STATEMENT OF PLANNING POLICY NO. 7.2

ASSESSMENT OF LOCAL BUSHLAND

PART 1 - STATEMENT OF INTENT

Council regularly receives proposals to rezone, subdivide or develop land in the City where there is remnant bushland present. The State Government (through Bush Forever) is dealing with bushland considered to be regionally significant, however, many other pieces of bushland remnants are not considered regionally significant but may be important within the local context and worthy of some form of protection.

Bushland can be important in the local context for a variety of reasons including:-

- Being part of a wildlife corridor linking other areas of bushland;
- Providing habitat nodes for local flora and fauna in an urban environment
- Representing regional vegetation complexes on a local scale
- Protection of threatened species of flora and fauna
- Enhancing biodiversity
- Visual amenity
- Providing a buffer from adjacent land uses;
- Providing passive recreation activities (bushwalking and bird watching);
- Have cultural significance; and
- Being of education value to local schools and community groups

This Policy deals with bushland of local significance rather than regionally significant bushland. The ultimate purpose of this Policy is to provide Council with guidance in the assessment of proposals to rezone, subdivide and develop land within the City where remnant bushland of local significance is present.

It is intended that this policy should be applied at the earliest and most appropriate stage in the planning process. This would be most likely at the CDP or Scheme Amendment stages. Further, it is intended that the policy be applied only once during the planning process for a particular proposal.

In assessing such applications and determining whether or not to grant planning consent that would have impacts on remnant vegetation, Council should have due regard to the aim and provisions of this Policy. This Policy is meant to be used as a tool in the decision making process by providing information on the significance of the remnant vegetation remaining on a site.

Ultimately, decisions on a particular proposal where remnant native vegetation could be affected will need to take into account other Council policies as well as this one. It should not be assumed that all bushland within the City of Rockingham will be protected by this policy.

Council's determinations arising from the application of this Policy should not be construed as ultimate approval, as in many cases the responsibility for statutory approval rests with either the Minister for Planning or the Western Australian Planning Commission. Further, the significance of the bushland will, in most cases be one of a number of factors Council will need to take into account in dealing with an application where remnant bushland could be affected.

Finally, this Policy is part of a broader policy framework being developed by Council called the Local Biodiversity Strategy. The aim of this Strategy is to provide a framework and strategic approach for the conservation, protection and management of local bushland within the City of Rockingham, so that an appropriate balance is found between protecting locally significant bushland and encouraging appropriate development.

The Biodiversity Strategy includes some projects which act independently of development applications, for example, Rockingham's Greening Plan, which identifies locally significant corridors of bushland and suitable areas for revegetation. This Policy can then be used in consultation with the Greening Plan (and other projects under the Biodiversity Strategy) to identify areas necessary of preservation prior to development.

PART 2 - POLICY STATEMENT

1. Aim

The broad aim of this Policy is to:-

"provide Council with guidance in the assessment of proposals to rezone, subdivide and develop land in the City where remnant bushland is present".

This is achieved by establishing:-

1. Assessment Criteria against which the values of the bushland can be established;
2. a Local Bushland Data Collection Form to be used to collect information on the attributes of a piece of bushland;
3. an Assessment of Significance Form which uses the data collected in the questionnaire and the Assessment Criteria to arrive at a measure of the value of the bushland at the local level; and
4. Guidelines in using the results of the assessment process in dealing with proposals to rezone, subdivide and develop land.

2. Explanation of Terminology

Regionally Significant Bushland

Regionally significant bushland is bushland that is so significant and worthy of conservation that a regional or Statewide approach to its protection is required. Normally, it would be reserved in a National Park, Nature Reserve or Regional Park. The responsibility for its protection rests with the State or Commonwealth Government Agencies. The State Government's Bush Forever seeks to identify the regionally significant bushland in the Perth Metropolitan area.

Locally Significant Bushland

Locally significant bushland is bushland that is not identified as regionally significant but still has considerable conservation value worthy of some protection through Local Government actions. This can be through inclusion in public open space or by controlling land uses so that some or all of the bushland remains protected.

Attributes

These are elements of the bushland, usually physical, which are used to describe it. They are generally considered to be objective, for example, size, vegetation types present, presence of weeds and amount of degradation. Human use attributes are also included, for example, recreational uses, educational or scientific studies and presence of any Aboriginal or heritage sites.

Assessment Criteria

These are measures used to assess the ecological value of the bushland. They relate to data collected on the attributes of the bushland and involve a judgement about how significant that measure is. For example, the diversity of the vegetation - the more diverse the vegetation the more valuable the bushland is. The results of any assessment based on the criteria will provide information on how significant the bushland is at the local level.

3. Policy Provisions

The Assessment Criteria

(a) This Policy recognises that there are 10 criteria of significance by which bushland can be assessed at the local level. They are:-

- Presence of Rare species or threatened ecological communities;
- Rarity of the vegetation complex present - (ie. is the complex present one of those where less than 10% remains in secure conservation reserves, either in a regional or locally representative context);
- Vegetation diversity;
- Naturalness ie Vegetation condition (level of degradation, structure retained);
- Connectivity as a wildlife corridor;
- Significant because it is isolated and is the only remaining bushland in that area (particularly important in developed areas);
- Social value (eg educational resource, recreational area, locally admired for rural or visual amenity);
- Acts as a buffer between potentially conflicting land uses;
- Impact from removal or modification on other parts of the environment
- Other significant attributes.

Local Bushland Data Collection Form

(a) This Policy establishes a questionnaire to be used to collect information on the attributes of a piece of bushland (Attachment 1). In summary, the information being collected is:-

- Land ownership and zoning details;
- Soil and landform characteristics;
- Natural landscape features eg. wetland, rock outcrop present;
- Vegetation complexes present;
- Condition of vegetation;
- Vegetation structure;
- Vegetation diversity;
- Disturbances to the vegetation, including weeds;
- Proximity to other bushland;
- Existing human uses; and
- Other ecological attributes

(b) The data collection section has been designed to strike a balance between providing good technical information and ease of use and understanding. A separate set of guidelines have been produced (Attachment 2) to provide helpful information when filling out the questionnaire and to keep the method of reporting consistent when the form is filled out by different officers.

(c) The questionnaire is to be completed by the Environmental Planning Officer.

Assessment of Significance Form

(a) This Policy establishes an Assessment of Significance Form to identify the values that a piece of remnant bushland has (Attachment 3). This form has two sections. The first section summarises the results from the questionnaire using the 10 assessment criteria described above. The second section examines the likely impacts of the proposed development on the values summarised (from the first section).

(b) This form is to be completed by the Environmental Planning Officer (EPO) in consultation with the Planning Officer dealing with the application following completion of the questionnaire.

Recommended Process for Dealing with Proposals Affecting Bushland

This Policy establishes an Assessment Process where proposals with remnant bushland present are to be dealt with. The Assessment Process is as follows:

(a) When a proposal is received by the City and it is found that remnant bushland could be affected by the proposal, the assessment process is initiated.

(b) The questionnaire is to be completed by the EPO.

(c) Following completion of the questionnaire the assessment of the bushland is then completed by the EPO.

(d) The Planning Officer works with the EPO to determine which if any of the values are affected by the development by completing the final section of the assessment form.

(e) If no values are affected then impacts of remnant bushland is not an issue: however, there would still be broader planning issues to consider.

(f) If one or more values are affected, then the officers are to work with the applicant to see if the proposal can be modified so as to lessen those impacts. For example, if the vegetation on the site has value as a wildlife corridor, is it possible to keep enough vegetation on the boundary of the property where the corridor exists so as to maintain that link?

(g) There may be occasions when the application would impact on values/values of the bushland and the application can not be modified so as to reduce those impacts. In these cases the assessment could provide an environmental argument in support of refusal.

(h) As stated in the Intent section of this policy, in cases where an application would impact on the environmental values of a piece of bushland, a decision on that application would need to take into account both the broader planning implications and the environmental implications as determined in the assessment process described above. Any loss of environmental value would need to be weighed up against the planning issues as part of any approval including the existing zoning of the site.

(i) Where approval is given to clear a piece of bushland a condition may be applied which requires that the cleared vegetation is either re-used on site, re-located or re-cycled.

NOTE: If a proposal is to involve the clearing of bushland and a public review period is required as part of the approval process then the proposal should be referred to the local conservation group during the review period.

Supporting documentation

ATTACHMENT 1: Questionnaire (Local Bushland Data Collection Form) to be used for collecting data on the attributes of a piece of bushland

City of Rockingham
Local Bushland Data Collection Form

Site Details

Lot Address: **Name of applicant:**

Lot size (ha^2): **File Reference**

Date site visited: **Time:** **am/pm** **Officer:**

Landuse & Zoning
(Refer to Town Planning Scheme Map)

Land Ownership/Tenure

_____

Zoning/Reservation in Town Planning Scheme

_____

Zoning/Reservation in Metropolitan Region Scheme

_____

Is the site within the Peel Harvey SPP Catchment?
ρ Yes ρ No

Land Capability

Landform
(Refer to Land Resource Map "Land Resources in the Northern Section of the Peel-Harvey Catchment, Swan Coastal Plain, Western Australia.", Agriculture WA 1990).
ρ Pinjarra Plain
ρ Bassendean Dune/Sandplain
ρ Spearwood Dune/Sandplain
ρ Quindalup Dune
ρ Vasse Estuarine and Lagoonal Deposits

Major Land Unit(s) within Landform

_____
_____

Intended Land Use Category
ρ Rural retreats, Housing & Effluent Disposal
ρ House & Road Construction
ρ Effluent Disposal
ρ Grazing
ρ General Annual Horticulture
ρ General Perennial Horticulture

Intended Land Use Capability Class

ρVery High ρ High ρFair ρLow ρVery Low

Vegetation Description

Size of Bushland
Area of remnant vegetation:_____

Percent (%) cover of remnant vegetation on
entire lot:
_____

Regional Significance
Does the bushland have existing recognition at the regional level? (eg. Bush Forever Site, Swan Coastal Plain Lakes EPP, Conservation Category Wetland etc.)
ρ No
ρ Yes (please provide details)

_____
_____
_____
_____
_____
_____
_____
_____

Rarity

Does the vegetation contain or is it likely to contain Declared Rare Flora or Fauna, Priority Listed Flora, Threatened Fauna or Threatened Ecological Community?

ρ No

ρ Yes (please provide details)

_____
_____
_____
_____
_____
_____
_____
_____

Floristic Community Type

ρ Upland ρ Wetland

Vegetation Complexes within Bushland

Pinjarra Plain

Guildford Complex

ρ Open forest to tall open forest (Marri-Wandoo- Jarrah)

ρ Woodland (Wandoo)

Serpentine River Complex

ρ Closed scrub (Paperbark)

ρ Fringing woodland (Flooded Gum-Paperbark)

ρ Woodland (Marri-Jarrah-Banksia)

ρ Woodland (Jarrah-Banksia)

Dardanup Complex

ρ Open Forest (Marri-Wandoo-Jarrah)

ρ Open Woodland (Marri-Jarrah-Banksia)

ρ Fringing Woodland (Flooded Gum-Paperbark)

ρ Closed Scrub (Melaleuca-Hakea-Viminea)

Spearwood Dunes

Karrakatta Complex (central and south)

ρ Open Forest (Tuart)

ρ Open Forest (Tuart-Jarrah-Marri)

ρ Woodland (Jarrah-Banksia)

ρ Low Open Forest (Banksia-Sheoak-Prickly Bark)

Cottesloe Complex (central and south)

ρ Woodland (Tuart)

ρ Open Forest (Tuart-Jarrah-Marri)

ρ Closed Heath (Acacia)

Bassendean Dunes/Sandplain

Bassendean Complex (central and south)

ρ Woodland (Jarrah-Sheoak-Banksia)

ρ Woodland (Jarrah-Prickly Bark)

ρ Low Woodland (Melaleuca)

ρ Sedgeland (Sedges & Rushes)

Quindalup Dunes

Quindalup Complex

ρ Heath (Acacia-Sword Sedge)

ρ Low Closed Forest (Melaleuca - Callitris)

ρ Closed Scrub (Acacia)

Wetlands

Herdsman Complex

ρ Sedgeland (Sedges & Rushes)

ρ Fringing Woodland (Flooded Gum-Paperbark)

Vasse Estuarine and Lagoonal Deposits

Yoongarillup Complex

ρ Woodland (Tuart-Peppermint)

ρ Open Forest (Tuart-Jarrah-Marri)

Vegetation Condition

Vegetation Condition Scale

(Refer to guidelines)

ρ Pristine
ρ Excellent
ρ Very Good
ρ Good
ρ Degraded
ρ Completely Degraded
ρ *Affected by fire (additional box to tick)*

Vegetation Structure

(Refer to guidelines)

	CANOPY COVER		
Structural Form	Dense (70-100%)	Medium (30-70%)	Sparse (<30%)
Upperstorey			

(trees >3m)			
Middles torey (shrubs < 3m)			
Lower Storey (grasses, herbs, Sedges <0.5m)			

(tick for each structural form observed)

Species Diversity

NUMBER 0F SPECIES

Structural Form	High	Medium	Low
Upperstorey (Trees >3M)	>5	3-5	1-2
Middles torey (Shrubs < 3m)	>5	3-5	1-2
Lower Storey (Grasses, herbs & Sedges <0.5m)	>15	5-15	<5

(circle approximate number of species observed)

NOTES

_____

_____

_____

_____

_____

_____

_____

Disturbance Factors

- ρ Change in water regime (flooding, drainage, watering)
- ρ Partial clearing
- ρ Fragmentation
- ρ Selective removal of species (timber cutting, wildflower picking, mowing)
- ρ Dieback
- ρ Fire
- ρ Weed invasion
- ρ Animal impact (horses, foxes, rabbits, dogs)
- ρ Soil movement (removal and dumping)
- ρ Mining
- ρ Grazing (stock, overgrazing by native mammals)
- ρ Proliferation of tracks (firebreaks, walk trails)
- ρ Off road vehicle use
- ρ Service corridors (electricity, gas, roads, water)
- ρ Fertiliser, pesticide drift
- ρ Nutrient influx along waterways
- ρ Other (please specify)

_____

_____

Estimate Weed Cover

- ρ Few weeds (<20% of total plants)
- ρ Half weeds (20-80% of total plants)
- ρ Mostly weeds (>80% of total plants)
- ρ Ground layer totally weeds

Dominant weeds present

_____

_____

NOTES

_____

_____

_____

_____

Other Attributes

Natural

Does the bushland act as a wildlife corridor (ie. connects adjacent areas of bushland?)

ρ Yes (provide details below)

ρ No

Is the bushland near or part of a significant regional or local corridor listed in Perth Greenways or Rockingham's Greening Plan?

ρ Yes (provide details below)
ρ No

Does the bushland contain natural landscape features? (eg. wetland, limestone ridge, prominent rock outcrop etc)

ρ Yes (provide details below)
ρ No

Does the bushland possess any other attributes not listed above?
(eg, provides significant habitat for wildlife such as large dead trees with hollows, hollow logs, roosting/nesting areas etc).

Will the removal or modification of the bushland have a significant effect on other parts of the surrounding environment (eg vegetation loss, increased water table, soil loss, increased wind effect, impaired amenity, reduced fauna habitat, loss of threatened species and/or habitat?

ρ Yes (provide details below)
ρ No

What is the approximate distance to the nearest area of protected bushland?
ρ Less than 2km
ρ 2-4km
ρ 4km or more

Provide location/details of nearest protected bushland

What is the approximate distance to the nearest area of bushland with the same vegetation complex?
ρ Less than 2km
ρ 2-4km
ρ 4km or more

Provide location/details of closest area of like vegetation

Human Use Attributes
Is the bushland used for any of the following?
ρ Passive recreation
(eg. bushwalking, birdwatching, photography)
ρ Active recreation
(eg. horse riding, orienteering)
ρ Scientific or educational study
ρ Other (please specify)

Does the bushland have European or Aboriginal cultural or historical importance (From available records)?

ρ Yes (provide details below)
ρ No

Does the bushland provide benefits for adjacent landuses (eg. acts as a buffer between residential, industrial and major transport areas, landscape/aesthetic appeal)

ρ Yes (provide details below)
ρ No

Does the bushland form part of the general rural amenity? (eg. Is it part of a Special Rural Zone where retention of vegetation is an objective?)

ρ Yes (provide details below)
ρ No

ATTACHMENT 2: Guidelines to be used in completing the Questionnaire

Guidelines for Using the
Local Bushland Data Collection Form

Please refer to these guidelines when using the Local Bushland Data Collection Form.

For the purposes of the Assessment Form, "bushland" is defined as:

"land on which there is vegetation which is either a remainder of the natural vegetation of the land, or, if altered, is still representative of the structure and floristics of the natural vegetation, and provides the necessary habitat for native fauna" (National Trust, 1993).

The following documentation will be required when completing the Local Bushland Assessment Form:

- *City of Rockingham Rural Land Strategy.*
- *City of Rockingham Town Planning Scheme No. 1.*
- *Land Resources in the Northern Section of the Peel-Harvey Catchment, Swan Coastal Plain, Western Australia (Land Resource Map, Agriculture Western Australia 1990).*
- *Perth Bush Forever Volumes 1 & 2 or Perth's Bushplan Volume 2, parts A, B & C (Environmental Protection Authority 2000 and 1998 respectively).*
- *A Strategic Plan for Perth's Greenways Final Report (Tingay and Associates, 1998).*
- *Rockingham's Greening Plan*

In the field, the officer will need:

- Street Directory
- Aerial photo of site (from PanAIRama), scale approximately 1:1250
- Copy of the Development Application/Map
- Local Bushland Assessment Form
- These Guidelines
- Clipboard, pencil & eraser
- Camera (optional)

SITE DETAILS
This information should correspond to information contained in the Development Application form. Additional information may be included to assist with identification purposes and/or positioning of proposed infrastructure in relation to vegetation areas.

LANDUSE AND ZONING

Refer to the Metropolitan Region Scheme and the City of Rockingham Town Planning Scheme.

LAND CAPABILITY
Refer to Land Resources in the Northern Section of the Peel-Harvey Catchment, Swan Coastal Plain, Western Australia (Land Resource Map, Agriculture Western Australia 1990), City of Rockingham's Rural Land Strategy.

Soil and Landform Characteristics

The patterning of plant and animal distributions on the Swan Coastal Plain is closely related to the geology, geomorphology and soils of the Plain. Some understanding of these physical features is essential. Information derived from the Land Resource Map provides an indication of the suitability and limitations of the land in relation to the proposed development. Land that has a low land use capability may need specific management strategies to prevent degradation.

VEGETATION DESCRIPTION

Does the bushland have existing recognition at the regional level?

Refer to vegetation maps in Bush Forever Volume 1 or Perth's Bushplan (Volume 2 Part C) for detailed information on existing protection mechanisms for local bushland. Maps in Perth's Greenways Final Report (Tingay and Associates, 1998) also show regionally significant corridors. Refer to EPP Wetlands as well.

If vegetation has some existing recognition at the regional level (eg. EPP Lake/Wetland, Bush Forever site), this may affect further development of the site. Contact relevant state/local government agencies for further information.

Does the vegetation contain or is it likely to contain Declared Rare Flora or Fauna, Priority Listed Flora, Threatened Fauna or Threatened Ecological Community?

Contact the Department of Conservation and Land Management to determine the status of the bushland in relation to the above. If the flora or fauna of the bushland falls into any of these categories, development of the site may not proceed without approval from relevant government agencies.

Vegetation Complex/Floristic Community Type

Refer to vegetation maps in Bush Forever Volume 1 or Perth's Bushplan (Volume 2, Part C) and associated text, City of Rockingham's Rural Land Strategy (Vegetation Complexes section), Local Bushland Data Collection Form Attachment 1.

The basic patterning of the plant communities on the Plain is related to a series of broad vegetation formations (plant associations, assemblages or communities) described according to dominant species and the structure and density of these dominants. Structural units are used at the regional and local level to map vegetation.

This information is necessary in order to determine the presence/absence of specific vegetation communities and assess the local/regional significance of the vegetation. The information will assist in guiding formulation of appropriate management strategies should development proceed. Any complex which has only 10% remaining uncleared either across the whole Perth Metropolitan area or within the City of Rockingham would be considered to have significance (refer to the table below).

Vegetation Complex	% remaining in Perth Metropolitan area	% remaining in City of Rockingham
Pinjarra Plain ρ Guildford	6	
Pinjarra Plain ρ Serpentine River	9	

Pinjarra Plain ρ Dardanup	15	
Spearwood ρ Karrakatta – *Central & South*	18	
Spearwood ρ Cottesloe – *Central & South*	36	
Bassendean ρ Bassendean – *Central & South*	24	
Quindalup ρ Quindalup	48	
Wetlands ρ Herdsman	31	
Vasse Estuarine ρ Yoongarillup	72	

VEGETATION CONDITION

Refer to following Vegetation Condition Scale to determine condition of vegetation (Condition scale used in Perth's Bushland Directory, from Keighery BJ, 1994).

Assess the general condition of the bushland from the condition scale below. Judgement about the 'average' condition of the vegetation will be required as it may vary throughout the site. If possible, take a photo of a section of the site that typifies the overall condition and dominant vegetation type from a permanent locater (eg. fence post, gate etc). Photographs can be useful to keep for future reference purposes.

Pristine
Pristine or nearly so, no obvious signs of disturbance

Excellent
Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.

Very Good
Vegetation structure altered, obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.

Good

Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.

Degraded
Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.

Completely Degraded
The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

If the bushland has been recently damaged by fire, it may be difficult to determine dominant vegetation type and condition. It may be necessary to revisit the site at a later date, or if this is not possible, view aerial photographs taken before the fire to assess of condition or gather anecdotal evidence (from landowners or neighbours).

VEGETATION STRUCTURE

Refer to last page

To determine the vegetation structure and number of species, walk approximately 50 metres into the bushland, or the centre if it is a small patch.

The vegetation structure is a combination of structural form and canopy cover. Canopy cover is the total area under an imaginary line bounding the extremities of all the plants in each layer described. To simplify the estimation of cover, cover 'classes' are used. Not all layers will be present in a site. Structural diversity is significant as vegetation structure is an important aspect of landscape and has particular significance for fauna habitat. Mature plants or individual species, especially trees and tall shrubs, have significant biological and landscape values.

Estimate percentage of cover for each structural form by ticking appropriate boxes. This question is an indicator for classification and condition.

Trees: at least 3m in height when mature with single trunk, eg. Eucalypts, Casuarinas, Banksias, Melaleucas.
Shrubs: less than 3m in height when mature with multi stemmed trunk eg. Acacias, xanthorreas, grevilleas.
Grasses: includes grasses, herbs and sedges and may be bunched or hammocked.

VEGETATION DIVERSITY
Circle the appropriate boxes for the number of species observed. While walking in the bushland, observe the different number of species of trees, shrubs and grasses. Record the approximate number of different species within each structural form by ticking

The species richness of bushland provides an indication of the condition, biodiversity and hence conservation value of the bushland.

Direct comparisons of species diversity between bushland areas are not meaningful, however, as species diversity in a given area relates to habitat diversity, which in turn is related to geomorphology, inundation and floristics.

DISTURBANCE FACTORS

Activities that adversely affect the self-maintenance of bushlands are commonly called disturbance factors. Not all of these factors have the same level of impact but, generally they are interrelated, the presence of one type of disturbance leading to further disturbance. An assessment of disturbance, in relation to the ability of the bushland to self maintain, are widely used as the basis of defining condition ratings for vegetation communities.

WEED COVER

Competition from weeds is a major process affecting ecological communities. Environmental weeds are plants that establish themselves in natural ecosystems and proceed to modify natural processes, usually adversely, resulting in decline of the communities they invade. An understanding of the type and cover of weeds is necessary in order to develop strategic management strategies, particularly where landuse(s) may have the potential to spread weeds.

OTHER ATTRIBUTES

Wildlife and Significant 'Green' Corridors

Refer to A Strategic Plan for Perth's Greenways Final Report (Tingay and Associates, 1998) for proximity to nearest proposed regional "Green Corridor". Rockingham's Greening Plan (draft in preparation) will also show corridors of local significance.

Consideration of surrounding landuses and connectivity between bushland areas is important in the selection of conservation areas and the design of conservation networks. Some bushland areas will be of particular significance if they provide corridors through otherwise highly cleared lands and provide linkages of local significance. Linkages, or bush corridors, allow for movement of wildlife between isolated patches of bushland in order to breed, find new habitat and food sources. Movement of animals from one bushland area to another also helps to maintain genetic diversity in plant communities by moving pollen and seed from one remnant to another. It should be noted whether the corridor has been highlighted as either regionally or locally significant.

Natural Landscape Features & Other Special Attributes

The presence of these features increases the natural value of the bushland. This question provides a field verification of their presence or absence for later use; it is sufficient just to record what is there during the survey.

Impact of removal or modification of bushland

The loss of vegetation is not the only disturbance created when bushland is removed or modified. There may be other impacts such as increased water table which can have serious consequences on the surrounding environment and also the development. Many species of trees are susceptible to inundation and this can change the structure of the complex considerably. The entire ecosystem can change if a wetland has increased or decreased water level as many wetland species are dependent on seasonal adaptations. Macroinvertebrates and amphibians can also be influenced by temperature changes as a result of drainage into or from a wetland. Any predicted changes in the surrounding environment should be recorded and can be followed up with appropriate authorities or technical officers.

Distances to nearest bushland

Refer to vegetation maps in Bush Forever Volume 1 or Perth's Bushplan (Volume 2, Part C) , City of Rockingham's Rural Land Strategy (Vegetation Complexes section), Aerial photographs.

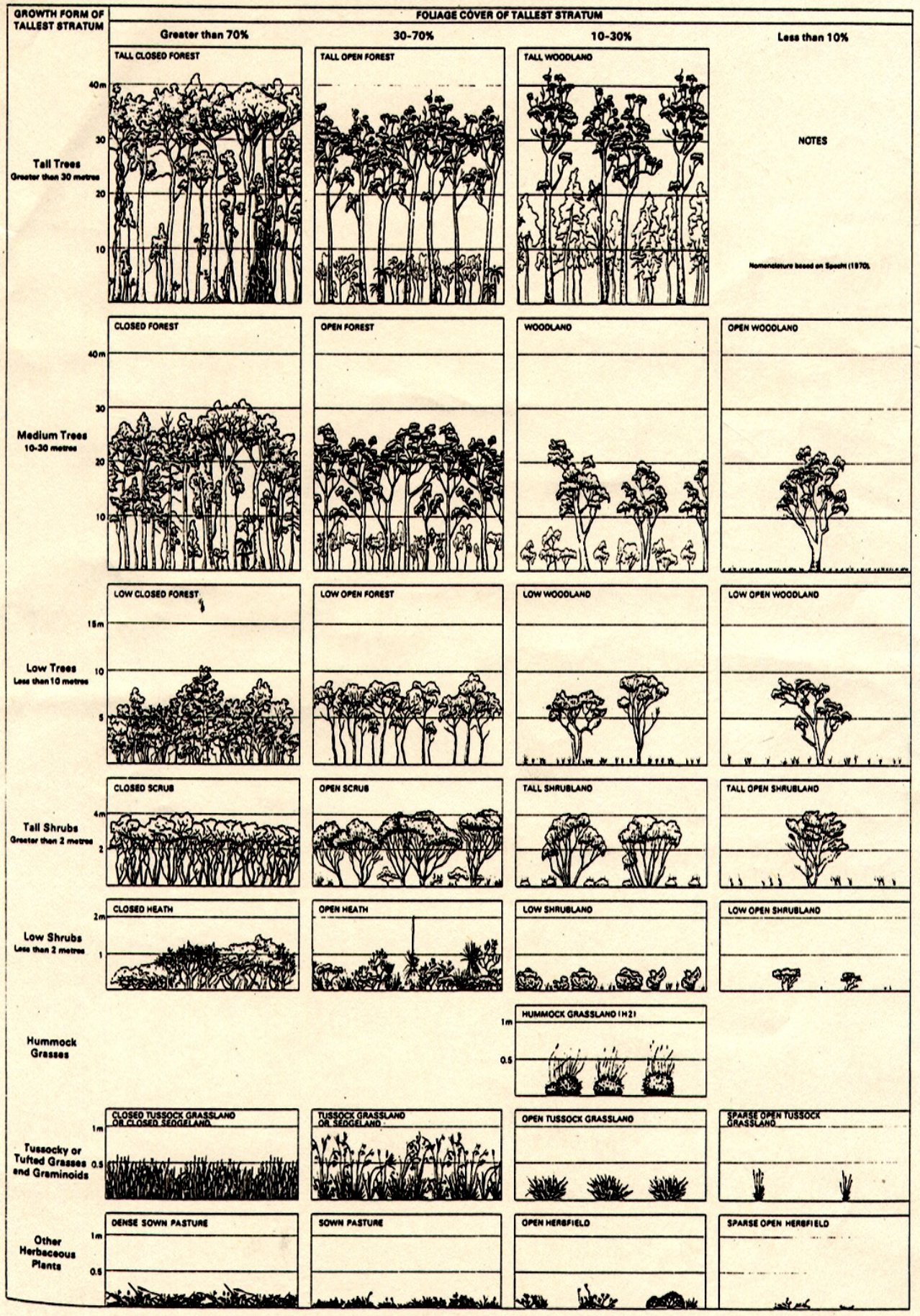
Bushland may be very significant if it is fairly isolated. The wildlife would depend on this bushland as the sole habitat node in the area and protection of it should be encouraged. Significance will also be high where the bushland is within close proximity to another patch of remnant vegetation as it can form a wildlife corridor (and local revegetation may become a recommendation between the two sites).

The distance from an area of bushland containing the same vegetation types is particularly important as it may facilitate the movement or provide habitat to local flora and fauna that may not have otherwise been able to establish themselves in a different vegetation complex. Alternatively, if the closest vegetation to the bushland is of different composition, this may demonstrate the biodiversity in the area and may provide a reason to encourage it's protection. The interpretation will need to be made on a case by case basis but should also consider the regional and local representation of the vegetation complexes. Whilst this question relates specifically to distances, areas of nearest vegetation may also be useful to note for assessment purposes.

Human Use Attributes

The way bushland is viewed/used by the local community affects its conservation value. Bushland that is used for passive/active recreational pursuits, or has cultural or historical importance, or contributes to the ‘rural character’ or visual amenity of the area, may be considered as being locally significant, even if the vegetation is degraded. Community consultation with neighbouring properties and/or conservation groups may assist in determining the human 'value' of the bushland.

Pictorial key to the structural forms of Australian vegetation



Source: Australian Surveying and Land Information Group (1990) *Atlas of Australian Resources — Vegetation.*

ATTACHMENT 3: The Assessment of Significance Form

City of Rockingham

Assessment of Significance Form
Assessing the Local Significance of bushland

1. Site Details

Lot Address: _____

_____

_____

Name of applicant): _____

_____

_____

2. Assessment

Use the following criteria to assess the local significance of bushland.

(Tick for each that applies to the bushland)

ρ Contains (or likely to contain) Declared Rare Flora or Fauna, Priority Listed Flora, Threatened Fauna or a Threatened Ecological Community.
Refer to Rarity Attribute.

ρ Vegetation complexes are locally significant with less than 10% remaining on the Swan Coastal Plain or represented locally.
Refer to vegetation complex attribute.

ρ High vegetation diversity
Refer to vegetation complex and species diversity attribute.

ρ Bushland in good condition or better
Refer to vegetation condition attribute.

ρ Forms or is part of a wildlife corridor
Refer to other attributes, natural.

ρ Isolated remnant with no other bushland within a 4km radius
Refer to other attributes, natural.

ρ Will affect other parts of the environment if removed or modified.
Refer to other attributes, natural.

ρ Has significant social value - (i) Used by the local community for active/passive recreation or study/educational purposes; (ii) Has cultural or historical importance (iii) Contributes to the rural/visual amenity and character of the area
Refer to human use attributes.

ρ Acts as a buffer between adjacent landuses
Refer to human use attributes.

ρ Possesses other significant natural attributes (eg. contains significant wildlife habitat, natural landscape features)
Refer to other attributes, natural.

3. Notes

_____

_____

_____

_____

_____

_____

4. Assessment

The bushland is significant at the local level because it has the following values:

_____

_____

_____

Impacts of proposed development on the values of the bushland

Indicate potential **negative** impacts of the proposed development on the bushland

What measures would be required to minimise **negative** impacts of the development on the remnant vegetation?

Would the proposed development provide opportunities for retention/improvement or management of the vegetation?

Is it appropriate to impose a condition to require re-use, relocation or re-cycling of the cleared vegetation?

Recommendation

ρ Proposal supported without modification

ρ Proposal could be supported if the following modifications made

ρ Proposal would lead to significant loss of environmental values of the bushland and cannot be modified to minimise those losses (provide reasons below)

Sign-off

Signed _____ Date _____

EPO _____ Date _____