culvert to maintain the inflow into the dam from the upstream Hamilton River and water level changes within the dam.

The road crossing has been designed to maintain existing surface flows and avoid direct discharge of road run-off into the dam. Rock protection will be installed to minimise erosion when the dam levels increase.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

☑ Yes ☐ No **If yes**, please describe the extent of the expected impact.

The proposed crossing of the Wellington Dam will not require clearing as the dam itself is devoid of native vegetation.

The approaches to the Wellington Dam crossing will require the clearing of a corridor up to 40m wide. As the dam is not a natural watercourse the vegetation to be cleared for the approaches to the crossing is not wetland dependent and comprise a Blackbutt (Eucalyptus patens) mixed forest which is typical of that found in the lower valley slopes of the area.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

☐ Yes ☑ No **If yes**, please describe the extent of the expected impact.

As noted at Section 2.3.1 the planned crossing of the Wellington Dam will require the construction of a 150m long causeway. The culvert to be installed in the causeway which is expected to be a 2.1m pipe, will provide for the inflow into the dam from the upstream Hamilton River and water levels within the dam to fluctuate unimpeded.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

☐ Yes ☑ No **If yes**, please describe the extent of the expected impact.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

☐ Yes ☑ No **If yes**, please describe the extent of the expected impact.

The road drainage will be designed such that there is no direct discharge to existing wetlands and water courses.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	☐ Yes	☑ No	☐ Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	☐ Yes	☑ No	☐ Unsure
Perth's Bush Forever site	☐ Yes	☑ No	☐ Unsure

Environmental Protection (Swan & Canning Rivers) Policy 1998	☐ Yes	✔ No	☐ Unsure
The management area as defined in s4(1) of the *Swan River Trust Act 1988*	☐ Yes	✔ No	☐ Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	☐ Yes	✔ No	☐ Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

✔ Yes ☐ No **If yes**, please provide details.

Two of the proposed realignments (Wellington and Hamilton) traverse the Wellington National Park over a distance of approximately 3.6km as shown in Attachment 2.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

☐ Yes ✔ No **If yes**, please provide details.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

☐ Yes ✔ No **If yes**, please provide details.

No natural land features will be impacted by the proposal. The Wellington Dam is not a natural feature.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick) ☐ Yes **If yes**, complete the rest of this section.

✔ No **If no**, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

NA

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cuspate headland, coastal dunes or karst?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.5.4 Is the development likely to impact on mangroves?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

✔ Yes ☐ No **If yes**, please describe what category of area.

The proposed works fall within a proclaimed Surface Water Area under the *Rights in Water and Irrigation Act 1914* (RIWI Act)

Correspondence received from the Department of Water (DoW) confirmed that obtaining a Bed and Banks Permit from the DoW is required prior to any interference with the bed and/or banks of any rivers or any other waterways. Main Roads will obtain the necessary approvals as required under the RIWI Act prior to the commencement of construction works.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

☐ Yes ✔ No **If yes**, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

☐ Yes ✔ No **If yes**, please describe what category of area.

The location of PDSWAs in the locality are provided in Attachment 2.

The Wellington Dam Catchment Area is also proclaimed under the *Country Areas Water Supply Act 1947* (CAWS Act). Its current proclamation status is a "Not Assigned" Public Drinking Water Source Area with a management objective to protect the resource for future needs. The Wellington Reservoir is used for irrigation but is potentially important for industry and a drinking water supply. Historically, the reservoir was used as a supply of potable water. Currently, it is not used as a drinking water supply because of high salinity levels, associated with dry-land salinity in the upper catchment.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

✔ Yes ☐ No (please tick)

Advice from the Department of Water Bunbury office has indicated that a temporary water supply for construction purposes would be available from the Wellington Dam.

2.7.5 Will the proposal require drainage of the land?

☐ Yes ✔ No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

Existing surface water drainage patterns will be maintained.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

Advice from the Department of Water Bunbury office has indicated that a temporary water supply for construction purposes would be available from the Wellington Dam.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

It is anticipated that the water requirement over three years will be 150 000Kl (approximately 50,000 Kl per year).

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

Water sources have not yet been defined, however current options include:

- supplied by the Water Corporation
- Sourced from local surface water dams on private property
- Sourced from the Wellington Dam

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

There will be some noise, dust and vibration as a consequence of road construction activities. These will be managed through a Construction Environmental Management Plan implemented for the works.

The new crossing of Wellington Dam will include drainage management measures (retention basins, kerbing etc) such that there will no direct discharge to Wellington Dam, consequently minimising the pollution risk to the dam. This is an improvement on the current situation, as the existing Coalfields Highway crossing does not have these drainage management facilities.

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

☐ Yes ✔ No **If yes**, please describe what category of prescribed premise.

2.8.3 Will the proposal result in gaseous emissions to air?

☐ Yes ✔ No **If yes**, please briefly describe.

The project will replicate the existing Coalfields Highway and may marginally reduce vehicle emissions as a result of improved passing opportunities and hence vehicle efficiency.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

☐ Yes ✔ No **If yes**, please briefly describe.

2.8.5 Will the proposal result in liquid effluent discharge?

☐ Yes ✔ No **If yes**, please briefly describe the nature, concentrations and receiving environment.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

☐ Yes ✔ No **If yes**, please describe.

As noted at above the project includes the construction of a causeway across the northern reaches of the Wellington Dam. Road drainage has been designed so that will no direct discharge to the water body.

2.8.7 Will the proposal produce or result in solid wastes?

✔ Yes ☐ No **If yes**, please briefly describe the nature, concentrations and disposal location/ method.

Constriction activities will result in small volumes of solid waste being produced. Construction and domestic waste will be disposed of at an approved landfill site.

2.8.8 Will the proposal result in significant off-site noise emissions?

☐ Yes ✔ No **If yes**, please briefly describe.

Five private residences occur within approximately 600 m of the current Coalfields Highway. The separation between the existing and realigned highway to private residences is detailed below.

Location	Existing Separation (m)	Separation of Realigned Highway (m)
Lot 171 Coalfields Hwy	50	260
Lot 1020 Coalfields Hwy	145	125
Lot 3041 Wellington Dam Road	620	420
Lot 2983 Coalfields Hwy	220	225
Lot 103 Worsley Back Rd	240	225

For those residences within 150 m of the existing highway the project will marginally reduce the distance to the highway at Lot 1020 while significantly increasing the separation at Lot 171.

Traffic volumes on the existing Coalfields Highway in 2011 were estimated at 5900 vehicles per day (vpd) with 14.9% heavy vehicles west of Gastaldo Road, and 3500 vpd with (14.5%) heavy vehicles east of Gastaldo Road.

Based on the changes, separation distances between the highway and adjacent noise sensitive receptors, traffic volumes and location of the existing Coalfields Highway; Main

Roads considers that any changes to existing traffic noise exposure will not be significant and are congruent with the State Planning Policy 5.4 (WAPC 2009).

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

☐ Yes ✔ No **If yes**, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

Construction noise will be limited to the period Monday to Saturday 0700 – 1900 hours excluding public holidays. Where works are required to occur outside of these hours then a Noise Management Plan will be prepared and approved by the Shire of Collie.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

☐ Yes ✔ No **If yes**, please describe and provide the distance to residences and other "sensitive premises".

The project will replace the existing Coalfields Highway and traverse a sparsely populated rural area.

2.8.11 If the proposal has a residential component or involves "sensitive premises", is it located near a land use that may discharge a pollutant?

☐ Yes ☐ No ✔ Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

☐ Yes ✔ No **If yes**, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

The project will replace the existing Coalfields Highway and may marginally reduce transport emissions through improved vehicle efficiency and passing opportunities.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

☐ Yes ✔ No ☐ Unsure **If yes**, please describe.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

☐ Yes ✔ No **If yes**, please describe.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

☐ Yes ✔ No **If yes**, please describe.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

✔ Yes ☐ No ☐ Unsure **If yes**, please describe.

A search was undertaken of the DIA Aboriginal Site Register on 5 February 2013 to determine whether there were any previously recorded aboriginal sites or places that would be affected by the proposal. It is anticipated that Site ID 16713 Collie River Waugal will be affected at the proposed crossing of Wellington Dam (Details of this heritage site are provided in Attachment 6).

An Aboriginal heritage survey of Coalfields Highway Upgrade project, and adjoining sections of Coalfields Highway, was conducted in 2011 by Brad Goode and Associates (2011) on behalf of RPS. This survey included both archaeological and ethnographic components.

An additional survey was conducted in 2013 (Attachment 6) to ensure that the entire project site was assessed adequately and to conduct follow up consultation with members of the Aboriginal community in respect to minor changes to the project realignments. The outcomes of these surveys relevant to the Coalfields Highway project are discussed below.

Archaeological Survey

As a result of research at the Heritage and Culture Division, Department of Indigenous Affairs (DIA) and a search of their Aboriginal Heritage Inquiry System, it was established that no Aboriginal archaeological sites had been previously reported within the survey area. As a result of the archaeological surveys (2011 and 2013) no Aboriginal archaeological sites or archaeological material were identified within the Coalfields Highway Upgrade project area.

Ethnographic Survey

As mentioned previously, a search of the DIA Aboriginal Sites Register identified one previously recorded ethnographic Registered Aboriginal heritage site that overlays the proposed road upgrade corridor. This site is the Collie River Waugal (Site ID 16 713).

A site visit and consultation with seven representatives of the Gnaala Karla Booja GKB WC98/058 Native Title Claim group was conducted by Brad Goode (Anthropologist) and Main Roads representatives on 24 May 2011. The consultation confirmed that Site ID 16 713 “Collie River Waugal”, will be directly affected where the Coalfields Highway project traverses an arm of the Wellington Dam south of the Hamilton River. No new ethnographic sites of significance as defined by section 5 of the *Aboriginal Heritage Act*, *1972* (AHA) were identified to be located within the project area.

As a consequence of the survey and recommendations from the Aboriginal heritage survey Main Roads submitted an application under Section 18 of the AHA to use the land overlain by Site ID 16 713 for the construction of the Coalfields Highway upgrade. A section 18 approval was subsequently issued by the Minister for Indigenous Affairs in November 2011.

As a consequence to changes to both the Wellington and Hamilton section alignments after the 2011 consultation, additional consultation was conducted with nine representative of the GKB on 7 February 2013. During the consultation GKB representatives were advised of the minor changes to the Wellington and Hamilton sections and were provided with an opportunity to provide comment. Community representatives indicated their support for the amended alignment.

The GKB group were asked if the proposed amendments to the Wellington Dam Section would adversely affect the Nyungar cultural values or if it would affect any site of significance as defined by Section 5 of the AHA. The GKB group advised that the proposal would not affect any significant values or sites and that no management would be required.

In regards to the Hamilton Bridge crossing, the GKB group stated that their recommendation made in 20ll were still applicable and stated that the following will be required:

- Archaeological monitoring will be required for the initial clearing of the bed and embankments of the Collie River at the Hamilton Bridge Section.
- A cultural guardian needs to be present during the construction in the bed of the waterway and all other ground disturbing activities within the registered site.

Advice from DIA is that as the changes to the alignment are minor the previously issued S18 approval remains valid for the current project.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

✔ Yes ☐ No **If yes**, please describe.

The upgrade to Coalfields Highway is recognised and noted in the Wellington National Park Management Plan produced in 2008.

The Munda Biddi Trail is considered a world-class nature-based off-road cycling experience (Munda Biddi Trail Foundation 2011). Part of the existing trail traverses the proposed Wellington realignment in a north–south direction west of Wellington Dam Road.

The Munda Biddi Track will be marginally re-routed and the highway crossing maintained in consultation with DEC. Main Roads will continue discussions with DEC Wellington District regarding this matter.

The upgraded Coalfields Highway / Wellington Dam Road intersection will not impact the existing DEC visitor information bay located on Wellington Dam Road.

DEC manages the Wellington Nation Park on behalf of the Conservation Commission of Western Australia. Main Roads has been liaising with DEC as to how existing management of the national park can be improved through the implementation of the project. Issues discussed include maintaining fire access, rationalising access to the national park and improving the safety of access to the park from Coalfields highway.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

☐ Yes ✔ No **If yes**, please describe.

There may some minor negative impacts on the amenity of the local area during construction activities. The temporary nature of road construction activities and the sparsely populated project site means that these impacts are no expected to be significant.

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

1. The precautionary principle.	✔ Yes	☐ No
2. The principle of intergenerational equity.	✔ Yes	☐ No
3. The principle of the conservation of biological diversity and ecological integrity.	✔ Yes	☐ No
4. Principles relating to improved valuation, pricing and incentive mechanisms.	✔ Yes	☐ No
5. The principle of waste minimisation.	✔ Yes	☐ No

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

✔ Yes ☐ No

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

✔ Yes ☐ No **If yes**, please list those consulted and attach comments or summarise response on a separate sheet.

Main Roads has developed a Community Engagement Strategy for the project and is about to implement this strategy.

Consultation conducted to date has been focused on government regulators as per the following summary:

- Department of Water (Carol Anderson (Senior NRM Officer, DoW Bunbury) January 2011)
- Department of Environment and Conservation (Kelly Faulkner (Manager, Native Vegetation Branch) February 2011)
- Department of Environment and Conservation (DEC Bunbury November 2010)
- Department of Environment and Conservation (Forest Management Branch and Wellington District Office) – on-going consultation
- Department of Environment and Conservation (DEC Bunbury, January 2012)
- Department of Environment and Conservation (DEC Bunbury, November 2012)
- Conservation Commission of Western Australia (DEC Crawley, February 2013)
- Consultation with members of the Aboriginal community (2011 and 2013)