

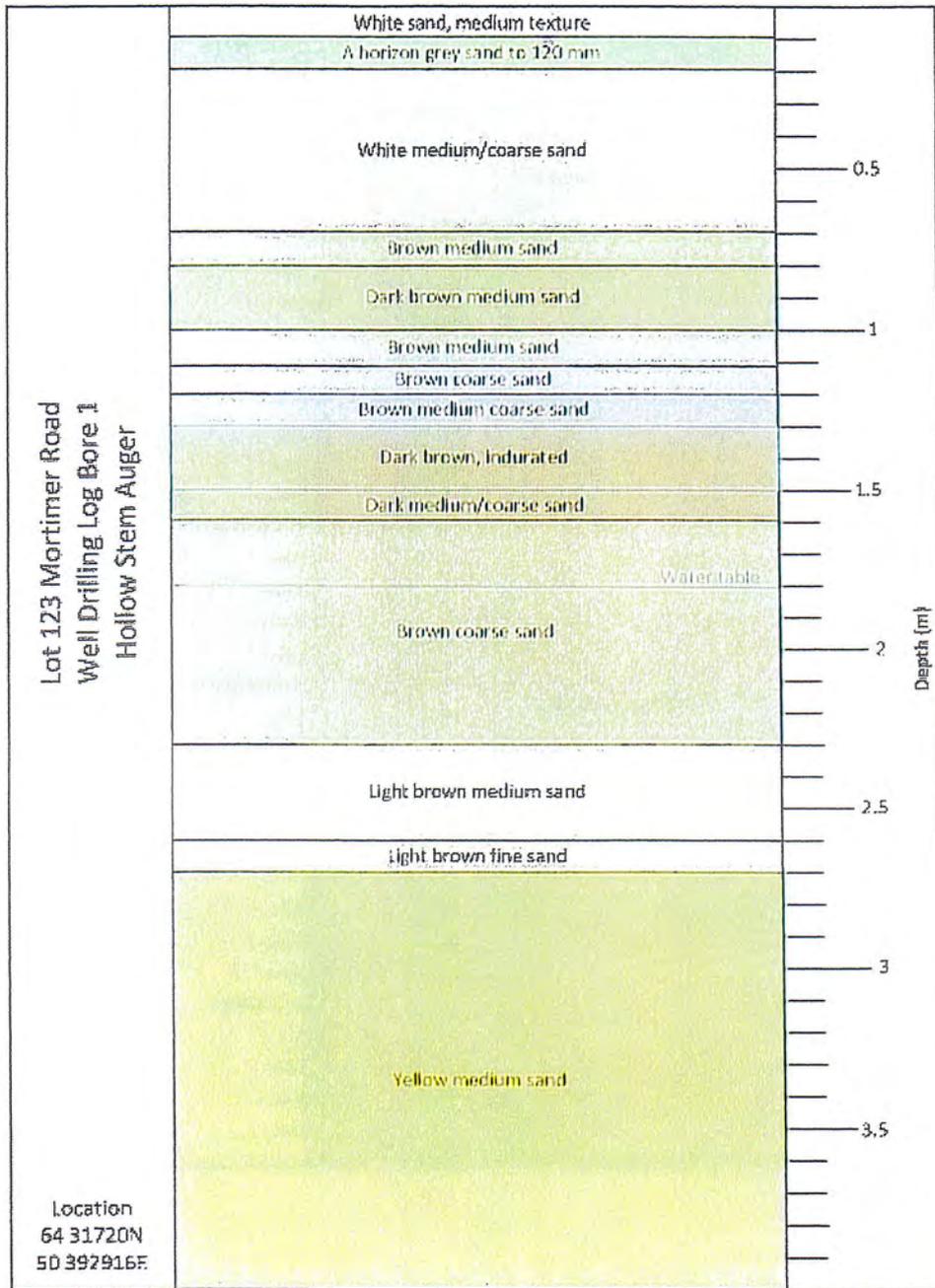


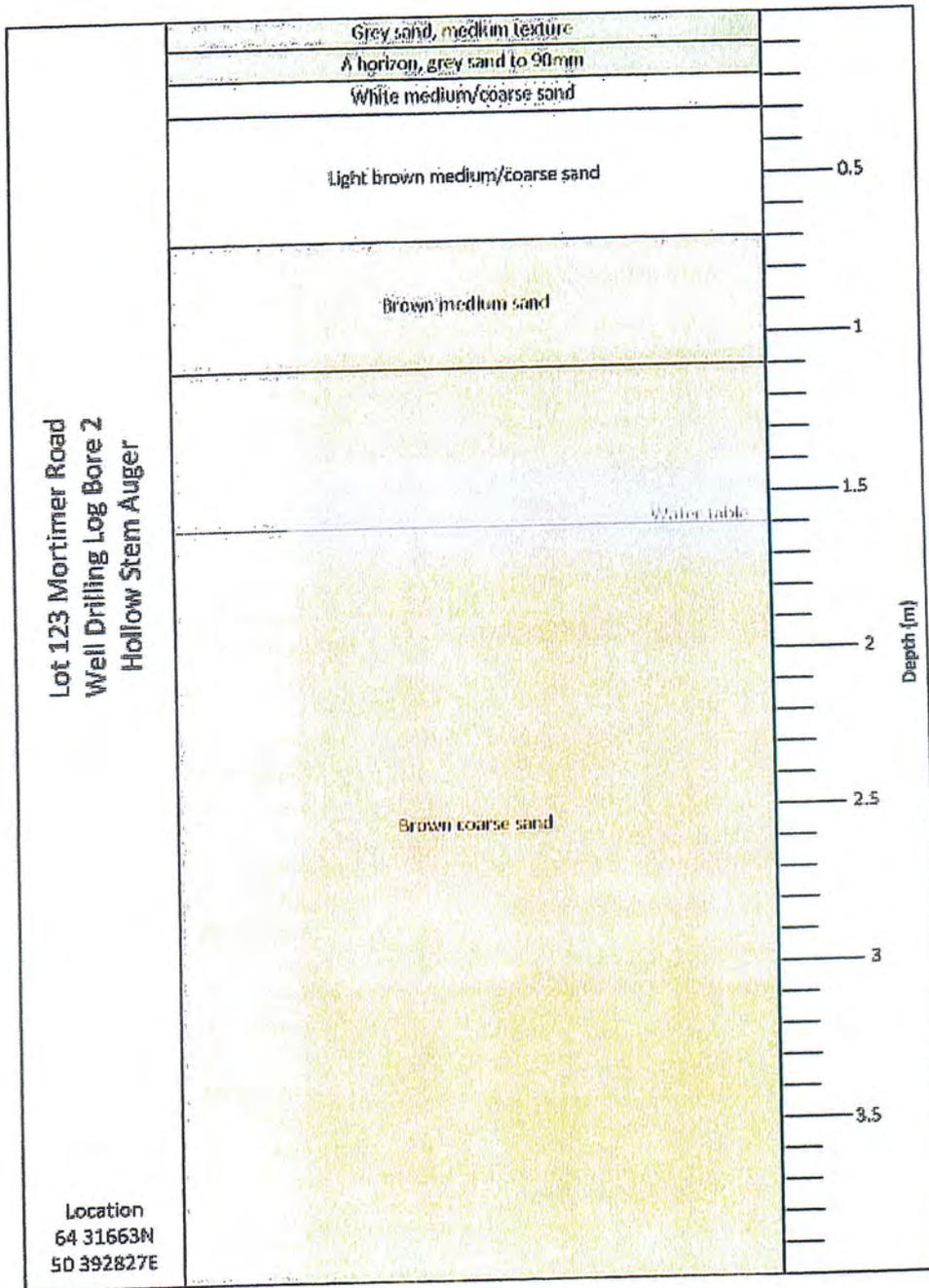
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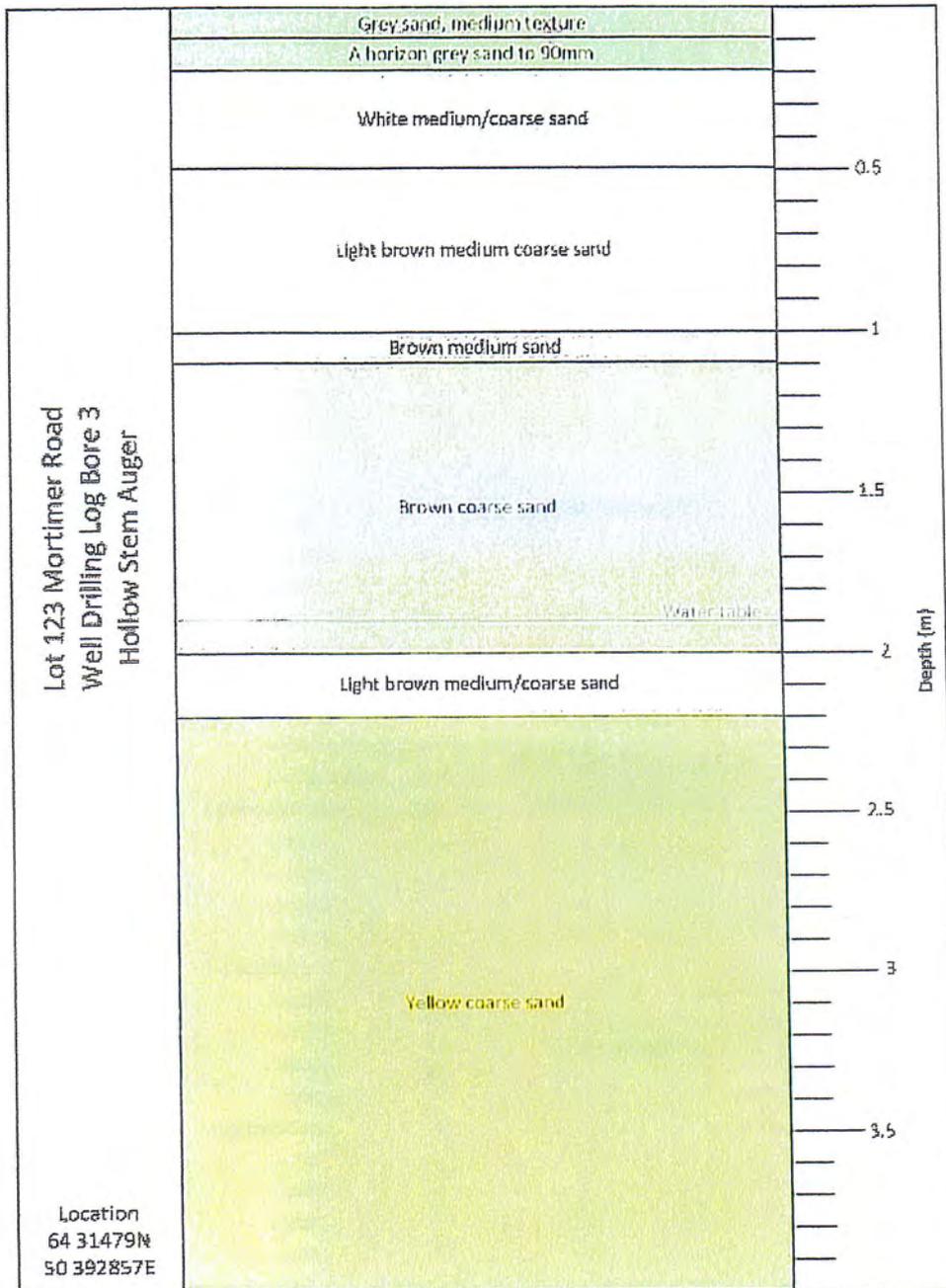
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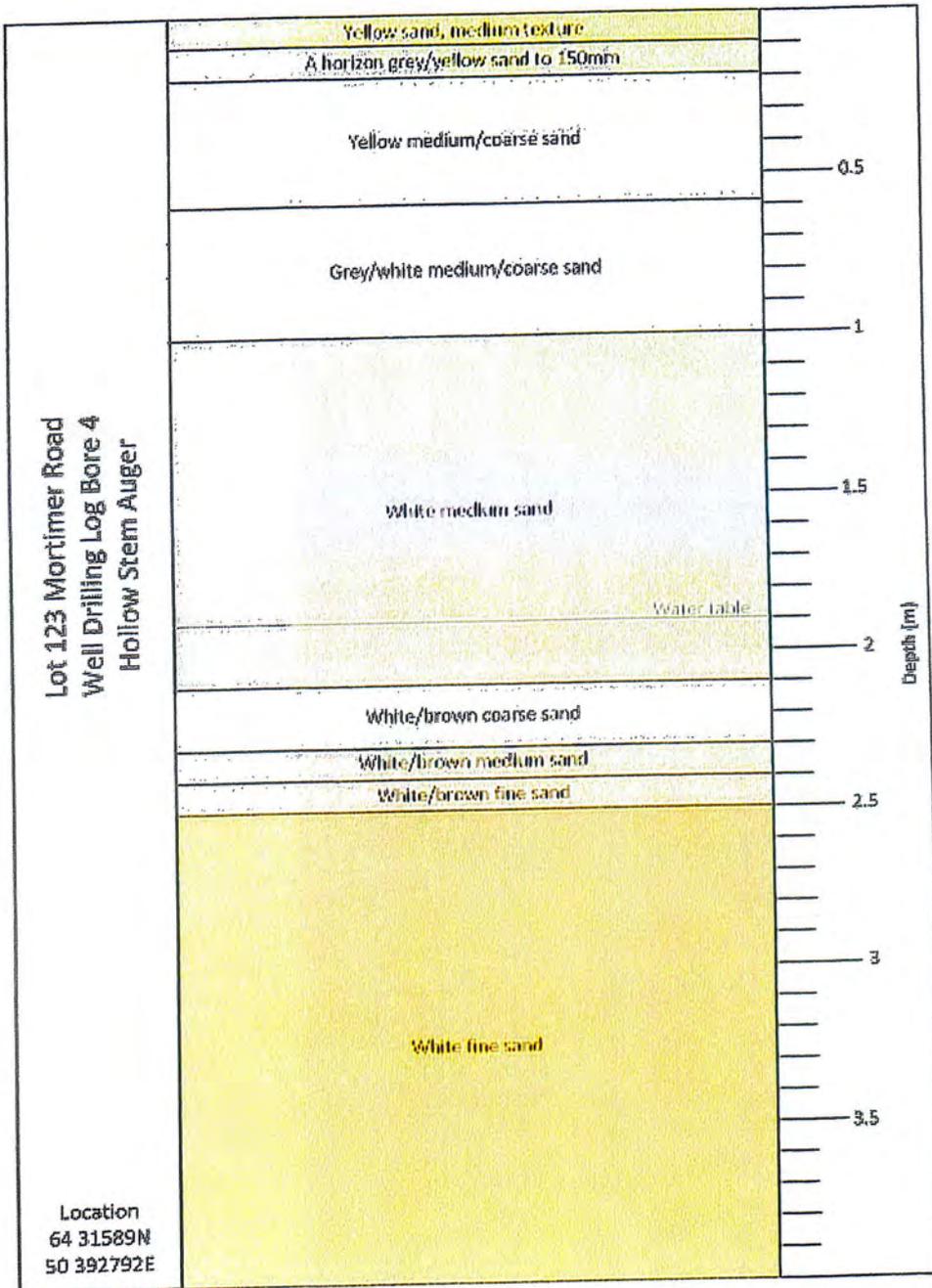


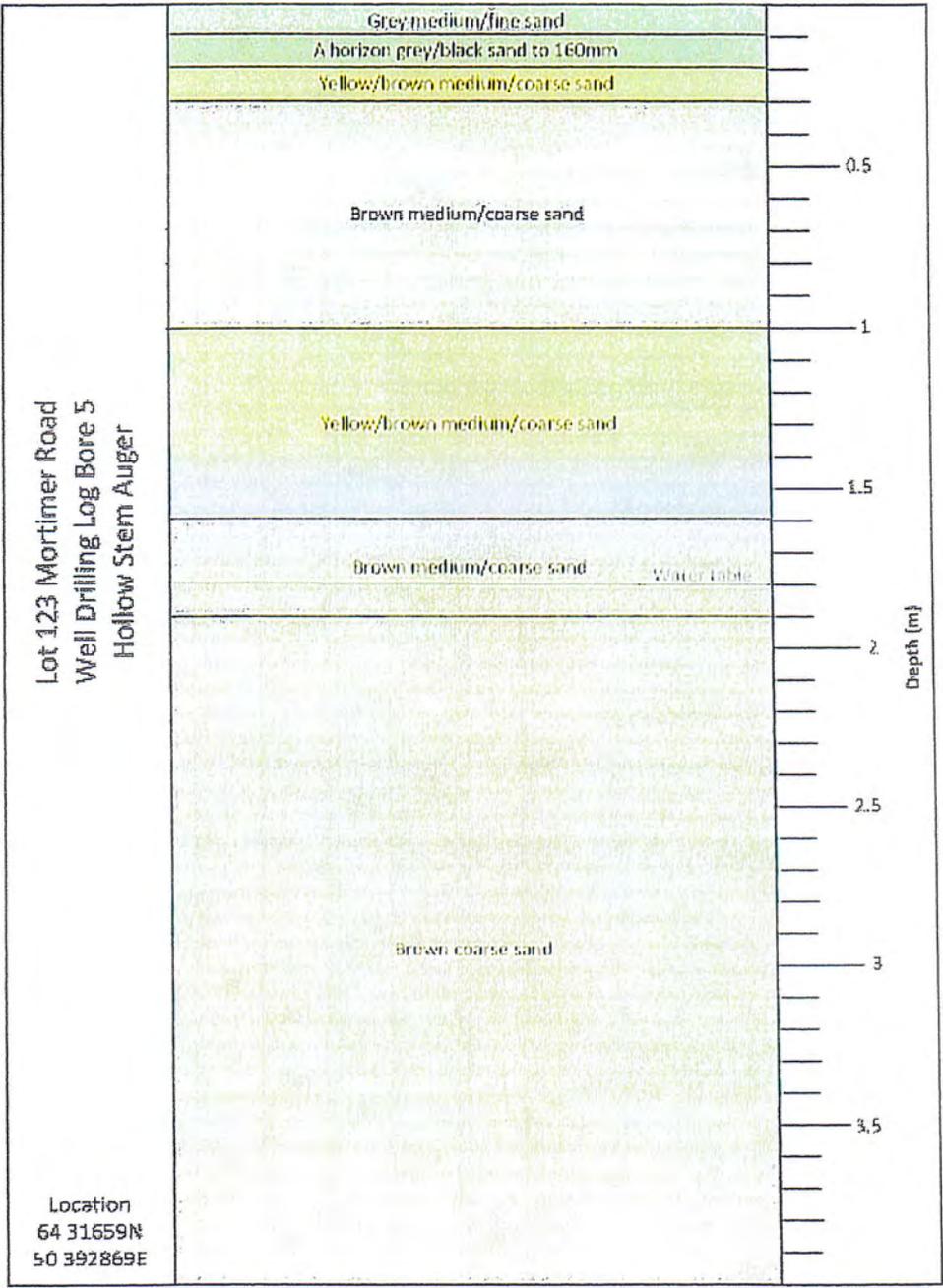
APPENDIX 1: Soil Profiles













APPENDIX 3: Bulletin 686

Bulletin 686 Assessment for Lot 38 Landgren Road, Wellard.

Part I - presence of rare species

Is the wetland a habitat for Gazetted rare species of flora or fauna?

Answer: No

Part IIB: Seasonal and episodic wetlands with poorly defined boundaries

Introduction - "zoning" the wetlands

As described in Section 2.4, these "extensive" wetlands cannot be treated as single units. Zone the wetland as described in Section 4.2, Step 6. Each section should be the subject of a separate assessment using the following questionnaire. Where the word "wetland" is used it should be interpreted to mean "wetland section".

i Environmental geology classification

Does the wetland occur on the Quindalup Dunes or on a geological unit confined to a river/estuary floodplain?

Answer: No. The property is Bassendean sand at approximately 20m AHD.

Score|1|

ii Adjacent wetlands

Are there wetlands within a 2km radius?

Answer: Yes. The property lies adjacent to Lot 123 Mortimer Road which contains the vast majority of the wetland proper with a better representation of the endemic flora.

Score|0|

iii Habitat diversity

Is the composition and structure of the vegetation significantly different to that found at nearby wetlands?

Answer: No. The adjacent property contains a better representation of the endemic flora and has suffered less disturbance.

Score|1|



iv Habitat type

Using the list below score one for each habitat type represented (maximum score 10).

a) Vegetation over 0.1 hectare (1000m²) in area.

- large paperbarks (>2.5m tall) in dense clumps [-]
- low thickets (ie <2.5m tall). These are often *Melaleuca*, *Astartea* or *Kunzea* spp [-]
- paperbark fringe [-]
- fringing rushes and sedges (often *Baumea*, *Juncea* spp) [-]
- fringing *Typha* (bulrush) [-]
- samphire or salt marsh [-]
- extensive inlake beds of *Typha* or other rushes [-]
- scattered dense clumps of rushes or sedges [-]

b) Other habitats

- flooded grassland in winter/spring [-]
- mud flats or seasonally dry open water [-]
- islands — natural or human made [-]
- fringing woodland or heath (eg eucalyptus nodes or non-wetland species) [1]
- permanent shallow open water < 50cm deep [-]
- permanent deep open water > 50cm deep [-]

Score 1/2 point for

- scattered paperbarks [1]
- scattered rushes [1]

Score[3]

Notes: The wetland has been previously cleared. Regrowth of native vegetation has occurred at lower elevation mainly consisting of *Pericalymma ellipticum* and sedges, with only occasional *Melaleuca preissii*, *Allocasuarina fraseriana* and *Corymbia calophylla*. The boundary is densely populated with non-native grass species (*Ehrharta calycina* etc.).

v Drainage

Are there drains directing water into or out of the wetland?

Answer: No

Score[5]



vi Area of wetland modified

What proportion of the wetland has been modified by clearing of vegetation (including undergrowth) landfill, paving, cultivated gardens/playing fields, irrigated agriculture, grazing, weed invasion, mining etc?

Answer: Current owner advised land was cleared for market gardening, but has not been used for this purpose for approximately 10 years. Only lowest elevations have experienced native regrowth.

Score|1|

vii wetland size

Section of wetland on Lot <10ha.

Score|1|

TOTAL SCORE |11|

Part III - Human-use questionnaire

i Aesthetics

Does the wetland possess any of the following attributes? (score appropriately and add score at the end)

Little, if any, artificial noise	Score	2	[2]
Understorey mostly intact	Score	2	[-]
Few, or no, roads or buildings obvious from wetland	Score	2	[2]
Steep ridge visible as part of the scenery	Score	1	[-]
Ridge accessible giving view of wetland	Score	1	[-]
Wetland is a lake and open water easy to view	Score	1	[-]
A section of wetland exists where few people visit	Score	1	[1]

Score|5|



ii Historical and archaeological features

Does the wetland have any of the following historical or archaeological features?

- registered Aboriginal relics or sacred sites .
- pioneer relics/operations
- National Estate/Trust listings

Note: An Aboriginal site is registered on Mortimer Road to the south but does not affect this property.

Score|0|

iii Security of wetland

What is the current vesting of the land containing the wetland? Score according to the following table.

Answer: Privately owned

Score|1|

iv Protection groups

Does the wetland have active community protection groups?

- | | | |
|-------------|-------|---|
| One or more | Score | 5 |
| No groups | Score | 0 |

Score|0|

v Passive recreation

Is the wetland used for any of the following passive recreation activities?

If yes, score 1 for each

- nature study/bird watching [-]
- education (school or other educational interest within 500m) [-]
- picnic and /or barbecue facilities [-]
- conservation of flora (refer to maps) [-]
- conservation of fauna (refer to maps) [-]
- protection and preservation of other attributes [-]
- recognised research site
- biological
- archaeological



— other

[-]

• recognised tourist venue

[-]

Score|0|

Note: Previous disturbance events have resulted in reduced biodiversity and degraded vegetation. Non-native species are prevalent.

vi Active recreation

Is the wetland used for any of the following active recreational activities? If yes, score 1 for each.

• walking/jogging or cycling

[-]

• horse riding

[-]

• trail bike riding

[-]

• playground

[-]

• sports grounds

[-]

• model boats

[-]

• golf course

[-]

• canoeing/rowing

[-]

• power boating/skiing

[-]

• swimming

[-]

Score|0|

vii Other human-uses

Is the wetland used for any of the following purposes? (Score 1 for each)

• agricultural activities (grazing, horticulture etc)

[-]

• mining (check for mining leases)

[-]

• existing/proposed service corridors (SECWA, roads, etc)

[-]

• water supply

[-]

• proposed urban/housing use

[1]

• private purposes other than described above

[-]

Score|1|

Note: The wetland is situated at the rear of a property currently classified as 'special rural'.

TOTAL SCORE |7|



Part IV - Supplementary questions

i Species rarity

Are rare (and not gazetted) species of animals or plants present or are there communities represented which have a limited distribution?

Answer: No

ii Effect on land values

Does the wetland significantly enhance real estate values and land rates around it? ie, does the wetland add more than 10% to the value of nearby houses?

Answer: No. In its current state the wetland has low biodiversity and significant weed infestation.

iii Human use

Do more than 100 people visit the wetland each week?

Answer: No

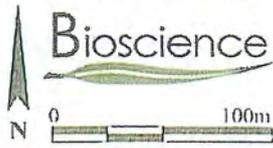
iv) private human-use value

Where there is evidence of private use of the wetland (stock grazing, views of wetland from house or private recreation) ask owner how important the wetland is as a private resource. Does the owner rate it highly?

Answer: No

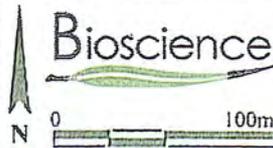
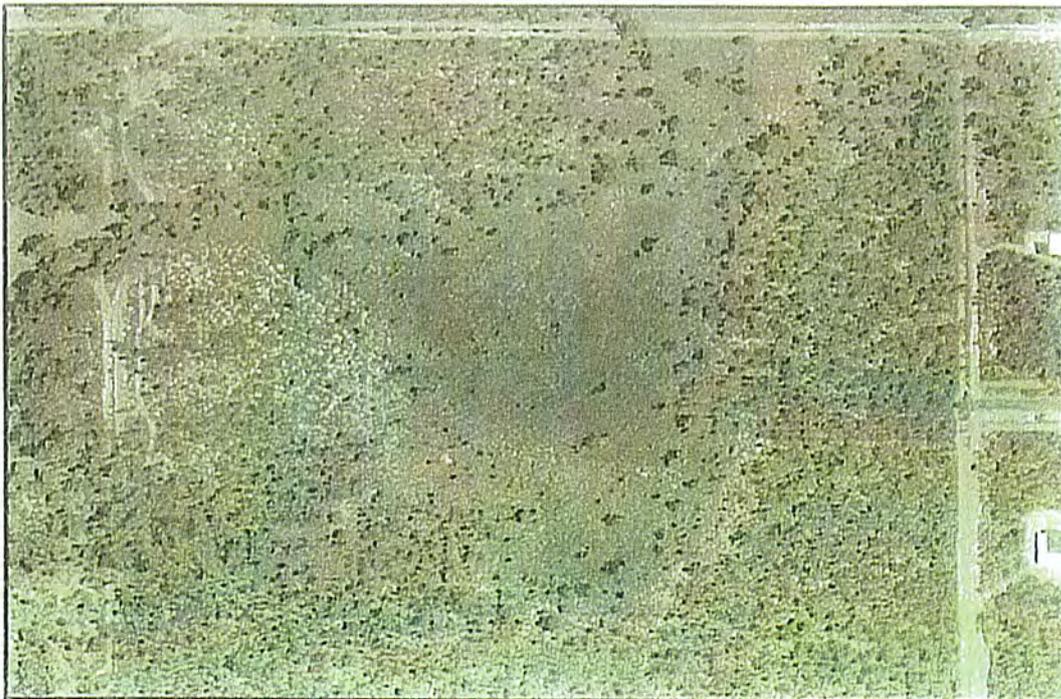
APPENDIX 4: Historical aerial photographs





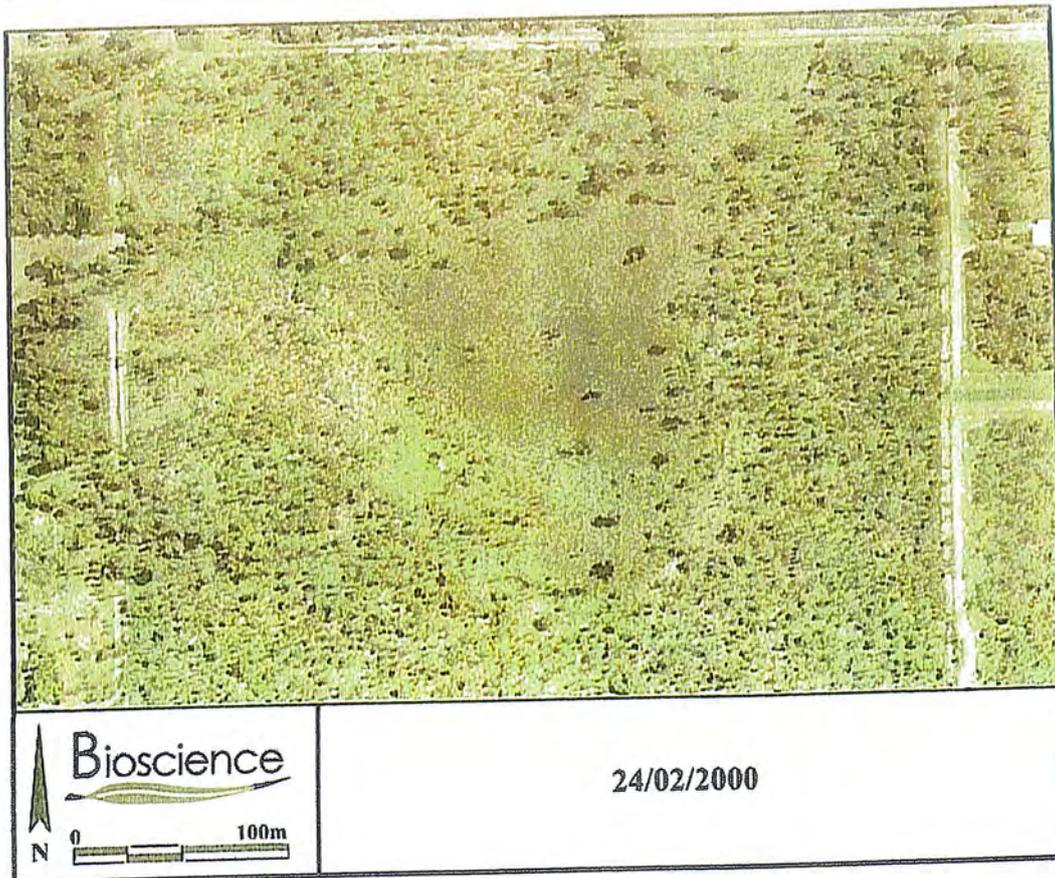
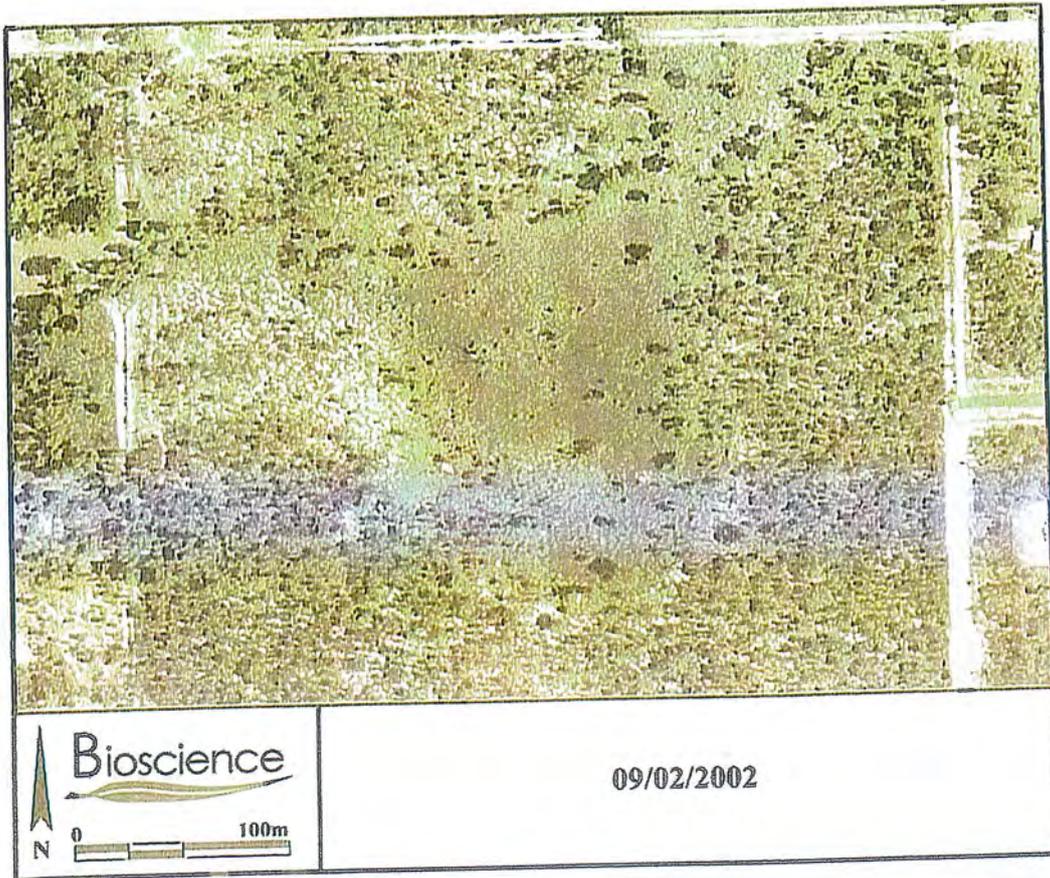
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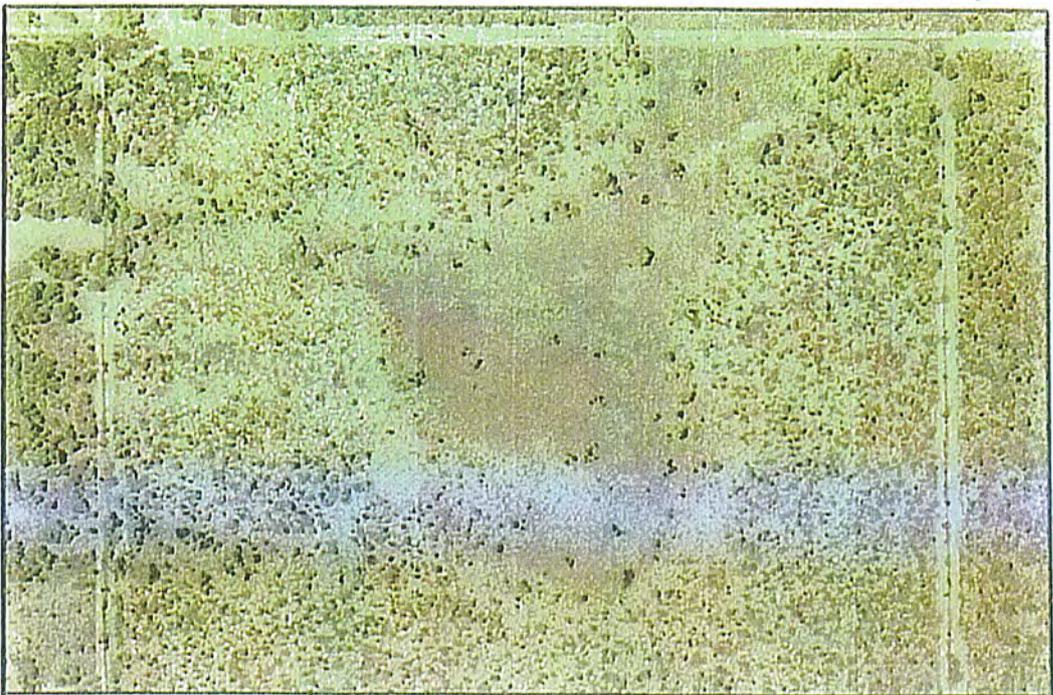
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Tom Gehlert 92739170
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