SHIRE OF EXMOUTH

TOWN PLANNING SCHEME No 3

AMENDMENT No 16

REZONING PORTION LOT 309 (PROPOSED LOTS 6 & 5 APPROVED UNDER WAPC REF: 133105) MURAT ROAD FROM MIXED USE TO TOURIST

HTD

HILLE, THOMPSON & DELFOS
SURVEYORS & PLANNERS

SHIRE OF EXMOUTH

TOWN PLANNING SCHEME NO. 3

AMENDMENT NUMBER 16

REZONING PORTION LOT 309 (PROPOSED LOTS 6 & 5 APPROVED UNDER WAPC REF:133105) MURAT ROAD FROM MIXED USE TO TOURIST

Prepared for: Neville Williams & Jon Jessop

HTD
HILLE, THOMPSON & DELFOS
SURVEYORS & PLANNERS

SHIRE OF EXMOUTH
TOWN PLANNING SCHEME NO. 3
AMENDMENT NO. 16

benchmark
IN QUALITY
AS/NZS ISO 9001

Hille, Thompson & Delfos deliver quality services to clients. As part of our Quality Assured to AS/NZ ISO 9001 System, documents are checked then approved prior to distribution. You are requested to ensure that your copy of this document is current, and that superseded pages are withdrawn and destroyed.

Prepared For: Neville Williams & Jon Jessop

Job Number: 274/07

Document Ref: AMENDMENT DOCUMENT

Checked By: ..... Date: 07.02.2008

Approved By: ..... Date: 07.02.2008

Revision	Description	Initialed	Date
1	Add Zoning Table and Environmental Assessment	TB	7/2/08

File No: .....

Part of Agenda: .....

MINISTER FOR PLANNING AND INFRASTRUCTURE
PROPOSAL TO AMEND A TOWN PLANNING SCHEME

1.	**LOCAL AUTHORITY:**	Shire of Exmouth
2.	**DESCRIPTION OF TOWN PLANNING SCHEME:**	Town Planning Scheme No 3
3.	**TYPE OF SCHEME:**	District Zoning Scheme
4.	**SERIAL No OF AMENDMENT:**	Amendment No 16
5.	**PROPOSAL:**	1. Rezoning Portion Lot 309 (proposed Lots 6 & 5 Approved under WAPC ref: 133105) Murat Road, Exmouth from Mixed Use to Tourist 2. Amending the Scheme Maps accordingly. 3. Amending the Zoning Table (Table One) of the Scheme accordingly.

TOWN PLANNING AND DEVELOPMENT ACT, 1928 (AS AMENDED)
RESOLUTION DECIDING TO AMEND A TOWN PLANNING SCHEME

SHIRE OF EXMOUTH
TOWN PLANNING SCHEME No 3
AMENDMENT No 16

Resolved that the Council, in pursuance of Section 7 of the Town Planning and Development Act, 1928 (as amended), amend the above Town Planning Scheme by:

1. Rezoning Portion Lot 309 (proposed Lots 6 & 5 approved under WAPC Ref: 133105) Murat Road, Exmouth from Mixed Use to Tourist

2. Amending the Scheme Maps accordingly.

3. Amending the Zoning Table (Table One) of the Scheme accordingly.

Dated this 12th day of February 20 08

.....
CHIEF EXECUTIVE OFFICER

TOWN PLANNING AND DEVELOPMENT ACT, 1928 (AS AMENDED)

SHIRE OF EXMOUTH
TOWN PLANNING SCHEME No 3
AMENDMENT No 16

The Shire of Exmouth under and by virtue of the powers conferred upon it in that behalf by the Town Planning and Development Act, 1928 (as amended) hereby amends the above Town Planning Scheme by:

1. Rezoning Portion Lot 309 (proposed Lots 6 & 5 approved under WAPC Ref: 133105) Murat Road, Exmouth from Mixed Use to Tourist

2. Amending the Scheme Maps accordingly.

3. Amending the Zoning Table (Table One) of the Scheme accordingly.

Adoption

Adopted by the resolution of the Council of the Shire of Exmouth at the Ordinary

Meeting of the Council held on the 18th day of ~~February~~ OCTOBER 14 20 07

.....
SHIRE PRESIDENT

.....
CHIEF EXECUTIVE OFFICER

ADOPTION

Adopted by resolution of the Council of the Shire of Exmouth at the Ordinary Meeting of the Council held on the ~~16th~~ 18TH day of October ~~2008~~ 2007 HH.

.....
PRESIDENT

.....
CHIEF EXECUTIVE OFFICER

FINAL APPROVAL

Adopted for final approval by resolution of the Shire of Exmouth at the meeting of the Council held on the 16th day of October 2008 and the Common Seal of the Shire of Exmouth was hereunto affixed by the authority of a resolution of the Council in the presence of:

.....
PRESIDENT

.....
CHIEF EXECUTIVE OFFICER

RECOMMENDED/SUBMITTED FOR FINAL APPROVAL

.....
DELEGATED UNDER S.16 OF THE PD ACT 2005

Date:.....

FINAL APPROVAL GRANTED

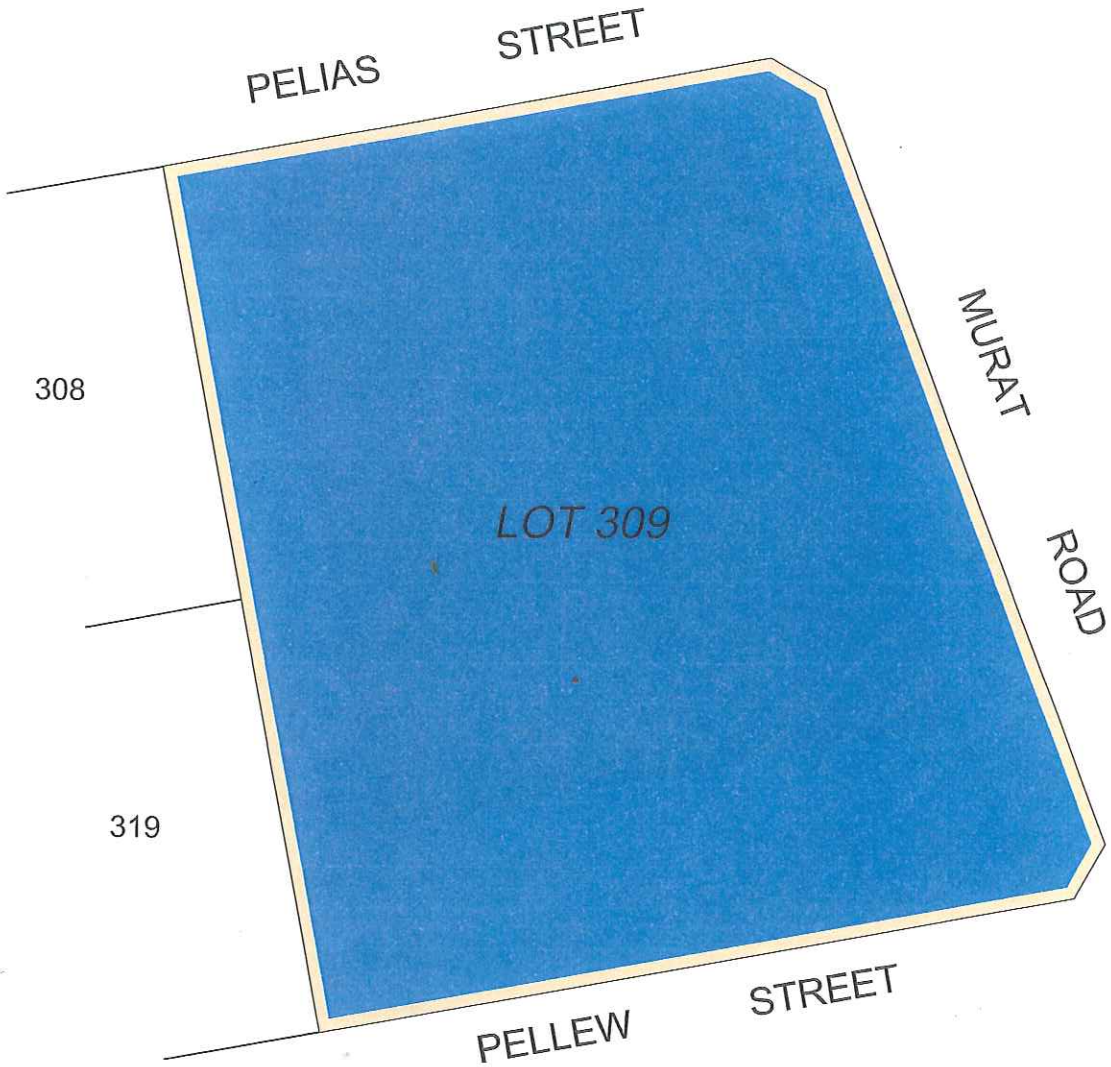
.....
MINISTER FOR PLANNING

Date:.....

It is hereby certified that this is a true copy of the ~~Scheme~~/Amendment, final approval to which was endorsed by the Minister for Planning on 21/5/09.

Certified by .....

Officer of the Commission Duly authorised pursuant to Section 24 of the Planning and Development Act 2005 and Regulation 22(3) of the Town Planning Regulations 1967.



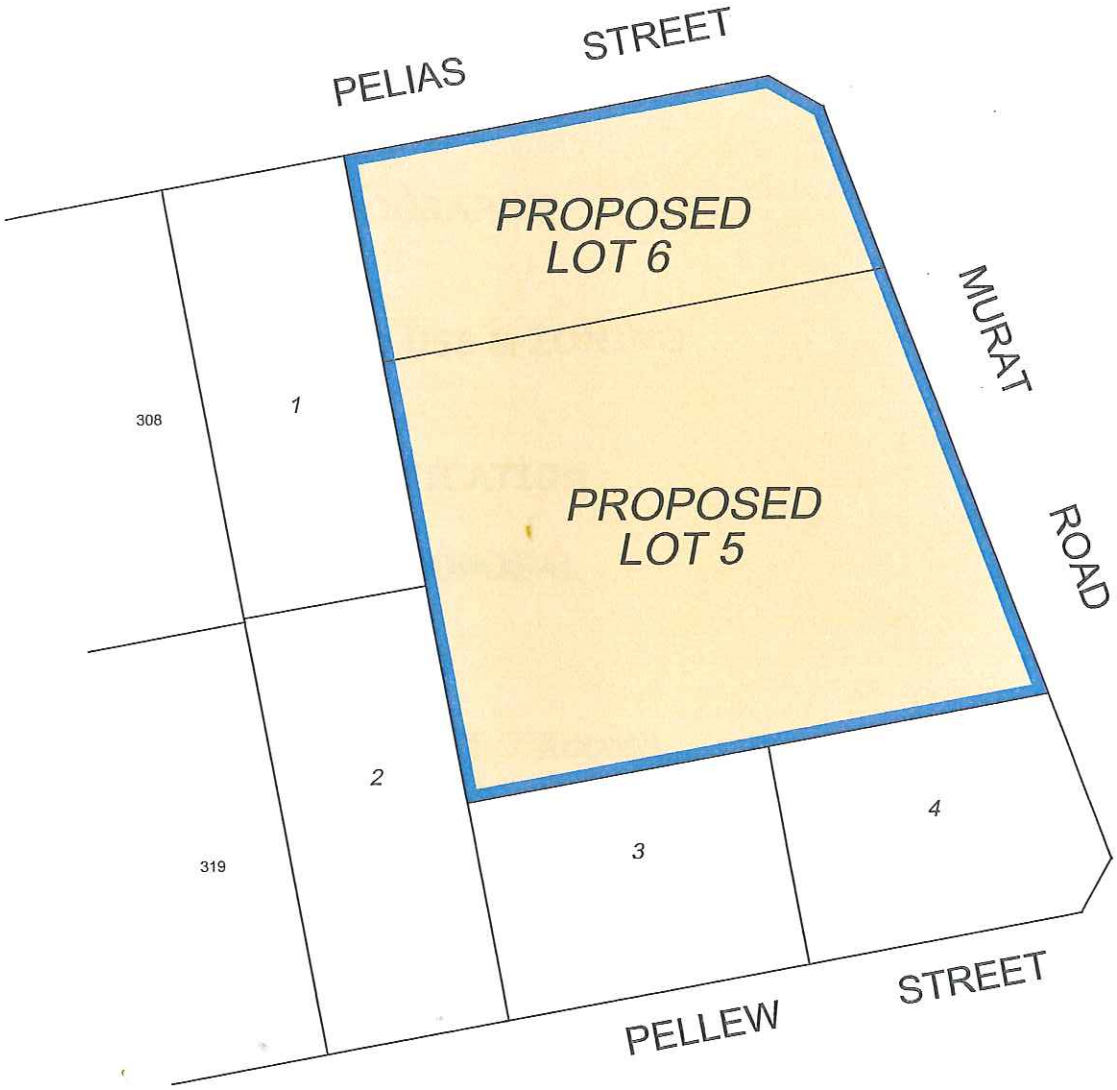
LEGEND

MIXED USE

00 20 40 60

ALL DISTANCES ARE IN METRES

SURV: SS	7/6/07	AREA FILE : 1645	HTD SURVEYORS & PLANNERS	CLIENT:	NEVILLE WILLIAMS
DWN: NDJ	7/6/07	CONT. INT'VAL :	HILLE, THOMPSON & DELFOS		EXISTING ZONING
CHK:		V DATUM :	PO Box 820, GERALDTON WA 6531		TOWN PLANNING SCHEME No 3
APP:		H DATUM :	PHONE: (08) 9921 3111 FAX: (08) 9921 8072		SHIRE OF EXMOUTH
		FIELD Bk :		SCALE 1 : 1000 (A4)	Drawing No: 27407ZS1-1-0



LEGEND

TOURIST

00 20 40 60

ALL DISTANCES ARE IN METRES

SURV: SS	7/6/07	AREA FILE : 1645	HTD SURVEYORS & PLANNERS
DWN: NDJ	7/6/07	CONT. INT'VAL :	HILLE, THOMPSON & DELFOS
CHK:		V DATUM :	PO Box 820, GERALDTON WA 6531
APP:		H DATUM :	PHONE: (08) 9921 3111 FAX: (08) 9921 8072
		FIELD Bk :	

CLIENT: NEVILLE WILLIAMS

PROPOSED ZONING

TOWN PLANNING SCHEME No 3

SHIRE OF EXMOUTH

SCALE 1 : 1000 (A4) Drawing No: 27407ZS2-1-0

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LIST OF APPENDICES

1.0 INTRODUCTION

The purpose of the Amendment is to apply the Tourist Zone over a portion of existing Lot 309 (proposed Lots 6 & 5 approved under WAPC Ref.: 133105), Murat Road, Exmouth which is currently zoned Mixed Use.

The remainder of the property (proposed Lots 1 – 4 approved under WAPC Ref. 133105) will retain its Mixed Use Zone, and there will be a restrictive covenant placed on each one of these lots to ensure appropriate & compatible uses are developed on these lots.

The proposal has been discussed extensively with staff and Councillors of the Shire of Exmouth, which have indicated their support for the proposal.

This Scheme Amendment Report is submitted in support of the proposal.

1.1 Location

The subject land is situated on Murat Road and is on the southern side of the Exmouth Townsite. The land is bounded by Pelias Street on the north, Murat Road on the east, Pellew Street on the south and Lots 308 & 319 on the western side. (See Figure 1)

The subject land is described as Lot 309 on Plan 209608, Murat Road, Exmouth. The subject lots proposed to be rezoned have an area of 6542m2 (the whole of Lot 309 is 1.2104ha.

A copy of the Certificate of Title is enclosed as Appendix 1.

2.0 TOPOGRAPHY

Cape Range is a prominent northerly trending, low mountain range running down the western side of the peninsula known as the North West Cape which is north of the Tropic of Capricorn, and approximately midway along the Western Australian Coastline.

The Cape is about 80 kilometres long, 20 kilometres wide and has a rugged topography reaching a maximum elevation of 314 metres at Mount Hollister.

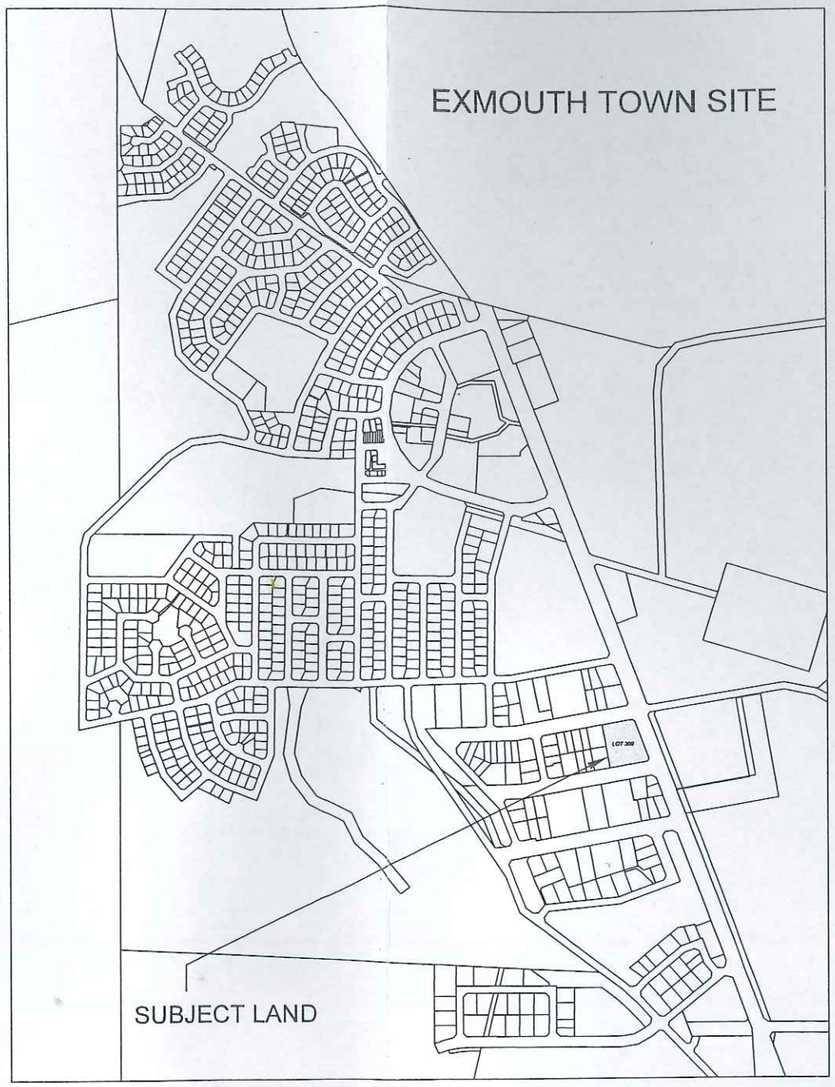
The Indian Ocean and a narrow continental shelf border the range on the west is approximately 12 kilometres wide on which has developed the Ningaloo Barrier Reef, and the west by the shallow Exmouth Gulf with its local islands and reefs.

The Cape Range National Park forms a backdrop to the west and there are occasional glimpses of the ocean to the east from the town site.

The subject land is within the town site area and is virtually flat with a slight fall in the land from west to east.

The natural vegetation surrounding the town is low scale scrub. There is no remnant vegetation on the subject land aside from a few scattered low shrubs.

27407LP1-1-0



KEY PLAN
NOT TO SCALE

00 50 100 150
ALL DISTANCES ARE IN METRES

REV.	DATE	DESCRIPTION	INT.

REVISIONS

SURVEYED BY:		
DRAWN BY:	NDJ	13/6/07
CHECKED BY:		
APPROVED BY:		

AREA FILE:
CONT. INT'VAL:
V DATUM: AHD
H DATUM: EXM'94
FIELD Bk:

HTD
SURVEYORS & PLANNERS
HILLE, THOMPSON & DELFOS
PO Box 820, GERALDTON WA 6531
PHONE: (08) 9921 3111 FAX: (08) 9921 8072

benchmark
IN QUALITY
AS/NZSISO 9001

CLIENT: NEVILLE WILLIAMS

LOT 309 ON P209608

LOCATION PLAN

MURAT ROAD, EXMOUTH - SHIRE OF EXMOUTH

SCALE 1 : 2500
ALL DISTANCES IN METRES

SHEET SIZE A3

DWG No. 27407LP1-1-0

3.0 LAND USE & ZONING

Presently the land is shown as Mixed Use under the Shire of Exmouth Town Planning Scheme No. 3, and contains a large building currently utilised for mini – golf purposes. This use will be contained wholly within proposed Lot 6, which is intended to be part of the rezoning to Tourist Use. The mini golf use is described as public amusement, which is a discretionary use under Table 1 – Zoning Table of Town Planning Scheme No. 3.

Proposed Lot 5 also intended to be rezoned to Tourist is currently vacant. The purpose of rezoning this lot is to allow for the development of the subject lot into a tourist resort.

The Tourist Zone allows for a number of uses such as caravan park, club premises, holiday accommodation, hotel, motel, public amusement, public utility, restaurant, service station, shop and take away food outlet.

Initial discussions and previous applications submitted with the Shire of Exmouth & its officers indicated some concern in relation to the interface between some of the possible uses allowed under the Mixed Use Zone and the proposed Tourist Zone.

Because of the concerns with the two uses being adjacent to one another, the Shire's officers had previously recommended the introduction of a new zone "Mixed Business" into the Town Planning Scheme.

As the whole of the site (Lot 309) is owned by one developer, they are aware that there is the potential for some conflict between the possible uses on each of the lots approved under WAPC Ref.: 133105.

It is for this reason, that as a part of the subdivision process and the creation of the new titles, the developers have taken it upon themselves to place a restrictive covenant on proposed Lots 1 – 4, which will restrict the use of the lots. This will exclude all uses that are marked 'X' (not permitted) under Mixed Use Zone in Table 1 – Zoning Table in addition to Fuel Depot, Industry Light, Industry Service, Motor Vehicle & Marine Repairs, Warehouse, and Veterinary Hospital / Clinic.

The lodgement & registration of the Restrictive Covenants on the new titles for these lots will ensure that the prospective purchasers are fully aware of the types of uses that can be developed on these lots. This will also ensure that there will not be any conflicting uses between the Mixed Use and Tourist Zones, and thus negate the need to introduce another zone and set of controls into the Scheme.

ZONING TABLE

USES	RESIDENTIAL	RESIDENTIAL DEVELOPMENT	TOWN CENTRE	TOURIST	MARINA	MIXED USE	LIGHT INDUSTRIAL	INDUSTRIAL	SPECIAL RURAL	PASTORAL
1 aged or dependent persons dwelling	AA	S	X	X	S	X	X	X	X	X
2 ancillary accommodation	AA	E	X	X	E	X	X	X	AA	AA
3 aquaculture	X	E	X	X	E	X	X	AA	AA	P
4 caravan park	X		X	AA		X	X	X	X	X
5 caretaker's dwelling	X	C	IP	IP	C	IP/ X[1]	IP	IP	X	IP
6 club premises	X	L	AA	AA	L	SA	X	X	X	AA
7 consulting rooms	SA	A	P	X	A	AA	X	X	X	X
8 dog kennels	X	U	X	X	U	X	X	SA	SA	AA
9 dwelling	P	S	X	X	S	IP/ X[1]	X	X	AA	P
10 education establishment	SA	E	X	X	E	AA	X	X	X	SA
11 fuel depot	X		X	X		SA / X[3]	AA	P	X	X
12 holiday accommodation	SA	5.2	X	P	5.5	X	X	X	X	AA
13 home occupation	AA		X	X		AA	X	X	AA	AA
14 hotel	X		AA	AA		X	X	X	X	X
15 industry - cottage	AA		X	X		AA	X	X	AA	AA
16 industry - extractive	X		X	X		X	X	AA	X	AA
17 industry - general	X		X	X		X	X	P	X	X
18 industry - light	X		X	X		AA / X[3]	P	P	X	X
19 industry - noxious	X		X	X		X	X	SA	X	SA
20 industry - rural	X		X	X		X	X	X	X	AA
21 industry - service	X		X	X		AA	P	P	X	X

22	Liquor store	X		SA	X		X / X[3]	X	X	X	X
23	marina	X		X	X		X	X	X	X	X
24	motel	X		AA	P		X	X	X	X	X
25	motor vehicle and marine sales	X		AA	X		AA	P	P	X	X
26	motor vehicle and marine repairs	X		X	X		AA / X[3]	AA	P	X	X
27	motor vehicle wreckers	X		X	X		X	X	SA	X	X
28	office	X		P	X		IP	IP	IP	X	X
29	plant nursery	X		X	X		AA	P	P	AA	AA
30	public amusement	X		AA	AA		SA	AA	AA	X	X
31	public utility	AA		AA	AA		AA	AA	AA	AA	AA
32	residential building	AA		X	X		X	X	X	X	AA
33	restaurant	X		AA	P		SA	X	X	X	X
34	rural pursuit	X		X	X		X	X	X	SA	P
35	salvage yard	X		X	X		X	X	AA	X	X
36	service station	X		SA	SA		SA	AA	AA	X	AA
37	shop	X		AA/ X[2]	AA		IP	X	X	X	X
38	showroom	X		AA	X		AA	AA	AA	X	X
39	take-away food outlet	X		AA	AA		SA	X	X	X	X
40	tavern	X		SA	X		SA	X	X	X	X
41	transport depot	X		X	X		X	X	P	X	SA
42	veterinary hospital/ clinic	X		SA	X		SA / X[3]	AA	P	SA	AA
43	warehouse	X		X	X		P/ X[3]	P	P	X	X
44	worship - place of	AA		P	X		AA	X	X	X	X

Notes:

1. Development on a lot may include as an IP use either a caretaker's dwelling or a dwelling, but not both.
2. Shall be an "X" use (not permitted) on Lots 38, 161-170 inclusive off Maidstone Crescent between Lockwood Street and Learmonth Street, and Lot 36 Learmonth Street, Exmouth
3. Shall be an "X" use (not permitted) on Lots 1-4 inclusive adjacent to the intersections of Pellew Street, Murat Road and Pelias Street. Further, any proposal for a 'use not listed' to be assessed in accordance with clause 3.2.4 of the Scheme and shall only be permitted where the proposed use is compatible with the adjacent tourist zoned land.

4.0 JUSTIFICATION

The Shire of Exmouth has in the past endorsed rezoning a portion of the subject property to Tourist Zone.

The rezoning and the subdivision of the subject land will cater for the increasing demand for Tourist Zoned lots in Exmouth.

The location and physical features of the subject land lend itself favourably to the proposed development.

Services are conveniently located to the land as are existing road frontages.

The Shire of Exmouth has a Strategic Plan in place which was adopted in 1999, and was intended to be valid until 2004, with updates each year to ensure that it continues to look five years ahead.

The Strategic Plan provides the Shire of Exmouth with a clear direction in decision making as well as monitoring framework to ensure that both the direction and the purpose identified for the Shire are being achieved as a whole.

The Shire of Exmouth also has a Townscape Enhancement Strategy and various Design Guidelines to aid the future development of Exmouth.

The Exmouth Townscape Enhancement Plans together with the various Guidelines and Policies in particular the Murat Road Development Guidelines Policy are integral to the staged upgrading and enhancement of the physical environment and amenity of Exmouth.

The Enhancement Strategy, the Murat Road Development Guidelines and the provisions of the Town Planning Scheme all aid in guiding any development on the lots approved by the WAPC under Reference 133105.

5.0 THE PROPOSAL

5.1 SERVICES

5.1.1 ACCESS

The subject lots have direct access to Pelias Street and Murat Road respectively. Both roads are sealed and constructed roads and Murat Road is the major road into and out of the Town Centre. It runs to the immediate east the Town Centre, separating the latter from the sports grounds, golf course and the coastline.

Only Proposed Lot 5 will have direct frontage & access to Murat Road, to ensure that access ways onto Murat Road are limited as per the requirements of the Murat Road Development Guidelines.

Proposed Lot 6 will not have direct access to Murat Road, its only access will be via Pelias Street.

5.1.2 POWER

Three – phase overhead power runs the length of both Pelias Street & Murat Road, and there are no problems identified with servicing the subject land.

As a part of the subdivision approval the owner is required to connect all lots to an underground power supply and has therefore duly appointed a certified engineer to ensure that these requirements are met.

5.1.3 WATER

Water Corporation Scheme Water services run the length of both Pelias Street and Murat Road, and there are no problems identified with servicing the subject land.

As a part of the subdivision approval the owner is required to connect all lots to a water supply and has therefore duly appointed a certified engineer to ensure that these requirements are met.

5.1.4 EFFLUENT DISPOSAL/ SEWER

Water Corporation sewer lines run the entire length of Murat Road, and there have been no problems identified with servicing the subject land.

As a part of the subdivision approval the owner is required to connect all lots to the reticulated sewer supply and has therefore duly appointed a certified engineer to ensure that these requirements are met.

5.2 VEGETATION

The majority of the subject land has been cleared although there are a few small patches of insignificant scrub on both of the lots.

The majority of the vegetation that is in the vicinity is located on the street frontages, and through the Shire's Townscape Enhancement program this vegetation will be identified at the development stage in terms of its removal and/ or upgrading.

5.3 AMENITY

There have been no building envelopes shown on the proposed lots. The Shire of Exmouth Town Planning Scheme No. 3 in conjunction with the Townscape Enhancement Strategy and the Murat Road Development Policy will ensure that any development on the subject lots will not adversely impact on the surrounding properties.

The lodgement of the restrictive covenants on the remaining Mixed Use lots will also ensure that any proposed development on any of the lots subject of WAPC Approval 133105 will not adversely affect one another.

5.4 CONCLUSION

As outlined in this submission the rezoning of proposed Lots 6 & 5 to Tourist Zone will create lots capable of being developed for a wide range of tourist facilities and holiday accommodation.

The submission is proposed to be adopted as a part of the Shire's Town Planning Scheme No. 3.

This will ensure the effective implementation of the relevant controls and enable any reviews if required to be carried out in accordance with the Scheme Review procedures.

The rezoning will lead to a significant visual improvement to the streetscape and provide additional tourist accommodation for current and future visitors to Exmouth.

APPENDIX I – CERTIFICATE OF TITLE

3492

WESTERN AUSTRALIA

REGISTER NUMBER	
309/DP209608	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	29/7/2005

RECORD OF CERTIFICATE OF TITLE

VOLUME 1731 FOLIO 69

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 309 ON DEPOSITED PLAN 209608

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

NEVILLE WAYNE WILLIAMS OF PO BOX 200, CERVANTES
SUNPOINT NOMINEES PTY LTD OF 1 THE ESPLANDE, ESPERANCE
AS TENANTS IN COMMON IN EQUAL SHARES

(T J365711) REGISTERED 19 JULY 2005

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1731-69.
PREVIOUS TITLE: This Title.
PROPERTY STREET ADDRESS: LOT 309 MURAT RD, EXMOUTH.
LOCAL GOVERNMENT AREA: SHIRE OF EXMOUTH.

NOTE 1: A000001A LAND PARCEL IDENTIFIER OF EXMOUTH TOWN LOT/LOT 309 (OR THE PART THEREOF) ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 309 ON DEPOSITED PLAN 209608 ON 02-AUG-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.

NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.

1567/86 ORIGINAL — NOT TO BE REMOVED FROM OFFICE OF

CT 1731 D069 F

LANDS	L.T.O.
CP Barcoded	Land ✓
TDA.	Permit ✓
	Lease ✓ 742/1966
	Name ✓

c.v 742/1966 Dead.

WESTERN AUSTRALIA

VOL. 1731 FOL. 069

15.00 12.42 27.42

Crown Grant

Elizabeth the Second, by the Grace of God, Queen of Australia and Her other Realms and Territories, Head of the Commonwealth. To all to whom these Presents shall come, GREETING: Know ye that We, of Our especial Grace, certain knowledge, and mere motion, have given and granted, and We do by these Presents, for Us, Our heirs and successors, in consideration of the payment of the sum of $5960.00---------- and the fulfilment of the prescribed conditions to the satisfaction of Our Governor of Our State of Western Australia, Give and Grant unto Gascoyne Trading Pty Limited having its registered office situate at 11th Floor 40 The Esplanade Perth

(hereinafter called the Grantee), the natural surface and so much of the land as is below the natural surface to a depth of 12.19 metres of ALL THAT Piece or Parcel of Land situate and being in the Town of Exmouth----------, in Our said State, containing 1.2116 hectares---------- more or less, and marked and distinguished in the Maps and Books retained under the Land Act 1933 as Exmouth Lot 309----------

and as the same is delineated and coloured green in the plan drawn in the first schedule: TOGETHER with all Appurtenances thereunto belonging or in anywise appertaining: TO HAVE AND TO HOLD the said Piece or Parcel of Land to the depth aforesaid, and all and singular the Premises hereby granted, with their appurtenances, unto the Grantee, in fee simple: Yielding and Paying for the same to Us, Our heirs and successors, one peppercorn of yearly rent on the twenty-fifth day of March in each year, or so soon thereafter as the same shall be lawfully demanded: PROVIDED NEVERTHELESS that subject to section 141 of the Land Act, 1933, it shall (at any time within twenty-one years from the date of these Presents) be lawful for Us, Our heirs and successors, or for any person or persons acting in that behalf by Our or their authority, to resume and enter upon possession of any part of the said Piece or Parcel of Land, which it may at any time by Us, Our heirs and successors, be deemed necessary to resume for roads, tramways, railways, and railway stations, canals, bridges, towing paths, harbour or river improvement works, drainage or irrigation works, quarries, and generally for any other works or purposes of public use, utility or convenience, and for the purpose of exercising the power to search for minerals hereinafter reserved, and such Land so resumed to hold to Us, Our heirs and successors as of Our or their former estate without making to the Grantee, or any person claiming under him, any compensation in respect thereof; so, nevertheless, that no such resumption be made without compensation of any part of the said Piece or Parcel of Land upon which any expenditure or improvements shall have been made by the said Grantee, or any person claiming under him; and We do hereby save and reserve to Us, Our heirs and successors, all Mines of Gold, Silver, Copper, Tin, or other Metals, Ore and Minerals, or other substances containing Metals, and all Gems or Precious Stones and Coal or Mineral Oil, and all Phosphatic Substances in or under the said Piece or Parcel of land hereby granted, with full liberty at all times to search and dig for and carry away the same; and for that purpose to enter upon the said Piece or Parcel of land or any part thereof; and we do hereby save and reserve to Us, Our heirs and successors all petroleum (as defined in the Petroleum Act, 1967 and all amendments thereof for the time being in force) on or below the surface of the said Land with the right reserved to Us, Our heirs and successors and persons authorised by Us, Our heirs and successors to have access to the said land for the purpose of searching for and for the operations of obtaining petroleum in any part of the said land subject to and in accordance with the provisions contained in the Petroleum Act, 1967, and all the amendments thereof for the time being in force.

IN WITNESS whereof We have caused Our trusty and well-beloved HIS EXCELLENCY PROFESSOR GORDON REID, Governor in and over the State of Western Australia and its Dependencies in the Commonwealth of Australia, to affix to these Presents the Public Seal of the said State.

Sealed this 20th *day of* June, *One thousand nine hundred and* eighty six

Gordon Reid
Governor

Grant under the Land Act, 1933 as amended

Minister for Lands and Surveys

CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

The abovenamed Grantee is now the registered proprietor of an estate in fee simple in all the land described in this Grant subject to the easements and encumbrances shown in the Second Schedule hereto.

DATED THE 3RD DAY OF July 1986

N.J. Smyth
REGISTRAR OF TITLES

Transfer H914194 to Kim Brodrick Stevens, Gary Mitchum Stevens and Valda Lydia Stevens all of 118 Dumbarton Road, Canning Vale, as joint tenants. Registered 1st November 2001 at 8.00 hrs.

FOR ENCUMBRANCES AND OTHER MATTERS AFFECTING THE LAND SEE SECOND SCHEDULE

31638/2/84—2M—S/2852

FIRST SCHEDULE

Area and measurements on the Plan hereon are more or less, and a peg has been placed at each corner of the lot.

Scale: 1:2500

Survey: O.P. 9608

Corr: 1565/65

Drawn: G.D.

Examined:

SECOND SCHEDULE

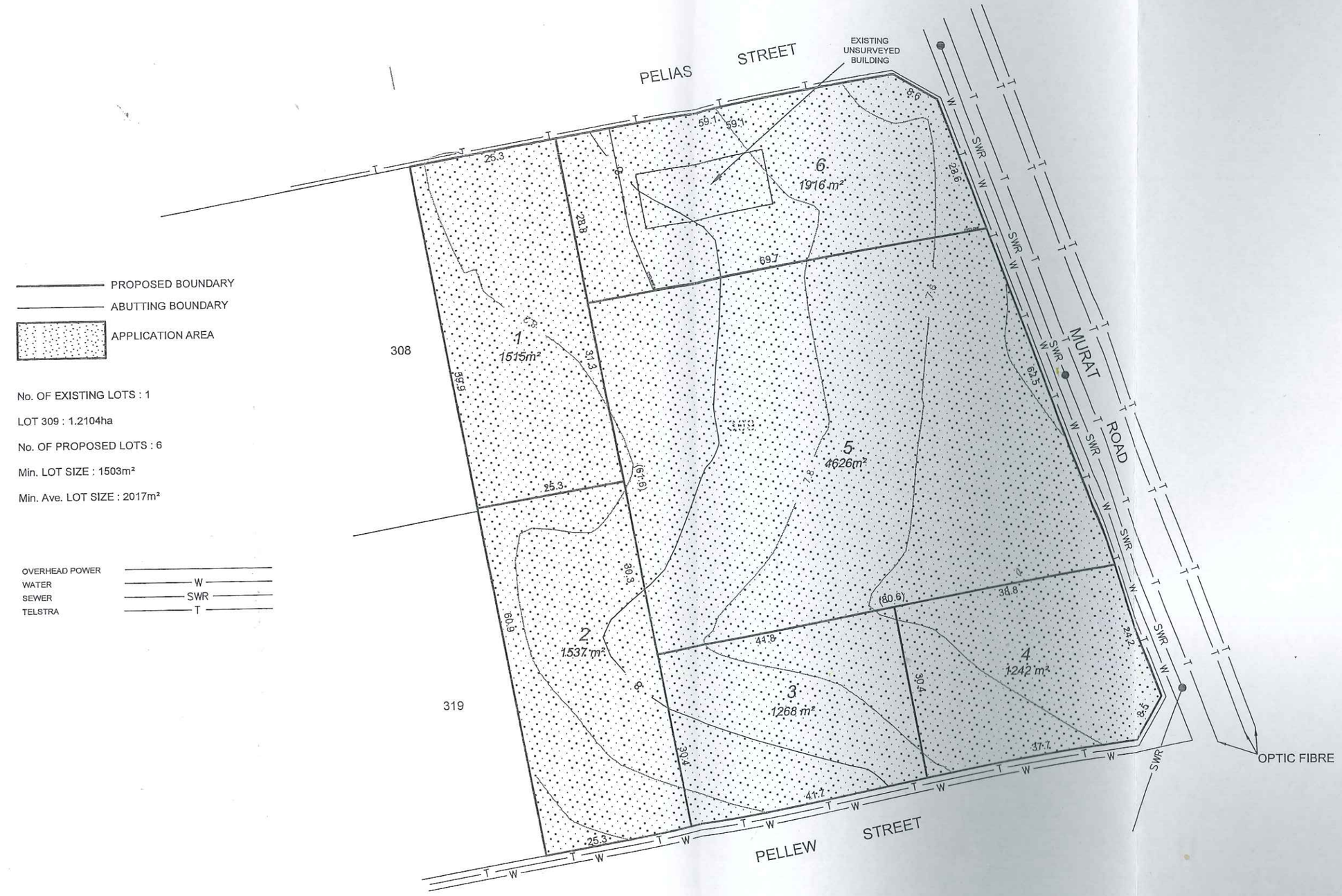
NOTE: RULING THROUGH AND SEALING WITH THE OFFICE SEAL INDICATES THAT AN ENTRY NO LONGER HAS EFFECT. ENTRIES NOT RULED THROUGH MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	INITIALS	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	INITIALS
Mortgage	H914195	to National Australia Bank Ltd.	1.11.01	8.00		PT					

CERTIFICATE OF TITLE VOL. 1731 069

APPENDIX II – APPROVED PLAN OF SUBDIVISION

34006AS1-1-2



3	26/2/07	REVISION	DM

REVISIONS

00 10 20 30
ALL DISTANCES ARE IN METRES

SURVEYED BY:		
DRAWN BY:	DM	26/2/07
CHECKED BY:		
APPROVED BY:		

AREA FILE: 1645
CONT. INTVAL: 0.2
V DATUM: AHD
H DATUM: EXM94
FIELD Bk:

HTD SURVEYORS & PLANNERS
HILLE, THOMPSON & DELFOS
PO Box 820, GERALDTON WA 6531
PHONE: (08) 9921 3111 FAX: (08) 9921 8072

CLIENT: NEVILLE WILLIAMS

LOT 309 PLAN 209608

PROPOSED SUBDIVISION

MURAT ROAD,EXMOUTH - SHIRE OF EXMOUTH

SCALE 1 : 500 | SHEET SIZE A2 | DWG No. 34006AS1-1-3

APPENDIX III – ENVIRONMENTAL ASSESSMENT

REPORT

Odour Assessment
Lot 309 Murat Road, Exmouth

Prepared For:

Jon Jessop

January 2008

DBE
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EAST FREMANTLE WA 6158

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Job No: 07-072 Status	Version	Prepared by	Reviewed by	Submitted to Client Copies	Date
Draft	1	KW	KS		29/01/08

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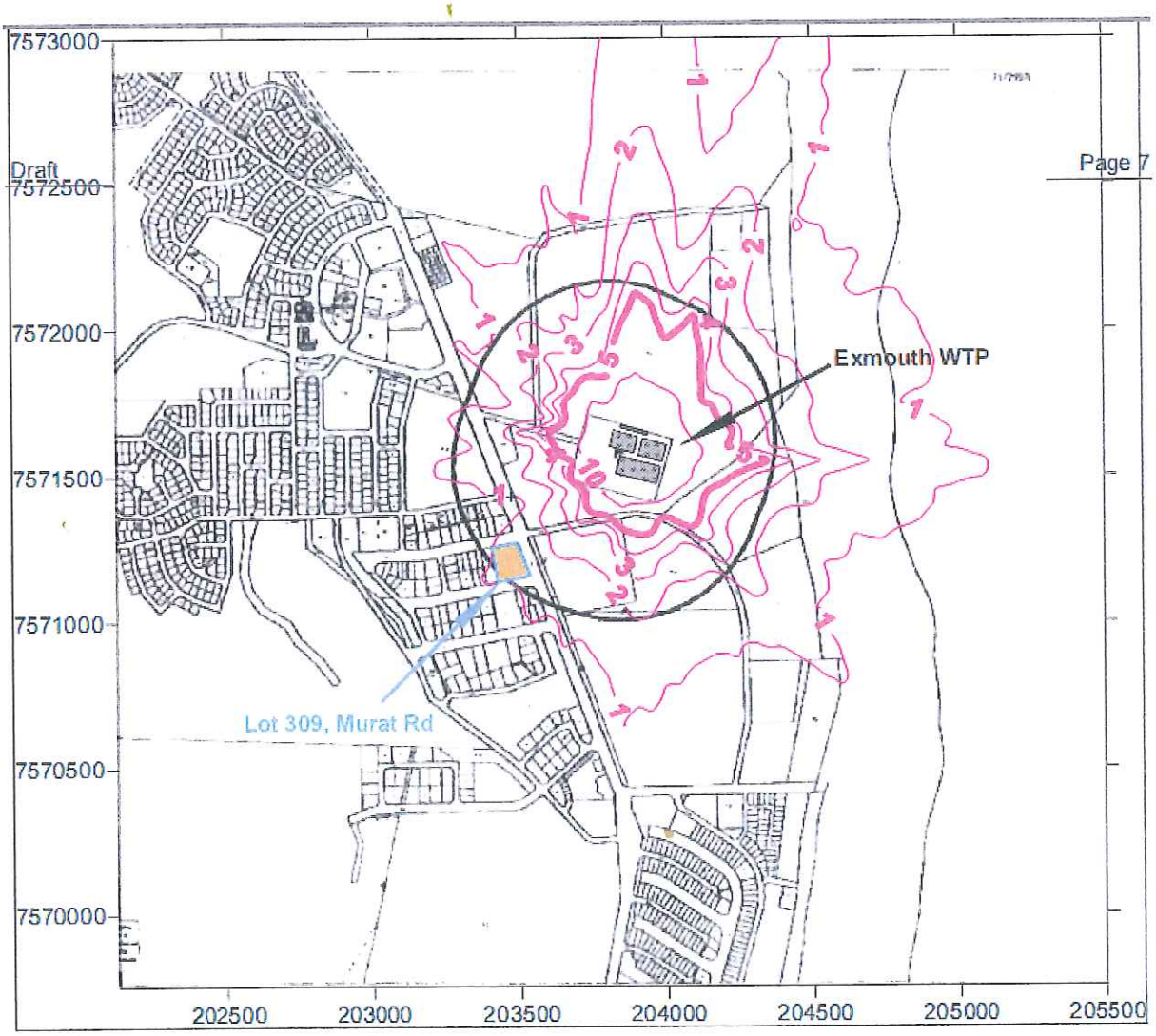
Executive summary

In order to assess the odours from the Exmouth waste water treatment plant (WTP) against the EPA's criteria for acceptable odour impacts the dispersion of odours is required to be modelled over a full year.

Emission data from waste water treatment plants available from the public domain was sourced. Emission data from Broome waste water treatment was selected as a surrogate data for Exmouth. Emission rate was adapted for both population and pond area and the most conservative rate chosen for modelling.

One years' high quality meteorological data was sourced from the Bureau of Meteorology weather station at Learmonth Airport. These data included cloud cover and height observations and was used to develop a data set for use with AUSPLUME; the model required by the EPA assessment criteria.

From the above data odour concentration was plotted (figure below) as average 1-hour 99.9 percentile.



The 5 OU contour is shown in bolded pink. The average radius of this contour from the boundary of the WTP site is 280 metres. The 1-hour average 99.9 percentile concentration at the nearest point of the proposed development is 1.5 OU compared to the criterion of 5 OU used for the study.

On the basis that this is well below the criterion, there appears to be a good possibility that odour impacts at Lot 309 Murat Road are acceptable. It is however noted that the odour emission rates were derived from Broome WTP and odour emission from one WTP can vary considerably.

ASSESSMENT OF ODOURS FROM EXMOUTH WASTE WATER TREATMENT PLANT AT LOT 309 MURAT ROAD, EXMOUTH

*** Draft Only ***

Prepared for

Dingle & Bird

by

Environmental Alliances Pty Ltd

January 2008

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Environmental Alliances Pty Ltd (EAPL) will act in all professional matters as a faithful adviser to the Client and exercise all reasonable skill and care in the provision of its professional services.

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This report is based on the scope of services defined by the Client, budgetary and time constraints requested by the Client, the information supplied by the Client (and its agents), and methods consistent with the preceding.

EAPL has not attempted to verify the accuracy or completeness of the information supplied.

Client: Dingle & Bird

Job No: J8012	Version	Prepared by	Reviewed by	Submitted to Client	
Status				Copies	Date
Draft Report	1	DP	-	*.pdf	23/1/2008
Final Report					

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1. INTRODUCTION

Environmental Alliances Pty Ltd (EA) has been engaged by Dingle & Bird to undertake odour modelling from the Exmouth Wastewater Treatment Plant (WTP) to estimate odour levels at Lot 309 Murat Road. It is understood that the modelling is to support an application for environmental approvals for the rezoning of a portion of Lot 309 (proposed lots 6 & 5 approved under WAPC ref: 133105) Murat road from mixed use to tourist.

It is understood that a 500 metre "odour buffer" has been applied to the Exmouth WTP which restricts "odour-sensitive" developments within this area - which includes a portion of Lot 309 Murat Road, from being approved.

If it can be demonstrated that the odour impacts at Lot 309 are acceptable for "odour-sensitive" uses, restrictions applied to developments on the basis of odour may be lifted.

2. ODOUR CRITERIA

The Water Corporation undertook a detailed odour assessment as part of a strategic environmental review taking into account proposed upgrades of the Woodman Point WTP (Water Corporation 2005).

The Water Corporation's report correlated modelled ambient odour levels from the Woodman Point WTP with public complaints from around the facility. It was shown in the report that the modelled 5 odour unit (ou), 1-hour average, 99.9 percentile contour was a good indicator of public odour complaints - this criterion was considered by the Water Corporation to be a "desirable limit to ensure minimal inconvenience from odours from wastewater treatment plants" (Water Corporation 2005 p7).

The same criterion was also demonstrated as being protective of public odour complaints for regional WTPs at Halls Head and Broome (Wallis 2007).

This study of the Exmouth WTP odours has therefore used the same methodology as the Water Corporation[1] which includes:

- the AUSPLUME model and commensurate assumptions; and
- the odour criterion of 5ou, 1-hour average, 99.9 percentile.

3. ESTIMATION OF ODOUR EMISSION RATES

By far the most complex aspect of an odour assessment from WTPs is the determination of odour emission rates for the various sources of odour.

The scope of work for this modelling was to use whatever relevant odour emissions rates were available – that is, no site specific field studies have been undertaken for this study.

Wallis (2007) contains modelled odour concentrations for the Broome WTP. These results are considered to be the most appropriate data source that could be found in the public domain for use in modelling odours from the Exmouth WTP.

[1] It is considered by Environmental Alliances that this approach does not necessarily reflect some of the actual physical mechanism underlying odour emissions and dispersion including:
- the assumption of constant odour emissions rates from areas sources (it is considered that odour emissions from such sources are dependent on prevailing wind speed); and
- the AUSPLUME model does not properly simulate dispersion during calm and near calm conditions.

The Broome WTP is larger than the Exmouth WTP in terms of physical size and population served as illustrated in Table 1.

Table 1 Parameters of Broome and Exmouth WTPs

Town	Population (2006)[(a)]	WTP ponds area (m^2)
Broome	14,436	85,400
Exmouth	2172	20,000
Ratio Exmouth:Broome	0.15	0.23

[(a)] Department of Local Government and Regional Development, www.dlgrd.wa.gov.au/Publications%5CDocs%5CEstimatedResidentPopulation2006Summary.xls

The modelled odour concentrations in Wallis (2007) were used to back-calculate an estimate odour emission rate (OER) for the Broome WTP. This gave an OER of approximately 37,000 ou/s.

The scaled OER for Exmouth WTP is therefore 5,500 or 8,700 ou/s depending on whether the scaling is based on population or pond areas respectively.

The OER assumed for modelling odours from the Exmouth WTP in this study was 8,700 ou/s, which is the more conservative of the above estimates (ie tends towards over-estimating odour impacts). This is equivalent to a unit area emission rate from the ponds of 0.44 ou.$m^3/m^2/s$.

4. DISPERSION MODELLING

4.1 MODEL

As described above, the current version (V6.0) of the AUSPLUME dispersion model (EPAV 2000) was used for the modelling. This is a regulatory model for air quality assessments in Victoria and widely used throughout Australia to assess the impacts from industrial sources.

4.2 LOCAL METEOROLOGY

4.2.1 Climate of North West Cape region

The North West Cape region of Western Australia and has a dry climate with hot summers and mild winters.

The average annual rainfall at Exmouth is 267 mm. Much of the annual rainfall occurs either during January to March and is associated with thunderstorms and tropical lows, or from May to July when tropical cloud bands originating to the northwest often bring heavy rains.

The two main broad-scale influences are the band of high pressure known as the sub-tropical ridge well to the south and a trough of low pressure that typically extends over the inland Pilbara in the warmer months. These combine to produce a general south or south-easterly wind regime for much of the year. Actual winds may vary considerably mainly due to the influence of afternoon sea breezes in the warmer months. These sea breezes are generally south to south-westerly on the western side of the peninsula and typically either south-westerly or north-easterly on the Exmouth Gulf side.

January is the hottest month with an average January maximum temperature of 38.0°C .

Winters are mild with July average maximum and minimum temperatures being 24.0°C and 11.3°C respectively.

A tropical cyclone causing strong winds, high seas and heavy rain affects the North West Cape area about once every two years on average. Cyclones are most common in February and March .

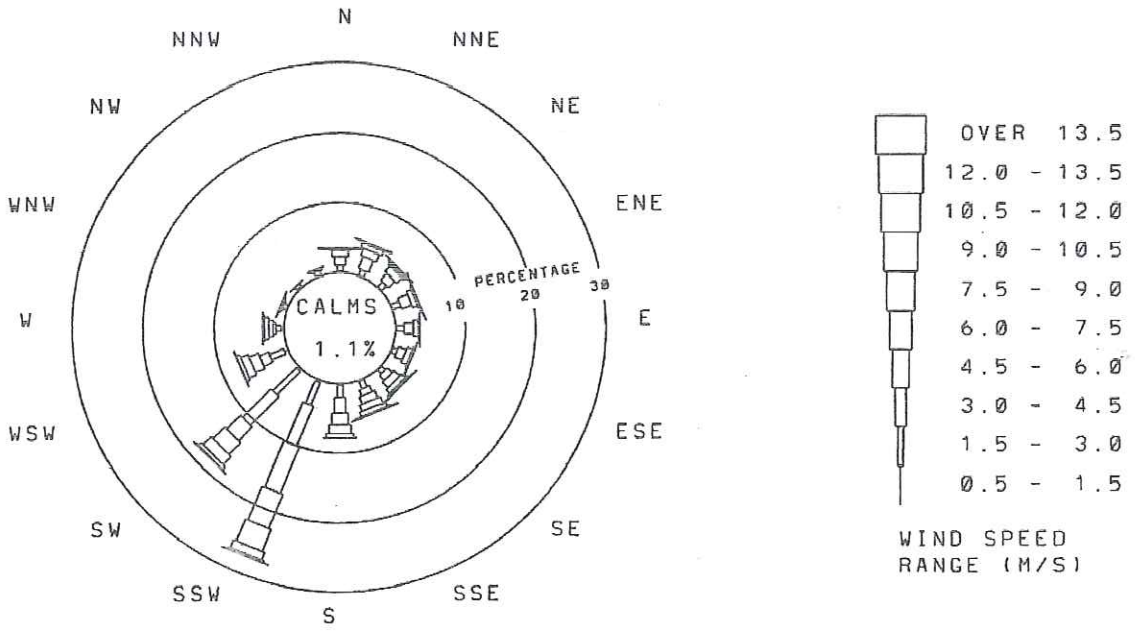
The relative humidity varies from about 43-68% at 9 am and from about 25-40% at 3 pm, the lower values occurring in the second half of the year. Evaporation is high and varies from 3.9 mm per day in June to 12.5 mm per day in December (BoM 2008).

4.2.2 Continuous meteorological data

The Bureau of Meteorology (BoM) operate an automatic weather station at Learmonth Airport which is about 30 km south of Exmouth. These data include cloud cover and height observations and was used to develop a data set suitable for use with the AUSPLUME model.

Data for the 2006 year was obtained from the BoM.

A wind speed and direction percentage occurrence rose and matrix from these data are shown in Figure 1. This indicates that, over a full year, winds from the south to west-south-west are very dominant.



WIND ROSE FOR Learmonth Airport
DATA PERIOD: 1/1/2006 TO 31/12/2006
AVERAGING TIME: 60 MINUTES
DATA RECOVERY: 100.0%

*** WIND SPEED - WIND DIRECTION PERCENTAGE OCCURRENCE MATRIX ***

SITE - Learmonth Airport
DATA PERIOD: 1. 1. 6 TO 31.12. 6 INCLUSIVE.

WIND SPEED RANGE (M/S)	WIND DIRECTION SECTOR N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTALS
OVER 13.5								0.1									0.1
12.0 - 13.5																	0.1
10.5 - 12.0		0.1					0.1	0.1		0.3	0.1						0.7
9.0 - 10.5							0.1			1.2	0.5	0.1					2.3
7.5 - 9.0	0.1	0.1	0.3	0.1		0.1	0.3	0.7	0.6	3.4	1.6	0.4	0.2				7.9
6.0 - 7.5	0.2	0.7	0.4	0.2	0.1	0.2	0.7	1.0	1.3	5.3	2.4	1.1	0.7				14.2
4.5 - 6.0	0.9	1.1	1.0	0.7	0.8	0.8	1.1	1.1	1.7	7.1	2.8	1.4	0.6	0.1		0.1	21.5
3.0 - 4.5	1.2	1.8	1.3	1.5	1.3	1.2	1.0	0.9	2.2	6.2	5.8	1.4	0.4	0.2	0.1	0.3	26.9
1.5 - 3.0	0.9	0.9	1.0	1.3	1.1	0.7	0.7	1.2	1.7	3.5	4.7	2.2	0.7	0.5	0.5	0.7	22.2
0.5 - 1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.5	0.4	0.2	0.2		3.1
TOTALS	3.4	4.8	4.1	3.9	3.5	3.2	4.1	5.2	7.9	27.4	18.3	7.2	3.0	1.1	0.7	1.1	

CALMS (LESS THAN 0.5 M/S): 1.1%
DATA RECOVERY: 100.0%
AVERAGING TIME: 60 MINUTES

*** SUMMARY STATISTICS ***

	MEAN (M/S)	STD. DEV. (M/S)	MAX. (M/S)
SCALAR WIND SPEED	4.5	2.3	16.4
NORTHERLY COMPONENT	-2.3	3.3	-15.0
EASTERLY COMPONENT	-0.8	2.9	14.2

Figure 1 Wind speed and direction frequency occurrence rose and matrix for Learmonth Airport data 2006

4.3 STABILITY CLASSES

Dispersion models also require continuous estimates of atmospheric stability. The basis of simple stability categorisation is to define stability according to one of six stability classes conventionally defined as classes A, B, C, D, E and F. Class A at one extreme, represents extremely unstable (convective) conditions, Class F at the other extreme represents extremely stable (inversion) conditions and class D in-between is neutral.

There are a number of options for determining stability classes from surface meteorological data. The "Turner" method was used in this study, since this is preferred by the USEPA (USEPA 2000). In brief, this involves estimating stability class from:

- net radiation determined from solar altitude (a function of time of day and time of year), total cloud cover, and ceiling height; and
- wind speed.

Stability class changes were limited to a maximum of two per hour.

A summary of the stability distribution is shown in Table 2.

Table 2 Stability Class frequency distribution

Stability Class	Occurrence (%) (From BoM data for Learmonth 2006)
A	2.2
B	12.4
C	14.3
D	36.9
E	16.3
F	17.9

4.4 MIXING HEIGHTS

The dispersion of emissions of odours from a ground level source will not significantly be affected by mixing height, hence no restrictions on mixing height were used.

4.5 LAND USE AND TERRAIN DATA

The area between the Exmouth WTP and the proposed development site is reasonably flat hence the dispersion of odours is unlikely to be significantly affected by topography. Consequently, no terrain corrections were used for the modelling.

4.6 RECEPTOR GRID

A Cartesian receptor grid covering the area between the Exmouth WTP and the proposed development site, with grid intervals at 50 m was used to define receptors for modelling.

4.7 GENERAL SETTINGS AND ASSUMPTIONS

Other model settings and assumptions are shown in Table 3.

Table 3 Model key settings and assumptions

Parameter	Value
Domain roughness length (m)	0.4
Wind profiles	ISC rural
Minimum wind speed for defining calms (m/s)	0.5
Dispersion coefficients	Pasquil-Gifford
Background concentrations	Not included

For other parameters, default values were used.

The AUSPLUME configuration file is shown in Appendix 1.

5. PREDICTED ANNUAL AMBIENT ODOUR LEVELS

In order to assess the odours from the facility against the EPA's criteria for acceptable odour impacts, the dispersion of odours is required to be modelled over a full year.

The results of modelling the odour emissions from the Exmouth WTP are shown in Figure 2 below.

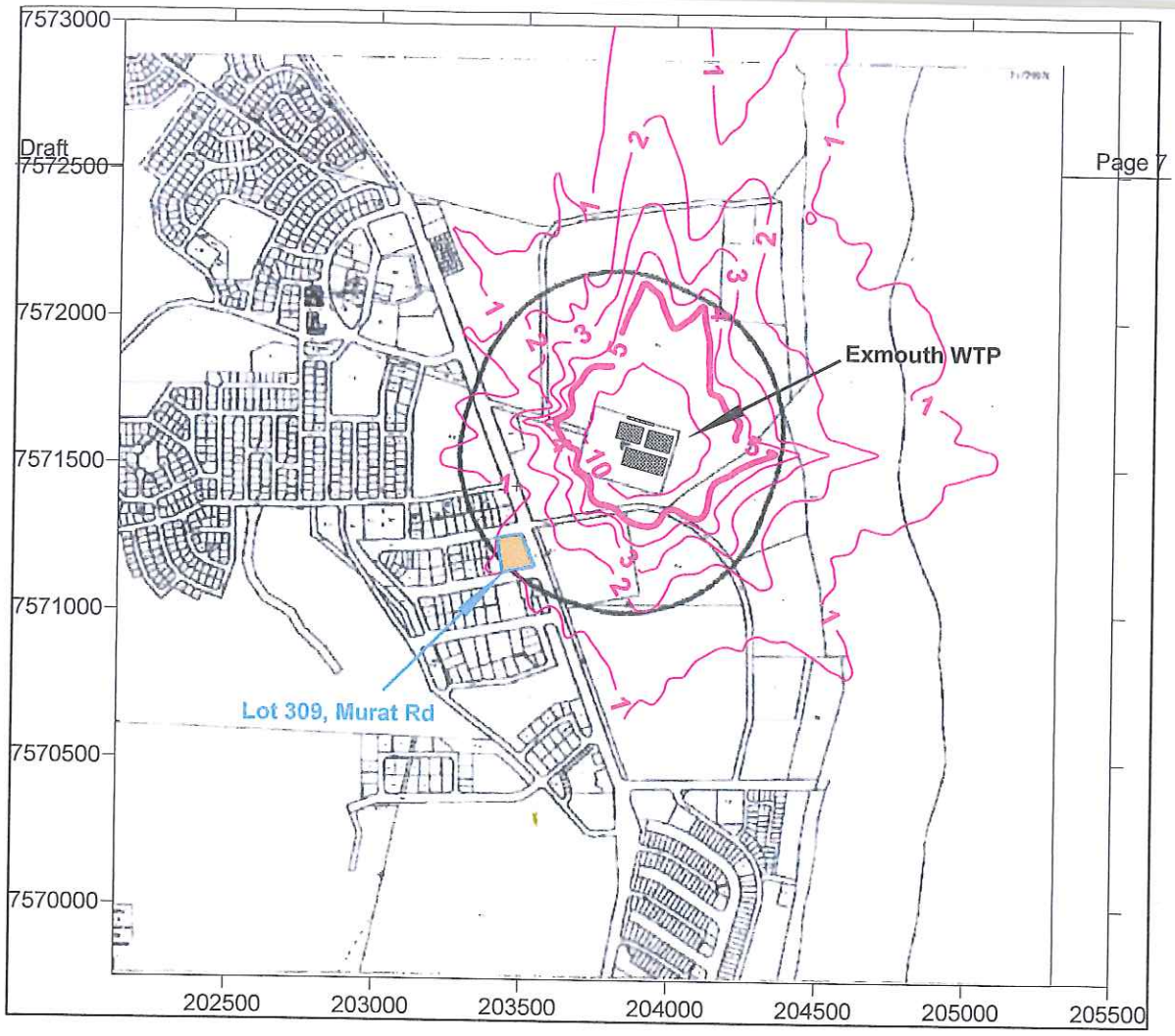


Figure 2 Predicted 1-hour average, 99.9 percentile odour concentrations from Exmouth WTP

The 5 ou contour is shown in bolded pink. The average radius of this contour from the boundary of the WTP site is 280 metres.

The 1-hour average 99.9 percentile concentration at the nearest point of the proposed development lot is 1.5 ou compared to the criterion of 5 ou used for this study.

On the basis that this is well below the criterion, there appears to be a good possibility that odour impacts at Lot 309 Murat Rd are acceptable. It is however noted that the odour emission rates were derived from the Broome WTP. Odour emissions from one WTP to another can vary considerably[2]. It is recommended that field assessments be undertaken to confirm the level of odour around the Exmouth WTP specifically and hence the modelling assumptions used for this study.

[2] In addition odour emissions can be substantially higher than typical from time-to-time as a result of atypical operating conditions – although these should be reasonably encapsulated in the derivation of the odour criterion.

6. GLOSSARY OF TERMS

"^{o}C" means degrees Celsius.

"m" means metres.

"m^2" means square metres.

"km" means kilometres.

"OER" means odour emission rate with units of ou/s.

"ou" means odour units. An odour unit is a dimensionless ratio defined as the volume which an odorous sample would occupy when diluted to the odour threshold, divided by the volume of the odorous sample.

"ou.m^3/s" means odour units multiplied by the associated volumetric flow with units of m^3/s. When used as the emissions term in a dispersion model, the predicted ambient concentrations per cubic metre cause the volume units to cancel out to give odour units (the dimensionless ratio of the odour concentration to the odour threshold concentration). The term is, for all intents and purposes, the same as "ou/s" - odour units per second.

"SOER" means specific odour emission rate (SOER) being the unit area odour emission rate from a surface for the prevailing ambient conditions and having units of ou.m^3/m^2/s, which is equivalent to ou.m/s.

7. REFERENCES

Bureau of Meteorology (BoM), 2008, "Climate of Learmonth", http://www.bom.gov.au/weather/wa/learmonth/climate.shtml.

Environmental Protection Authority (EPA), undated, "Interim Guidance on odour as a relevant environmental factor" at http://www.epa.wa.gov.au/docs/1028_GS47_Interim.pdf.

Environment Protection Authority of Victoria (EPAV), 2000. "AUSPLUME Gaussian Plume Dispersion Model - Technical User Manual", November 2000.

Environmental Protection Authority (EPA), 2005, "Guidance for the Assessment of Environmental Factors - Separation Distances between Industrial and Sensitive Land Uses", No. 3, June 2005.

U.S. Environmental Protection Agency, 2000. "Meteorological Monitoring Guidance For Regulatory Modeling Applications", Research Triangle Park, North Carolina.

Wallis, I., 2007, "CASANZ OSIG 2007 Workshop Publications at http://www.kml.co.nz/downloads/PDFs/Casanz/07/Ian%20Wallis%20-%20Wastewater%20Treatment%20Plants.pdf

Appendix 1 Ausplume modelling parameters

1

Exmouth WWTP odour - SOER=0.44ou.m/s

Concentration or deposition	Concentration
Emission rate units	OUV/second
Concentration units	Odour_Units
Units conversion factor	1.00E+00
Constant background concentration	0.00E+00
Terrain effects	None
Smooth stability class changes?	No
Other stability class adjustments ("urban modes")	None
Ignore building wake effects?	No
Decay coefficient (unless overridden by met. file)	0.000
Anemometer height	10 m
Roughness height at the wind vane site	0.300 m
Use the convective PDF algorithm?	No

DISPERSION CURVES

Horizontal dispersion curves for sources <100m high	Pasquill-Gifford
Vertical dispersion curves for sources <100m high	Pasquill-Gifford
Horizontal dispersion curves for sources >100m high	Pasquill-Gifford
Vertical dispersion curves for sources >100m high	Pasquill-Gifford
Enhance horizontal plume spreads for buoyancy?	No
Enhance vertical plume spreads for buoyancy?	No
Adjust horizontal P-G formulae for roughness height?	Yes
Adjust vertical P-G formulae for roughness height?	Yes
Roughness height	0.400m
Adjustment for wind directional shear	None

PLUME RISE OPTIONS

Gradual plume rise?	Yes
Stack-tip downwash included?	Yes
Building downwash algorithm:	Schulman-Scire method.
Entrainment coeff. for neutral & stable lapse rates	0.60,0.60
Partial penetration of elevated inversions?	No
Disregard temp. gradients in the hourly met. file?	Yes

and in the absence of boundary-layer potential temperature gradients given by the hourly met. file, a value from the following table (in K/m) is used:

Wind Speed Category	Stability Class A	B	C	D	E	F
1	0.000	0.000	0.000	0.000	0.020	0.035
2	0.000	0.000	0.000	0.000	0.020	0.035
3	0.000	0.000	0.000	0.000	0.020	0.035
4	0.000	0.000	0.000	0.000	0.020	0.035
5	0.000	0.000	0.000	0.000	0.020	0.035
6	0.000	0.000	0.000	0.000	0.020	0.035

WIND SPEED CATEGORIES
Boundaries between categories (in m/s) are: 1.54, 3.09, 5.14, 8.23, 10.80

WIND PROFILE EXPONENTS: "Irwin Rural" values (hourly met. file values IGNORED)

AVERAGING TIMES
1 hour

1

Exmouth WWTP odour - SOER=0.44oum/s

SOURCE CHARACTERISTICS

INTEGRATED AREA SOURCE: PONDS

X0(m)	Y0(m)	Ground El	Length X	Length Y	Or. Angle	Ver. spread	Height
203830	7571509	0m	143m	61m	15deg	1m	0m

(Constant) emission rate = 4.40E-01 OUV/second per square metre
No gravitational settling or scavenging.

INTEGRATED AREA SOURCE: PONDNW

X0(m)	Y0(m)	Ground El	Length X	Length Y	Or. Angle	Ver. spread	Height
203809	7571600	0m	85m	58m	15deg	1m	0m

(Constant) emission rate = 4.40E-01 OUV/second per square metre
No gravitational settling or scavenging.

INTEGRATED AREA SOURCE: PONDNE

X0(m)	Y0(m)	Ground El	Length X	Length Y	Or. Angle	Ver. spread	Height
203907	7571570	0m	85m	60m	15deg	1m	0m

(Constant) emission rate = 4.40E-01 OUV/second per square metre
No gravitational settling or scavenging.

INTEGRATED AREA SOURCE: DRAINN

X0(m)	Y0(m)	Ground El	Length X	Length Y	Or. Angle	Ver. spread	Height
203847	7571665	0m	94m	9m	15deg	1m	0m

(Constant) emission rate = 4.40E-01 OUV/second per square metre
No gravitational settling or scavenging.

1

Exmouth WWTP odour - SOER=0.44oum/s

RECEPTOR LOCATIONS

The Cartesian receptor grid has the following x-values (or eastings):
203000.m 203050.m 203100.m 203150.m 203200.m 203250.m 203300.m
203350.m 203400.m 203450.m 203500.m 203550.m 203600.m 203650.m
203700.m 203750.m 203800.m 203850.m 203900.m 203950.m 204000.m
204050.m 204100.m 204150.m 204200.m 204250.m 204300.m 204350.m
204400.m 204450.m 204500.m 204550.m 204600.m 204650.m 204700.m
204750.m 204800.m 204850.m 204900.m 204950.m 205000.m 205050.m
205100.m 205150.m 205200.m 205250.m 205300.m 205350.m 205400.m
205450.m 205500.m

and these y-values (or northings):
7570500.m 7570550.m 7570600.m 7570650.m 7570700.m 7570750.m 7570800.m
7570850.m 7570900.m 7570950.m 7571000.m 7571050.m 7571100.m 7571150.m
7571200.m 7571250.m 7571300.m 7571350.m 7571400.m 7571450.m 7571500.m
7571550.m 7571600.m 7571650.m 7571700.m 7571750.m 7571800.m 7571850.m
7571900.m 7571950.m 7572000.m 7572050.m 7572100.m 7572150.m 7572200.m
7572250.m 7572300.m 7572350.m 7572400.m 7572450.m 7572500.m 7572550.m
7572600.m 7572650.m 7572700.m 7572750.m 7572800.m 7572850.m 7572900.m
7572950.m 7573000.m

DISCRETE RECEPTOR LOCATIONS (in metres)

No.	X	Y	ELEVN	HEIGHT	No.	X	Y	ELEVN	HEIGHT
1	203476	7571429	0.0	2.0					

METEOROLOGICAL DATA : BoM Learmonth Airport Turner stabs 2/hr MinWS=0.5m/s