

KIRBY ROAD BUSHLAND, BULLSBROOK

Boundary Definition: bushland (part taken to cadastre) boundary

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 97

Area (ha): bushland 440.7

Map no. 23, 24

Map sheet series ref. no. 2034-I SE

Other Names: part Submission Area 288

Local Authorities (Suburb): Shire of Swan (Bullsbrook)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Pinjarra Plain

Guildford Formation (Qpa: Mgs1)

Bassendean Dunes

Bassendean Sands (Qpb: S8)

Bassendean Dunes/Pinjarra Plain

Bassendean Sands over Guildford Formation (Qpb/Qpa: S10)

Wetlands (within the Bassendean Dunes)

Holocene Swamp Deposits (Qhw: Cps)

VEGETATION AND FLORA

Vegetation Complexes

Pinjarra Plain

Yanga Complex

Bassendean Dunes

Bassendean Complex — North

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

*4 *Melaleuca preissiana* damplands

*S2 Northern *Pericalymma ellipticum* dense low shrublands

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

*21c Low-lying *Banksia attenuata* woodlands or shrublands

*22 *Banksia ilicifolia* woodlands

*23a Central *Banksia attenuata* — *B. menziesii* woodlands

*23b Northern *Banksia attenuata* — *B. menziesii* woodlands

WETLANDS

Wetland Types: dampland, sumpland, palusplain, artificial channel

Natural Wetland Groups

Bassendean—Pinjarra transition OR Bassendean with fluvial features

Muchea (B/P.3)

Bassendean Dunes

Jandakot (B.3)

Swan Coastal Plain Rivers

Ellen Brook (R.3)

Wetland Management Objectives: Conservation (29.3ha), Resource Enhancement, Multiple Use

Swan Coastal Plain Lakes EPP: none identified

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Not determined, Critically Endangered (Communities of Tumulus Springs)

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: vegetated wetland, vegetated uplands

Vegetation and Flora: limited survey (DEP 1998 (viewed from fenceline), DEP 1999, Connell 1995, McArthur and Mattiske 1985, Trudgen 1996)

Structural Units

Uplands: *Banksia attenuata* Low Woodland with occasional *Nuytsia floribunda*, *Allocasuarina fraseriana*, *Eucalyptus calophylla* and *Banksia ilicifolia*; Mixed *Banksia attenuata*, *B. ilicifolia* Low Open Forest, occasionally with emergent *Banksia menziesii* and *Eucalyptus calophylla*; *Adenanthos cygnorum* Tall Open Shrubland; Mixed *Xanthorrhoea ? preissii*, *Dasypogon bromeliifolius* Open Low Heath

Wetlands: *Melaleuca preissiana* Low Open Woodland to Low Forest; *Astartea* aff. *fascicularis* Shrubland; *Astartea* aff. *fascicularis* and *Hypocalymma angustifolium* Shrubland with occasional emergent trees of *Melaleuca preissiana*; *Kunzea ericifolia* Tall Shrubland to Closed Scrub with occasional emergent *Eucalyptus calophylla*; *Regelia inops* and *Astartea* aff. *fascicularis* Open Heath; *Hypocalymma angustifolium* Shrubland with emergent *Xanthorrhoea preissii*; *Xanthorrhoea preissii* Shrubland; *Hypocalymma angustifolium* Open Low Heath

Vegetation Condition: Very Good to Good (Connell 1995)

Total Flora: not known

Significant Flora: none recorded

Fauna: not known

Linkage: adjacent native vegetation to the south and west (Site 462); part of Greenway 42 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous bushland/wetland linkage (Part A, Map 7)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Subject to protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Maintaining ecological processes or natural systems, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation

Recommendation: Part A: Other Government Land Mechanism. Part B: Rural Complementary Mechanism (see Table 3, Volume 1).

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SECTION 1: CADASTRAL INFORMATION

(Lots, locations and derived information to be updated in the public submission period)

Bushplan Site no. 97 **Map no.** 29 **Map sheet series ref. no.** 2034-I SE

Other Names **Area (ha):** total 440.9; bushland 440.7

part Submission Area 288

Local Authorities (Suburb)

Shire of Swan (Bullsbrook)

Zoning

MRS: Public Purposes-Commonwealth Government, Rural

TPS: Landscape, General Rural

Lot/Location/Reserve numbers (Purpose),

Street name

1, 2, 3, 88, 2017, 2154 Bingham Rd; 1546 Old West Rd;

1, 4 Neaves Rd; 1662 Gaston Rd; 1432 street not

identified

Ownership Categories

Private (including commercial organisation)

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Total Flora: not known

Significant Flora: none recorded

Fauna: no known information

Linkage: adjacent native vegetation to the south and west (BS462); part of proposed Greenway 43 (Tingay, Alan & Associates 1997a); part of a regionally significant contiguous bushland/wetland linkage (Volume 2A, Map 8)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Maintaining ecological processes or natural systems, General criteria for the protection of wetland, streamline and estuarine fringing and coastal vegetation.

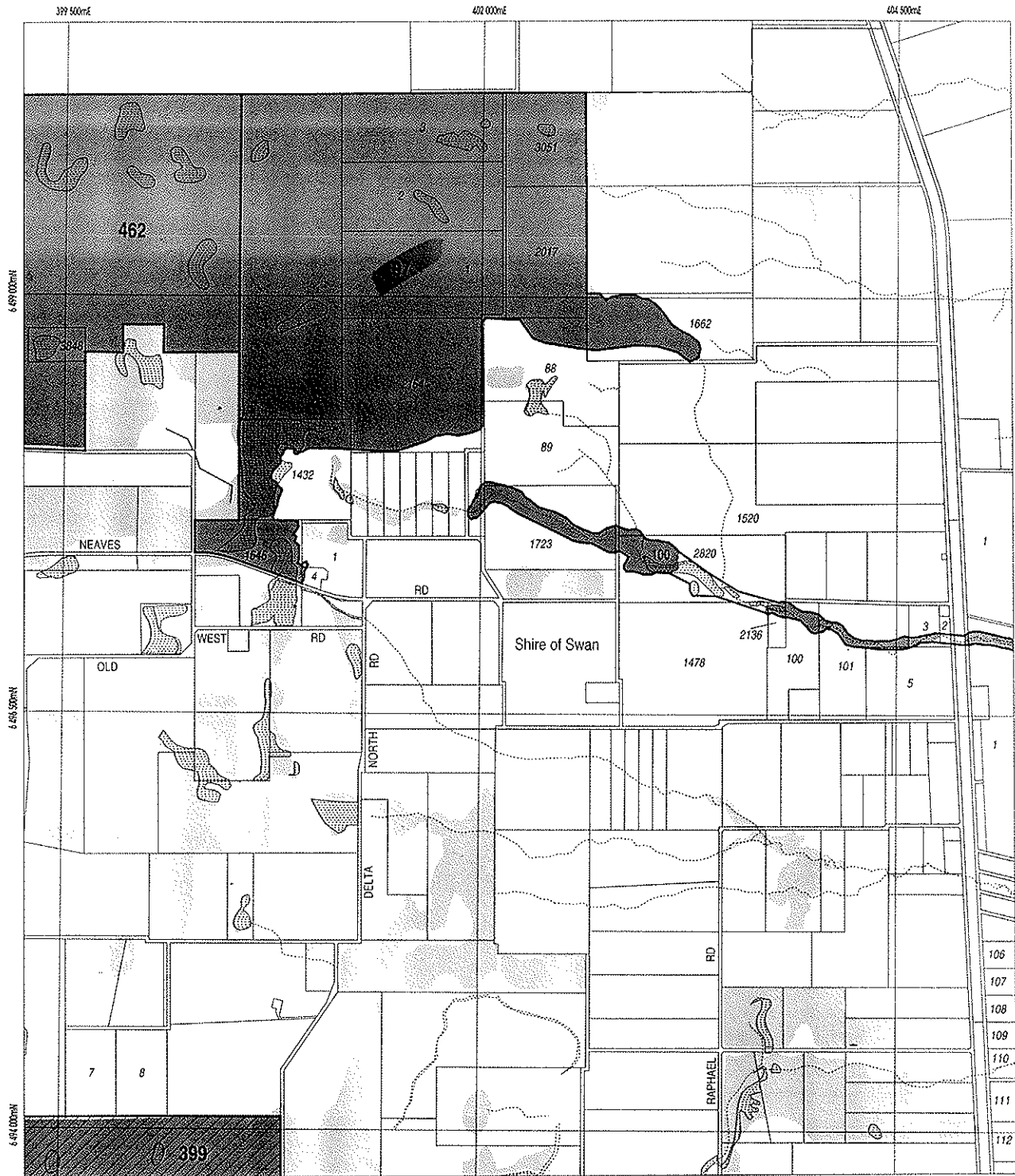
Opportunities and/or Constraints

Opportunities: Bushplan Site/part Bushplan Site subject to Swan and Canning Rivers EPP, Gnangara Mound Crown Land EPP; location of conservation category wetlands; under TPS Landscape Zoning







Constraints: private land; under General Mineral Resource Area (sand)

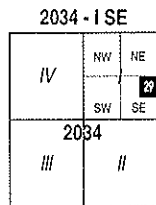
Recommendation: The most appropriate mechanism for the protection of this Bushplan Site be considered through the public comment period in consultation with the land owner(s). This may include — The existing care, control and management intent of the reserve is endorsed. Long-term security and support for conservation management of the Bushplan Site to be enhanced by: amending the purpose of the reserve to include conservation; and applying appropriate mechanisms in consultation with the reserve management body.





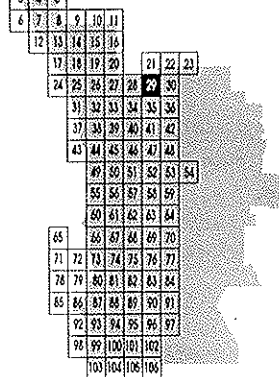
LEGEND

-  Bushplan Sites With Regionally Significant Bushland
-  Other Native Vegetation
-  Conservation Category Wetlands
-  Bushplan Sites With Some Existing Protection
-  Lot Number, Location Number
-  Channel Wetlands
-  Local Government Boundary

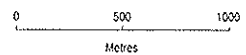


1 : 25 000 AMG Reference Grid showing Perth's Bushplan Map Sheet Breakdown

PERTH'S BUSHPLAN MAP INDEX



SCALE



Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
ntw-map11\environ\bushplan\bushv2_29.dgn
Cadastral Data supplied by Department
of Land Administration, W.A.
Wetlands Data supplied by
Water and Rivers Commission
Native Vegetation Extent for Study Area
supplied by Agriculture Western Australia

Bushplan Site 97
6-2-98



Area I photo 1



Area K photo 2

Bushplan Site 97
6-2-97



North of K photo 3



Area L photo 4

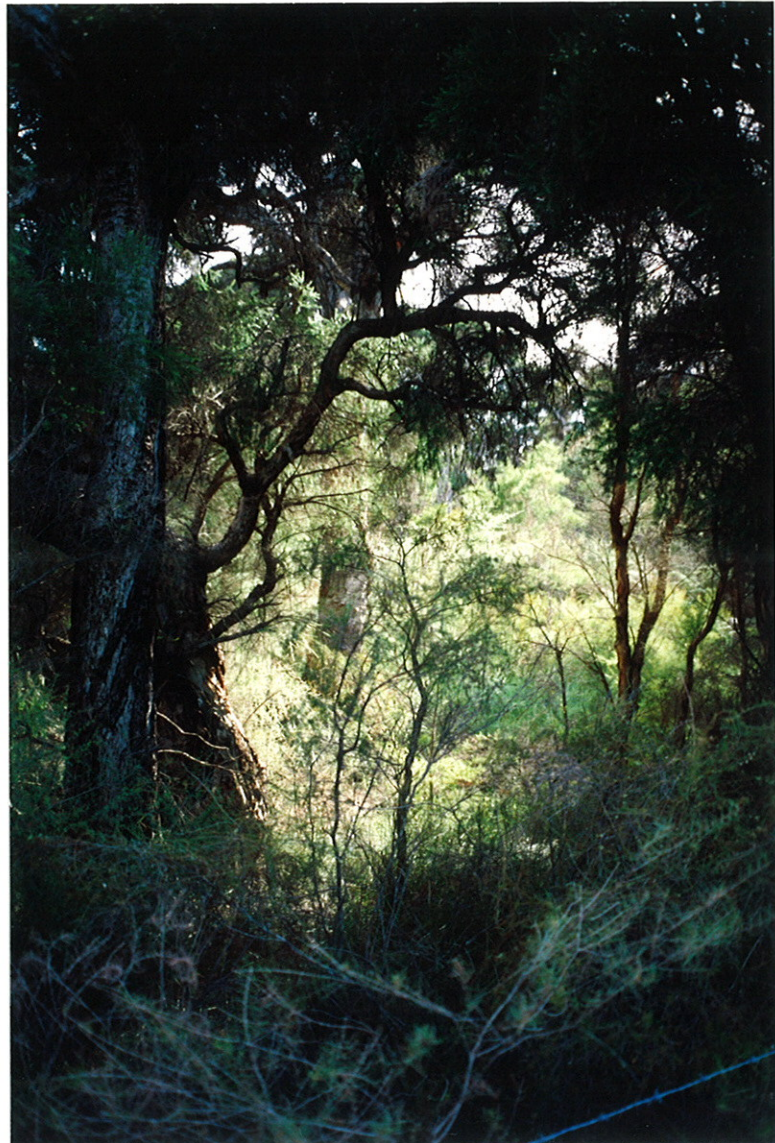


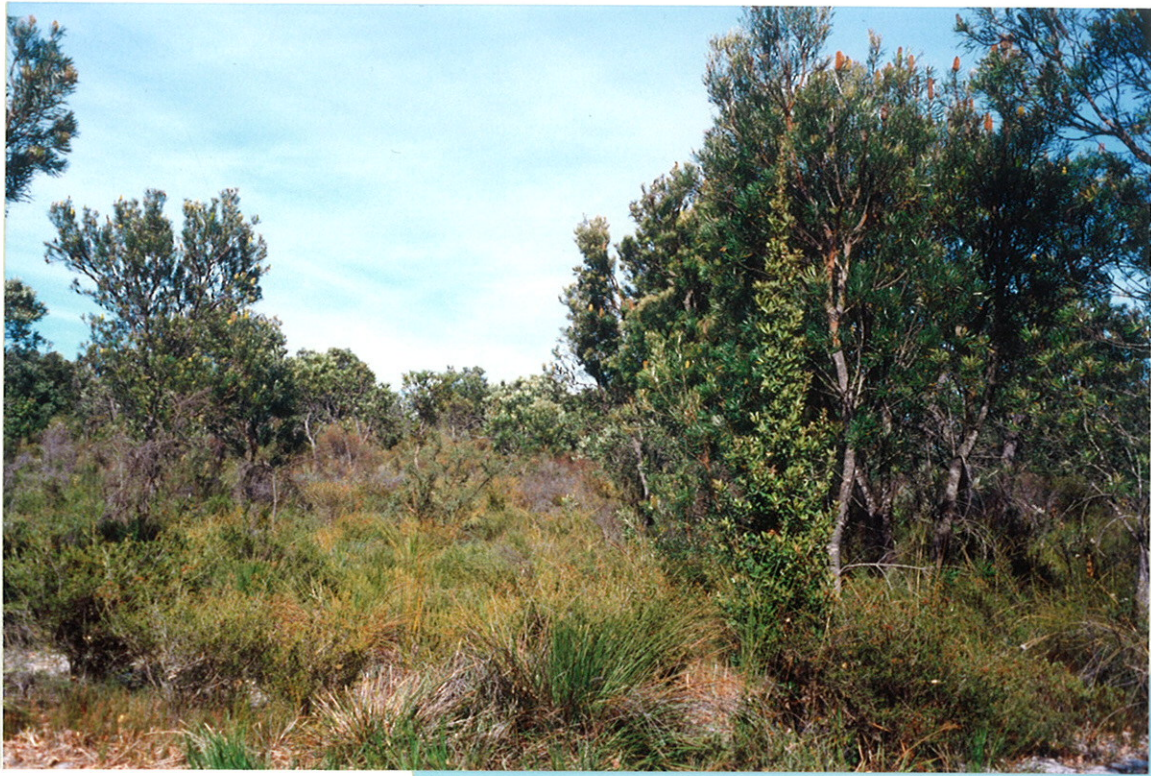
Area B photo 23

Area A photo 24



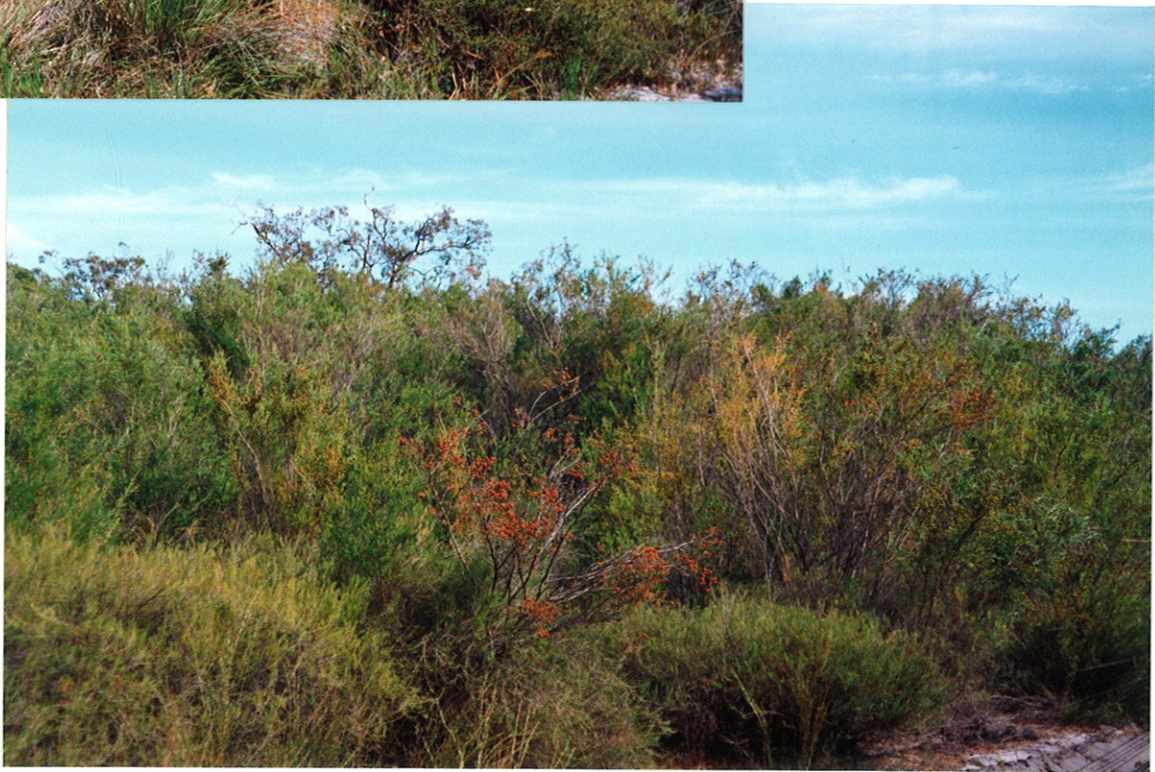
Area C photo 25





Bushland site 97

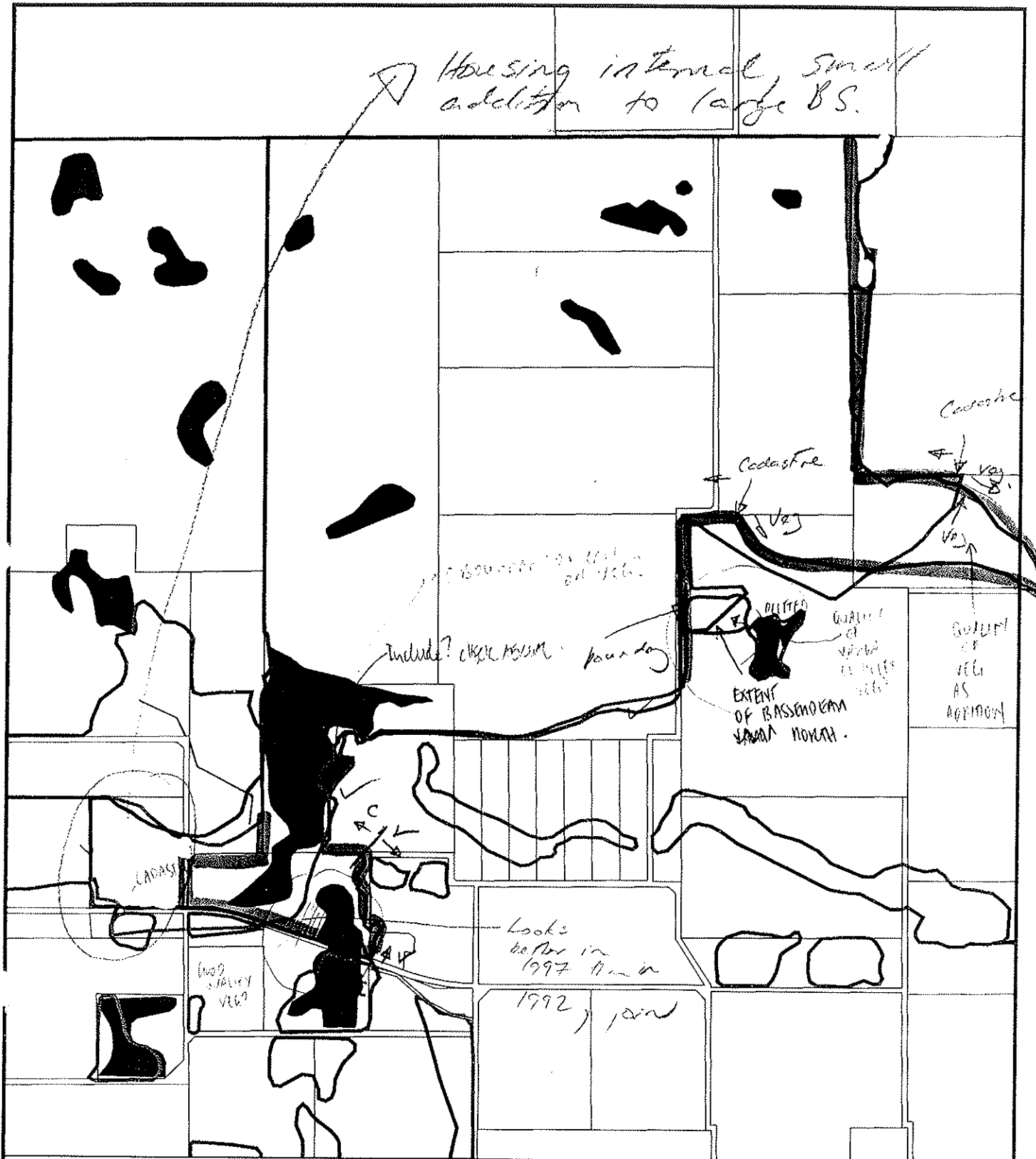
← photo 26
area E



area F
photo 27



area J
photo 28



bp site 97

AERIAL IMAGE REQUIRED

KIRBY ROAD BULLSBROOK

MFP INTERNAL USE ONLY






Prepared By: Andrea Zappacosta

Prepared For:

Map Ident: plot980515_1

Date: 15 May 98

Scale 1:19189

-  AG VEG 1998 BOUNDARY THEME
-  Bushplan sites refno 1-500 SCP BOUNDARY THEME
-  Cadastre
-  Verified CCWs
-  cons category wetlands

RJK/NT 29/9
see changes above



LEGEND



SCALE 1:12500



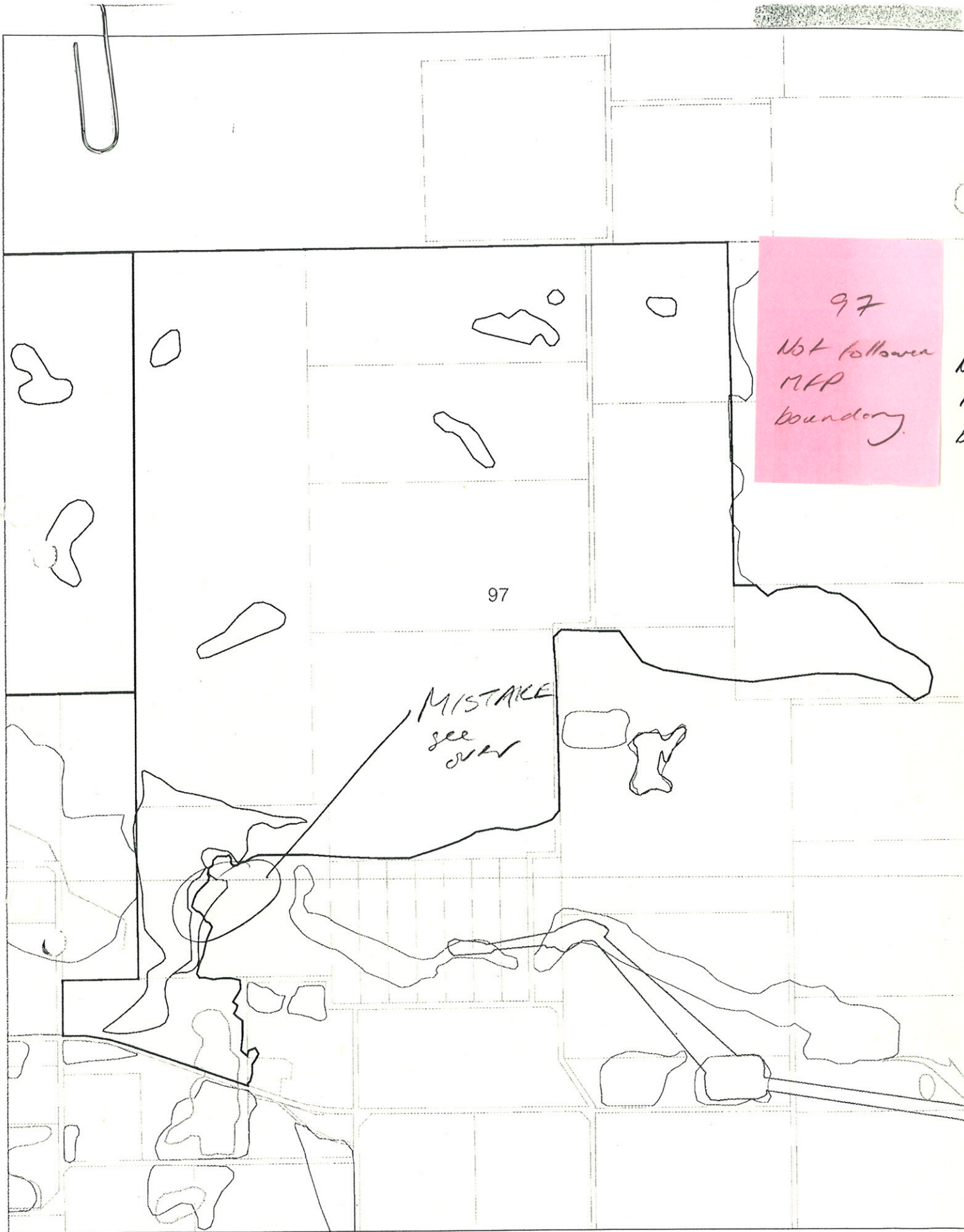
BP SITE 97

AERIAL PHOTOGRAPHY - ORTHO-RECTIFIED
ORIGINAL PHOTOGRAPHY - JANUARY 1997 SCALE 1:20000
POSITIONAL ACCURACY +/- 10 metres



PLANNING
Ministry for Planning





97
 Not followed
 MHP
 boundary

97

MISTAKE
 see
 over

BUSHPLAN SITES CORRECTED

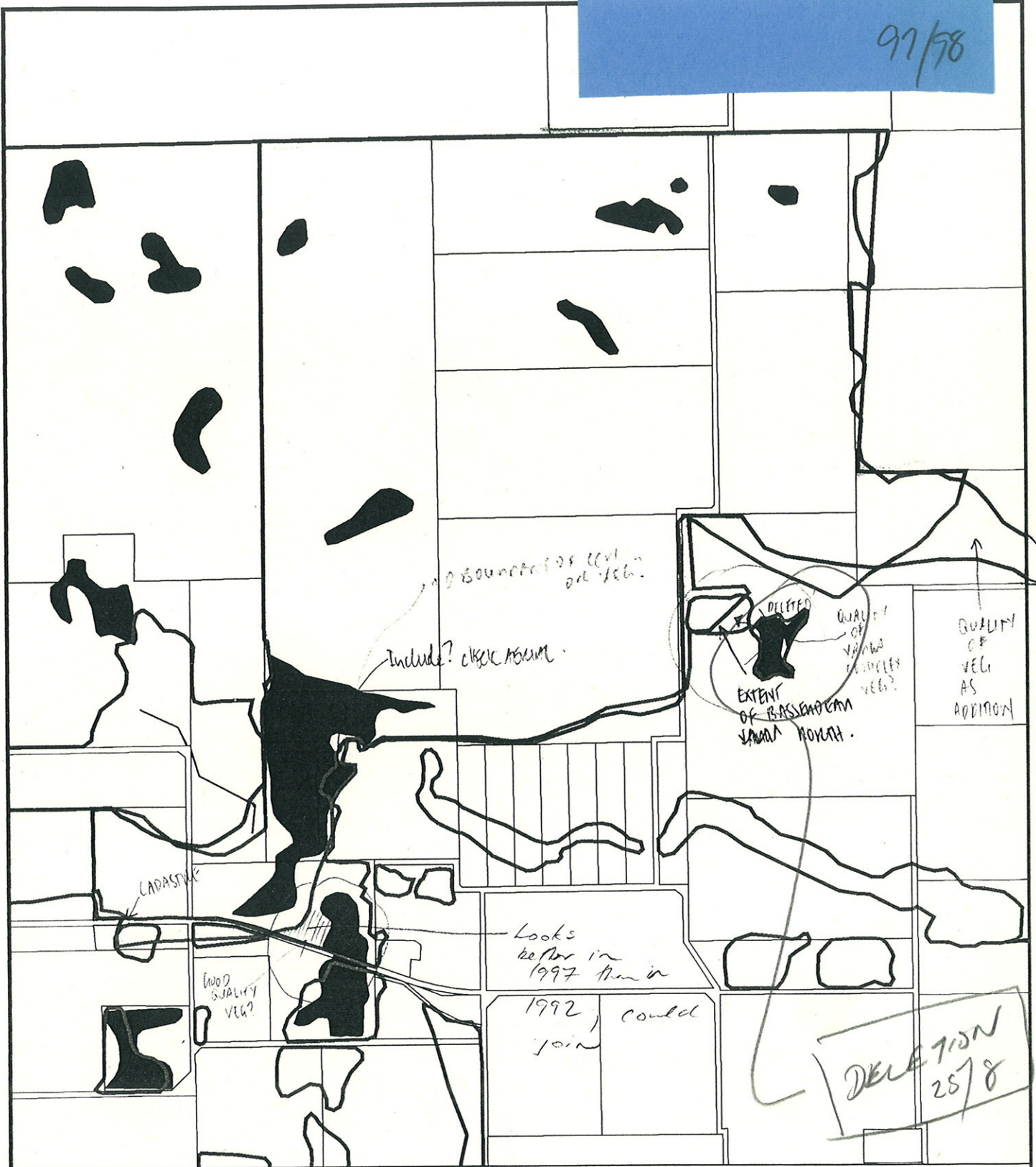
b 76/212 22/10/98



WESTERN
 AUSTRALIAN
 PLANNING
 COMMISSION



97/98



bp site 97

AERIAL IMAGE REQUIRED

KIRBY ROAD BULLSBROOK

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


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BJK 6/7/98

DELETION 25/8



6/2/98



LEGEND



PLANNING
MINISTRY
Ministry for Planning



PRODUCED BY THE LAND INFORMATION BRANCH STATUTORY MAPPING SECTION



SCALE 1:12500



BP SITE 97

AERIAL PHOTOGRAPHY - ORTHO-RECTIFIED
ORIGINAL PHOTOGRAPHY - JANUARY 1997 SCALE 1:20000
POSITIONAL ACCURACY + or - 10 metres

BUSHLAND AREA B# 97

SITES YES/NO

DATE 6.2.98

RECORDERS Natalie + Dmak

Observations edge transects

Geographic Location	Latitude	S Longitude	E
Reference Map			

Photograph	Photographer's Name	Photo No
	<u>NATALIE</u>	

(A) = 24 (E) = 26
 (B) = 23 (F) = 27
 (C) = 25 (G) = 28
 (D) = X (H) = ? No photo

Transect of landscape units (draw in transect incorporating features listed and any other relevant unit)

dunes	(A) <u>ROAD</u> (B)	(I) = 1
dry/wet flats	W <u>W</u> E	(J) = 28
sumplands		(K) = 2
uplands		(L) = 3
type		(M) = 4

Soil - surface	<u>sandy - grey - quite loose</u>	sub -soil	<u>SFS (D) Danuro / set dense</u>
Exposed rock	type	% area	

FLORA/VEGETATION (list dominant and significant plants below, see over for vege association descriptions)

Eucalypts	<u>E. calophylla</u>	<u>E. wandoo</u>	<u>E. marginata</u>	<u>E. todtiana</u>	<u>E. rudis</u>
	<u>E. decipiens</u>	<u>E. drummondii</u>	<u>E. haematoxylon</u>	<u>E. lanepolei</u>	<u>E. gomphocephala</u>
	<u>E. accedens</u>	<u>E. patens</u>	<u>E. laeliae</u>	<u>E. megacarpa</u>	
Sheoaks	<u>Allocasuarina fraserana</u>	<u>Casuarina obesa</u>			
Banksia	<u>B. attenuata</u>	<u>B. menziesii</u>	<u>B. prionotes</u>	<u>B. illicifolia</u>	<u>B. grandis</u> <u>B. littoralis</u>
Melaleuca	<u>M. preissii</u>	<u>M. raphiophylla</u>	<u>M. lanceolata</u>	<u>M. cuticularis</u>	
Others	<u>Callitris preissii</u>				
Mallees	Eucalypts	<u>E. argutifolia</u>	<u>E. petrensis</u>	<u>E. decurva</u>	<u>E. foecunda</u> <u>E. latens</u>

SIGNIFICANT SPECIES

Peperomia inops
matrimonial plant = SUTHERLANDIA INVOLUCRATA
XP.

(see over for vegetation descriptions)

Vegetation Condition - Keighery 1994 (Trudgen 1993) (show range and indicate predominant class)

1 = 'Pristine' (Excellent)	= 10%
2 = Excellent (Very Good)	= 65%
3 = Very Good (Good)	= 5%
4 = Good (Poor)	= 20%
5 = Degraded (Very Poor)	
6 = Completely Degraded	

Specific aspects of disturbance

partial clearing	<u>- 18c of tracks @ site (E) // (D) = v. Disturbed</u>
weeds (list):	
selective removal of species:	timber cutting mowing fire <u>grazing</u> dieback %area
fire frequency:	
'enrichment plantings' (list)	
animal impact:	horse foxes rabbits cats dogs goats pigs overgrazing by native mammals
soil movement:	mining dumping rubbish dumping roadworks
changes in water regimes:	flooding drainage watering nutrient influx
Tracks:	fire breaks walk trails off road vehicle use animal tracks
Service corridors:	SEC Main Roads Water Authority. Telecom
Other	

LOTS OF FAUNA ACTIVITY - HOLES + DIGGING - esp. site (I)

LIFE FORM/HEIGHT CLASS	CANOPY COVER			
	DENSE 70-100%	MID-DENSE 30-70%	SPARSE 10-30%	VERY SPARSE 2-10%
Trees >30m Trees 15-30m Trees 5-15m Trees <5m	Dense Tall Forest Dense Forest Dense Low Forest A Dense Low Forest B	Tall Forest Forest Low Forest A Low Forest B	Tall Woodland Woodland Low Woodland A Low Woodland B	Open Tall Woodland Open Woodland Open Low Woodland A Open Low Woodland B
Mallee tree form Mallee shrub form	Dense Tree Mallee Dense Shrub Mallee	Tree Mallee Shrub Mallee	Open Tree Mallee Open Shrub Mallee	Very Open Tree Mallee Very Open Shrub Mallee
Shrubs >2m Shrubs 1.5-2.0m Shrubs 1.0-1.5m Shrubs 0.5-1.0m Shrubs 0.0-0.5m	Dense Thicket Dense Heath A Dense Heath B Dense Low Heath C Dense Low Heath D	Thicket Heath A Heath B Low Heath C Low Heath D	Scrub Low Scrub A Low Scrub B Dwarf Scrub C Dwarf Scrub D	Open Scrub Open Low Scrub A Open Low Scrub B Open Dwarf Scrub C Open Dwarf Scrub D
Mat plants Hummock Grass Bunch grass >0.5m Bunch grass <0.5m Herbaceous spp.	Dense Mat Plants Dense Hummock Grass Dense Tall Grass Dense Low Grass Dense Herbs	Mat Plants Mid-Dense Hummock Grass Tall Grass Low Grass Herbs	Open Mat Plants Hummock Grass Open Tall Grass Open Low Grass Open Herbs	Very Open Mat Plants Open Hummock Grass Very Open Tall Grass Very Open Low Grass Very Open Herbs
Sedges >0.5m Sedges <0.5m	Dense Tall Sedges Dense Low Sedges	Tall Sedges Low Sedges	Open Tall Sedges Open Low Sedges	Very Open Tall Sedges Very Open Low Sedges
Ferns Mosses, liverwort	Dense Ferns Dense Mosses	Ferns Mosses	Open Ferns Open Mosses	Very Open Ferns Very Open Mosses

VEGETATION (describe each unit of vegetation using dominants and life form/height class and canopy cover according to the Muir codes above)

PHOTO 24
SITE (A)
Banksia alternata, WOODLAND (8m) 20%
occasional NF + AF + Eucalyptus + Banksia ilicifolia
dense tall scrub layer of Adiantum + Rhipidolobos (2m) >80%
Yamroseum, Durella

PHOTO 23
Banksia alternata + Billudina WOODLAND (5m) 25%
occ. sedge mat
occ. YFS (2m) 10% Shrub (1m) 30%

occasional Nutcassia + Allotria (BURN = <10%)
occ. Mann (10m)
Conium scaberrimum (5m)
Dampiera (20-30m) 15%

PHOTO 25
Melaleuca preteritara (>10m) 7-10%
Malesia fasciculata (1-2m) 30%
Hypocorymbus arbus. (1.5m) dense in road? on road verge
Kunzea lincolnsii (2-3m) 10%
- appears to be channel??
- occ. Acacia - 2m (3-5m)
- large (>15m) Eucalyptus on edge

(D) NOES only on PHOTO 25 - V. DECREASED - 1/5000Y DIST - OTHER PART DENSE

PHOTO 26
Ballarda (5-10m) + Billudina (5-10) 20% | occ. B Mann
Rhipidolobos (1m) 20% | Eucalyptus
low dense understory dominated by Psychotria, Scoparia, etc.
from aerial photo - lots of trees

Fauna comments
LOTS of BIRDS
Leucophaea
Tachycineta xp + MacDermida
Psaltriparus 50m (2)
occ. Rhipidolobos 1-1.5m
Dampiera 30m (2)

Adjacent bushland (refer to aerial photograph) + Monarda
D. S. ...

NOTE @ (E) subforest 1/2 in road side
(appears to be)

PHOTO 27

(E) - (J)

83 97

62.98

(F) WETLAND - small + isolated

Dense scrubland of:-

Astelia all. fascic (1m-1.5) 20%

Hypocalymma ang. (1-1.2m) 5%

occ. Mel. preuss (5m)

Kunzea = eriophora (1.7-2) 30%

"Fung sedge" (10-20cm) 25%

(G) CLEARED

(H) CLEARED - no understorey
- grazed
- some distancy (Banksia's) dead

PHOTO 1 - Newell

(I) Rogelia (1-1.5m) 40%
Astelia all fascic (1.5-2m) 10%
Hypocalymma angustif (1m) 25%
Xanth = preuss.
Fung sedge (10-15cm)

→ EDGES = Banksia ulicifolia

→ LOC + LOTS of FAUNA HOLES + EVIDENCE

PHOTO 28

(J) Xp (1-2m) 20%
Hypocalymma (80-1m) >50%
Adenanthos obovatus (1-1.5m) <2%
Dasypogon bom (40cm) 10%

occ B. illial + B. littoralis

- SAL - DARK GREY - SOME LICHENS.
- DAMP LAND

? NTH EDGE of PMA

ⓔ - Ⓛ

BS 97

62%

Ⓚ

PHOTO 2

Adenanthos cynosuroides (2-3m) 30%

Velicardua nitens (1m) 10%

Stirlingia latif. (1m) < 2%

occ - Banksia menziesii

Jacksonia tall + broad (1.2-15m) < 2

Malcolmia plant (0.8) 7% = SCHOLTZIA INVOLUCATA

Melaleuca acerosa (80-1m) 30%

PHOTO 3

ACROSS TRACK (OUTSIDE of PMA)

area just east of ⓔ = Bank. illic + Bank attenu LOW
and Velic nitens + Malcolmia plant



SCHOLTZIA INVOLUC.

Ⓛ

Banksia attenuata (5-10m) } 35%

B. illicifolia (> 7m) }

Xp. 1-2m

occ. Macrozamia < 2%

Adenanthos decoratus (70-1m) 2%

Dryop. drum (50cm) 40%

Acacia pulchella (80-1m) < 2%

Petrophile linearis

lots of Banksia illic. seedlings

Jacksonia tall/broad (1-2m) < 2

" stenberg (1.5m) < 2

Velicardua patae

— some v.v.v. old banksias

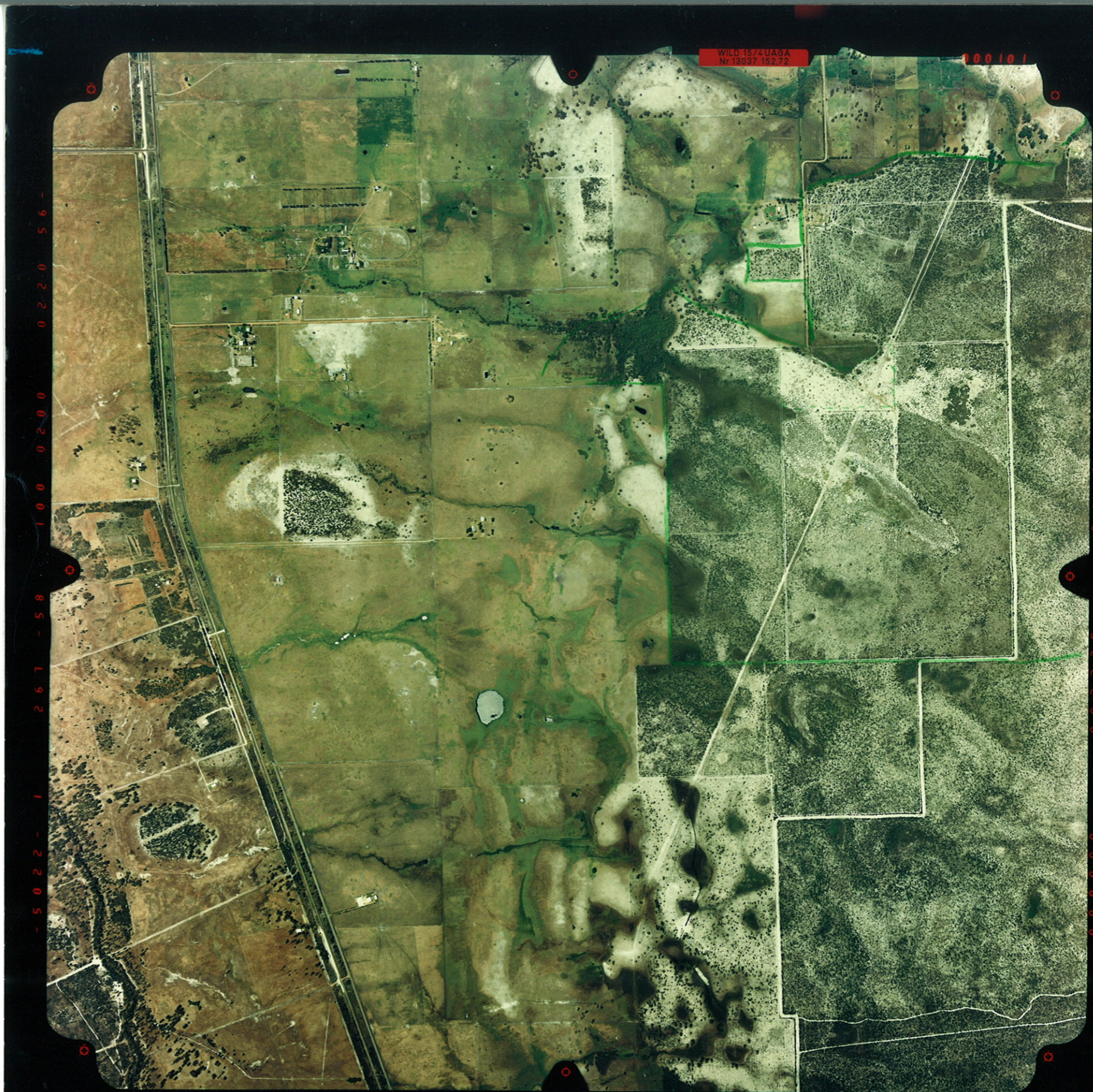
— patches of regrowth



3169(C) METRO REGIONAL AREA & EXT. RUN 13 (5082-5157) 1:20000 15-DEC-92 920676



REGIONAL AREA & EXT. RUN 14 (5001-5081) 1:20000 15-DEC-92 920676



WILD 1574 UAGA
Nr 13037 152.72

100101

5022-1 267-58 100 0200 0220 56

5855 1060 255 1012 522300 000000

WILD 1574 UAGA
Nº 13037 15272

- 5022 - 1 267 - 57 100 0180 0260 56 -

1161 09 25 10 22 400300 400000

RESTRICTED