

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose permit number: CPS 3221/1

Permit holder: Shire of Cunderdin

Duration of permit: 27 September 2009 – 27 September 2014

The permit holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I-CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of road widening.

2. Land on which clearing is to be done

Bulgin Road Reserve (Meckering)

3. Area of Clearing

The permit holder must not clear more than 1.8 hectares of native vegetation within the area hatched yellow on attached Plan 3221/1.

4. Application

This Permit allows the permit holder to authorise persons, including employees, contractors and agents of the permit holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the permit holder to clear native vegetation for activities to the extent that the permit holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

6. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the permit holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

8. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the site shall be inspected by a flora specialist for the presence of rare flora listed in the Wildlife Conservation (Rare Flora) Notice (2008) and priority flora taxa.
- (b) Where rare flora or *priority flora taxa* are identified in relation to condition 8(a) of this Permit, the Permit Holder shall ensure that:
 - (i) all records of rare flora and priority flora taxa are submitted to the CEO;
 - (ii) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO; and
 - (iii) no clearing occurs within 10 metres of identified *priority flora taxa*, unless approved by the CEO.

9. Dieback and weed control

When undertaking any clearing, or other activity pursuant to this Permit, the Permit Holder must take the following steps to minimise the risk of introduction and spread of weeds and dieback:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) shall not move soil in wet conditions;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch* or *fill* or other material are brought into the area to be cleared
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

10. Offsets

As the clearing to be done is or may be at variance with one or more of the clearing principles, then the Permit Holder must implement an *offset* in accordance with conditions 10(a) and 10(b) of this Permit with respect to that clearing.

(a) Determination of offsets:

- (i) in determining the *offset* to be implemented with respect to a particular area of native vegetation proposed to be cleared under this Permit, the Permit Holder must have regard to the *offset* principles contained in condition 10(b) of this Permit;
- (ii) once the Permit Holder has developed an *offset proposal*, the Permit Holder must provide that *offset proposal* to the CEO for the CEO's approval prior to undertaking any clearing to which the *offset* relates, and prior to implementing the *offset*;
- (iii) clearing shall not commence until and unless the CEO has approved the *offset proposal* to which the clearing relates;
- (iv) the Permit Holder shall implement the offset proposal approved under condition 10(a)(iii); and
- (v) each offset proposal shall include a direct offset, timing for implementation of the offset proposal and may additionally include contributing offsets.
- (b) For the purpose of this condition, the *offset* principles are as follows:
 - (i) direct offsets should directly counterbalance the loss of the native vegetation;
 - (ii) contributing offsets should complement and enhance the direct offset;
 - (iii) offsets are implemented only once all avenues to avoid, minimise, rectify or reduce environmental impacts have been exhausted;
 - (iv) the environmental values, habitat, species, ecological community, physical area, ecosystem, landscape, and hydrology of the offset should be the same as, or better than, that of the area of native vegetation being offset;
 - (v) a ratio greater than 1:1 should be applied to the size of the area of native vegetation that is offset to compensate for the risk that the *offset* may fail;
 - (vi) offsets must entail a robust and consistent assessment process;
 - (vii) in determining an appropriate *offset*, consideration should be given to ecosystem function, rarity and type of *ecological community*, vegetation *condition*, habitat quality and area of native vegetation cleared;

- (viii) the *offset* should either result in no net loss of native vegetation, or lead to a net gain in native vegetation and improve the *condition* of the natural environment;
- (ix) offsets must satisfy all statutory requirements;
- (x) offsets must be clearly defined, documented and audited;
- (xi) offsets must ensure a long-term (10-30 year) benefit; and
- (xii) an *environmental specialist* must be involved in the design, assessment and monitoring of *offsets*.

PART III - RECORD KEEPING AND REPORTING

11. Records to be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to flora management pursuant to condition 8 of this Permit:
 - the location of each rare flora and *priority flora taxa* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
 - (ii) the species name of each rare flora or priority flora taxa identified.
- (c) In relation to the *offset* of areas pursuant to condition 10 of this Permit:
 - the location of any area of *offsets* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (ii) a description of the *offset* activities undertaken; and
 - (iii) the size of the *offset* area (in hectares).

12. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 11 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 27 September 2014, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

Definitions

The following meanings are given to terms used in this Permit:

condition means the rating given to native vegetation using the Keighery scale and refers to the degree of change in the structure, density and species present in the particular vegetation in comparison to undisturbed vegetation of the same type;

contributing offset/s has the same meaning as is given to that term in the Environmental Protection Authority's Position Statement No.9: Environmental Offsets, January 2006;

dieback means the effect of Phytophthora species on native vegetation;

direct offset/s has the same meaning as is given to that term in the Environmental Protection Authority's Position Statement No.9: Environmental Offsets, January 2006;

ecological community/ies means a naturally occurring biological assemblage that occurs in a particular type of habitat (English and Blythe, 1997; 1999);

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

fill means material used to increase the ground level, or fill a hollow;

flora specialist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

offset/s means an offset required to be implemented under condition 10 of this Permit;

offset proposal means an offset determined by the Permit Holder in accordance with condition 10 of this Permit;

priority flora taxa means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the Department's Declared Rare and Priority Flora List for Western Australia (as amended);

term means the duration of this Permit, including as amended or renewed;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the Agriculture and Related Resources Protection Act 1976.

Keith Claymore

A/ ASSISTANT DIRECTOR

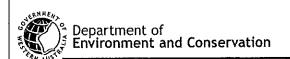
NATURE CONSERVATION DIVISION

lah Clayera

Officer delegated under Section 20 of the Environmental Protection Act 1986

27 August 2009

Our environment, our future WA Crown Copyright 2002 Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend. Geocentric Datum Australia 1994 Scale 1:21255 (Approximate when reproduced at A4) LEGEND 6497500mN 506455mE 3m824902 6501911mN 3m40e202 202323mE 504802mE Plan 3221/1 504251mE 3m007£08 503149mE 3m862203 6498972mN 6499707mN 6500443mN 6498237mN



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.:

3221/1

Permit type:

Purpose Permit

1.2. Proponent details

Proponent's name:

Shire of Cunderdin

1.3. Property details

Property:

ROAD RESERVE (MECKERING 6405)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha) 1.8

No. Trees

Method of Clearing

Mechanical Removal Mechanical Removal Mechanical Removal For the purpose of:

Road construction or maintenance Road construction or maintenance Road construction or maintenance

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Mapped Beard vegetation association (Beard 1980);

1049 - Medium woodlands; wandoo, York gum, salmon gum, morel & gimlet

Clearing Description

The proposal includes the clearing of up to 1.8ha of native vegetation for road construction within the Bulgin Road reserve. The vegetation under application includes mainly York Gum (Eucalyptus loxophleba subsp loxophleba), Salmon Gum (Eucalyptus salmonophloai) and Jam (Acacia acuminata) comprising an understorey of predominantly introduced

Vegetation Condition

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)

Comment

Vegetation clearing description based on a site visit conducted by DEC officers on 14 August 2009. The vegetation under application is completely degraded.

3. Assessment of application against clearing principles

weed species.

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments Pro

Proposal is at variance to this Principle

The proposal is to clear 1.8 hectares of native vegetation in completely degraded condition for the purpose of Road Construction. The local area (10km radius) is extensively cleared with the Shire of Cunderdin retaining only 2.2% of its pre european extent.

The vegetation under application includes mainly mature York Gum (Eucalyptus loxophleba subsp loxophleba), Salmon Gum (Eucalyptus salmonophloai) and Jam (Acacia acuminata) comprising an understorey of predominantly introduced weed species. (DEC 2009) There are 17 known populations of priority species and 5

populations of declared rare flora within a 10 km radius.

Given that the area proposed to be cleared is located in a Shire with less than 2% native vegetation remaining and the vegetation under application has the potential to include rare flora the area proposed to be cleared is representative of an area of high biodiversity when viewed in a local context. Therefore the clearing as proposed is at variance to this principle.

In order to minimise and mitigate any loss of biodiversity flora management and offset conditions have been placed on the permit.

Methodology

Shepherd (2007)

DEC (2009)

GIS Databases:

- Cunderdin 50cm Orthomosaic DLI 2004
- Northam 50cm Orthomosaic DLI 2006
- SAC Biodatasets accessed 4 August 09

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal is at variance to this Principle

The following fauna species are recorded within the local area (10 km radius):

- Shield Backed Trapdoor Spider
- Bush Stone Curlew

The vegetation under application includes mainly York Gum (Eucalyptus loxophleba subsp loxophleba), Salmon Gum (Eucalyptus salmonophloai) and Jam (Acacia acuminata) comprising an understorey of predominantly introduced weed species.

The vegetation under application is contained within road reserves in a Shire that has been extensively cleared for agriculture, and therefore is likely to provide ecological corridors for indigenous fauna species.

Given the potential for the applied vegetation to provide ecological linkages for fauna, and given the location in a landscape that has had more than 98% of pre-European vegetation cleared, it is considered that all remaining vegetation is likely to be necessary for the maintenance of a significant habitat for indigenous fauna and the clearing as proposed is at variance to this principle.

To mitigate the loss of habitat within the areas proposed to be cleared an offset condition will be placed on the permit to mitigate the loss of fauna habitat.

Methodology

Keighery (1994)

Shepherd (2007)

DEC (2009)

GIS Databases:

- SAC Biodatasets accessed 4 August 09
- Cunderdin 50cm Orthomosaic DLI 2004
- Northam 50cm Orthomosaic DLI 2006

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal may be at variance to this Principle

There are 5 records of DRF recorded in the local area (10km Radius).

- Acacia volubilis
- Hakea aculeata
- Roycea pycnophylloides
- Hakea aculeata
- Lechenaultia laricina

Of these Roycea pycnophylloides and Lechenaultia laricina occur in the same soil and vegetation types as the areas applied to clear under CPS 3221/1.

The vegetation under application includes mainly mature York Gum (Eucalyptus loxophleba subsp loxophleba), Salmon Gum (Eucalyptus salmonophloai) and Jam (Acacia acuminata) comprising an understorey of predominantly introduced weed species. (DEC 2009)

Roycea pycnophylloides is a small shrub which is found adjacent to salt lakes and drainage areas or salt flats.

The Bulgin road reserve contains typical dryland vegetation and does not intersect with drainage lines containing halophytic vegetation and therefore Roycea pycnophylloides is unlikely to occur in the area under application.

Leschenaultia laricina is found in a range of habitats, both in shrublands and woodlands and on sandy to gravely soils. Leshenaultias are known to do well on roadsides even in degraded habitats and therefore there is potential for this species to occur in the area applied to be cleared and the clearing as proposed may be at variance to this principle.

A flora management condition has been placed on the permit to mitigate the potential for clearing to impact on rare or priority flora.

Methodology

DEC (2009)

GIS Databases:

- SAC Biodatasets - accessed 4 August 09

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments

Proposal may be at variance to this Principle

There are 6 known records of Threatened Ecological Communities (TECs) within the local area (10km radius). These TECs are located north of the areas applied to be cleared within the sandy rises, flats, wash lines and braided channels fringing the Mortlock River East. The area proposed to be cleared lies within the buffer for the Morrel South and Morrel TECs. The Morrel South TEC occurs in the same vegetation type as the areas proposed to be cleared.

Given that the removal of deep rooted perennial vegetation may increase salinity and be detrimental to remaining native vegetation the vegetation proposed to be cleared may be necessary for the maintenance of these threatened ecological communities and the clearing as proposed may be at variance to this principle.

Methodology

DEC (2009)

TEC Database (Accessed 4 August 2009)

GIS Databases:

- SAC Biodatasets - accessed 4 August 09

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

Proposal is at variance to this Principle

Proposal is at vali	Current	Remaining %		
Tie-European		area (ha)	extent (ha)	
IBRA Bioregion ** Avon Wheatbelt		9518411	1444595	15.18
LGA Shire of Cunderdin		186277	4101	2.2
Beard vegetation ass 1049	sociations**	833 384	30 023	3.6
Beard Vegetation As 1049	sociation with Bioregic	on* 833 384	30 023	3.6

^{** (}Shepherd, 2007)

Given that the Shire of Cunderdin retains only 2.2 % of its remnant vegetation the vegetation under application is considered to be significant in an extensively cleared landscape and therefore the clearing as proposed is at variance to this principle.

To mitigate any impacts of the clearing on remnant vegetation, while acknowledging the need to upgrade roads, the proposed clearing will be carried out in accordance with a condition imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible, minimised. In addition, to address the loss of vegetation within a highly cleared landscape, an offset condition has been placed on the permit.

Methodology

Shepherd (2007)

DEC (2009) GIS Databases:

- Cunderdin 50cm Orthomosaic DLI 2004
- Northam 50cm Orthomosaic DLI 2006
- SAC Biodatasets accessed 4 August 09

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments

Proposal is not at variance to this Principle

The area applied to clear contains one minor perennial watercourse.

The Mortlock River East, a major non perennial watercourse, runs 3 kilometres west of the areas to be cleared and the Kelkering creek is located 6km east of the applied areas. There are no mapped wetlands within the local area (10km radius).

The vegetation under application includes mainly mature York Gum (Eucalyptus loxophleba subsp loxophleba), Salmon Gum (Eucalyptus salmonophloai) and Jam (Acacia acuminata) comprising an understorey of predominantly introduced weed species. (DEC2009)

A site inspection on 14 August 2009 confirmed that the vegetation to be cleared is not growing in association with a watercourse or wetland and as such the clearing as proposed is not at variance to this principle.

Methodology

Shepherd (2007)

DEC (2009) GIS Databases:

- SAC Biodatasets accessed 4 August 09
- ANCA wetlands Environment Australia 26/3/99
- CALM Managed Lands and Waters CALM 01/06/05
- EPP Lakes Policy Area DEP 14/05/97
- EPP, Wetlands 2004 (DRAFT) EPA 21/7/04
- Hydrography linear DOW 13/7/06
- Hydrography linear (hierarchy) DoW 13/7/06
- Ramsar wetlands DEC 03

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal may be at variance to this Principle

The following soil types are found within the areas applied to clear:

Qb29 - Rolling to hilly with some steep slopes; gneissic rock outcrops common: chief soils are hard neutral red soils

Va63 - Valley plains and terraces: chief soils are hard alkaline yellow mottled soils.

The soils identified within the applied areas are associated with a high risk of water erosion, however the areas under application are adjacent to existing roads, which already include road side infrastructure, such as table drains and culverts, to prevent water erosion.

Ground Water Salinity is in the range of 1400mg/l to >35000 mg/l and therefore highly saline. There is a high salinity risk associated with local watercourses.

Given that the removal of deep rooted perennial vegetation may increase salinity and be detrimental to remaining native vegetation the clearing as proposed may be at variance to this principle.

Methodology

DEC (2009)

Northcote et al. (1968)

GIS Databases:

- SAC Biodatasets accessed 4 August 09
- Salinity Risk LM 25m DOLA 00
- Soils, Statewide DA 11/99

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not likely to be at variance to this Principle

The following conservation reserves are located within 6 - 10km of the applied areas.

- -Bulgin Nature Reserve
- -Mortlock Nature Reserve

Given the distance between the closest area of conservation significance and the small size of the applied areas the clearing as proposed is not likely to be at variance to this principle.

Methodology DEC (2009)

GIS Databases:

- Register of National Estate Environment Australia, Australian and world heritage division 12 Mar 02
- System 1 to 5 and 7 to 12 areas DEC 11/7/06
- CALM Managed Lands and Waters CALM 01/06/05
- Cunderdin 50cm Orthomosaic DLI 2004
- Northam 50cm Orthomosaic DLI 2006

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal may be at variance to this Principle

The soils identified within the applied areas are associated with a high risk of water erosion, however the areas under application are adjacent to existing roads, which already include road side infrastructure, such as table drains and culverts, to prevent water erosion. It is therefore not considered likely that the proposal would result in water erosion causing deterioration in surface water quality.

Watercourses in the local area (10km radius) have a high risk of salinity, and the proposed clearing may result in a local increase in salinity.

Given the high risk of salinity it is considered that the proposed clearing may result in an increase in salinity, causing deterioration in the quality of groundwater.

Therefore the clearing as proposed may be at variance to this principle.

Methodology

DEC (2009)

Northcote et al. (1968)

GIS Databases:

- Salinity Risk LM 25m DOLA 00
- Soils, Statewide DA 11/99
- Topographic Contours, Statewide DOLA 12/09/02
- Hydrography, linear DOW 13/7/06
- Hydrographic catchments, catchments DoW 01/06/07

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments

Proposal is not likely to be at variance to this Principle

The clearing is proposed adjacent to existing roads, which already include road side infrastructure, such as table drains and culverts, to prevent flooding.

Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology

DEC (2009)

GIS Databases:

- Topographic Contours, Statewide DOLA 12/09/02
- Hydrography, linear DOW 13/7/06

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The proposed clearing is located within the Avon River Catchment a RIWI area. The proponent is not proposing to take any groundwater, therefore, no RIWI licences are required.

The Roadside Conservation Committee (RCC) (2009) advise that roadside vegetation is an extremely important component of vegetation in this landscape (the Shire Cunderdin has just 1.4% of native vegetation remaining)

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and provides connectivity with remnants on private land and the nearby Bulgin nature reserve.

The RCC (2009) recommends imposing conditions such as widening on only one side of the road where vegetation is in the poorer condition, retaining roadside vegetation adjoining significant areas of remnant vegetation in paddocks and concentrating any revegetation efforts on joining remaining vegetation.

A Direct Interest letter has been sent to the Shire of Cunderdin LCDC. No response received to date.

Methodology

Roadside Conservation Committee (2009)

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s510 of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principle (a), (b)and (e), may be at variance to principles (c), (d), (g) and (i) and is not likely to be at variance with the remaining clearing principles.

5. References

DEC (2009) Site Inspection Report for Clearing Permit Application CPS 3221/1, Bulgin Road Reserve, Shire of Cunderdin. Site inspection undertaken 14/08/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC93870).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Road Conservation Committee (2009). Submission letter. (TRIM ref: DOC95112)

Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

6. Glossary

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Meaning
Biodiversity Coordination Section of DEC
Department of Conservation and Land Management (now BCS)
Department of Agriculture and Food
Department of Environment and Conservation
Department of Environmental Protection (now DEC)
Department of Environment
Department of Industry and Resources
Declared Rare Flora
Environmental Protection Policy
Geographical Information System

Threatened Ecological Community TEC Water and Rivers Commission (now DEC) WRC

Hectare (10,000 square metres)