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SHIRE OF EXMOUTH

TOWN PLANNING SCHEME N° 3

AMENDMENT N° 17

DEPUTY-EXECUTIVE OFFICER

PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
SHIRE OF EXMOUTH
TOWN PLANNING SCHEME NO. 3
AMENDMENT NO. 17

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

1. Rezoning Lot 1415 Skipjack Circle, Exmouth from "Residential R17.5" to "Residential R17.5", "Residential R30" and "Recreation and Open Space Reserve" as depicted on the Proposed Zoning Plan; and
2. Amending the Scheme Map accordingly

Dated this 17th day of November 2009



CHIEF EXECUTIVE OFFICER

SCHEME AMENDMENT REPORT

- 1. LOCAL AUTHORITY** : Shire of Exmouth
- 2. DESCRIPTION OF TOWN PLANNING SCHEME** : Town Planning Scheme N° 3
- 3. TYPE OF SCHEME** : District Planning Scheme
- 4. SERIAL NUMBER OF AMENDMENT** : 17
- 5. PROPOSAL** :
 - a) Rezoning Lot 1415 Skipjack Circle, Exmouth from "Residential R17.5" to "Residential R17.5", "Residential R30" and "Recreation and Open Space Reserve " as depicted on the Proposed Zoning Plan; and
 - b) Amending the Scheme Map accordingly

**Proposed Scheme Amendment
Lot 1415 Skipjack Circle
Exmouth**

December 2005

Prepared for
LandCorp

Prepared by
koltasz smith

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Figure 2 Aerial Site Plan

Appendix 1 Certificate of Title

Appendix 2 Scheme Amendment Map

Appendix 3 Subdivision Concept

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1. INTRODUCTION

This report is submitted by Koltasz Smith on behalf of LandCorp. The report seeks the support of the Shire of Exmouth to amend its Town Planning Scheme to rationalise the zoning of Lot 1415 Skipjack Circle to cater for proposed modifications to the internal road layout, relocation of a portion of "Recreation and Open Space" reserve, and rezone a small portion of the existing "Residential R17.5" to "Residential R30" in accordance with the attached Scheme Amendment Map (refer Appendix 2).

If endorsed by the Shire of Exmouth and the WA Planning Commission, the proposed Town Planning Scheme Amendment will facilitate the subdivision of Lot 1415 in the manner indicated on the attached subdivision concept (refer Appendix 3). An application has recently been made to the WA Planning Commission for Stage 1 of the proposed subdivision comprising 22 residential allotments, whilst the balance portion of Lot 1415 will form Stage 2 of the subdivision and will be applied for following progression of this amendment. Further explanation of the proposed subdivision is provided in the latter sections of this report.

Supporting information and site context details are provided in the following report.

2. SITE DETAILS

2.1 Land Ownership and Legal Description

The legal description of the subject land is Exmouth Lot 1415 on Land Administration Plan 19688 being Crown Land Title Volume 31090 Folio 300. A copy of the Certificate of Title is contained within Appendix 1.

2.2 Existing and Surrounding Land Uses

Lot 1415 lies in the northernmost portion of the Exmouth Townsite, and is accessed via Skipjack Circle off Murat Road (being the major regional road servicing the Exmouth townsite). It also enjoys good connectivity to the adjoining established residential areas via Grayling Way and Krait Street. Surrounding residential areas generally comprise single residential dwellings on green title "Residential R17.5" style lots.

A number of residential allotments have recently been created on the land adjoining Lot 1415 (accessed via Skipjack Circle, Sculpin Court, Grayling Way and Seawolf Place), though not all have been developed to date.

The subject land is currently undeveloped, with a number of unsealed tracks extending through the site from Skipjack Circle and Krait Street. This can be seen on the attached Aerial Location Plan provided as an appendix to this report.

3. TOWN PLANNING AND OTHER CONSIDERATIONS

3.1 Shire of Exmouth – Town Planning Scheme No.3

The site is currently zoned "Residential R17.5" and "Recreation and Open Space" reserve under the Shire of Exmouth's Town Planning Scheme Town Planning Scheme N° 3 (TPS), with allocation made for an internal road system comprising 2 local roads (Skipjack Circle and Snapper Loop).

3.2 Engineering Considerations

The following engineering comments have been provided by Sinclair Knight Merz:

3.2.1 Sewer

Preliminary advice from the Water Corporation dated 3 February 2005, indicates connection to wastewater scheme can be from the existing 150mm diameter main in Griffin Way and Skipjack Circle/Snapper Loop. Standard sewerage headworks contributions will apply for any new lots to be created.

3.2.2 Water

Preliminary advice from the Water Corporation dated 3 February 2005 indicates connection to the water supply scheme can be from the existing 100mm diameter main in Griffin Way and Skipjack Circle/Snapper Loop. Standard water headworks contributions will apply for any new lots to be created.

3.2.3 Power

Preliminary advice from Western Power dated 25 January 2005 indicates a high voltage supply would be available from Murat Road. The supply within the proposal would be installed as an Option B as per the Underground Distribution Schemes Policy and Installation Options Manual. Further to the DIP, the final infrastructure design would determine the value of any headworks costs to allow connection to Western Power's supply system.

3.2.4 Drainage

Drainage is proposed to be via open side drains. The Shire will need to provide for driveways in their building conditions over the individual lots.

JDA Hydrologists are sub consultants to SKM for this project. JDA have previously prepared a Flood Management Study for the Shire of Exmouth in 1999 and updated this in 2002. The report(s) do not claim Snapper Loop as having any identified flood risk. However, the presence of three open drains adjacent to the site, and the existing low flood area entails the requirement for JDA's specialist involvement. This holds an engineering constraint for the treatment of drainage and its diversion away from the proposed residential lots.

JDA Hydrologists' report on the proposed development is provided as an appendix to this report (**Appendix 4**). Specific recommendations mentioned in this report are to be addressed at the subdivision application stage of the development.

3.2.5 Site Works

Due to the difficult ground conditions, it is proposed to rip approximately 400mm of the top layer of rock and re-compact it to allow a workable foundation. Furthermore, suitable fill (Pindan Sand) is proposed to fill lot pad levels 400mm above the crown level.

The geotechnical investigation by SKM in March 2005 assessed subsurface profiles and breakability of in situ material from the excavation of 10 test pits over the site. Test pit depths were taken to a maximum of 3.0m or until refusal. The investigation concluded that the site's subsurface material consist of dry, high strength limestone to a depth of at least 1.5m and is classified as Class A (sand or rock sites with little or no ground movement). In terms of breakability, the study report recommended that excavation deeper than 0.5m may require heavier dozer than a 5 tonne backhoe (as was used in SKM's geotechnical investigation) with a rock ripper attachment or blasting techniques. The ground conditions hold a major engineering constraint for all trenching requirements for cabling, pipework etc.

Based on the geotechnical results, SKM has obtained written conditional approval from Western Power and Water Corporation to common trench services to save blasting costs. Verbal approval from Telstra has been obtained with Telstra reasoning that their E10 and E11 forms support common trenching whenever possible.

3.3 Other Considerations

3.3.1 Native Title

Native Title matters are currently being discussed with the Yamatji Aboriginal Corporation, with a view to having the site cleared of heritage issues under the Aboriginal Heritage Act 1972.

3.3.2 Landscaping

The landscape proposed for Lot 1415 Skipjack Circle is designed to compliment both the built and natural environments including the existing native bushland and adjacent residential sites.

The suggested vegetation is to be predominantly indigenous to the Exmouth region and therefore better suited to local conditions while supplementing the local canopy, reducing the spread of pest plants and enhancing the coastal experience for residents.

An open, organic approach has been taken for the design of the POS, allowing natural elements to merge with built form. Strips of feature gravel, and locally quarried boulders serve as visual indicators with the landscape, while connecting the various spaces.

Visually permeable fencing to lots adjacent the POS allow the residence to borrow the view whilst promoting passive parkland surveillance. The combination of grass, large shrubs, trees, boulders and mounding result in significantly reduced maintenance, and provide an open and inviting space for all (**refer Appendix 5**).

4. THE PROPOSED AMENDMENT

4.1 The Proposed Amendment

The amendment proposes to rationalise the zonings of the site to accommodate a revised internal road layout and the relocation of a small portion of the "Recreation and Open Space" reserve in accordance with that shown in the attached plan.

The general residential density coding of the site will remain at "Residential R17.5", however, a small amount of "Residential R30" is proposed to be located adjoining the new "Recreation and Open Space Reserve" in the central/northern portion of the site. This "Residential R30" has been planned as a grouped development. LandCorp have indicated their intention to implement a set of "Design Guidelines" for the "Residential R30" site should the Scheme Amendment and subdivision process be successful. These guidelines would ensure a high standard of development on the "Residential R30" site given its location adjoining a "Recreation and Open Space Reserve".

The modified internal road layout is consistent with that of surrounding residential development and provides a high level of accessibility to the existing local road network allowing the safe and efficient movement of vehicles.

The relocation of a small portion of the "Recreation and Open Space Reserve" from the corner of Skipjack Circle and Sculpin Court to a more accessible location in the central/northern portion of the site is in keeping with Landcorp's objectives of creating a more desirable place to live and ensuring opportunities are provided to offer housing choice and recreation choice. At present land surrounding the site, while reserved for "Recreation and Open Space" serves only a wider drainage function. The opportunity to balance this against the introduction of an appropriately landscaped local open space area provides for:

- The ability to introduce a focus to the estate, as a more desirable place to live;
- The ability to justify a small component of higher density which also provides surveillance; and
- The ability to landscape the open space and re-introduce native vegetation in conjunction with other open space elements.

4.2 Merit of the Proposal

The merits of the potential development scenario include:

- Revised road layout to improve accessibility
- Revitalisation of the central/northern area through the location of the "Recreation and Open Space" reserve and small portion of "Residential R30"
- Rationalisation of zonings to accommodate the new internal road layout and "Recreation and Open Space Reserve"
- Greater variety of housing options
- Significant revitalisation of the site, resulting in a dramatically improved living environment for existing and future residents.

5. SUMMARY AND JUSTIFICATION

Shire of Exmouth and WA Planning Commission staff have participated in discussion regarding the proposed rezoning, and as a result it is understood to meet their expectations for the land. The rezoning is a minor change to improve the historically approved residential layout for the land to ensure a better outcome for future residents. If finalised and subsequent subdivision approval granted, the site will provide for the creation of additional residential lots, as well as a new area of open space. No adverse impact will result to surrounding residents; rather it will facilitate the significant improvement of a previously planned residential site, with a more relevant / responsive planning outcome.

We respectfully seek the support of the Shire of Exmouth and the WA Planning Commission to amend Council's Scheme to rezone the land and facilitate the subsequent subdivision of the lot as proposed.

rp 2848 Final Amendment Documentation 170706.doc

APPENDIX 1

Certificate of Title

Application G893489
(Corr. 2844/1990 vol. 3

NOT TO BE REMOVED FROM THE DEPARTMENT OF LAND ADMINISTRATION

NO DUPLICATE ISSUED

REGISTER
VOLUME

FOLIO

3109

300

WESTERN



AUSTRALIA

CERTIFICATE
OF

CROWN LAND TITLE

UNDER THE "TRANSFER OF LAND ACT 1893" AS AMENDED
AND THE "LAND ADMINISTRATION ACT 1997"

The undermentioned land is Crown land, in the name of the
STATE of WESTERN AUSTRALIA,
subject to the interests and status orders in the First Schedule which interests and status orders are subject to the
interests, easements, encumbrances and notices shown in the Second Schedule hereto.

Dated 3 September 1998

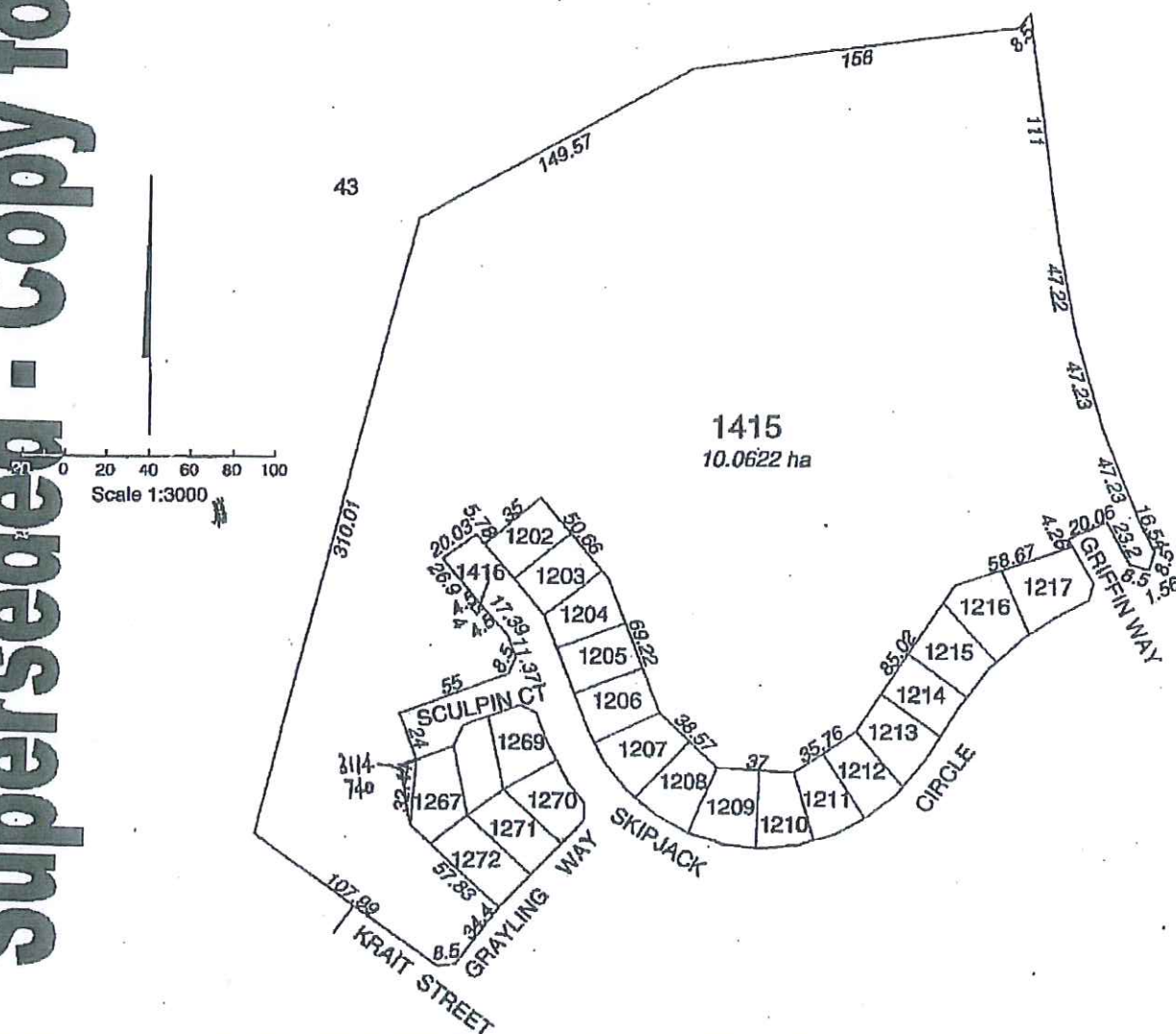
REGISTRAR OF TITLES



LAND REFERRED TO

Exmouth Lot 1415 on Land Administration Plan 19688 delineated on the sketch in the Third Schedule.

THEORY SCHEDULE



WARNING: A CURRENT SEARCH SHOULD BE OBTAINED BEFORE DEALING ON THIS LAND


<div style="display: flex; justify-content: space-between;"> (d 2) (cont.) CERTIFICATE OF GROWN LAND TITLE VOL. 3109 FOL. 300 </div>		
<div style="display: flex; justify-content: space-between;"> FIRST SCHEDULE NOTE ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS </div>		
INSTRUMENT	NUMBER	PARTICULARS
NATURE		

**RESPONSE TO A REQUEST FOR
CERTIFICATE OF GROWN LAND TITLE**

VOL. 3109 FOL. 300

ENTRIES MAY BE ACCEPTED BY SUBMITTING A LETTER TO THE STAFF IN LANDLINE 27-40

THE FUTURE

INSTRUMENT		NATURE	NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL
Application			H123280	Portion now comprised in Exmouth Lot 1439 on Land Administration Diagram 93761 to Vol 3114 Fol 740.	10.6.1999	15.40					

SECOND SCHEDULE

NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

[illegible]

WESTERN



AUSTRALIA

**RECORD OF CERTIFICATE
OF
CROWN LAND TITLE**

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

REGISTER NUMBER	
1415/DP219688	
Duplicate Edition	Date Duplicate Issued
N/A	N/A

VOLUME
LR3109

FOLIO
300

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

RS Roberts
REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 1415 ON DEPOSITED PLAN 219688

**STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)**

STATUS ORDER/INTEREST: UNALLOCATED CROWN LAND

PRIMARY INTEREST HOLDER: STATE OF WESTERN AUSTRALIA

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

1. H133280 PORTION NOW COMPRISED IN EXMOUTH LOT 1439 ON LAND ADMINISTRATION DIAGRAM 93761 TO VOL 3114 FOL 740. REGISTERED 10.6.1999.

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.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF CROWN LAND 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: LR3109-300.
PREVIOUS TITLE: This Title.
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AREA: SHIRE OF EXMOUTH.

- NOTE 1: A000001A CORRESPONDENCE FILE 2844/1990 VOL. 3.
NOTE 2: LAND PARCEL IDENTIFIER OF EXMOUTH TOWN LOT/LOT 1415 ON SUPERSEDED PAPER CERTIFICATE OF CROWN LAND TITLE CHANGED TO LOT 1415 ON DEPOSITED PLAN 219688 ON 04-SEP-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.
NOTE 3: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE

END OF PAGE 1 - CONTINUED OVER

From: unknown Page: 5/5 Date: 11/07/2005 10:40:55 AM

ORIGINAL CERTIFICATE OF CROWN LAND TITLE

REGISTER NUMBER: 1415/DP219688

VOLUME/FOLIO: LR3109-300

PAGE 2

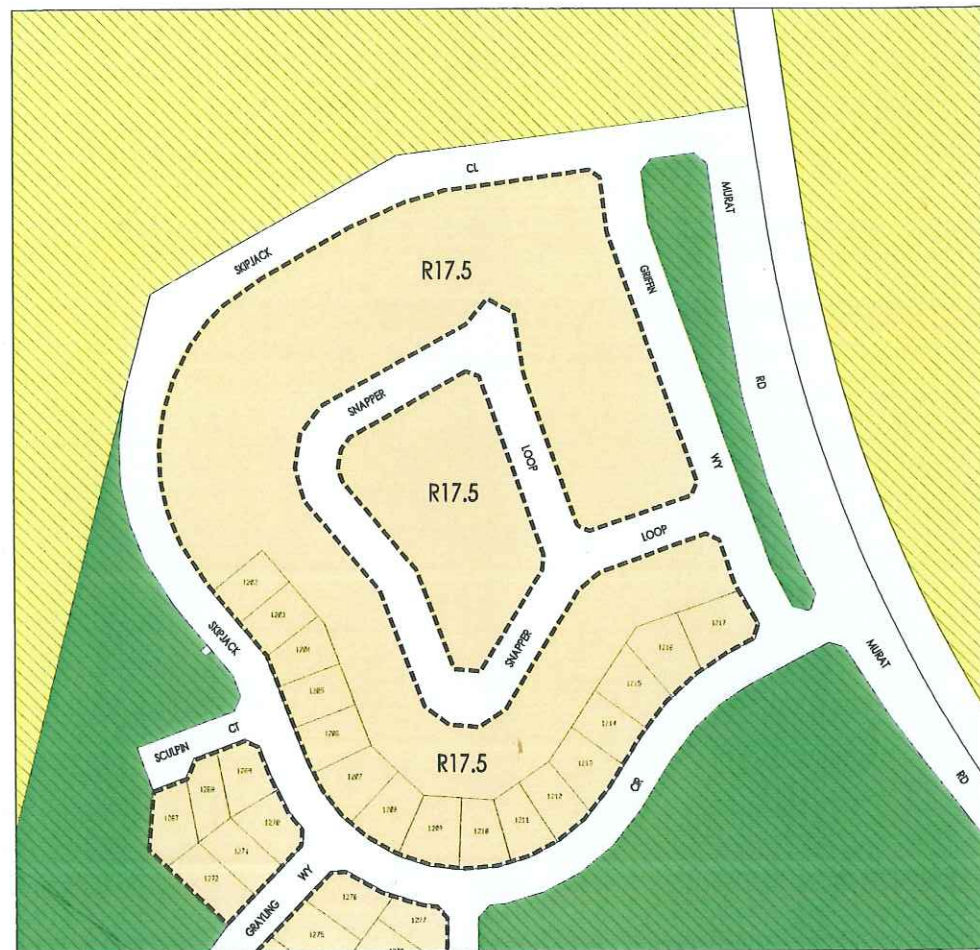
OF TITLE.

APPENDIX 2

Scheme Amendment Map

SCHEME AMENDMENT MAP

SHIRE OF EXMOUTH
TOWN PLANNING SCHEME No.3
AMENDMENT No. 17



EXISTING ZONING

LEGEND

LOCAL SCHEME RESERVES

- PUBLIC PURPOSES
- RECREATION & OPEN SPACE

ZONES

- RESIDENTIAL

OTHER

- R17.5 R CODES



PROPOSED ZONING



dw-2848-7-001A, 18 JULY 2006

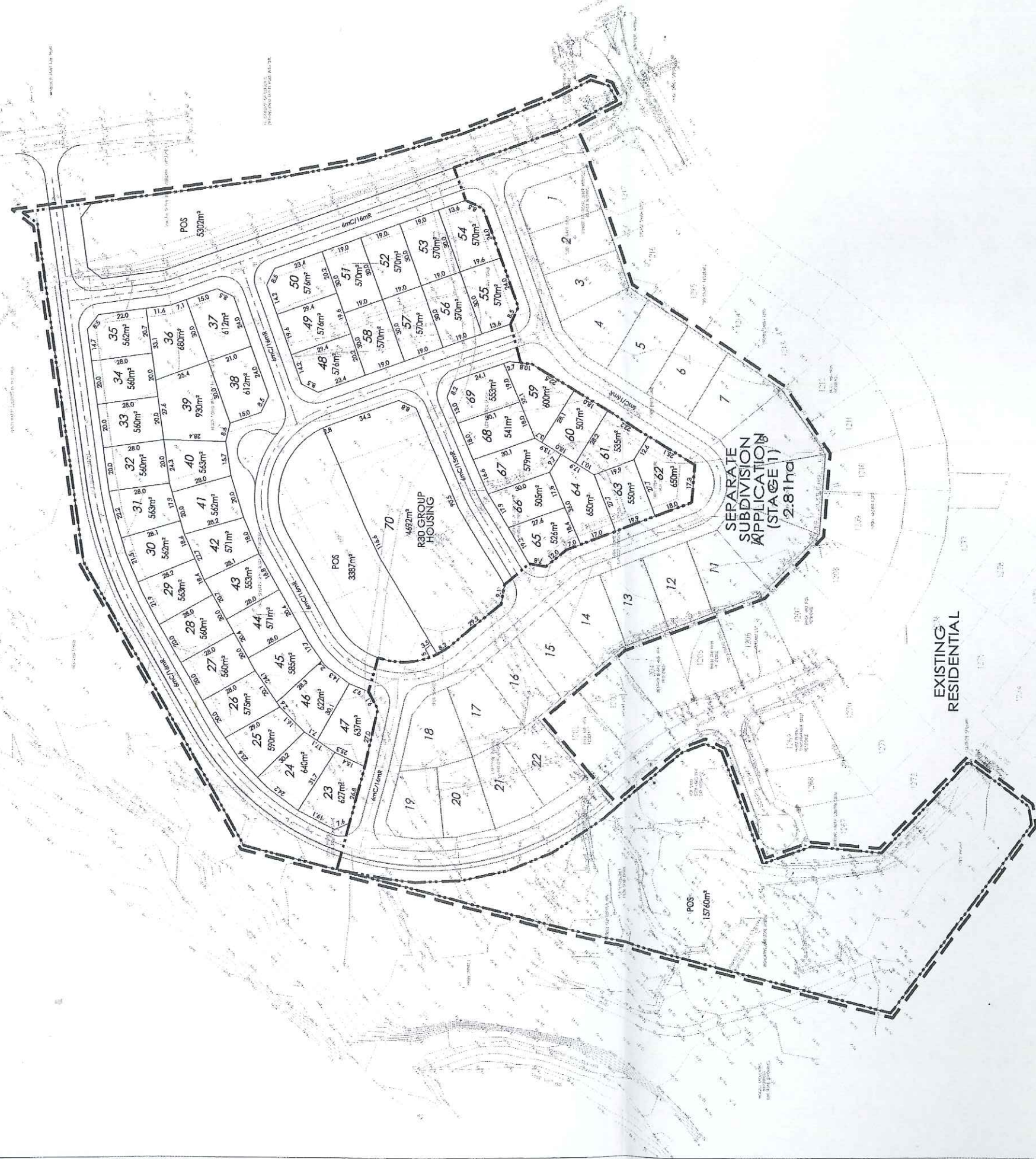
PERTH
141 Bunwood Road BURSWOOD
P.O. Box 127 BURSWOOD
Western Australia 6100
Tel. (08) 9486 2222
Fax. (08) 9486 2233
Email: perth@kasp.com.au

koltasz smith
TOWN PLANNING - PROJECT MANAGEMENT
URBAN DESIGN - DEVELOPMENT CONSULTING

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APPENDIX 3

Subdivision Concept



STAGE 2 DEVELOPMENT SUMMARY

TOTAL STAGE 2 AREA	725ha
SINGLE RESIDENTIAL LOTS	47
TOTAL AREA OF LOTS	274ha
MINIMUM LOT AREA	505m²
MAXIMUM LOT AREA	930m²
AVERAGE LOT AREA	584m²
GROUP HOUSING SITES	1
TOTAL GROUP SITE AREA	462m²
POS/DRAINAGE PROVISION	2.45ha
ROAD RESERVE	1.60ha

**PLAN OF SUBDIVISION
LOT 1415 SKIPJACK CIRCLE, EXMOUTH**

LANDCORP : CLIENT
1/8 Price Street BUSSELTON
PO Box 249 BUSSELTON
Western Australia 6200
Tel: 08 9322 2895
Fax: 08 9322 2896
Email: busse@busse.com.au

DATE : 31 MAY 2006
SCALE : 1:1,500
PLAN NO : 28-46-3-005p1
REVISION :
PLANNER :
DRAWN :
N.P. :

NOTES

Notes are subject to the provisions of the Land Administration Act 1994.

Areas and dimensions shown are subject to final survey conditions.

All conveyances are shown for illustrative purposes only and are subject to the provisions of the Land Administration Act 1994.

The contents of this plan are not to be used for any purpose other than that for which it was prepared.

No other plan or map may be made without the written consent of the Surveyor-General.

LEGEND

LOT 1415 BOUNDARY : ————

STAGE 2 SUBDIVISION BOUNDARY : - - - - -

0 25 50 75 100 125 METRES

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koltasz smith
TOWN PLANNING - PROJECT MANAGEMENT
URBAN DESIGN - DEVELOPMENT CONSULTING

APPENDIX 4

JDA Hydrologists Report

To : Sinclair Knight Merz
Attention : Tanya Moe
Fax No : 9268 4488
cc : Bruce Keay - SKM

Date : 22/9/05
Our Ref : J3520f
Your Ref : DE02732
Pages: 5

SNAPPER LOOP, EXMOUTH

Tanya

Further to Project Meeting No. 5 (3/3/05) and associated minutes, JDA proposal to SKM ref. J3520b (17/5/05), SKM letter to JDA (5/8/05), I visited Exmouth 24 to 25 August 2005 and inspected the three project sites (1. Snapper Loop, 2. Learmonth Street and 3. Superlot D (Marina)). My report Snapper Loop follows. I will send advice on Learmonth Street and Superlot D separately, at your request.

1. SNAPPER LOOP

1.1 Skipjack Creek Flood Level and Floodway

Snapper Loop is located on the northern extremity of the Exmouth townsite, and lies north of the existing partly constructed Skipjack Circle.

The flood potential from this catchment was not defined in the flood management strategy completed for the Shire in 1999 and updated in 2002 (JDA 1999, 2002).

The site lies within the catchment of an unnamed creek referred to here as Skipjack Creek, which has a catchment area of approximately 5 km² extending approximately 4 kms westwards towards the centre of the Cape Range (see Figure 1). To the south of Skipjack Creek catchment is Krait St catchment.

The catchment divide through the site has been drawn according to the site contours provided so that the northern part drains towards Skipjack Creek and the southern part drains back towards Krait St catchment.

There are larger catchments which flow through the townsite, including LIA Creek (13.4 kms²) and Market Street Creek (18.6 kms²), described in JDA (1999, 2002).

Skipjack Creek flows over a floodway on Murat Road eastwards to the ocean. It appears to discharge through the break in the sand dunes north of the Golf Club (Figure 1).

There are no data on peak flood levels (mAHD) or flow rates (m³/s) for Skipjack Creek.

The floodway on Murat Road has been built approximately 1 m above bed level. As a result it acts as a low dam, with sediment deposition and elevated flood levels on the upstream (western) side, probably as far as the proposed Skipjack Circle development. On the downstream (eastern) side of Murat Road the creek bed is actively eroding.

The proposed layout of the residential development for the site extends northwards from the present section of Skipjack Circle for approximately 300 metres with Skipjack Circle looping back to Murat Road (Figure 1). At the most north-westerly corner of this extended Skipjack Circle the southern branch of the creek is only 60 m distant from the proposed road reserve.

The catchment area of the south branch to Murat Road is approximately 4 km² (Figure 1).

During flood events in Exmouth, debris in the form of branches, twigs & leaves becomes lodged in the branches of trees within the creeks. If the water level

has risen beyond the defined creek bed, debris may also be found lodged within the flood plain vegetation.

During my site visit 24/25 August I observed debris within the vegetation of Skipjack Creek itself, but none within the adjacent land proposed for development. The debris levels within the creek were below the top of bank and it appears that in the three major recent floods of March and May 1999 and June 2002 the creek did not flow out of bank.

On my previous visits to Exmouth since May 1999 I observed that in the other creeks the flood debris was still visible and remained as evidence of the flood water levels which occurred.

To my knowledge there has been no major flow event in the Exmouth Creeks since June 2002. I believe that the debris is due to one or other of these three flood events. This opinion was agreed to on site by Keith Woodward, Shire of Exmouth.

It is somewhat surprising that there is no evidence of flood flows from these dates extending out onto the adjacent land beyond the defined Skipjack Creek channel itself. Generally speaking, rivers and creeks do erode a cross section such that overbank flow occurs approximately every 2 or 5 years on average. This concept is well described for European and North American river systems but has not been applied to Australian rivers and creeks.

The three flood events referred to above were all well in excess of 5 year average recurrence interval (ARI) based on the associated rainfall.

The other major creek systems of Exmouth townsite did flow overbank on all three of these flood dates referred to above with breakouts in places from one catchment to another.

There does not appear to be any break-outs neither into nor from the Skipjack Creek system.

Figure 2 shows the recommended floodplain development strategy included in the Shire of Exmouth report (JDA 1999). Figure 2 shows the floodway and flood fringe concepts within the floodplain. The general notes on the figure refer to development (i.e. filling building etc.) located within the flood fringe is acceptable, whereas development located within the floodway is not acceptable.

Figure 2 shows that development within the flood fringe or beyond it on drier land should have a floor level of 0.5 m above the adjacent 100 year flood level to ensure adequate flood protection.

As described above, 100 year ARI flood level in Skipjack Creek has not been calculated. In my opinion there would be shallow depth of flow (say 0.25 m depth) over the development area in the 100 year ARI flood event.

A formal flood study involving estimation of 100 year flood flow (m^3/s) and hydraulic modelling of the water surface profile (mAHD) from Murat Road upstream, through and beyond the development to the west could be performed. However I do not think it would greatly assist in defining a suitable flood level. Note that the Shire of Exmouth and Department of Environment are collaborating on a flood study for the whole of Exmouth townsite to be completed during the current financial year 2005/06. I understand this contract will include Skipjack Creek.

I have indicated a preliminary floodway for the southern side of Skipjack Creek over the subject land.

Given the uncertainty in estimation of 100 year ARI flood levels on Skipjack Creek, I recommend that finished floor levels be a minimum of 0.75 m above existing natural surface.

This allowance (0.75 m) comprises an estimated 0.25 m depth of flow and 0.5 m freeboard from 100 year ARI event, consistent with Figure 2.

1.2 Skipjack Creek Erosion

The proposed development is close to the outside of a bend on south branch of Skipjack Creek. The bank of the creek is actively eroding adjacent to extended Skipjack Circle alignment. Erosion and undercutting probably occurred during each of the three floods referred to above, resulting in a steep, almost vertical and in some places overhanging creek bank. The top of bank will gradually slump between

flood events to a more stable profile. The rate of bank migration is difficult to predict, and bank erosion (or meander migration) may threaten the extended Skipjack Circle development area starting with the road pavement. I suggest that the road pavement should be at least 50 m from the existing creek top of bank, consistent with the proposed width of floodway referred to above. The present alignment shows 60 m which should be satisfactory. Stabilisation of the creek bank would probably not be successful.

1.3 Existing Drainage Through Greyling Way

There is an existing open drain which conveys stormwater from Greyling Way to the west around the end of Sculpin Court. You have requested that JDA give consideration to realignment of this drain to allow extra lots to be created. This drain collects local catchment runoff and presently appears to flow into the disused gravel pit ("scrape"), which overflows into the southern branch of Skipjack Creek. We recommend this drainage line be retained, possibly as a new road immediately behind lots 1267 and 1272 – effectively extending Sculpin Court in a southerly direction to Greyling Way.

1.4 Skipjack Circle Drainage

A drain has been cut also from the northern end of Skipjack Circle at Lot 1202, to allow runoff from Skipjack Circle to flow also towards the pit and south branch. According to Keith Woodward, this drain was cut following a storm about a year ago which resulted in ponded water at the unfinished end of Skipjack Circle.

The extended Skipjack Circle will grade down all the way to Murat Road. The road could be constructed with one way cross fall towards the creek, without piped drainage or kerb. This would prevent ponding of water on the road surface.

Please contact Jim Davies with any queries. Note I will be away from the office from 23/9 to 12/10, but contactable via email/mobile.

Regards,

JDA CONSULTANT HYDROLOGISTS

REFERENCES

JDA (1999) – *Exmouth Shire Flood Study* – Report to Shire of Exmouth

JDA (2002) – *Exmouth Shire Flood Management Study: 2002 Review* – Report to Shire of Exmouth

LIST OF FIGURES

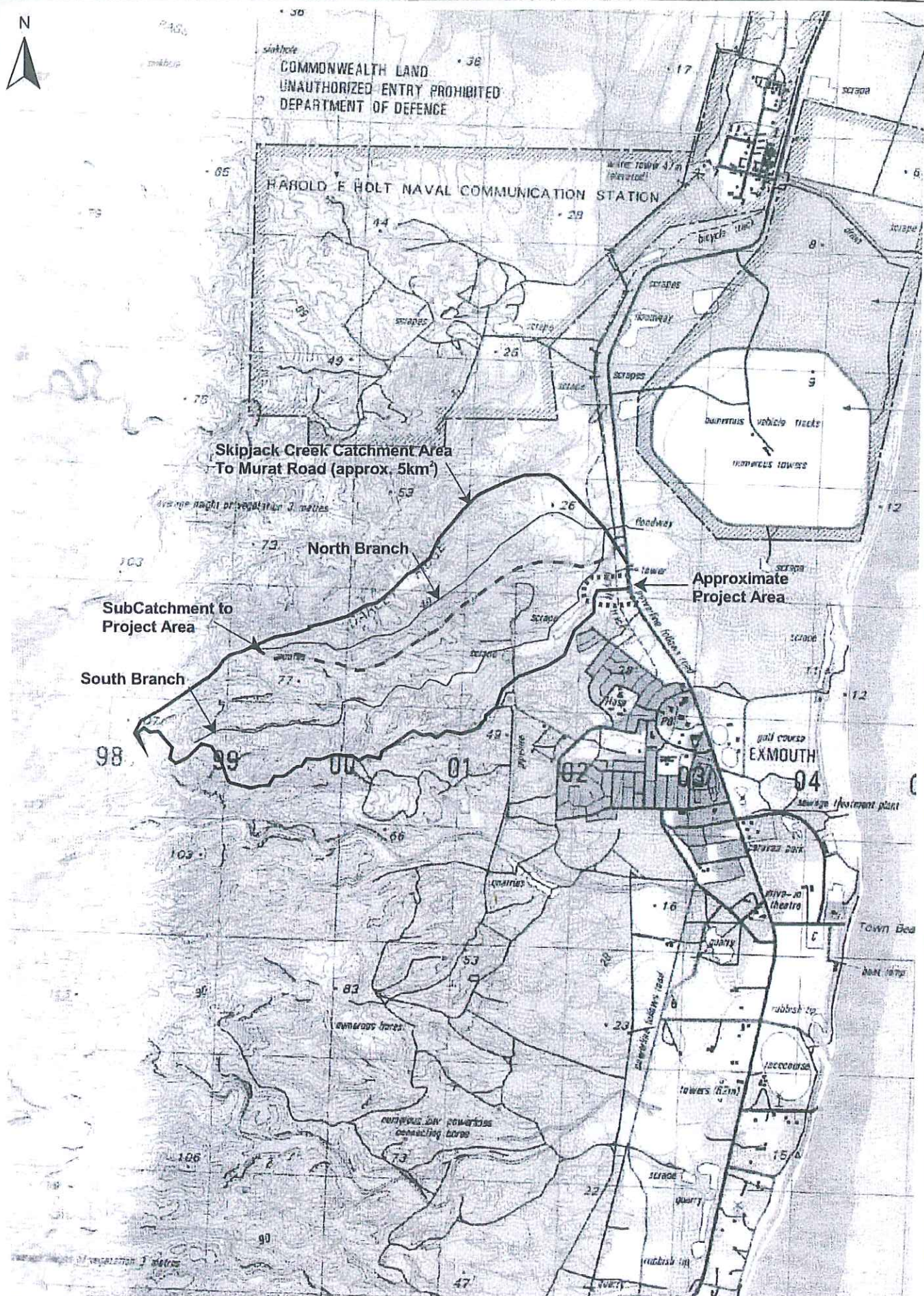
Figure 1: 1:100,000 Topographic Map showing Skipjack Creek Catchment Area and ocean outlet north of Golf Club.

Figure 2: Recommended floodplain development strategy (JDA 1999 Figure 13).

DISCLAIMER

This document is published in accordance with and subject to an agreement between JDA Consultant Hydrologists ("JDA") and the client for whom it has been prepared ("Client"), and is restricted to those issues that have been raised by the Client in its engagement of JDA. It has been prepared using the skill and care ordinarily exercised by Consultant Hydrologists in the preparation of such documents.

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Data Source: Department of Defence (1990)

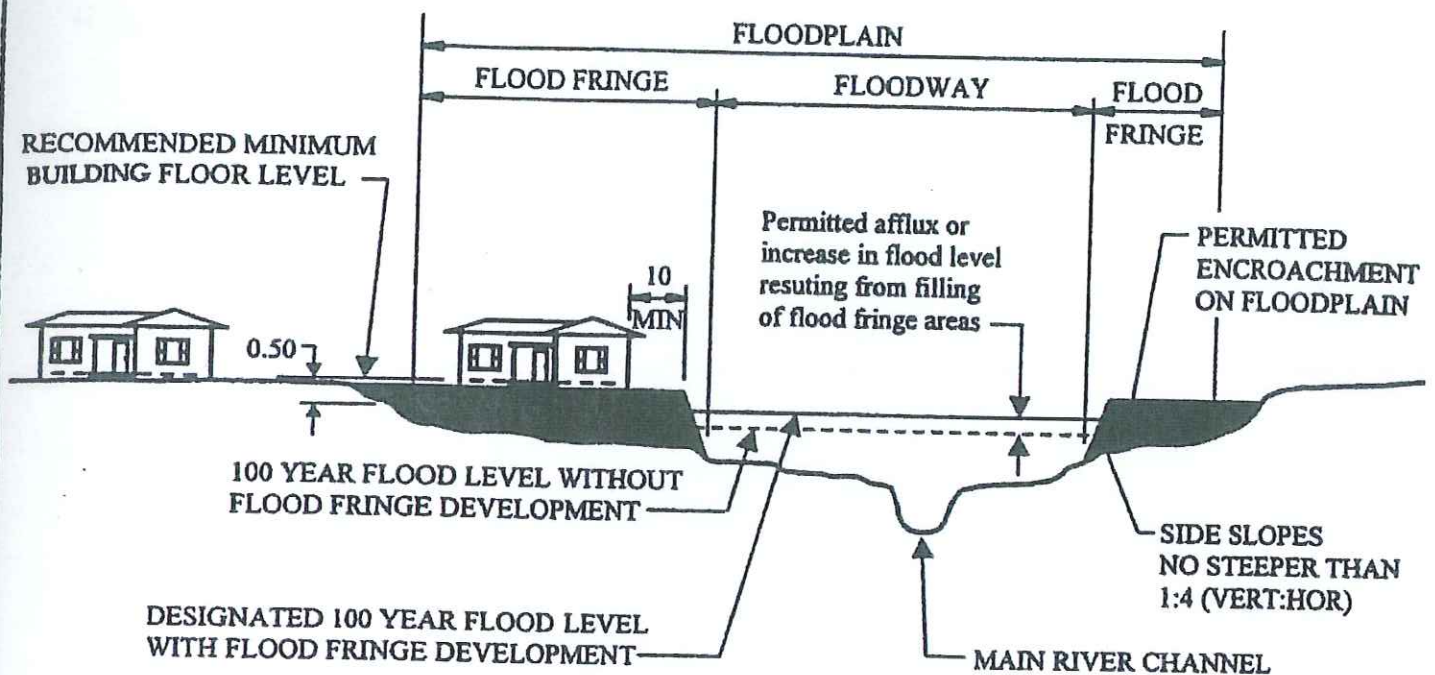
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Job No. J3520
Scale 1: 45000

Sinclair Knight Merz (SKM)
Snapper Loop, Exmouth
Figure 1: Skpipjack Creek Catchment

RECOMMENDED FLOODPLAIN DEVELOPMENT STRATEGY



GENERAL NOTES

1. Development (ie, filling, building, etc) that is located *within the flood fringe* is considered acceptable with respect to major flooding. However, a minimum habitable floor level of 0.50 metre above the adjacent 100 year flood level is recommended to ensure adequate flood protection.
2. Development (ie, filling, building, etc) that is located *within the floodway* and is considered obstructive to major river flows is not acceptable as it will increase flood levels upstream.

Source: Rick Bretnall (WRC, 1999)

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Figure 2

J3520 reproduced from JDA (1999)

Shire of Exmouth

Exmouth Flood Management Study

Figure 13: WRC General Recommended Floodplain
Development Strategy

Landscaping Plan

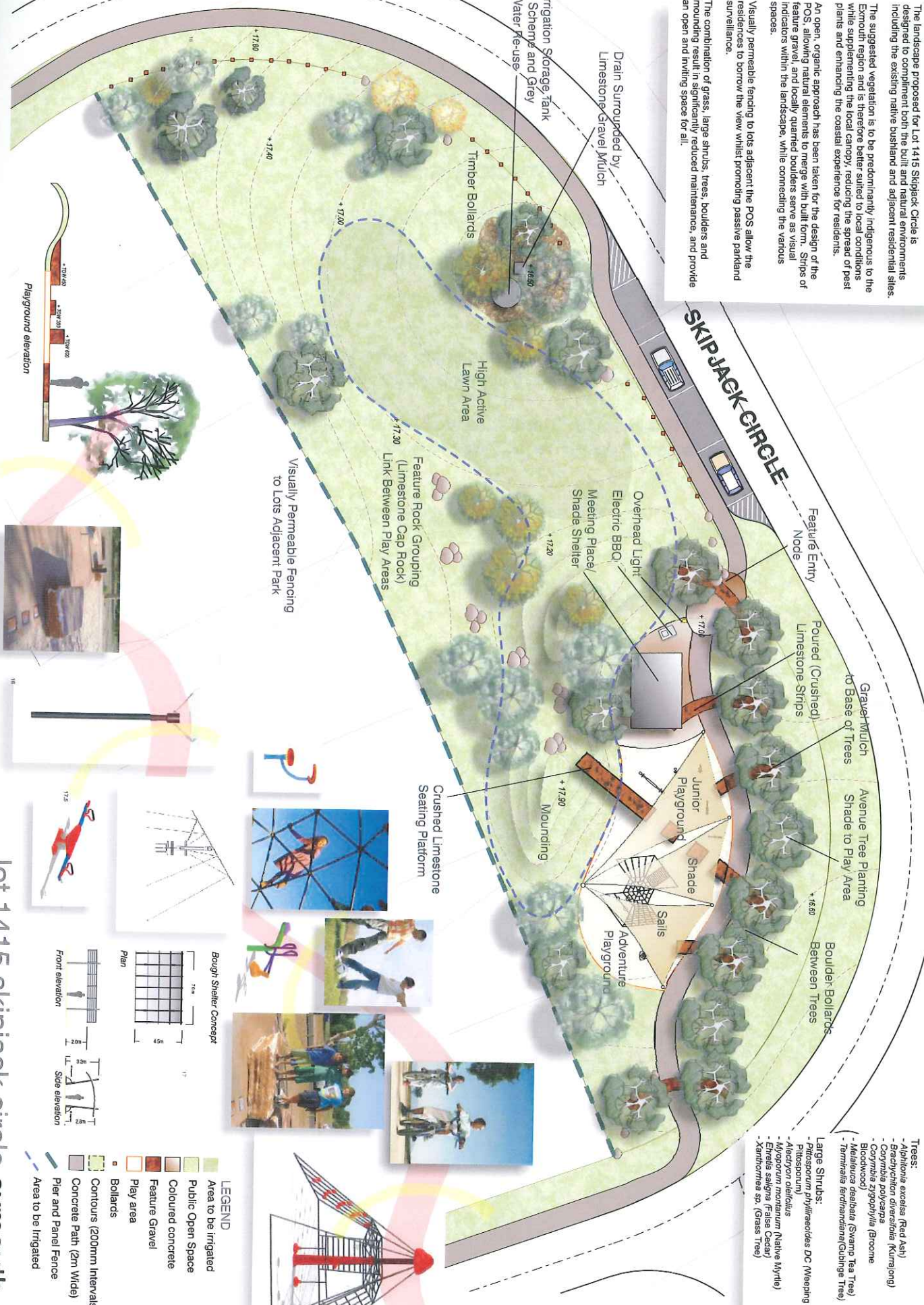
APPENDIX 5

The landscape proposed for Lot 1415 Skipjack Circle is designed to complement both the built and natural environments including the existing native bushland and adjacent residential sites. The suggested vegetation is to be predominantly indigenous to the Exmouth region and is therefore better suited to local conditions while supplementing the local canopy, reducing the spread of pest plants and enhancing the coastal experience for residents.

An open, organic approach has been taken for the design of the POS, allowing natural elements to merge with built form. Strips of feature gravel, and locally quarried boulders serve as visual indicators within the landscape, while connecting the various spaces.

Visually permeable fencing to lots adjacent the POS allow the residences to borrow the view whilst promoting passive parkland surveillance.

The combination of grass, large shrubs, trees, boulders and mounding result in significantly reduced maintenance, and provide an open and inviting space for all.



PLANNING AND DEVELOPMENT ACT 2005

SHIRE OF EXMOUTH

TOWN PLANNING SCHEME NO.3

AMENDMENT NO. 17

The Shire of Exmouth under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

1. Rezoning Lot 1415 Skipjack Circle, Exmouth from "Residential R17.5" to "Residential R17.5", "Residential R30" and "Recreation and Open Space Reserve" as depicted on the Proposed Zoning Plan; and
2. Amending the Scheme Map accordingly