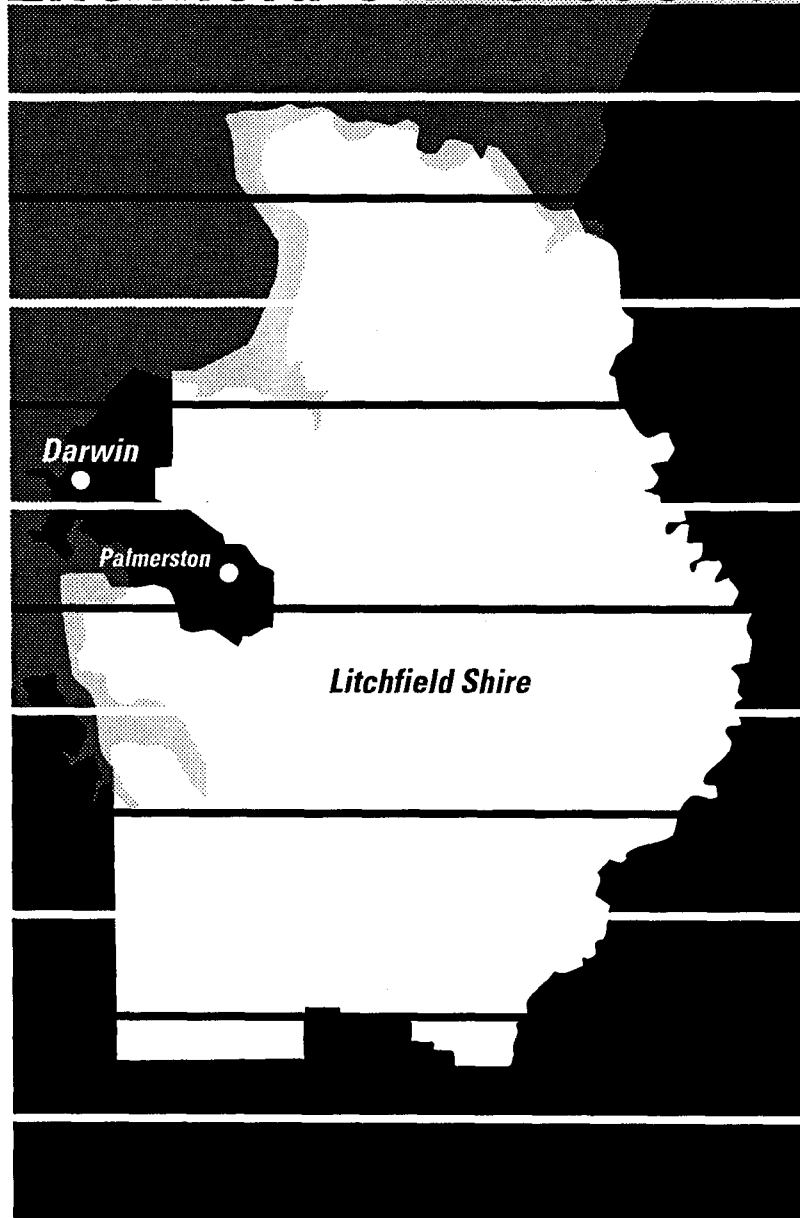


Litchfield Shire Council



DEVELOPER CONTRIBUTIONS PLAN

for
Roads and Drainage

Prepared by

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Litchfield Shire Council

***Developer Contributions Plan
for Roads and Drainage***

*November 1998
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1. Introduction

1.1 Preamble

Litchfield Shire Council is responsible for the provision and maintenance of a range of urban infrastructure and services within its municipal boundaries to meet the needs of existing and future development. This includes the provision and maintenance of roads and stormwater drainage. The capital and recurrent costs of this infrastructure is a substantial component of Council expenditure.

Section 27 of the *Planning Act* allows for Council to prepare a Contributions Plan requiring payment of a contribution from developers towards the cost of providing infrastructure in order to meet expected increased demand from development. The definition of infrastructure is restricted to capital works for roads and stormwater drains, excluding repair and maintenance of such works.

This Plan has been prepared in accordance with Section 27 of the *Planning Act*.

1.2 Purpose of the Plan

The purpose of this Plan is to ensure that developers share the costs of providing infrastructure to meet the demands generated by development, and to provide a clear indication to developers the reasoning and procedure for Council levying monetary contributions for infrastructure.

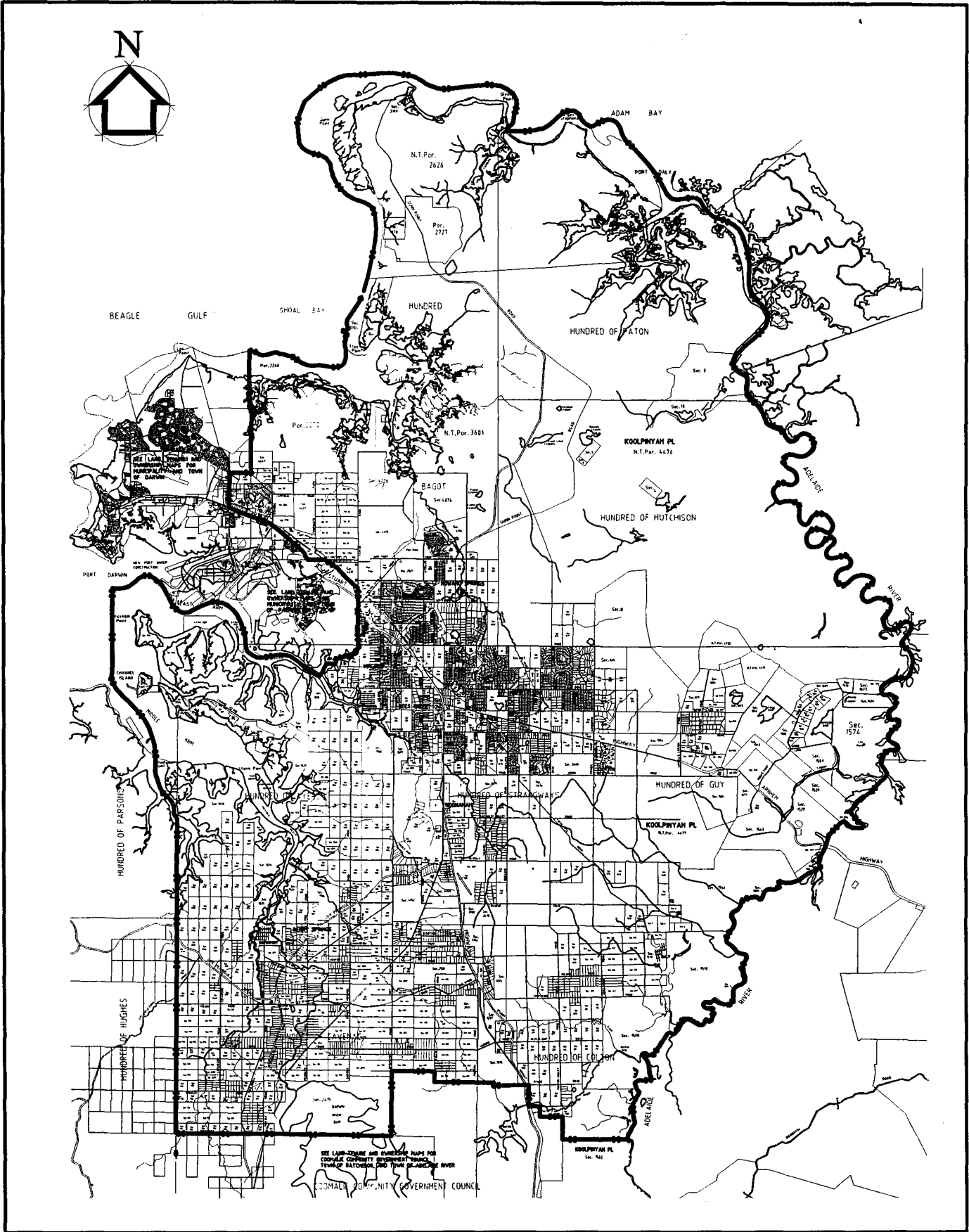
1.3 Application of the Plan

This Plan applies to land within the Litchfield Shire Council municipal boundaries (Figure 1.1) and relates to the provision and upgrading of roads and stormwater drainage.

The following exclusions to the Plan apply:

- > The cost of existing infrastructure throughout the Shire provided by Council in advance of demand is excluded from the Plan.
- > Developer contributions to meet the cost of required infrastructure for the three district centres of Humpty Doo, Berry Springs and Freds Pass are not proposed to be determined or levied by Council at this stage. This is in recognition that there remains uncertainty as to whether the Northern Territory Government or Litchfield Shire Council will be responsible for the provision of infrastructure to cater for development within these centres. However, should Council be required to assume responsibility for infrastructure provision in the future, the Plan will be revised to incorporate the associated costs of provision in determining developer contributions to be levied for development within these centres.
- > Future Use zoned areas¹, comprising the Murrumujuk area on the western side of Gunn Point Peninsula and the Weddell area and Middle Arm Peninsula south of Palmerston, are excluded from the provisions of this Plan. The Murrumujuk area has been identified for the development of a small township. The Weddell area is proposed for the siting of a new town that is likely to be placed under the control of a new local Council (Weddell Town Council) and is therefore unlikely to form part of the Litchfield Shire in the future. The Middle Arm Peninsula is proposed for the siting of future major industries. Only limited development that will not prejudice the identified future development potential of these areas is permitted under the Future Use zoning at present.
- > Department of Defence land at Shoal Bay, being land unavailable for further development for the foreseeable future, is excluded from the provisions of this Plan.

¹ Zoned under the provisions of the *Litchfield Area Plan 1992*.



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0km 8km 16km

SCALE 1:400 000

Figure 1.1
POLICY AREA

Introduction

1.4 Definitions

The following definitions have been adopted for the purposes of this Plan:

Stormwater drainage includes:

- > Council controlled underground pipe systems
- > stormwater structures such as side entry pits/letter box pits etc
- > catch drains and table drains
- > culverts
- > design

Roads includes:

- > road pavement
- > sealing/resealing
- > street lighting
- > kerb and guttering
- > line marking
- > bridges
- > traffic control devices/roadside furniture
- > land acquisition costs
- > design

1.5 Relationship to Other Planning Policies

This Plan replaces *Litchfield Shire Council Contribution Plan No 1A - Developer Contribution for Provision of Road Infrastructure* and should be read in conjunction with the *Litchfield Area Plan 1992* and the *Litchfield Proposed Land Use Objectives and Proposed Land Use Structure & Development Opportunities*.

1.6 Scope of the Plan

This Plan provides the following:

- > a review of existing infrastructure provision
- > an overview of growth trends and development potential within the Shire
- > an assessment of the need for additional or upgraded infrastructure throughout the Shire
- > an estimate of the capital cost of infrastructure works identified as being required
- > formulae to be used in the calculation of developer contributions
- > the contribution rates to be levied
- > details of the method and timing of payment of contributions
- > a works schedule for infrastructure works to be undertaken by Council
- > details of storage and accounting of contribution monies collected by Council

1.7 Review of the Plan

This Plan will be reviewed periodically to ensure it reflects changing circumstances.

2. Assessment of Existing Infrastructure

The following is an assessment of the existing provision of infrastructure within the rural service centres or *urban* areas of the Shire, and within the *rural* areas of the Shire. This assessment is intended to highlight areas requiring upgrading of existing infrastructure or further infrastructure provision in the short term.

2.1 District Centres

The rural areas of Litchfield Shire are serviced by three district centres at various stages of development. These are at Humpty Doo, Berry Springs and Freds Pass (Figure 2.1). These centres are designed to serve a population catchment of 10 000 to 20 000 people and provide for intermediate retail, industrial, commercial, recreation and community needs. The centres at Humpty Doo and Berry Springs also provide for some future small lot residential development.

An assessment of existing roads and drainage provision within each of these district centres follows.

2.1.1 Humpty Doo

The major roads within the Humpty Doo District Centre are Freds Pass Road, Challoner Circuit, Strangways Road, Gum Trees Road and Spencely Road. Strangways Road requires sealing.

Drainage works are required in the vicinity of the dump, near the industrial area and at Taminmin High School.

2.1.2 Berry Springs

The major roads within the Berry Springs District Centre are Doris Road, Oxford Road and Hopewell Road. Oxford Road and Hopewell Road require sealing. Doris Road is sealed but requires some reconstruction. Street lighting is also required.

No drainage infrastructure exists within the centre, however, current drainage is considered adequate for present needs.

2.1.3 Freds Pass

The roads within the Freds Pass District Centre are Bees Creek Road and Sattler Crescent. Both of these roads are sealed and are adequate for current traffic demand.

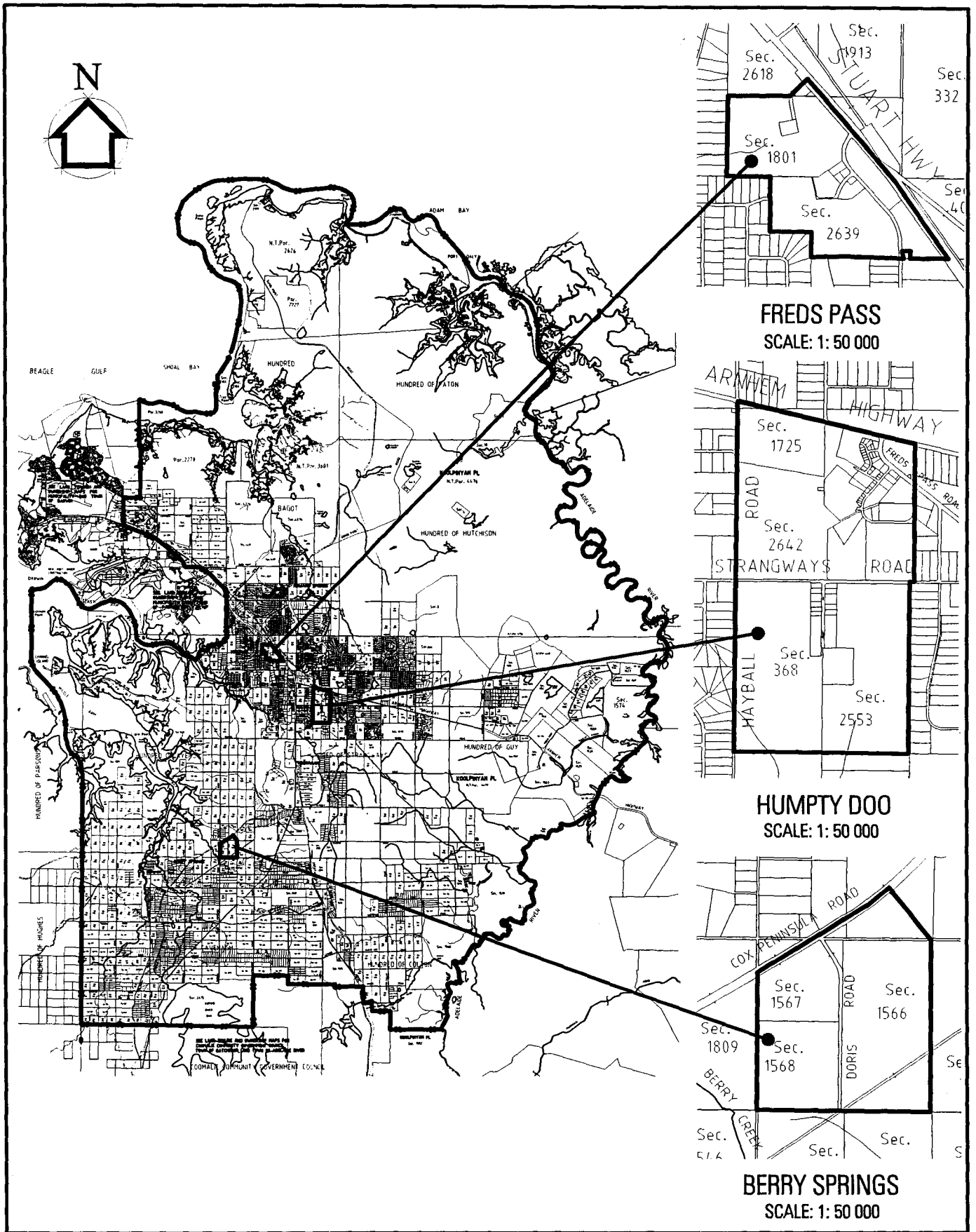
Drainage in the area is poor. A trunk drain to Eugene Road is required to alleviate existing drainage problems.

2.2 Local Centres

Local centres within Litchfield are located at Coolalinga and Howard Springs (Figure 2.2). These centres are designed to serve a population of 5 000 or more, in addition to passing traffic, and offer a small number of convenience shops and services.

These centres are currently zoned Rural Living under the *Litchfield Area Plan 1992*. However, Clause 22.2 and Clause 22.3 of the *Litchfield Area Plan 1992* exempt land within defined boundaries for each centre (Figure 2.2) from the provisions of the Rural Living zones and instead provide for development in accordance with the provisions of the District Centre - Business zone. These defined centres can therefore be considered separate for the purposes of this Plan from the surrounding rural areas in a similar manner as existing district centres.

An assessment of existing roads and drainage provision within each of these local centres follows.

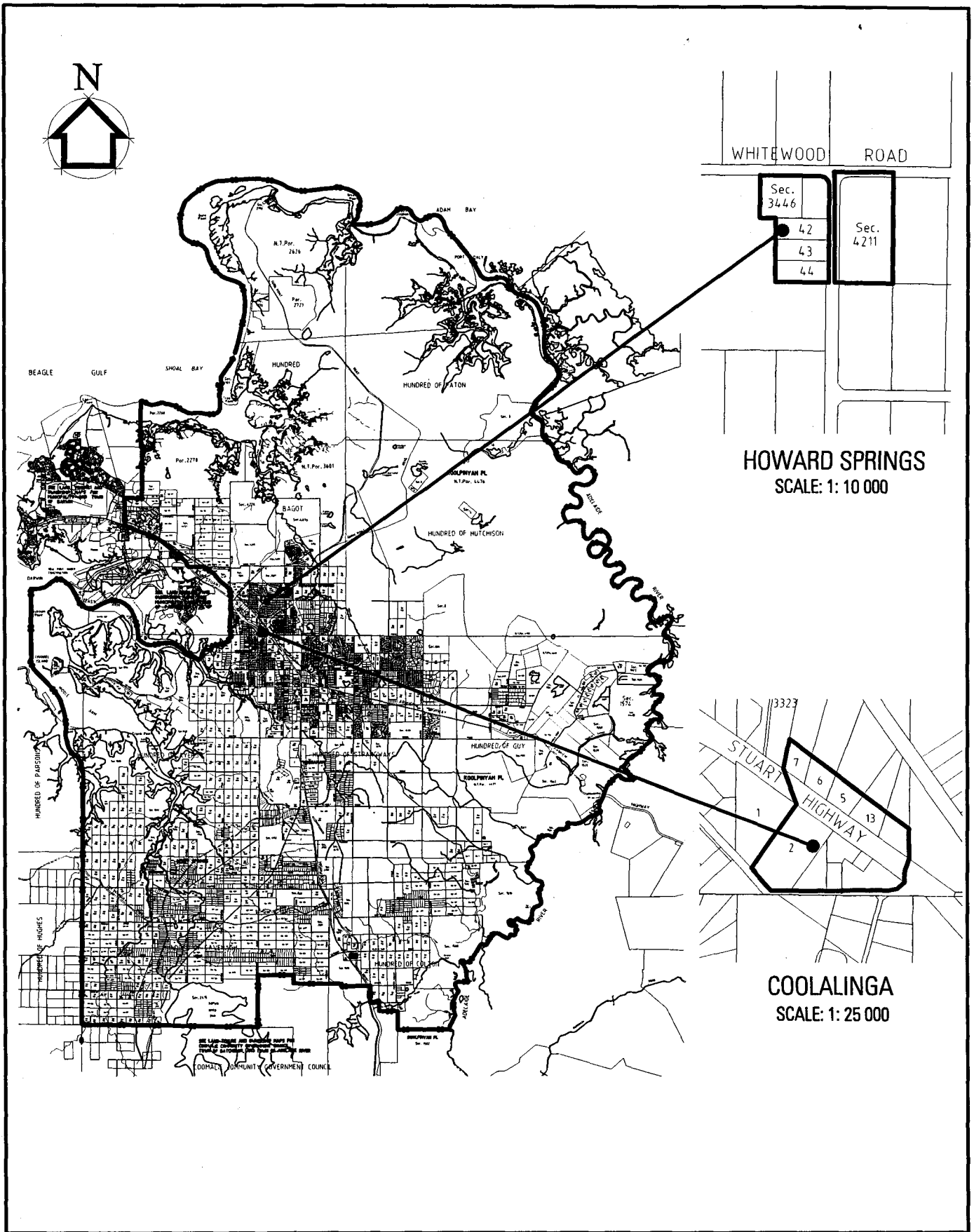


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0km 10km 20km

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Figure 2.1
DISTRICT CENTRES



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0km 10km 20km

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Figure 2.2
LOCAL CENTRES

Assessment of Existing Infrastructure

2.2.1 Coolalinga

Henning Road is the only Council owned road within the Coolalinga Local Centre. Henning Road is sealed but requires some reconstruction and drainage works.

Access to properties is also provided by service road on both sides of the Stuart Highway. These roads are owned by the Department of Transport and Works.

2.2.2 Howard Springs

The roads within the Howard Springs Local Centre are Whitewood Road and Smyth Road. Both roads are sealed. Construction works to widen Whitewood Road are required.

Upgrading of drainage within Whitewood Road and Smyth Road is required to improve drainage and road safety by removing open drains and culvert end walls.

2.3 Minor Service Points

Minor service points are the smallest centres within the hierarchy found in Litchfield. These are designed to serve passing traffic and the immediate surrounding area and consist of one or two "corner" shops. Minor service points exist at Virginia, Noonamah, Acacia, Berry Springs and Humpty Doo Hotel (Figure 2.3).

These centres are currently zoned Rural Living under the *Litchfield Area Plan 1992*. However, Clause 22.3 of the *Litchfield Area Plan 1992* exempts land within defined boundaries for each centre (Figure 2.3) from the provisions of the Rural Living zones and instead provides for development in accordance with the provisions of the District Centre - Business zone. These defined centres can therefore be considered separate for the purposes of this Plan from the surrounding rural areas in a similar manner as existing district centres and local centres.

An assessment of existing roads and drainage provision within these minor service points follows.

2.3.1 Virginia

The roads within Virginia are Virginia Road and Hinton Road. Both of these roads are sealed and are adequate for current traffic demand. Drainage is considered adequate for current needs.

2.3.2 Noonamah

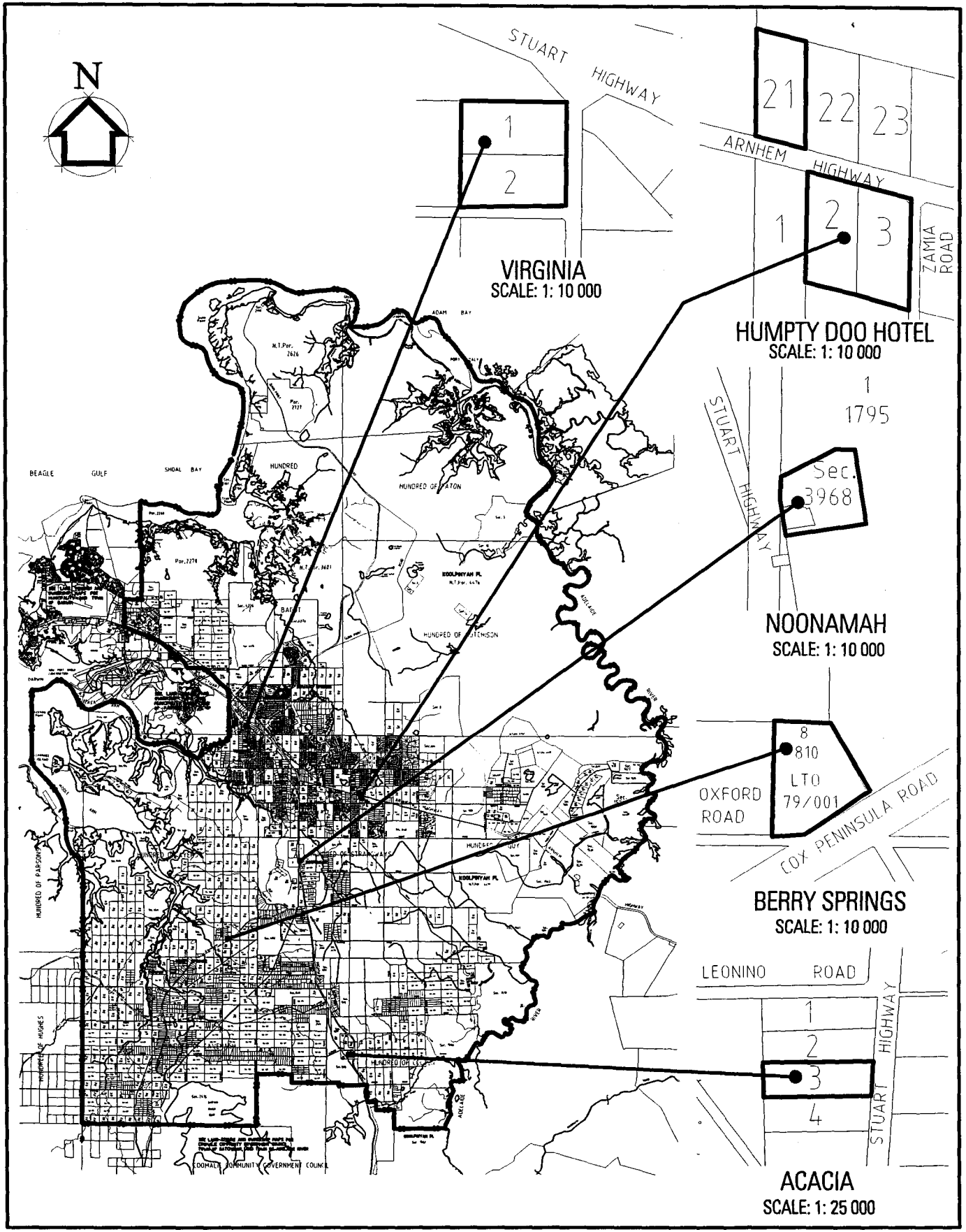
No internal Council controlled roads exist within Noonamah. Access to the area is from the Stuart Highway. Drainage is considered adequate for current needs.

2.3.3 Acacia

No internal Council controlled roads exist within Acacia. Access to the centre is from the Stuart Highway. A service road is required to provide safer access. Drainage is considered adequate for current needs.

2.3.4 Berry Springs

No internal Council controlled roads exist within Berry Springs. Access to the centre is from Cox Peninsula Road or Oxford Road. Oxford Road is unsealed and requires sealing to cater for current traffic demand. Drainage is considered adequate for current needs.



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Figure 2.3
MINOR SERVICE POINTS

Assessment of Existing Infrastructure

2.3.5 Humpty Doo Hotel

No internal Council controlled roads exist within Humpty Doo Hotel. Access to the area is from the Arnhem Highway or Zamia Road. Zamia Road is sealed and adequate for current traffic demand. Drainage within the car park requires attention.

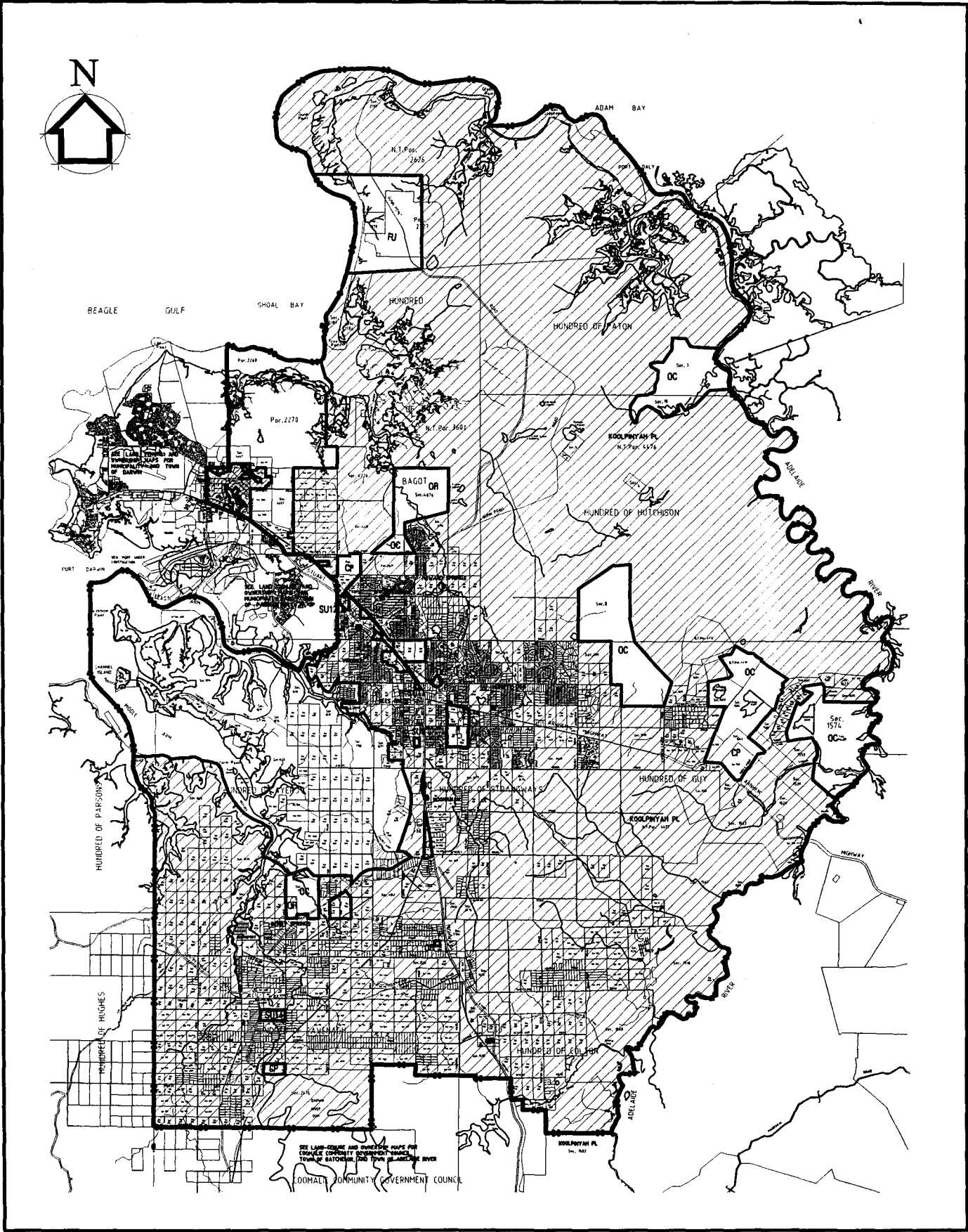
2.4 Rural Areas

The rural areas of Litchfield Shire for the purposes of this Plan comprise land under the following zones in which rural and rural residential development is occurring and which could support further development in the future (Figure 2.4):

- > Rural Living 1 (RL1)
- > Rural Living 2 (RL2)
- > Rural Living 3 (RL3)
- > Horticultural Protection (HP)
- > Pastoral (PA)
- > Water Management (WM)
- > Extractive Industry (EX)

Roads and drainage works in these rural areas can be considered together as far as determination of developer contributions is concerned. This is because, in most cases, the only drainage works required will form an integral part of the required road works. Such drainage works would include culverts, table drains, offlet drains and so on.

Within the Shire, Council owns 627.20km of roads of which 317.30km is sealed, 254.00km is gravelled and 55.9km is formed. Council's aim is to develop the road and drainage network within rural areas to meet the appropriate standards contained within the *Litchfield Shire Council Rural Subdivision Roads and Drainage Works Guidelines*. An assessment of existing infrastructure provision within rural areas has been undertaken by Council and required infrastructure upgrading or provision to cater for existing development, together with cost estimates, has been identified in Table 4.1 (Section 4).



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Figure 2.4
RURAL AREAS

3. Development Potential and Future Needs

The following is an overview of growth and future development potential within Litchfield Shire. The aim is to identify areas where existing infrastructure will require upgrading, or additional infrastructure provision will be required, to cater for development in the medium to long term for which developer contributions should be levied.

3.1 Growth and Development of Litchfield Shire

3.1.1 Population Trends

Litchfield Shire continues to attract a growing proportion of the Darwin regional population. The 1996 Australian Bureau of Statistics estimated resident population of Litchfield was 12 492 or 13.1% of the Darwin Statistical Division. This compared to a 1991 population of 9 670 or 11.0% of the regional population, and represents an average annual growth rate of 5.3% from 1991 to 1996. This rate of growth has been surpassed in Palmerston which has experienced an average annual growth rate from 1991 to 1996 of 9.0%, but far exceeds growth in Darwin which has experienced a negative average annual growth rate (-0.1%), and other major centres such as Katherine (1.1%) and Alice Springs (1.2%). Palmerston and Litchfield can be considered the two major growth areas within the Northern Territory at present.

The *Proposed Litchfield Land Use Structure and Development Opportunities* predicts that the population of Litchfield could double to 25 000 over the next 20 years to the year 2015 based on a regional growth scenario of 2.25% per annum.

3.1.2 Strategic Planning Context

The *Litchfield Land Use Structure Plan 1990* remains the current strategic planning document which has guided the development of the Shire. Associated with this are a number of more specific plans, including the *Litchfield District Centres Land Use Concept Plan 1992*, the *Gunn Point Peninsula Land Use Structure Plan 1990* and the *Murrumujuk Land Use Concept Plan 1990*.

The *Proposed Litchfield Land Use Objectives* and companion document *Proposed Litchfield Land Use Structure & Development Opportunities* were released last year and are proposed to supercede these documents (once declared). These documents provide a revised planning framework and land use structure plan for the future development of the Shire.

The adoption of the Land Use Objectives will require amendments to the *Litchfield Area Plan 1992* to ensure the two instruments are consistent.

3.2 Rural Service Centres

The new Land Use Objectives and Land Use Structure reinforce the role of existing and proposed district centres, local centres and minor service points in recognition that the concentration of commercial, industrial and community uses reduces potential environmental impacts and land use conflicts, and provides convenience for residents.

The exception to this is the local centre at Coolalinga in which further expansion is proposed to be contained because of difficulties associated with the provision of necessary service infrastructure (particularly sewage disposal) to cater for more intense commercial activity, as well as the recognised public safety problems associated with traffic management and impacts on the efficiency of the Stuart Highway.

Development Potential and Future Needs

Potential growth and future infrastructure requirements to cater for growth within each of the existing and proposed rural service centres are discussed in the following sections.

3.2.1 Humpty Doo District Centre

The future extent of the Humpty Doo District Centre is defined by land use zoning under the *Litchfield Area Plan 1992*. This zoning provides for business, industrial, residential and community purpose development. The centre is in the early stages of its development, with much of the area being vacant Crown land to be released in stages. However, when fully developed, the Humpty Doo District Centre will be the largest commercial centre within the Litchfield Shire.

Strangways Road requires sealing. Other roads are considered adequate to cater for full development. Internal roads would be constructed by developers as part of individual site developments in accordance with Council standards.

A stormwater drainage study is currently being undertaken which will determine trunk drainage requirements to cater for full development of the centre. Drainage infrastructure would be developed in accordance with the recommendations of the study. However, there remains uncertainty as to whether the Northern Territory Government or Litchfield Shire Council will be responsible for development of this infrastructure.

3.2.2 Berry Springs District Centre

The future extent of the Berry Springs District Centre is also defined by land use zoning which provides for the same range of uses as at Humpty Doo. The centre contains a combined service station/general store, with the majority of land within the centre being vacant and undeveloped at present.

A need for sealing of Oxford Road and Hopewell Road and some reconstruction of Doris Road has been identified to meet current needs. No further upgrading is considered necessary to cater for full development of the centre. Internal roads would be constructed by developers as part of individual site developments in accordance with Council standards.

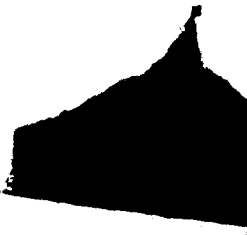
No drainage infrastructure exists within the centre. A stormwater drainage study is required to determine trunk drainage infrastructure requirements to cater for full development of the centre.

3.2.3 Freds Pass District Centre

The proposed extent of this centre is also defined by land use zoning, however, the range of uses proposed at Freds Pass is more limited than at Humpty Doo or Berry Springs. Zoning at Freds Pass provides for business and community purposes development but does not provide for industrial or residential uses. No commercial or community purpose development has occurred to date.

No further road development or upgrading is considered necessary to cater for full development of the centre. Internal roads would be constructed by developers as part of individual site developments in accordance with Council standards.

A trunk drain to Eugene Road has been identified to meet current needs. No further upgrading is considered necessary to cater for full development of the centre.



Development Potential and Future Needs

3.2.4 Howard Springs Local Centre

Howard Springs contains a good range of local services and facilities. These include a primary school, a supermarket, newsagent, post office, tavern, hardware store, restaurant, veterinary surgery and a small number of other shops.

The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

Some further infill development within the defined boundaries of the centre is possible. Also, some adjoining lots outside the defined boundaries of the centre have been identified for commercial uses within a Specific Use zoning.

Widening of Whitewood Road and upgrading of drainage within Whitewood Road and Smyth Road have been identified to meet current needs. No further upgrading is considered necessary to cater for full development of the centre.

3.2.5 Coolalinga Local Centre

Coolalinga comprises a strip centre along a service road off both sides of the Stuart Highway. The centre contains a range of convenience shops and a service station.

The centre is contained within the Rural Living zone, however, Clause 22.2 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

Some further infill development within the defined boundaries of this centre is possible, however the servicing difficulties and traffic management problems in this area need to be considered.

Henning Road has been identified as requiring some reconstruction and drainage works. No further upgrading is considered necessary to cater for full development of the centre.

3.2.6 Virginia Minor Service Point

Virginia comprises a garage/fuel outlet, a motel/caravan park and combined service station/store/bottle shop/take-away food outlet. The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

Some further infill development within the defined boundaries of this centre is possible.

The existing roads and drainage provision within this area are considered adequate to cater for full development within the centre.

3.2.7 Noonamah Minor Service Point

Noonamah consists of a hotel and a combined service station/shop/post office agent. The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

Development Potential and Future Needs

Some further infill development within the defined boundaries of this centre is possible.

No internal Council owned roads are envisaged within Noonamah. Access to businesses would be expected to be from a service road along the Stuart Highway. The existing roads and drainage provision within this area are considered adequate to cater for full development within the centre.

3.2.8 Acacia Minor Service Point

Acacia consists of a service station with an associated shop and caravan park and one other general store. The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

Some further minor expansion of existing commercial facilities is possible within the defined boundaries of the centre. Also, some adjoining lots outside the defined boundaries of the centre have been identified for commercial uses within a Specific Use zoning.

No internal Council owned roads are envisaged within Acacia. Access to businesses would be expected to be from a service road along the Stuart Highway. The existing roads and drainage provision within this area are considered adequate to cater for full development within the centre.

3.2.9 Berry Springs Minor Service Point

Berry Springs consists of a hardware store, shop and service station. The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

No further development within the defined boundaries of this centre is expected.

No internal Council owned roads are envisaged within Berry Springs. Access to businesses would be expected to continue to be from Cox Peninsula Road or Oxford Road. Oxford Road requires sealing. Drainage provision within this area is considered adequate to cater for development within the centre.

3.2.10 Humpty Doo Hotel Minor Service Point

The Humpty Doo Hotel area consists of a hotel, a service station, hardware store, nursery and Reptile World. The centre is contained within the Rural Living zone, however, Clause 22.3 of the *Litchfield Area Plan 1992* applies. This clause defines the boundaries of the centre and permits development in accordance with the controls applicable to the District Centre - Business zone.

No further development within the defined boundaries of this centre is expected.

No internal Council owned roads are envisaged within the Humpty Doo Hotel centre. Access to businesses would be expected to continue to be from the Arnhem Highway or Zamia Road. The existing roads and drainage provision within this area are considered adequate to cater for development within the centre.

Development Potential and Future Needs

3.2.11 Future Rural Service Centres

The *Litchfield Proposed Land Use Objectives* and *Proposed Land Use Structure and Development Opportunities* note the possible need for additional local centres in the future to serve future small lot rural living areas. These are at present undefined in terms of location and extent but will need to be considered once provision has been made for these centres under the zoning provisions of the *Litchfield Area Plan 1992*.

3.3 Rural Areas

3.3.1 Strategic Direction

Large areas of land within the rural areas of the Shire are suitable for further rural and rural residential development. The nature and extent of such development is dependent on land use zoning controls, land capability, and market factors.

The *Proposed Land Use Objectives* provide the strategic direction for future zoning and development of these areas. The Land Use Objectives (LUO) divide the Shire into 20 separate localities on the basis of intended future land use (Figure 3.1) and provide a guide to the possible extent of future development within the rural areas. The localities established and land use objectives for each are detailed within the LUO.

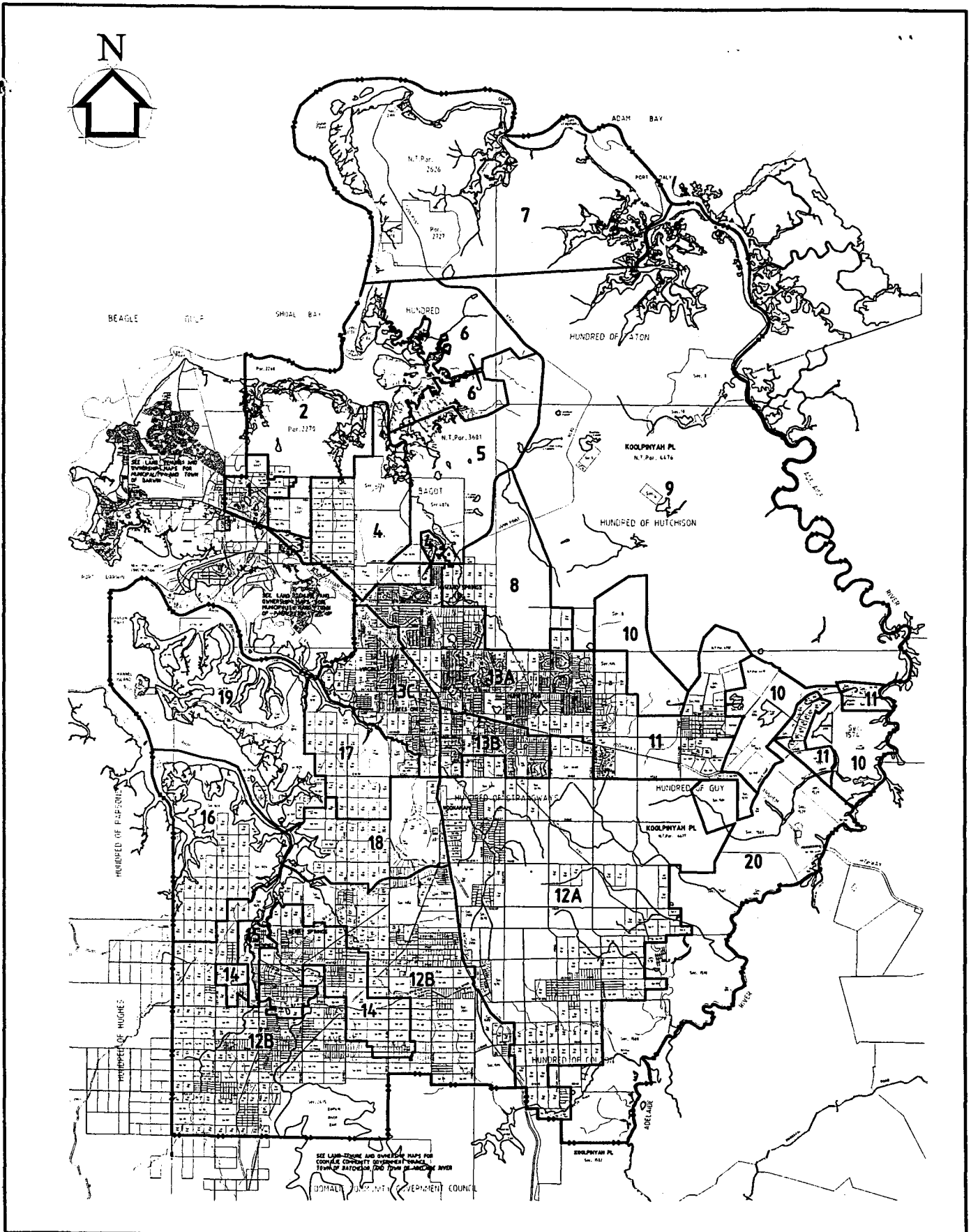
The locality land use objectives are reflected in the Land Use Structure Plan for Litchfield contained in the document *Proposed Land Use Structure and Development Opportunities*. This Land Use Structure Plan provides spatial definition to the locality land use objectives and will form the basis for future land use zoning amendments under the *Litchfield Area Plan 1992*.

3.3.2 Road and Drainage System Catchment Areas

The localities identified in the LUO provide a logical basis for assessing infrastructure requirements to cater for potential future development, and for determining developer contribution rates for the rural areas. These localities have been adopted for the purposes of this Plan as catchment areas for local road and drainage systems which serve each of these localities (Figure 3.1). The following modifications to these localities or catchment areas have been made for the purposes of this Plan:

- > Locality boundaries have been adjusted where required to correspond with the nearest cadastral or natural boundaries for practical purposes and, in some instances, to better reflect existing land use patterns.
- > *Locality 12* has been divided into two separate local road and drainage system catchment areas, with the Stuart Highway forming the common catchment boundary.
- > *Locality 13* has been divided into three separate local road and drainage system catchment areas, with the Stuart and Arnhem Highways forming the common catchment boundaries.

The division of Localities 12 and 13 has been undertaken in recognition that major highways extend through these areas and act as boundaries to local road and drainage systems. This separation of distinct local road and drainage system catchment areas within the larger localities should provide a more equitable basis for levying developer contributions.



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Figure 3.1
ROAD & DRAINAGE SYSTEM
CATCHMENT AREAS

Development Potential and Future Needs

3.3.3 Development Potential

The LUO and Land Use Structure Plan will form the basis for future land use zoning amendments under the *Litchfield Area Plan 1992*. Current land use zoning controls have been used to determine future development potential and assess future infrastructure requirements within each catchment area until such time as these LUO are declared and the intended future land use within each defined locality is formalised in land use zoning amendments to the *Litchfield Area Plan 1992*. Land capability has also been factored in as this reduces the amount of developable land available within each catchment area.

The existing and estimated potential development within each catchment area is summarised in Table 3.1.

Table 3.1 Existing and Potential Development of Rural Catchment Areas

Catchment Area	Existing Lots	Potential New Lots	Potential Total Lots
1	137	99	236
2	Excluded from Plan	Excluded from Plan	Excluded from Plan
3	35	213	248
4	217	1 097	1 314
5	5	Nil	5
6	1	Nil	1
7	5	Nil	5
8	14	58	72
9	6	Nil	6
10	9	Nil	9
11	168	287	455
12A	359	870	1 229
12B	776	1 238	2 014
13A	2 395	937	3 332
13B	609	279	888
13C	1 235	500	1 735
14	281	152	433
15	336	Nil	336
16	31	250	281
17	Excluded from Plan	Excluded from Plan	Excluded from Plan
18	Excluded from Plan	Excluded from Plan	Excluded from Plan
19	Excluded from Plan	Excluded from Plan	Excluded from Plan
20	210	Nil	210

Notes:

1. Calculation of potential lots within each catchment area is based on area of zoned land suitable for further development and minimum permissible lot sizes within these zones. This excludes development potential within PA, WM and EX zoned land as no minimum lot sizes are specified for these zones.
2. Minimum lot size for RL1 zone is 2ha.
3. Minimum lot size for RL2 zone is 8ha.
4. Minimum lot size for RL3 zone is 8ha.
5. Minimum lot size for HP zone is 25ha.

3.3.4 Infrastructure Requirements

Council's aim is to develop the road and drainage network within rural areas to meet the appropriate standards contained within the *Litchfield Shire Council Rural Subdivision Roads and Drainage Works Guidelines*. An assessment of future infrastructure requirements within rural areas has been undertaken by Council and required infrastructure upgrading or provision to cater for potential future development, together with cost estimates, has been identified in Table 4.1 (Section 4).

4. Developer Contributions

The methods used to calculate developer contributions and the contribution rates for infrastructure are established in this section of the Plan.

4.1 Infrastructure Cost Estimates

The estimated cost of infrastructure upgrading and provision identified as being required to cater for existing and potential future development is provided in Table 4.1.

Table 4.1 Cost Estimates

Service Centre or Catchment Area	Description of Infrastructure	Estimated Cost (\$)
Humpty Doo District Centre	Road across dump, Gum Trees Road (1600m)	160 000
	Drainage works to dump and industrial area	350 000
	Drainage to Taminmin High School – concrete line existing drain and increase cross road drainage	500 000
	Bridge to Edwin Creek	200 000
	Road between Freds Pass Road and Krischauf Road (750m)	100 000
	Total 1 310 000	
Berry Springs District Centre	Service road (1500m)	150 000
	Street lighting	50 000
	Total 200 000	
Freds Pass District Centre	Nil	Nil
	Total Nil	
Howard Springs Local Centre	Kerb from school to Hamilton Road (north side)	50 000
	Kerb and channel from school to Hamilton Road (south side)	50 000
	500m pipe s/w from Smyth Road to Wadham Lagoon	80 000
	500m pipe s/w from Westall Road to Wadham Lagoon	80 000
	Widen formation of road at Wadham Lagoon	250 000
	Pipe s/w in Smyth Road and extend pavement, kerb and channel	40 000
	Widen Whitewood Road from Smyth Road to Stow Road (1600m)	160 000
	112 000	
	Total 822 000	
Coolalinga Local Centre	Continuation of service roads on each side of Stuart Highway	100 000
	Formalisation of drainage at Henning Road	50 000
	Widening of Henning Road and restoration of drainage	100 000
	Total 250 000	
Virginia Minor Service Point	Nil	Nil
	Total Nil	
Noonamah Minor Service Point	Nil	Nil
	Total Nil	
Acacia Minor Service Point	Nil	Nil
	Total Nil	
Berry Springs Minor Service Point	Nil	Nil
	Total Nil	
Humpty Doo Hotel Minor Service Point	Nil	Nil
	Total Nil	
Catchment Area 1	Nil	Nil
	Total Nil	
Catchment Area 2	Excluded from Plan	Excluded from Plan
Catchment Area 3	Drainage structures – 11 Mile Road	30 000
	Total 30 000	
Catchment Area 4	Road upgrading ¹ – Bypass Road	720 000
	Road upgrading ² – Taylor Road	300 000
	Road upgrading ³ – Sitella Road	112 000
	Total 1 132 000	
Catchment Area 5	Nil	Nil
	Total Nil	
Catchment Area 6	Nil	Nil
	Total Nil	
Catchment Area 7	Nil	Nil
	Total Nil	
Catchment Area 8	Nil	Nil
	Total Nil	
Catchment Area 9	Nil	Nil
	Total Nil	
Catchment Area 10	Nil	Nil
	Total Nil	

Developer Contributions

Service Centre or Catchment Area	Description of Infrastructure	Estimated Cost (\$)
Catchment Area 11	Road upgrading ² – Billabong Road	160 000
	Road upgrading ¹ – River Road	624 000
	Road upgrading ³ – Warren Road	84 000
	Road upgrading ¹ – Ewart Road	192 000
	Road upgrading ³ – Miniata Road	168 000
	Road upgrading ³ – Lambells Lagoon Road	112 000
	Road upgrading ³ – Thompson Road	126 000
	Road upgrading ³ – Canarium Road	56 000
	Road upgrading ² – Wood Road	300 000
	Drainage structures – Billabong Road	20 000
	Drainage structures – Ewart Road	50 000
	Drainage structures – Lambells Lagoon Road	20 000
	Total 1 912 000	
Catchment Area 12A	Road upgrading ³ – Manton Valley Road	112 000
	Road upgrading ³ – Golding Road	224 000
	Road upgrading ³ – Whitestone Road	182 000
	Road upgrading ¹ – Whitestone Road	192 000
	Road upgrading ¹ – Guys Creek Road	384 000
	Road upgrading ² – Acacia Gap Road	200 000
	Road upgrading ³ – Byers Road	294 000
	Road upgrading ³ – Colton Road	196 000
	Road upgrading ² – Mocatto Road	320 000
	Road upgrading ³ – Mocatto Road	504 000
	Road upgrading ² – Hughes Road	160 000
	Road upgrading ¹ – Acacia Gap Road	600 000
	Road upgrading ³ – Keleson Road	70 000
	Road upgrading ³ – Alverly Road	140 000
	Road upgrading ³ – Horsnell Road	224 000
	Road upgrading ¹ – Gullick Road	192 000
	Road upgrading ³ – Daniel Road	21 000
	Road upgrading ¹ – Plantation Road	192 000
	Road upgrading ³ – Townend Road	224 000
	Road upgrading ¹ – Townend Road	960 000
	Road upgrading ² – Redcliffe Road	320 000
	Road upgrading ³ – Redcliffe Road	448 000
	Road upgrading ² – Goode Road	320 000
	Drainage structures – Alverly Road	60 000
	Drainage structures – Elizabeth Valley Road	100 000
	Drainage structures – Goode Road	20 000
	Drainage structures – Mocatto/Whitso Roads	250 000
	Drainage structures – Redcliffe Road	300 000
	Drainage structures – Townend Road	160 000
	Stream crossing ⁴ – Elizabeth River (Elizabeth Valley Road)	1 150 000
	Stream crossing ⁴ – Elizabeth River (Weaver Road)	1 300 000
	Stream crossing ⁴ – Acacia Creek (Mocatto Road)	450 000
	Total 10 269 000	
Catchment Area 12B	Road upgrading ³ – Oxford Road	91 000
	Road upgrading ¹ – Wheewall Road	216 000
	Road upgrading ³ – Wheewall Road	154 000
	Road upgrading ¹ – unnamed road	288 000
	Road upgrading ³ – Bradley Road	91 000
	Road upgrading ² – Finn Road	36 000
	Road upgrading ² – Kentish Road	740 000
	Road upgrading ² – Hopewell Road	280 000
	Road upgrading ² – Parkin Road (north)	120 000
	Road upgrading ² – Leonino Road	700 000
	Road upgrading ³ – Scrutton Road	182 000
	Road upgrading ³ – Old Bynoe Road	252 000
	Road upgrading ³ – Blyth Road	147 000
	Road upgrading ² – Blyth Road	80 000
	Road upgrading ² – Parkin Road (south)	160 000
	Road upgrading ³ – Perentie Road	70 000
	Road upgrading ² – Livingstone Road	300 000
	Road upgrading ³ – Cornock Road	84 000
	Road upgrading ³ – Old Bynoe Road	196 000
Road upgrading ¹ – unnamed road	144 000	
Road upgrading ² – Peacock Road	192 000	

Developer Contributions

Service Centre or Catchment Area	Description of Infrastructure	Estimated Cost (\$)	
	Road upgrading ¹ – unnamed road	192 000	
	Road upgrading ³ – Leonino Road	420 000	
	Road upgrading ³ – Meade Road	210 000	
	Road upgrading ³ – Spencer Road	280 000	
	Road upgrading ² – Spencer Road	336 000	
	Road upgrading ² – Letchford Road	744 000	
	Road upgrading ¹ – Letchford Road (north)	120 000	
	Road upgrading ³ – Mira Road (south)	210 000	
	Road upgrading ² – Mira Road (south)	320 000	
	Road upgrading ³ – Duddell Road	154 000	
	Road upgrading ² – Reedbeds Road	240 000	
	Drainage structures – Meade Road	540 000	
	Drainage structures – Parkin Road (south)	50 000	
	Drainage structures – Spencer Road	430 000	
	Drainage structures – Kentish Road	90 000	
	Drainage structures – Leonino Road	60 000	
	Drainage structures – Parkin Road (north)	100 000	
	Stream crossing ⁴ – Darwin River (Leonino Road)	350 000	
	Stream crossing ⁴ – Darwin River (Reedbeds Road)	750 000	
	Stream crossing ⁴ – Darwin River (Old Bynoe Road)	525 000 ⁵	
	Stream crossing ⁴ – Fly Creek (Old Bynoe Road)	475 000 ⁵	
	Stream crossing ⁴ – Berry Creek (Doris Road)	450 000	
		Total 11 569 000	
	Catchment Area 13A	Road upgrading ² – Finlay Road	40 000
		Road upgrading ³ – Pheasant Road	56 000
		Road upgrading ¹ – Chicken Road	192 000
		Road upgrading ¹ – Madsen Road	1 200 000
Road upgrading ² – Stow Road		16 000	
Road upgrading ³ – Aken Road		21 000	
Road upgrading ² – Inman Road		50 000	
Road upgrading ³ – McIntyre Road		28 000	
Road upgrading ² – Girraween Road		500 000	
Road upgrading ³ – Bruce Road		28 000	
Road upgrading ³ – Cornish Road		42 000	
Road upgrading ³ – Barrow Road		42 000	
Road upgrading ¹ – Power Road		96 000	
Road upgrading ³ – Dreamtime Road		28 000	
Road upgrading ³ – Short Road		28 000	
Road upgrading ¹ – Northern Road		624 000	
Road upgrading ² – Draper Road		50 000	
Road upgrading ³ – Lily Road		28 000	
Drainage structures – Girraween Road		430 000	
Drainage structures – Hillier Road		120 000	
Drainage structures – Northern Road		40 000	
Drainage structures – Pioneer Road		80 000	
Drainage structures – Power Road		120 000	
Drainage structures – Strangways Road		100 000	
Drainage structures – Whitewood Road		500 000	
		Total 4 339 000	
Catchment Area 13B		Road upgrading ³ – Dalgety Road	112 000
	Road upgrading ³ – Margerrison Road	140 000	
	Road upgrading ² – Wafflers Road	160 000	
	Road upgrading ² – Collard Road	40 000	
	Road upgrading ³ – Redcliffe Road	112 000	
	Road upgrading ² – Strangways Road	320 000	
	Road upgrading ¹ – Strangways Road	228 000	
	Road upgrading ² – Goode Road	320 000	
	Drainage structures – Goode Road	30 000	
	Drainage structures – Hayball Road	200 000	
		Total 1 662 000	
Catchment Area 13C	Road upgrading ³ – Jervois Road	49 000	
	Road upgrading ¹ – Thorburn Road	36 000	
	Road upgrading ² – Osbeck Road	100 000	
	Road upgrading ³ – Gailbraith Road	98 000	
	Road upgrading ² – Burdens Creek Road	140 000	
	Road upgrading ² – Radford Road	260 000	
Road upgrading ¹ – Lowther Road	456 000		

Developer Contributions

Service Centre or Catchment Area	Description of Infrastructure	Estimated Cost (\$)	
Catchment Area 14	Road upgrading ² – Lowther Road	175 000	
	Road upgrading ¹ – Virginia Road	120 000	
	Road upgrading ² – Gulnare Road	200 000	
	Road upgrading ² – Bees Creek Road	160 000	
	Road upgrading ³ – Sattler Road	105 000	
	Drainage structures – Burdens Creek Road	80 000	
	Drainage structures – Eugene Road	100 000	
	Drainage structures – Gulnare Road	80 000	
	Drainage structures – Lowther Road	150 000	
	Drainage structures – Virginia Road	100 000	
	Stream crossing ⁴ – Elizabeth River (Bees Creek Road)	950 000	
		Total 3 359 000	
	Catchment Area 15	Road upgrading ³ – Williams Road	91 000
		Road upgrading ³ – Trenow Road	140 000
		Road upgrading ³ – Russ Road	112 000
		Road upgrading ² – Leonino Road	340 000
		Road upgrading ¹ – Southport Road	240 000
Road upgrading ³ – Old Bynoe Road		350 000	
Road upgrading ³ – Carveth Road		35 000	
Road upgrading ³ – Livingstone Road		224 000	
Road upgrading ³ – Reedbeds Road		336 000	
Road upgrading ² – Kentish Road		500 000	
Road upgrading ³ – Hopewell Road		308 000	
Road upgrading ³ – Duddell Road		126 000	
Road upgrading ² – Brougham Road		320 000	
Road upgrading ³ – Southport Road		126 000	
Drainage structures – Hopewell Road		50 000	
Drainage structures – Kentish Road		50 000	
Drainage structures – Leonino Road		100 000	
Stream crossing ⁴ – Darwin River (Old Bynoe Road)		525 000 ⁵	
Stream crossing ⁴ – Fly Creek (Kentish Road)		950 000	
Stream crossing – Fly Creek (Old Bynoe Road)		475 000 ⁵	
Stream crossing ⁴ – Berry Creek (Hopewell Road)	1 150 000		
	Total 6 548 000		
Catchment Area 16	Road upgrading ¹ – Southport Road (north and south)	720 000	
	Road upgrading ¹ – Southport Road (east and west)	480 000	
	Road upgrading ³ – Mira Road (north)	168 000	
	Provision of turning circles (12 @ \$2000)	24 000	
	Street sealing	1 200 000	
	Provision of water supply	100 000	
	Reticulation	650 000	
	Kerb and channel	700 000	
	Total 4 042 000		
Catchment Area 17	Nil	Nil	
Catchment Area 18	Excluded from Plan	Excluded from Plan	
Catchment Area 19	Excluded from Plan	Excluded from Plan	
Catchment Area 20	Nil	Nil	
		Total Nil	

Notes:

- Road currently unconstructed or seriously deficient in pavement. Requires clearing, formation works, subgrade gravel, subgrade compact and trim, basecourse gravel, basecourse compact and trim, seal, design, survey and furniture. Estimated upgrading cost of \$120 000/km.
- Road currently formed and gravelled sufficient for daily use. Drainage complete and formation of adequate width. Requires subgrade gravel, subgrade compact and trim, basecourse gravel, basecourse compact and trim, seal, design, survey and furniture. Estimated upgrading cost of \$100 000/km.
- Road has adequate gravel pavement of suitable width and is properly drained. Requires basecourse gravel, basecourse compact and trim, seal, design, furniture and line marking. Estimated upgrading cost of \$70 000/km.
- Stream crossing estimates based on 1 in 10 year (Q10) flood immunity.
- Stream crossing is on border of Catchment Area 12B and Catchment Area 14. Cost has been divided equally between these catchments areas.

Developer Contributions

4.2 Contribution Formulae and Rates

The following formulae will be used to calculate developer contributions for a particular development. The calculated contribution rates will then be levied.

4.2.1 Roads

Rural Service Centres

The following formula will be applied to development within the rural service centres to determine the contribution rate:

$$CR = (DA/TA) \times TC$$

where:

CR = contribution rate

DA = area of developable land within the subject development site (m²)

TA = total area of developable land within the rural service centre (m²)

TC = total cost of road works within the rural service centre as identified in Table 4.1

Rural Areas

Contributions towards upgrading and provision of rural roads can be recovered according to the rural road and drainage catchment areas. The required contribution rate has been calculated for rural roads within each catchment and calculations are included at Appendix A.

The following contributions will be levied per additional lot within each road catchment area:

Catchment Area 1	\$Nil
Catchment Area 2	\$Excluded from Plan
Catchment Area 3	\$121.00
Catchment Area 4	\$861.00
Catchment Area 5	\$Nil
Catchment Area 6	\$Nil
Catchment Area 7	\$Nil
Catchment Area 8	\$Nil
Catchment Area 9	\$Nil
Catchment Area 10	\$Nil
Catchment Area 11	\$4 202.00
Catchment Area 12A	\$8 356.00
Catchment Area 12B	\$5 744.00
Catchment Area 13A	\$1 302.00
Catchment Area 13B	\$1 872.00
Catchment Area 13C	\$1 936.00
Catchment Area 14	\$15 122.00
Catchment Area 15	\$Nil
Catchment Area 16	\$Nil
Catchment Area 17	\$Excluded from Plan
Catchment Area 18	\$Excluded from Plan
Catchment Area 19	\$Excluded from Plan
Catchment Area 20	\$Nil

Developer Contributions

These contribution rates only apply to those developments which create new lots (subdivision). Where a rural development is proposed that does not involve the creation of new lots, the contribution payable will be determined on the basis of the traffic generation potential of each development. A traffic impact assessment must be carried out by the proponent for each proposed development and must identify as a minimum:

- > traffic generation from the proposed development
- > level of traffic on the existing road system external to the development that will exist within the design life of the development
- > effect (if any) of the proposed development on the existing road system
- > works necessary to alleviate any traffic issues
- > cost of these works

The following formula should then be applied to determine the contribution rate:

$$CR = (TC \times NT) / PT$$

where:

CR = contribution rate

TC = total cost of the road works

NT = total traffic generation of the new development

PT = potential traffic using the road to which the development connects

A worked example using this formula is provided at Appendix B.

4.2.2 Drainage

Rural Service Centres

The following formula will be applied to development within the rural service centres to determine the contribution rate:

$$CR = (DA/TA) \times TC$$

where:

CR = contribution rate

DA = area of developable land within the subject development site (m²)

TA = total area of developable land within the rural service centre (m²)

TC = total cost of drainage works within the rural service centre as identified in Table 4.1

Rural Areas

In most cases, development within rural areas will not require any stormwater drainage systems (external to the development) to be constructed over and above the works associated with road construction (which have been included in contribution rates for rural roads).

Each development will however be assessed on its merits and contributions will be sought for the cost of any drainage works required external to the development using the formula for rural

Developer Contributions

service centres as follows:

$$CR = (DA/TA) \times TC$$

where:

CR = contribution rate

DA = area of developable land within the subject development site (m²)

TA = total area of developable land within the catchment of the drainage system (m²)

TC = total cost of the drainage system within the catchment

4.3 Indexation

It is necessary to index the cost of required works to keep them relative to current day values. Costs for infrastructure works not yet undertaken will be indexed annually in accordance with the Implicit Price Deflator (IPD)² and contribution rates adjusted accordingly. However, in accordance with best practice principles established through legal precedent in other states of Australia, costs for infrastructure works already provided by Council will not be indexed.

4.4 Payment of Contributions

4.4.1 Method of Payment

There are three possible methods of payment for contributions, as follows:

Monetary Contribution

In most cases, payment of the required contribution will be a monetary payment. However, where appropriate, Council may allow monetary contributions to be offset by the dedication of land or the construction of infrastructure by the proponent (material public benefit).

Dedication of Land to Council

Council may accept the dedication of land to Council for public purposes to offset the monetary contribution payable, subject to an assessment of the suitability of the land for the intended purpose and agreement on the value of the land being dedicated.

Material Public Benefit Agreement

Council may enter into an appropriate formal agreement with the proponent for the construction of infrastructure (provision of a material public benefit) to offset the monetary contribution payable, provided the works are included within the Works Schedule contained in the Plan (Section 5) and that full details of the works proposed are provided to Council, including cost estimates.

² The IPD is an index obtained by dividing a current price value by its corresponding constant price value and is published by the Australian Bureau of Statistics on a quarterly or annual basis for all items of expenditure in the domestic production account.

Developer Contributions

4.4.2 Timing of Payment

Section 30 of the *Planning Act* sets out the timing for payment of contributions. A contribution shall be provided as follows:

- > for most development - on request for release of development conditions.
- > where the development is a change of use only - before the commencement of the new use.
- > where a condition of a development permit requires that at the completion of each specified stage of a development a specified number of car parking spaces shall be provided or a proportion of the total contribution as assessed by Council in accordance with this Contributions Plan shall be payable - at the completion of each stage and before commencement of the use of that part of the development in accordance with the conditions of the permit³.
- > as otherwise specified in a written agreement between Council and the holder of a development permit.

Late payment of contributions will incur interest charges at the same rate as those charged on late payment of Council rates under the *Local Government Act*.

³ This applies to car parking contributions and is therefore not relevant to this Plan.

5. Works Schedule

The Works Schedule provided in Table 5.1 establishes the priorities of Council for expenditure of contribution monies collected in accordance with this Plan. Works will be undertaken as required to cater for development within each catchment area.

It is the intention of Council to collect contribution monies as development within each catchment area occurs and undertake infrastructure works in defined viable stages as funds permit. This will ensure that monies collected are spent within a reasonable timeframe and provide some benefit to developers from whom contributions are being collected.

Table 5.1 Works Schedule

Service Centre or Catchment Area	Description of Infrastructure
Humpty Doo District Centre	Road across dump, Gum Trees Road (1600m) Drainage works to dump and industrial area Drainage to Taminmin High School Bridge to Edwin Creek
Berry Springs District Centre	Road between Freds Pass Road and Krischauf Road (750m) Service road (1500m) Street lighting
Freds Pass District Centre	Nil
Howard Springs Local Centre	Kerb from school to Hamilton Road (north side) Kerb and channel from school to Hamilton Road (south side) 500m pipe s/w from Smyth Road to Wadham Lagoon 500m pipe s/w from Westall Road to Wadham Lagoon Widen formation of road at Wadham Lagoon Pipe s/w in Smyth Road and extend pavement, kerb and channel Widen Whitewood Road from Smyth Road to Stow Road (1600m) Kerb and channel from Smyth Road to Stow Road (1600m)
Coolalinga Local Centre	Continuation of service roads on each side of Stuart Highway Formalisation of drainage at Henning Road Widening of Henning Road and restoration of drainage
Virginia Minor Service Point	Nil
Noonamah Minor Service Point	Nil
Acacia Minor Service Point	Nil
Berry Springs Minor Service Point	Nil
Humpty Doo Hotel Minor Service Point	Nil
Catchment Area 1	Nil
Catchment Area 2	Excluded from Plan
Catchment Area 3	Drainage structures – 11Mile Road
Catchment Area 4	Road upgrading – Bypass Road Road upgrading – Taylor Road Road upgrading – Sitella Road
Catchment Area 5	Nil
Catchment Area 6	Nil
Catchment Area 7	Nil
Catchment Area 8	Nil
Catchment Area 9	Nil
Catchment Area 10	Nil
Catchment Area 11	Road upgrading – Billabong Road Road upgrading – River Road Road upgrading – Warren Road Road upgrading – Ewart Road Road upgrading – Miniata Road Road upgrading – Lambells Lagoon Road Road upgrading – Thompson Road Road upgrading – Canarium Road Road upgrading – Wood Road Drainage structures – Billabong Road Drainage structures – Ewart Road Drainage structures – Lambells Lagoon Road

Works Schedule

Service Centre or Catchment Area	Description of Infrastructure
Catchment Area 12A	Road upgrading – Manton Valley Road Road upgrading – Golding Road Road upgrading – Whitestone Road Road upgrading – Whitestone Road Road upgrading – Guys Creek Road Road upgrading – Acacia Gap Road Road upgrading – Byers Road Road upgrading – Colton Road Road upgrading – Mocatto Road Road upgrading – Mocatto Road Road upgrading – Hughes Road Road upgrading – Acacia Gap Road Road upgrading – Keleson Road Road upgrading – Alverly Road Road upgrading – Horsnell Road Road upgrading – Gullick Road Road upgrading – Daniel Road Road upgrading – Plantation Road Road upgrading – Townend Road Road upgrading – Townend Road Road upgrading – Redcliffe Road Road upgrading – Redcliffe Road Road upgrading – Goode Road Drainage structures – Alverly Road Drainage structures – Elizabeth Valley Road Drainage structures – Goode Road Drainage structures – Mocatto/Whitso Roads Drainage structures – Redcliffe Road Drainage structures – Townend Road Stream crossing – Elizabeth River (Elizabeth Valley Road) Stream crossing – Elizabeth River (Weaver Road) Stream crossing – Acacia Creek (Mocatto Road)
Catchment Area 12B	Road upgrading – Oxford Road Road upgrading – Wheewall Road Road upgrading – Wheewall Road Road upgrading – unnamed road Road upgrading – Bradley Road Road upgrading – Finn Road Road upgrading – Kentish Road Road upgrading – Hopewell Road Road upgrading – Parkin Road (north) Road upgrading – Leonino Road Road upgrading – Scrutton Road Road upgrading – Old Bynoe Road Road upgrading – Blyth Road Road upgrading – Blyth Road Road upgrading – Parkin Road (south) Road upgrading – Perentie Road Road upgrading – Livingstone Road Road upgrading – Cornock Road Road upgrading – Old Bynoe Road Road upgrading – unnamed road Road upgrading – Peacock Road Road upgrading – unnamed road Road upgrading – Leonino Road Road upgrading – Meade Road Road upgrading – Spencer Road Road upgrading – Spencer Road Road upgrading – Letchford Road Road upgrading – Letchford Road (north) Road upgrading – Mira Road (south) Road upgrading – Mira Road (south) Road upgrading – Duddell Road Road upgrading – Reedbeds Road Drainage structures – Meade Road Drainage structures – Parkin Road (south) Drainage structures – Spencer Road

Works Schedule

Service Centre or Catchment Area	Description of Infrastructure
Catchment Area 13A	Drainage structures – Kentish Road Drainage structures – Leonino Road Drainage structures – Parkin Road (north) Stream crossing – Darwin River (Leonino Road) Stream crossing – Darwin River (Reedbeds Road) Stream crossing – Darwin River (Old Bynoe Road) Stream crossing – Fly Creek (Old Bynoe Road) Stream crossing – Berry Creek (Doris Road) Road upgrading – Finlay Road Road upgrading – Pheasant Road Road upgrading – Chicken Road Road upgrading – Madsen Road Road upgrading – Stow Road Road upgrading – Aken Road Road upgrading – Inman Road Road upgrading – McIntyre Road Road upgrading – Girraween Road Road upgrading – Bruce Road Road upgrading – Cornish Road Road upgrading – Barrow Road Road upgrading – Power Road Road upgrading – Dreamtime Road Road upgrading – Short Road Road upgrading – Northern Road Road upgrading – Draper Road Road upgrading – Lily Road
Catchment Area 13B	Drainage structures – Girraween Road Drainage structures – Hillier Road Drainage structures – Northern Road Drainage structures – Pioneer Road Drainage structures – Power Road Drainage structures – Strangways Road Drainage structures – Whitewood Road Road upgrading – Dalgety Road Road upgrading – Margerrison Road Road upgrading – Wafflers Road Road upgrading – Collard Road Road upgrading – Redcliffe Road Road upgrading – Strangways Road Road upgrading – Strangways Road Road upgrading – Goode Road
Catchment Area 13C	Drainage structures – Goode Road Drainage structures – Hayball Road Road upgrading – Jervois Road Road upgrading – Thorburn Road Road upgrading – Osbeck Road Road upgrading – Gailbraith Road Road upgrading – Burdens Creek Road Road upgrading – Radford Road Road upgrading – Lowther Road Road upgrading – Lowther Road Road upgrading – Virginia Road Road upgrading – Gulnare Road Road upgrading – Bees Creek Road Road upgrading – Sattler Road
Catchment Area 14	Drainage structures – Burdens Creek Road Drainage structures – Eugene Road Drainage structures – Gulnare Road Drainage structures – Lowther Road Drainage structures – Virginia Road Stream crossing – Elizabeth River (Bees Creek Road) Road upgrading – Williams Road Road upgrading – Trenow Road Road upgrading – Russ Road Road upgrading – Leonino Road Road upgrading – Southport Road Road upgrading – Old Bynoe Road

Works Schedule

Service Centre or Catchment Area	Description of Infrastructure
Catchment Area 15	Road upgrading- Carveth Road Road upgrading- Livingstone Road Road upgrading- Reedbeds Road Road upgrading - Kentish Road Road upgrading - Hopewell Road Road upgrading - Duddell Road Road upgrading - Brougham Road Road upgrading - Southport Road Drainage structures - Hopewell Road Drainage structures - Kentish Road Drainage structures - Leonino Road Stream crossing - Darwin River (Old Bynoe Road) Stream crossing - Fly Creek (Old Bynoe Road) Stream crossing - Fly Creek (Kentish Road) Stream crossing - Berry Creek (Hopewell Road) Road upgrading - Southport Road (north and south) Road upgrading - Southport Road (east and west) Road upgrading - Mira Road (north) Provision of turning circles (12 @ \$2000) Street sealing Provision of water supply Reticulation Kerb and channel
Catchment Area 16	Nil
Catchment Area 17	Excluded from Plan
Catchment Area 18	Excluded from Plan
Catchment Area 19	Excluded from Plan
Catchment Area 20	Nil

6. Accounting Procedures

Section 31 of the *Planning Act* sets out the required accounting procedures for Council in the collection and placement in trust of contributions. Section 31 requires Council to maintain a trust account within the meaning of the *Local Government Act* for the purposes of providing the infrastructure for which the contribution was provided and to pay monies received into the trust account.

Council has established a trust account for monies received for the provision of infrastructure and will pay all contributions into this account. All interest in this account will be retained in the trust.

References

Department of Lands and Housing (1990a), *Litchfield Land Use Structure Plan 1990*.

Department of Lands and Housing (1990b), *Gunn Point Peninsula Land Use Structure Plan 1990*.

Department of Lands and Housing (1990c), *Murrumujuk Land Use Concept Plan 1990*.

Department of Lands, Planning and Environment (1992), *Litchfield District Centres Land Use Concept Plan 1992*.

Department of Lands, Planning and Environment (1997a), *Litchfield Proposed Land Use Objectives*.

Department of Lands, Planning and Environment (1997b), *Litchfield Proposed Land Use Structure and Development Opportunities*.

Northern Territory Planning Authority (1992), *Litchfield Area Plan 1992*.

NSW Roads and Traffic Authority (1993), *Guide to Traffic Generating Developments*.

Litchfield Shire Council Developer Contributions Plan for Roads and Drainage - Rural Road and Drainage Catchment Analysis

Road and Drainage Catchment Area	Existing Lots	Potential New Lots	Potential Total Lots	Infrastructure Cost Estimated Total	Infrastructure Cost - Existing Lots (Council Responsibility)	Infrastructure Cost - New Lots (Potential Total Return to Council)	Developer Contribution per Additional Lot Created
1	137	99	236	Nil	Nil	Nil	Nil
2				Excluded from Plan			
3	35	213	248	\$ 30 000	\$ 4 233.87	\$ 25 766.13	\$ 155.00
4	217	1 097	1 314	\$ 1 132 000	\$ 186 943.68	\$ 945 056.32	\$ 1 103.00
5	5	Nil	5	Nil	Nil	Nil	Nil
6	1	Nil	1	Nil	Nil	Nil	Nil
7	5	Nil	5	Nil	Nil	Nil	Nil
8	14	58	72	Nil	Nil	Nil	Nil
9	6	Nil	6	Nil	Nil	Nil	Nil
10	9	Nil	9	Nil	Nil	Nil	Nil
11	168	287	455	\$ 1 912 000	\$ 705 969.23	\$ 1 206 030.77	\$ 5 379.00
12A	359	870	1 229	\$ 10 269 000	\$ 2 999 650.94	\$ 7 269 349.06	\$ 10 695.00
12B	776	1 238	2 014	\$ 11 569 000	\$ 4 457 569.02	\$ 7 111 430.98	\$ 7 353.00
13A	2 395	937	3 332	\$ 4 339 000	\$ 3 118 819.03	\$ 1 220 180.97	\$ 1 667.00
13B	609	279	888	\$ 1 662 000	\$ 1 139 817.57	\$ 522 182.43	\$ 2 396.00
13C	1 235	500	1 735	\$ 3 359 000	\$ 2 390 988.47	\$ 968 011.53	\$ 2 478.00
14	281	152	433	\$ 6 548 000	\$ 4 249 394.92	\$ 2 298 605.08	\$ 13 651.00
15	336	Nil	336	\$ 4 042 000	\$ 4 042 000.00	Nil	Nil
16	31	250	281	Nil	Nil	Nil	Nil
17				Excluded from Plan			
18				Excluded from Plan			
19				Excluded from Plan			
20	210	Nil	210	Nil	Nil	Nil	Nil
Totals	6 829	5 980	12 809	\$ 44 862 000	\$ 23 295 386.72	\$ 21 566 613.28	Nil

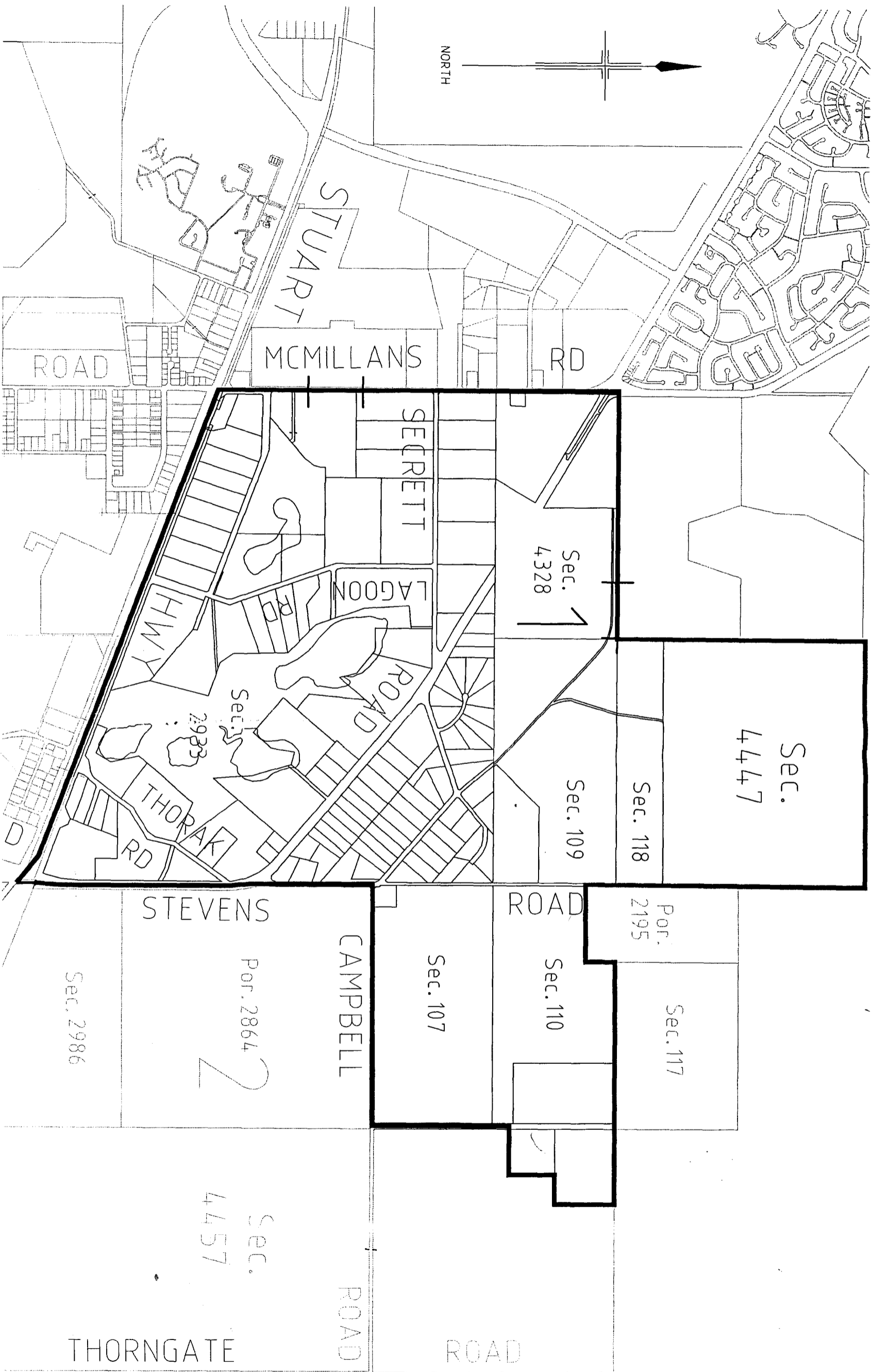
Mr Wagner is proposing to establish a rural industry within an existing RL2 zoned lot. The development requires consent under the *Litchfield Area Plan 1992* and will generate an additional 250 vehicles per day (NT). The development site connects to a 500m long 6m wide unsealed road that services 150 RL2 zoned lots.

Based on a traffic generation rate of 6 vehicles per day per lot¹, the potential traffic within the road catchment under current land use zoning is 1 150 vehicles per day (PT). To cater for this level of traffic, the road needs to be upgraded to a 7m wide sealed standard with 1.5m wide shoulders, at a cost of \$100 000 (TC).

The contribution rate required from Mr Wagner for his proposed development will be \$21 739, as follows:

$$\begin{aligned} \text{CR} &= (\text{TC} \times \text{NT}) / \text{PT} \\ \text{CR} &= (100\ 000 \times 250) / 1\ 150 \\ \text{CR} &= \mathbf{21\ 739} \end{aligned}$$

¹ From NSW Roads and Traffic Authority (1993), *Guide to Traffic Generating Developments*.



NORTH

Connell Wagner
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 62 Cavenagh Street Darwin
 Northern Territory 0800 Australia

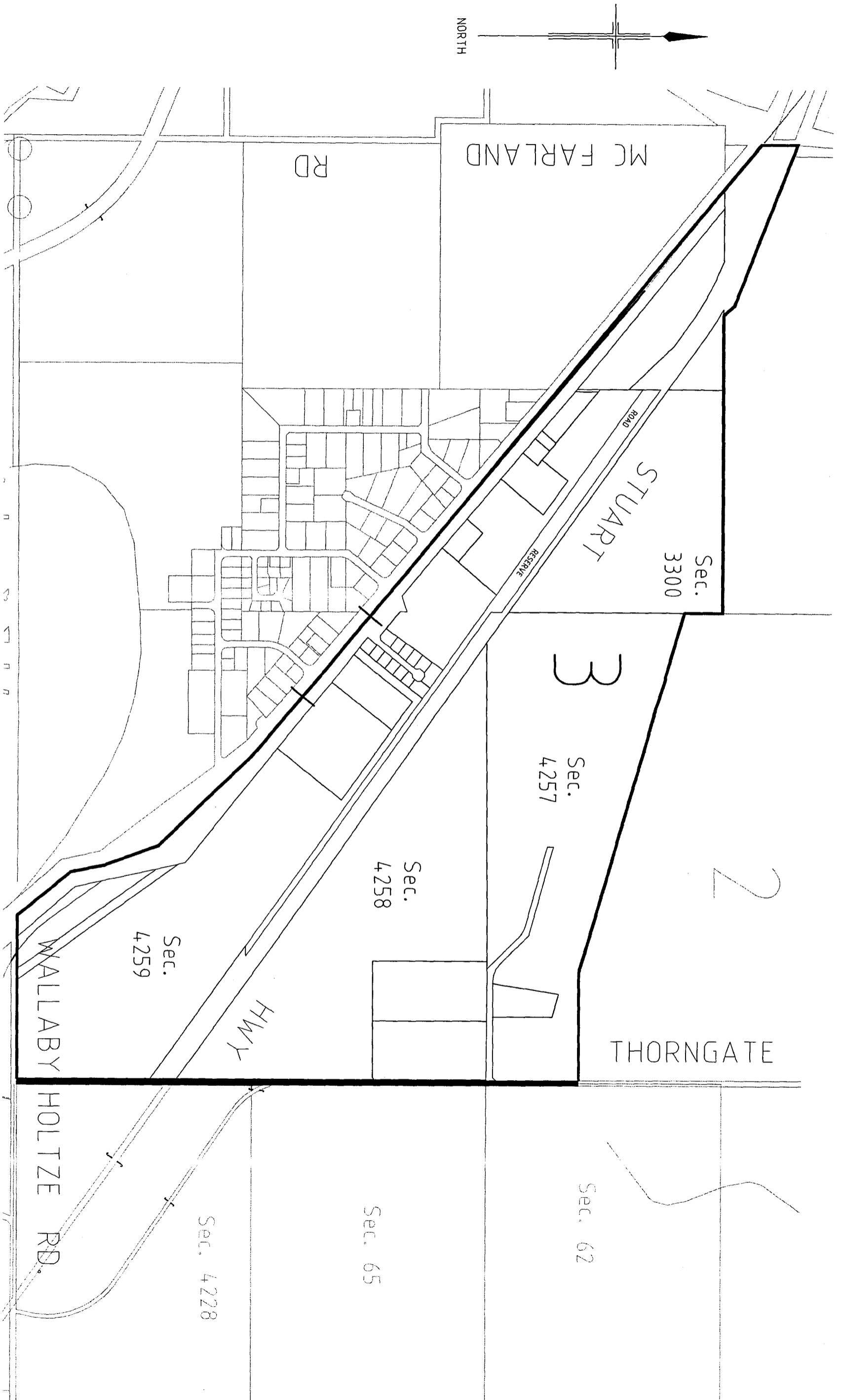
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cwdr@octd4.net.au

Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Nak P Sika</i>
Date	19/11/98

Title
 CATCHMENT AREA 1

Date	NOVEMBER 1998
Scale	1: 25 000
Job No	Z7/4.1
Drawing No	1
Rev	



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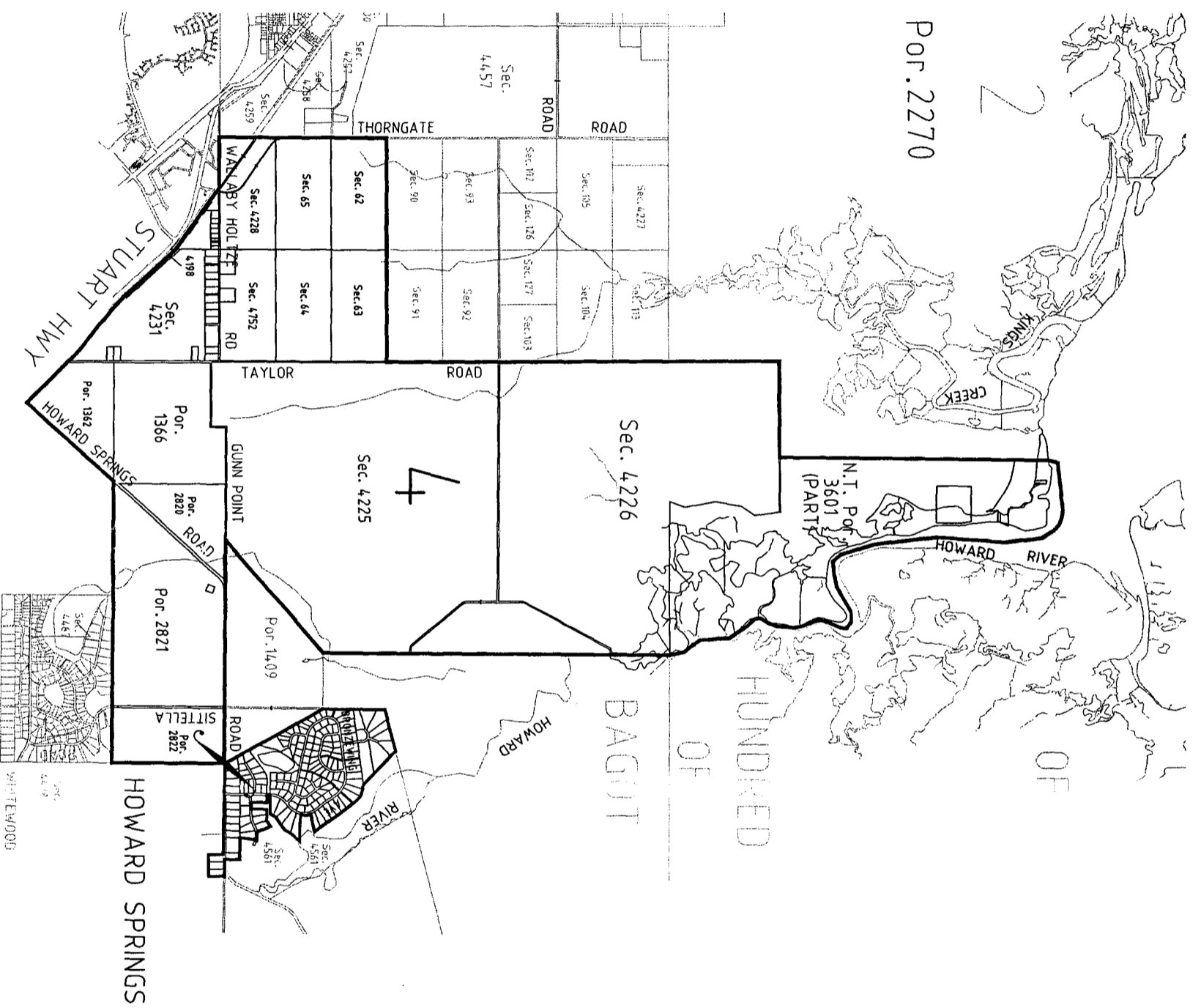
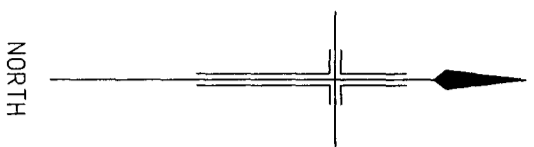
Telephone: +61 8 8981 8022
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Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Mark Syke</i>
Date	13/11/98

Title
 CATCHMENT AREA 3

Date	NOVEMBER 1998
Scale	1: 12 500
Job No	Z74.1
Drawing No	3
Rev	



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HOWARD SPRINGS

Project
LITCHFIELD DEVELOPER
CONTRIBUTIONS PLAN FOR
ROADS AND DRAINAGE

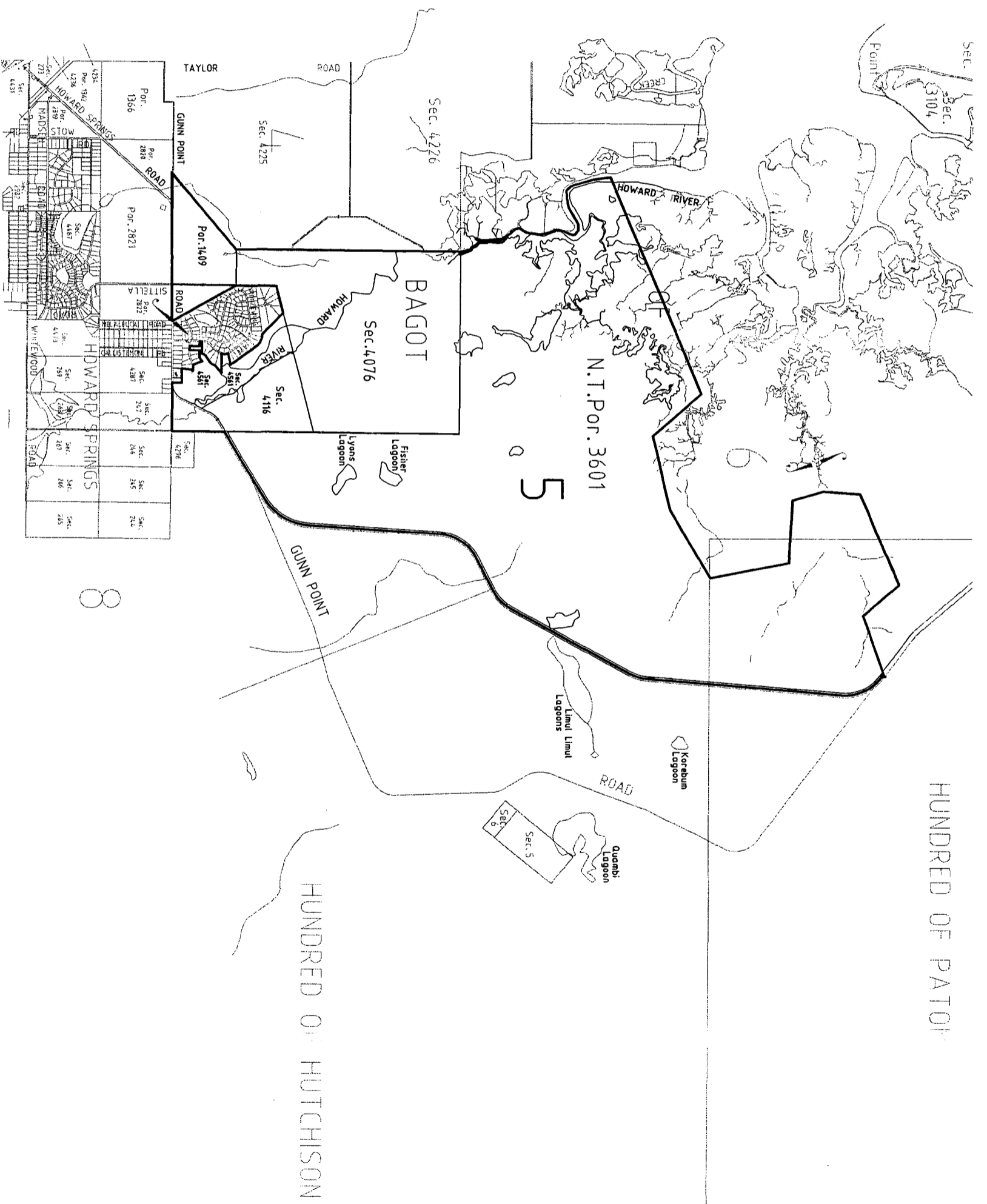
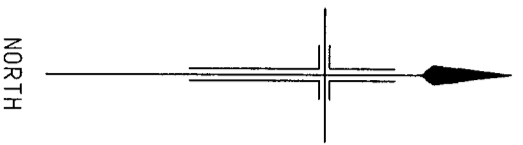
Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Mark S. K.</i>
Date	27/11/98

Title
CATCHMENT AREA 4

Date	NOVEMBER 1998
Scale	1: 80 000
Job No	2741
Drawing No	4
Rev	

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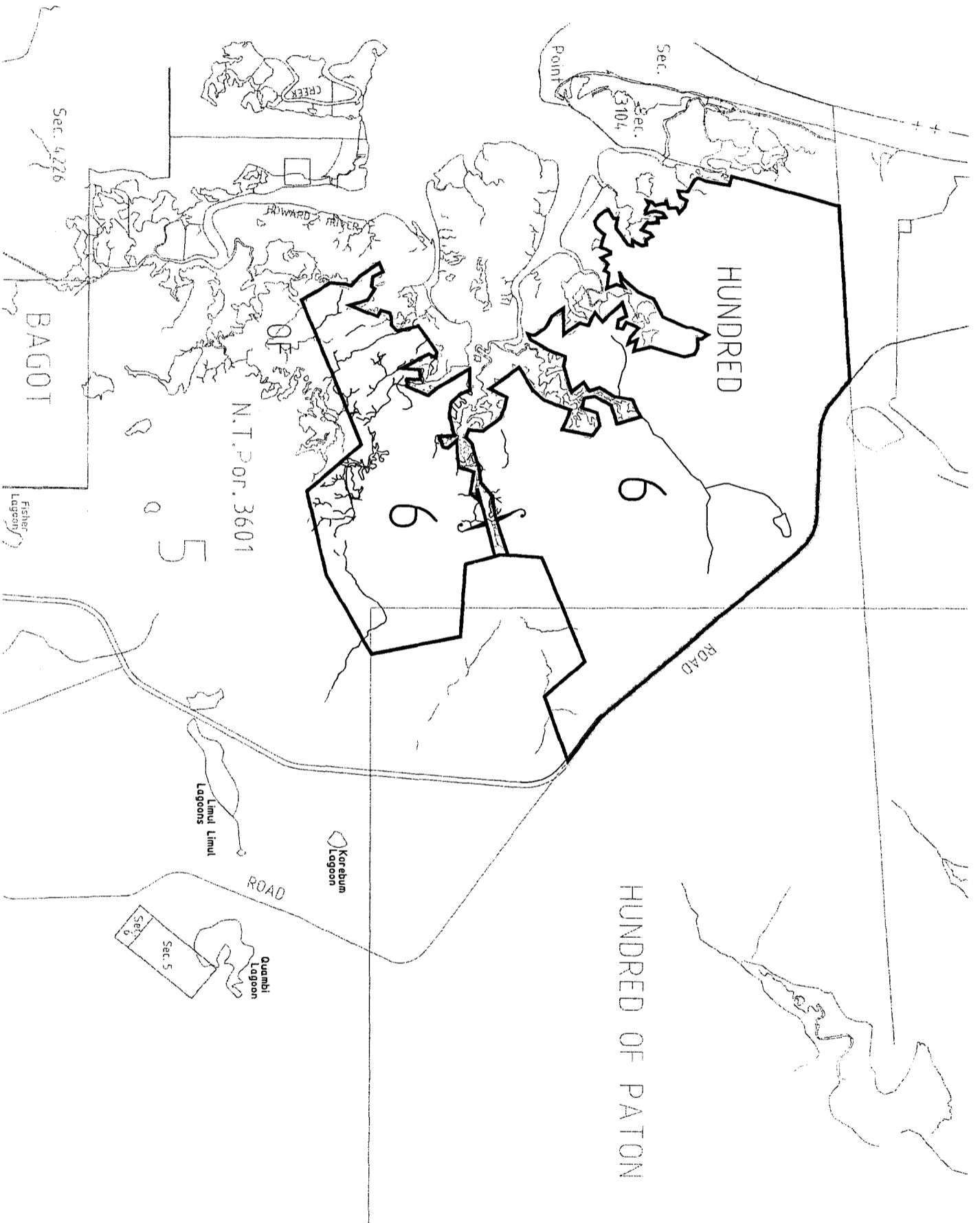
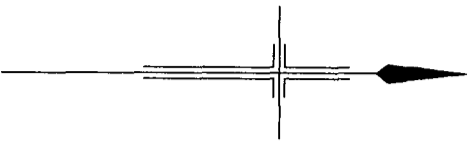
Project		LITCHFIELD DEVELOPER CONTRIBUTIONS PLAN FOR ROADS AND DRAINAGE	
Designed	MS	Title	
Drawn	BC	CATCHMENT AREA 5	
Checked	SCP	Date	
Approved	WAG	19/11/98	
Date	NOVEMBER 1998	Job No	274.1
Scale	1: 100 000	Drawing No	5
Rev			

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Project
LITCHFIELD DEVELOPER
CONTRIBUTIONS PLAN FOR
ROADS AND DRAINAGE

Title
CATCHMENT AREA 6

Date
NOVEMBER 1998

Scale
1: 100 000

Job No
Z74.1

Drawing No
6

Designed
MS

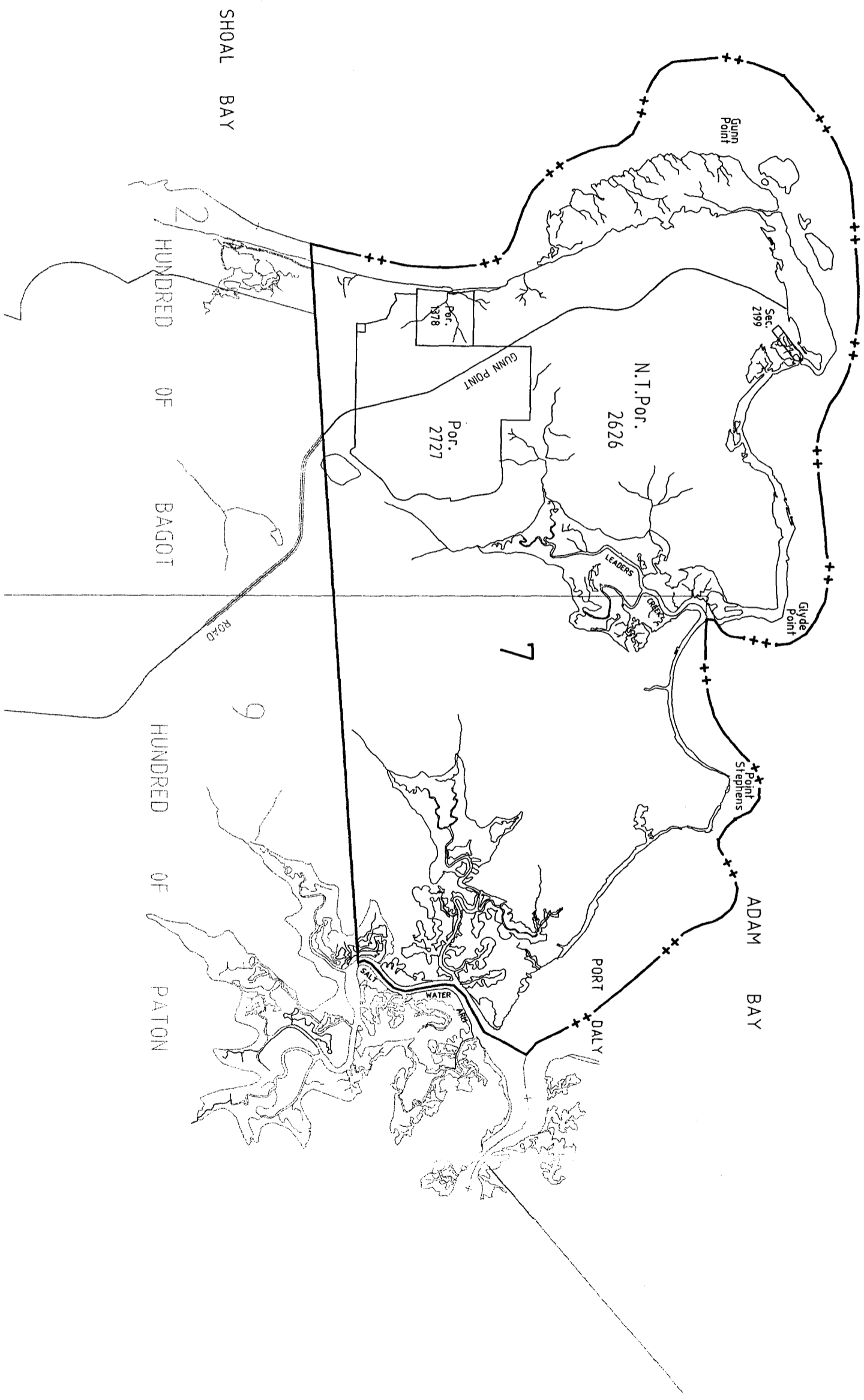
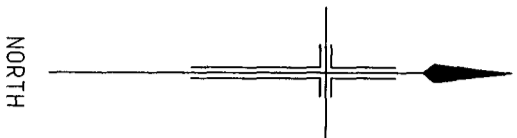
Drawn
BC

Checked
SCP

Approved
Mark S. K.

Date
19/11/98

Rev



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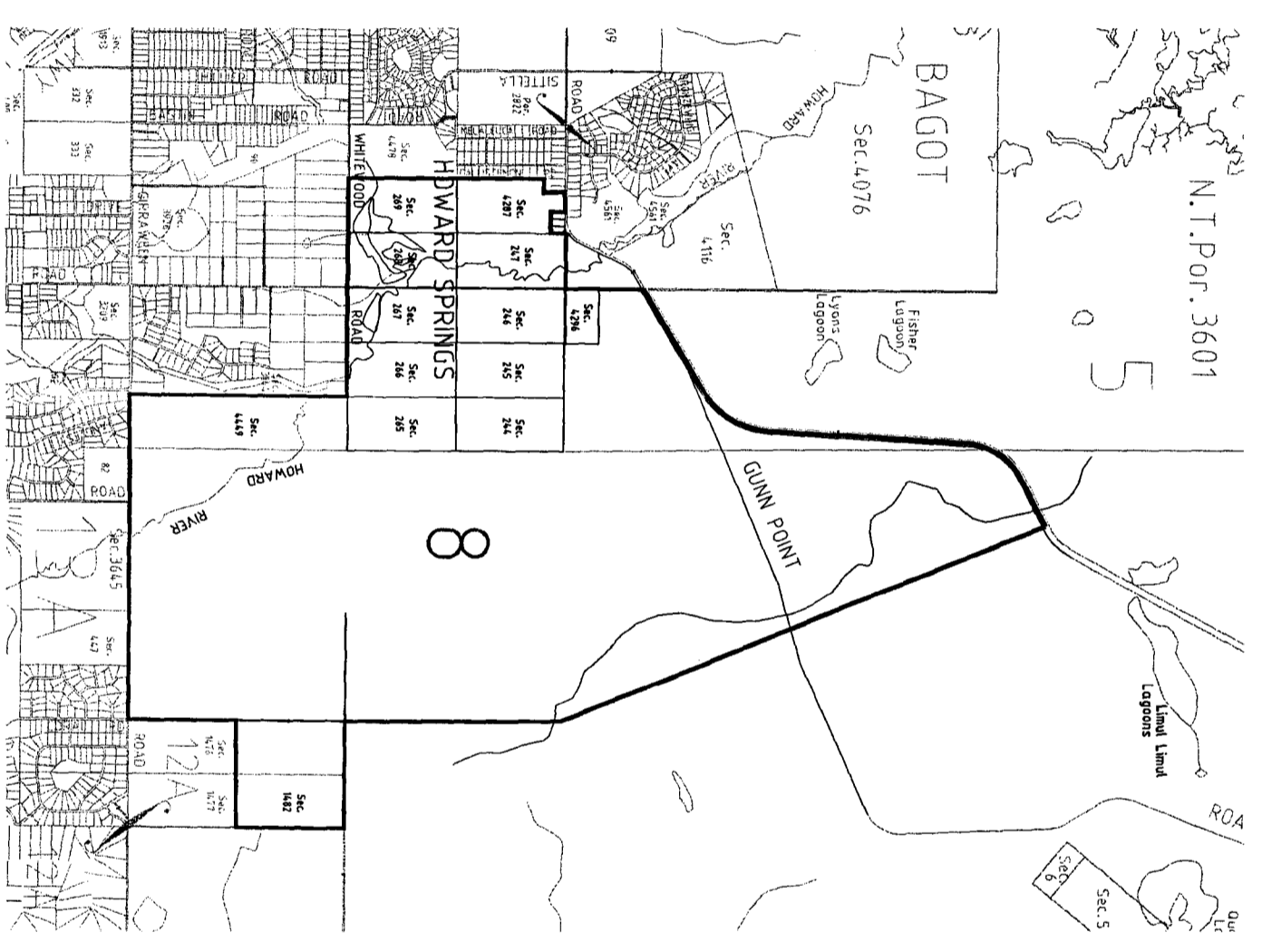
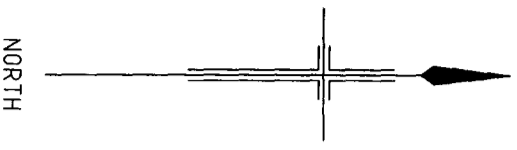
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cwdar@oct4.net.au

Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>M. W. & S. K.</i>
Date	19/11/98

Title
 CATCHMENT AREA 7

Date	NOVEMBER 1998
Scale	1: 125 000
Job No	Z741
Drawing No	7
Rev	



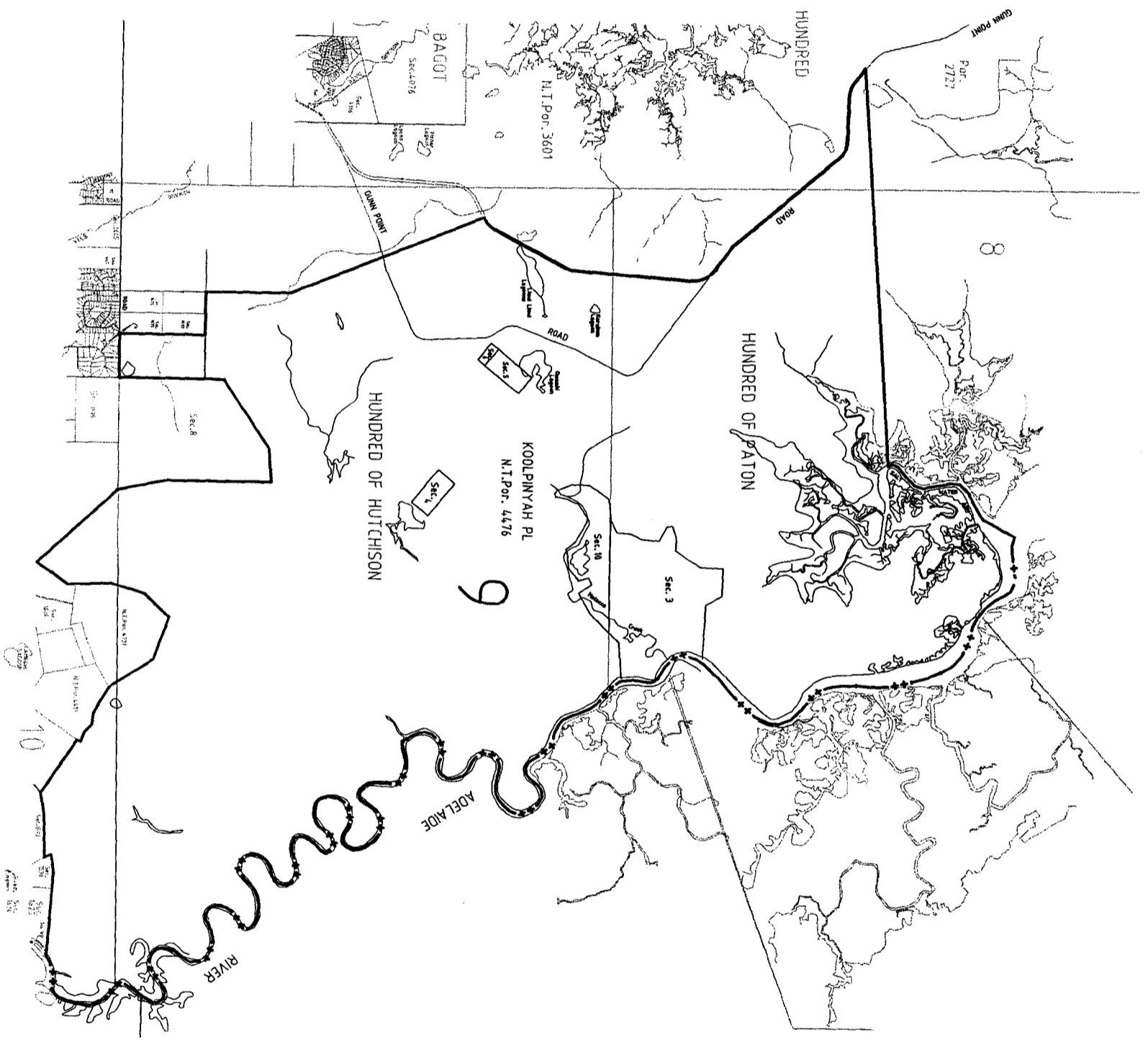
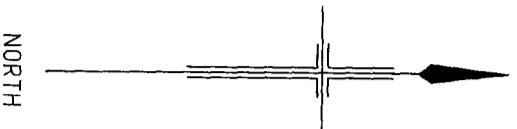
Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

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Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>[Signature]</i>
Date	19/11/98

Title
CATCHMENT AREA 8

Date	NOVEMBER 1998
Scale	1: 100 000
Job No	Z74.1
Drawing No	8
Rev	



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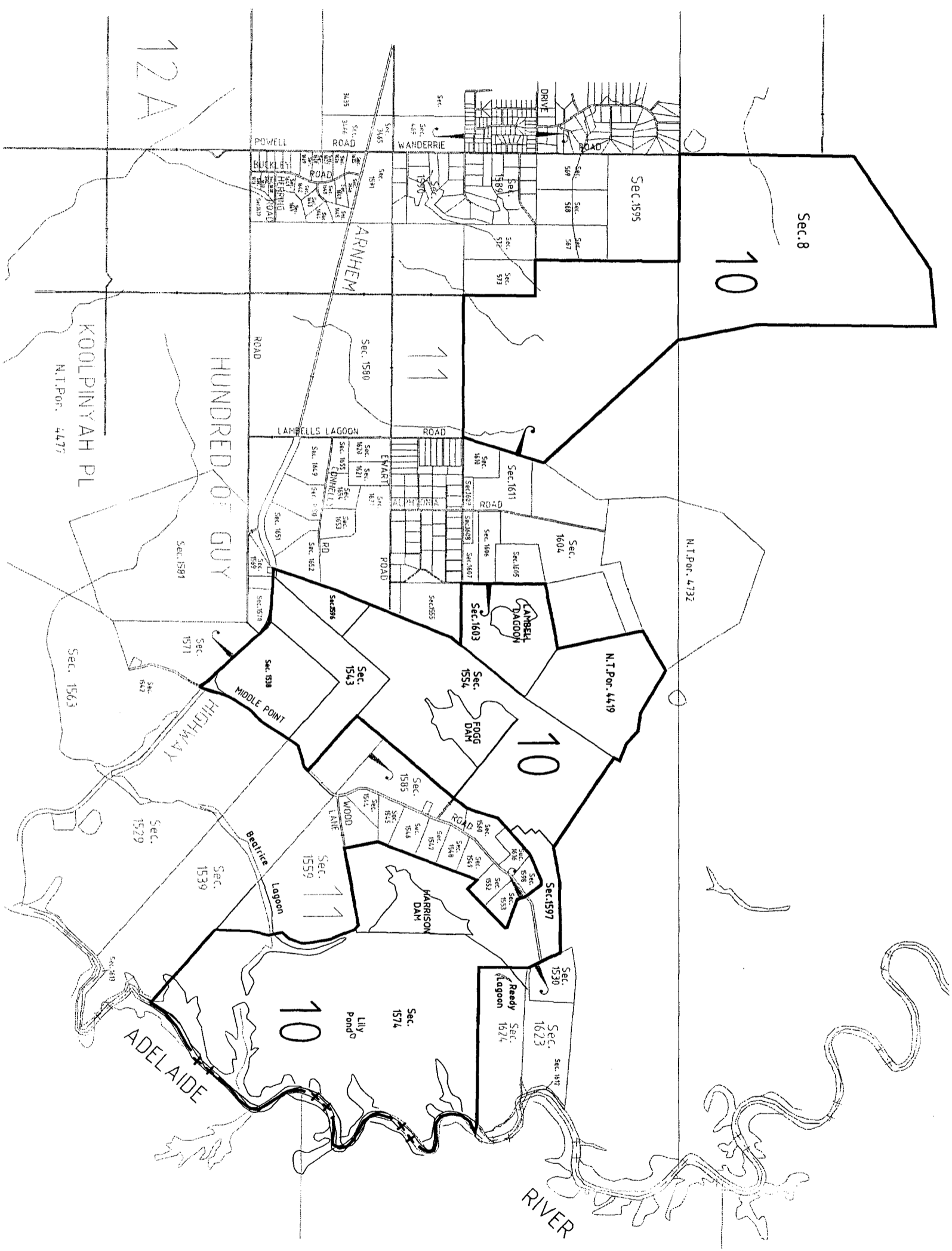
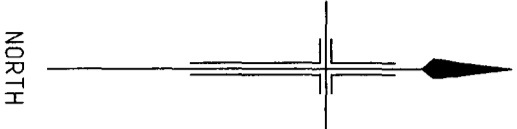
Telephone: +61 8 8981 8022
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Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Mark P. Syk</i>
Date	19/11/98

Title
CATCHMENT AREA 9

Date	NOVEMBER 1998
Scale	1: 200 000
Job No	Z741
Drawing No	9
Rev	



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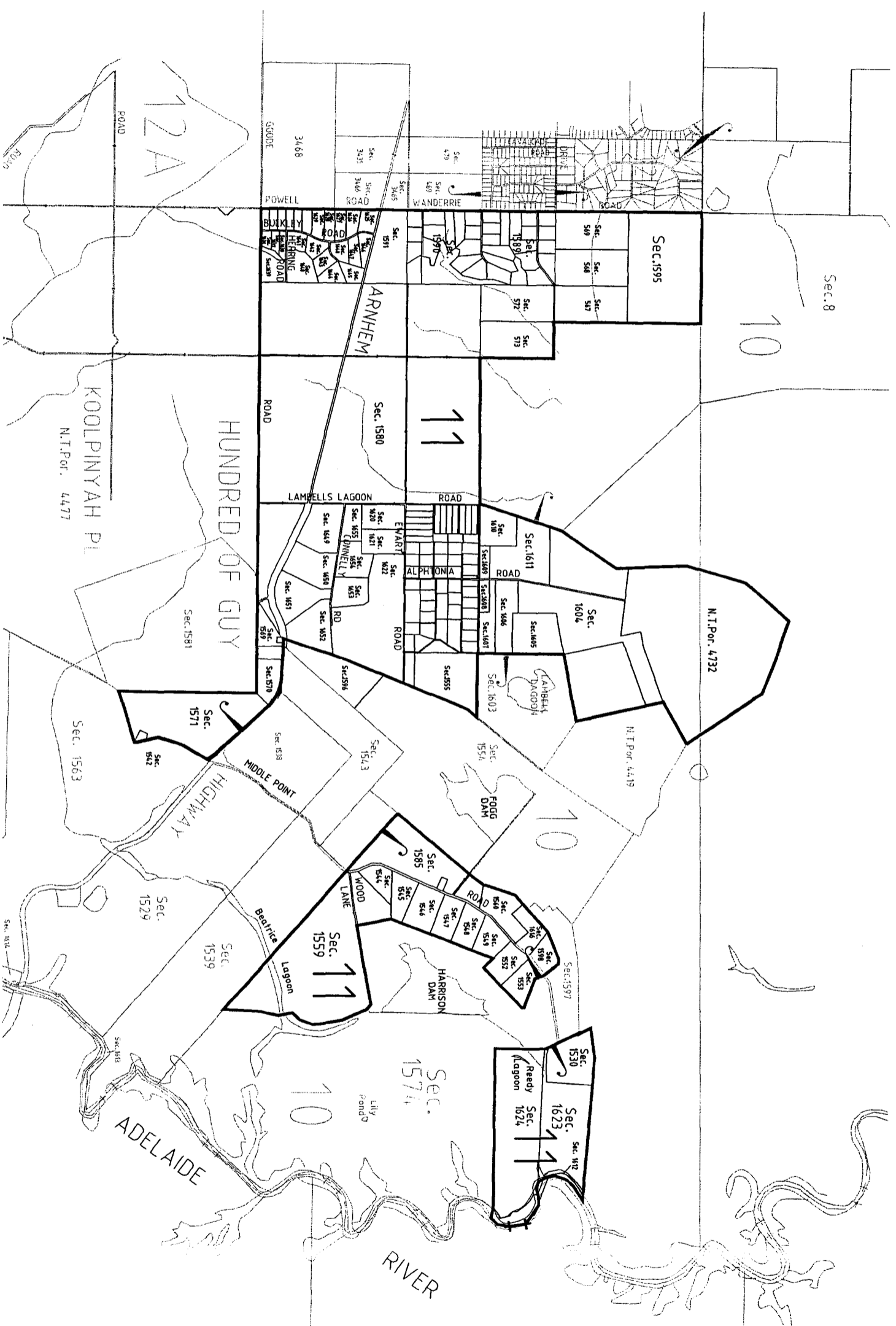
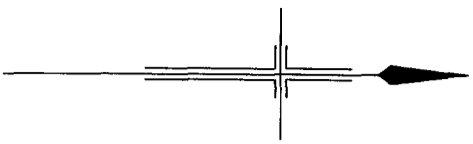
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Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

Designed	MS
Drawn	BC
Checked	SCP
Approved	Mark Spte
Date	13/11/98

Title
CATCHMENT AREA 10

Date	NOVEMBER 1998
Scale	1: 100 000
Job No	Z74.1
Drawing No	10
Rev	



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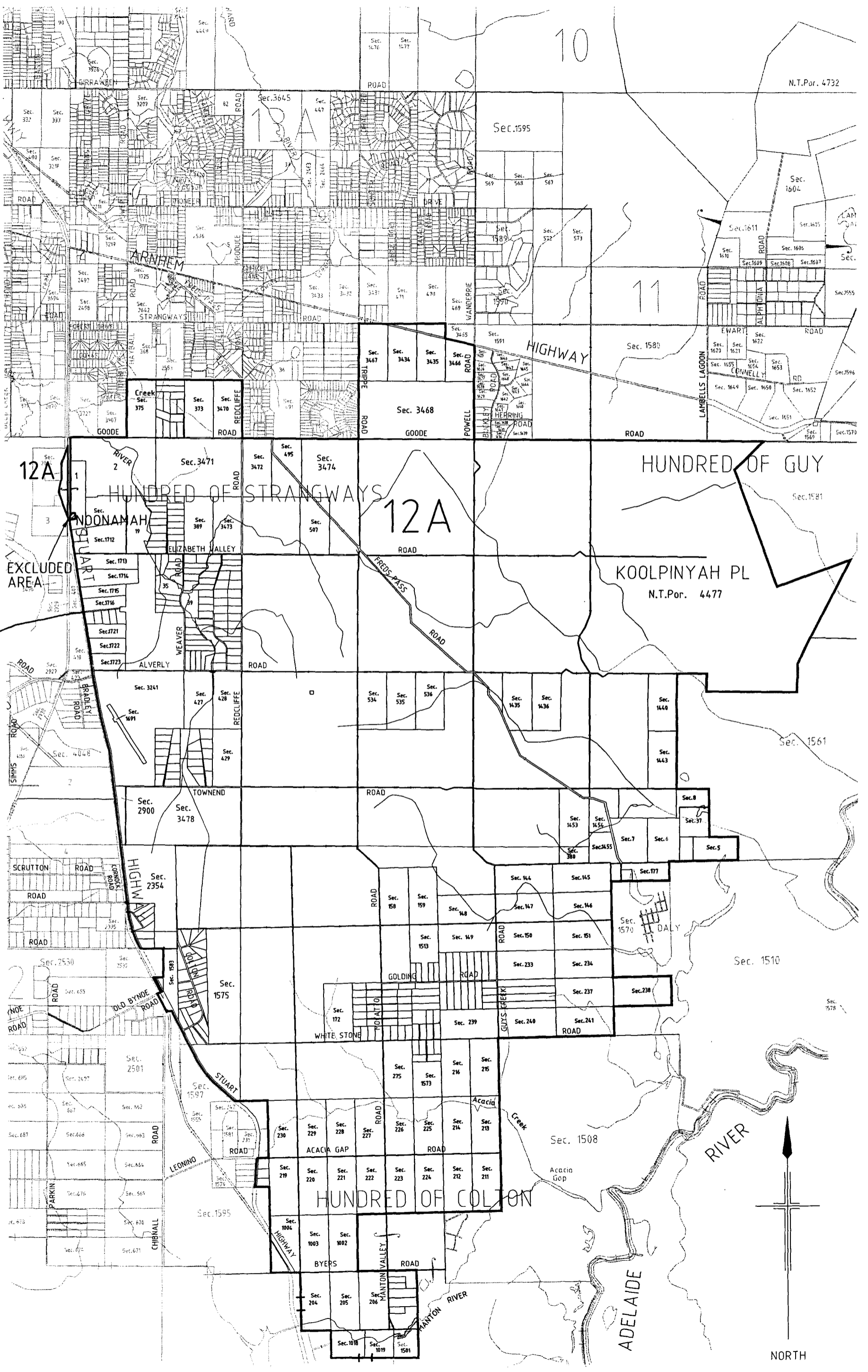
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cwdr@octa4.net.au

Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>MW</i>
Date	19/11/98

Title
 CATCHMENT AREA 11

Date	NOVEMBER 1998
Scale	1: 100 000
Job No	2741
Drawing No	11
Rev	



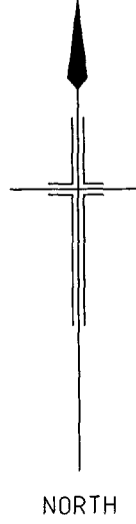
Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

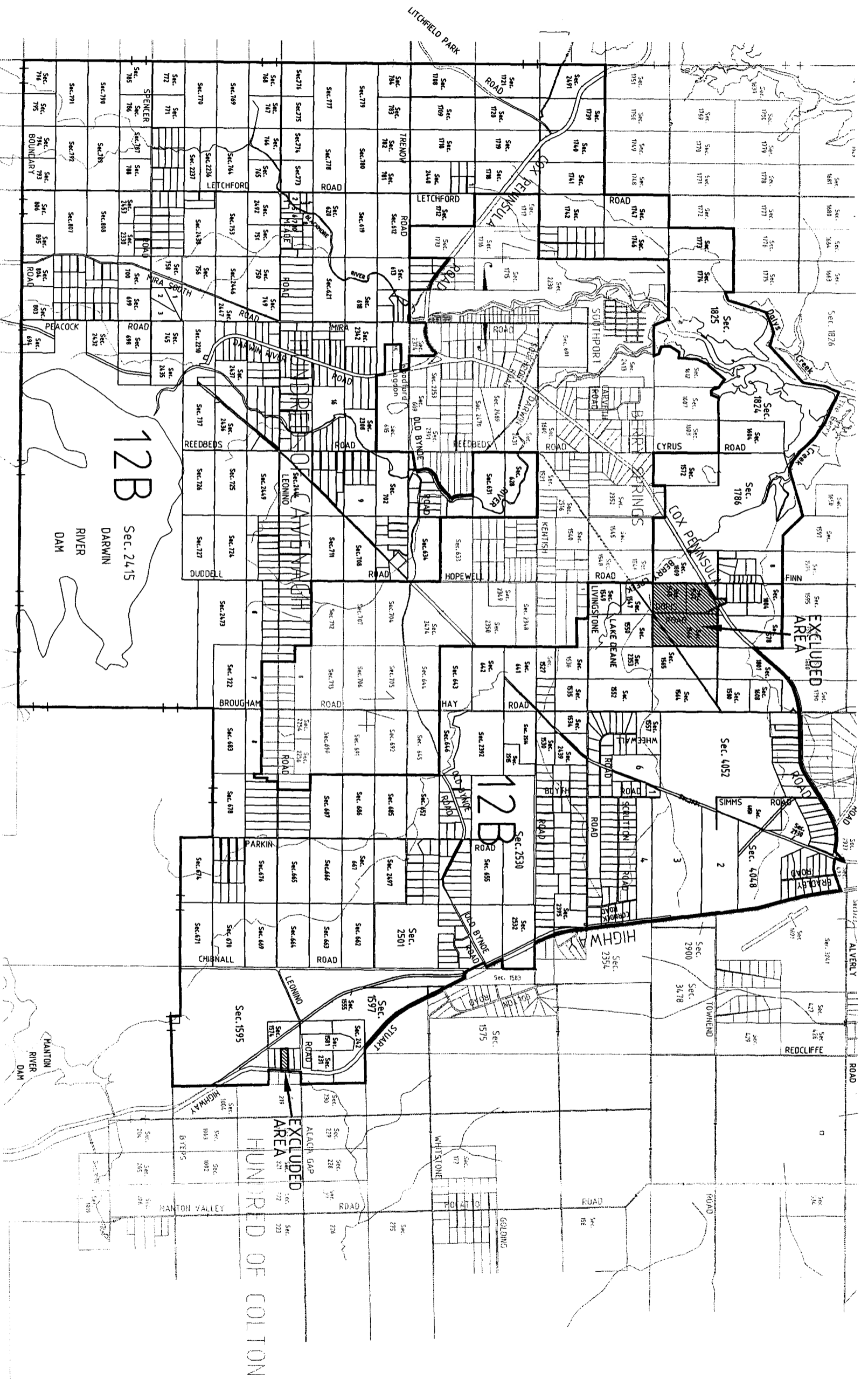
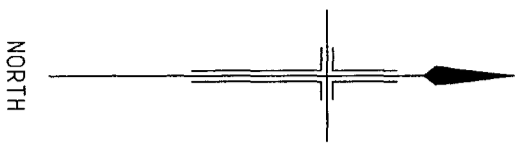
Designed	MS
Drawn	BC
Checked	SCP
Approved	W. S. K.
Date	27/11/98

Title
 CATCHMENT AREA 12A

Date	NOVEMBER 1998
Scale	1:100 000
Job No	2741
Drawing No	12A
Rev	

Kelso





12B
Sec. 24,15
DARWIN
RIVER
DAM

Connell Wagner

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Northern Territory 0800 Australia

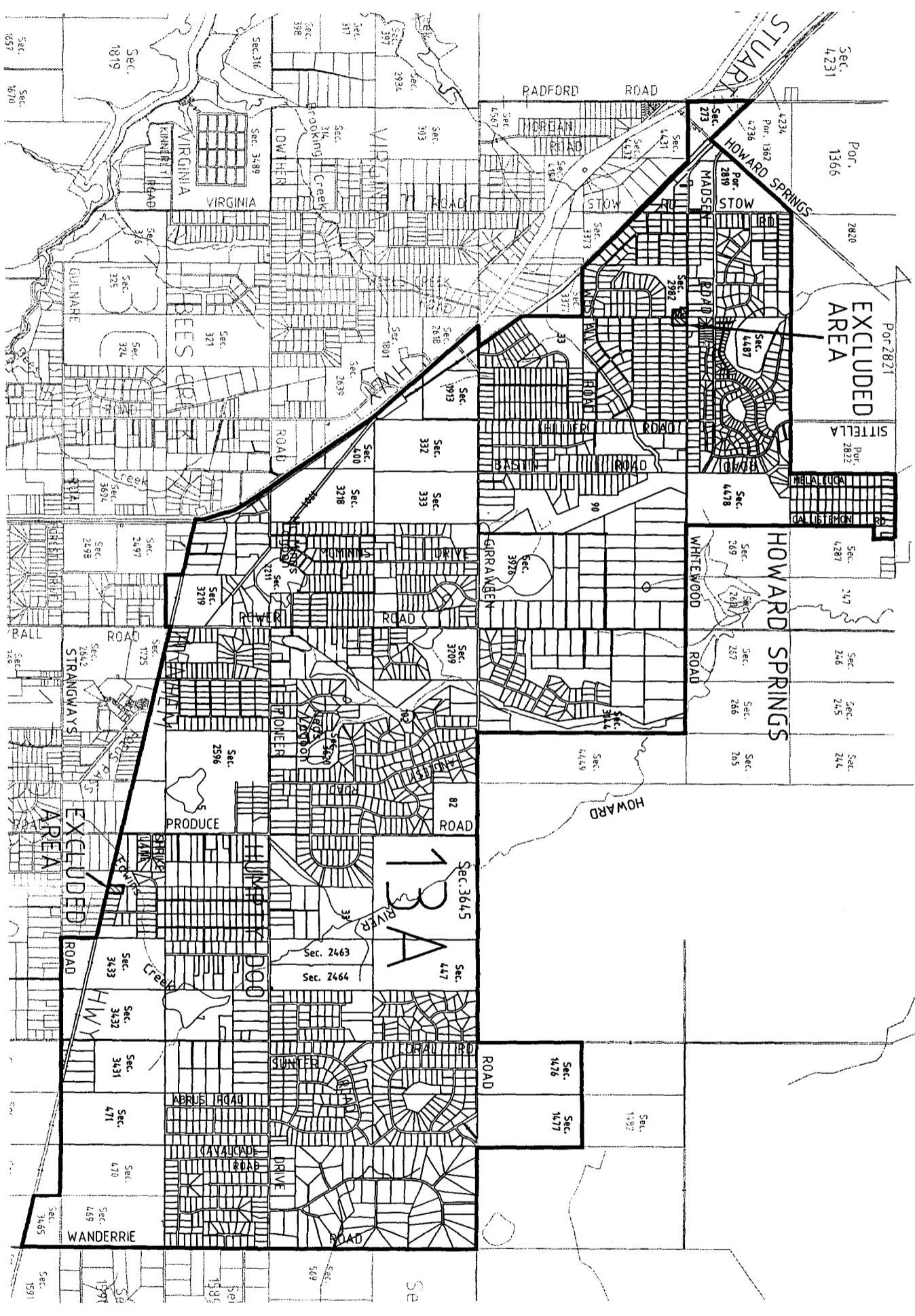
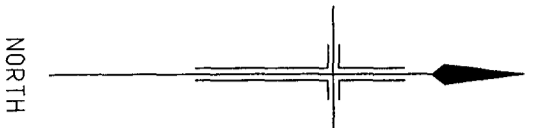
Telephone: +61 8 8981 8022
Facsimile: +61 8 8981 8050
Email: cwwd@octel.net.au

Project
LITCHFIELD DEVELOPER
CONTRIBUTIONS PLAN FOR
ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>[Signature]</i>
Date	13/11/98

Title
CATCHMENT AREA 12B

Date	NOVEMBER 1998
Scale	1: 100 000
Job No	2741
Drawing No	12B
Rev	



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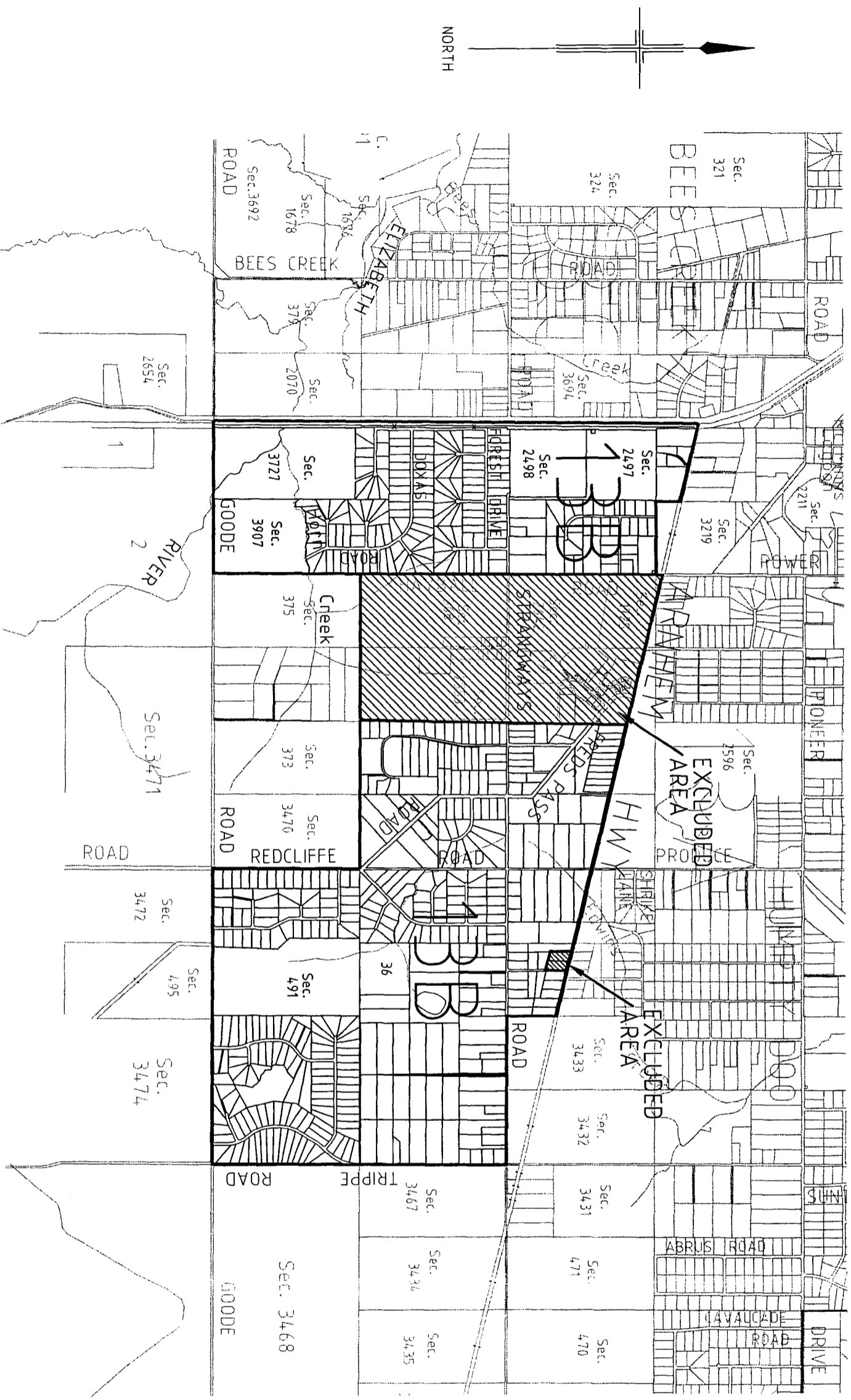
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cw@ocd4.net.au

Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Mark S. Ke</i>
Date	27/11/98

Title
 CATCHMENT AREA 13A

Date	NOVEMBER 1998
Scale	1: 80 000
Job No	Z741
Drawing No	13A
Rev	



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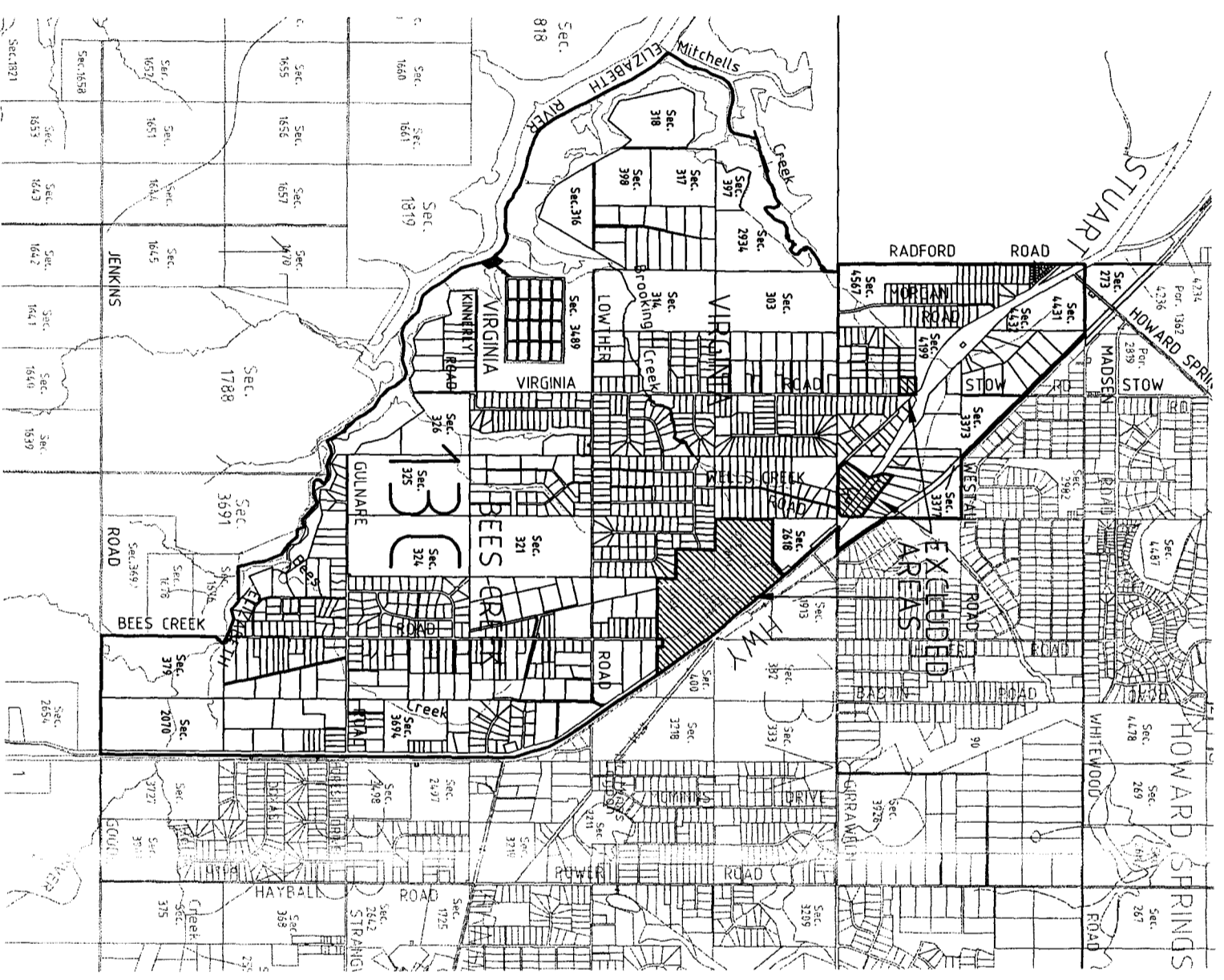
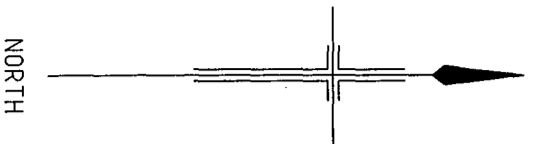
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cwndar@octod.net.au

Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>Mark Syke</i>
Date	19/11/98

Title
CATCHMENT AREA 13B

Date	NOVEMBER 1998
Scale	1: 50 000
Job No	Z74,1
Drawing No	13B
Rev	



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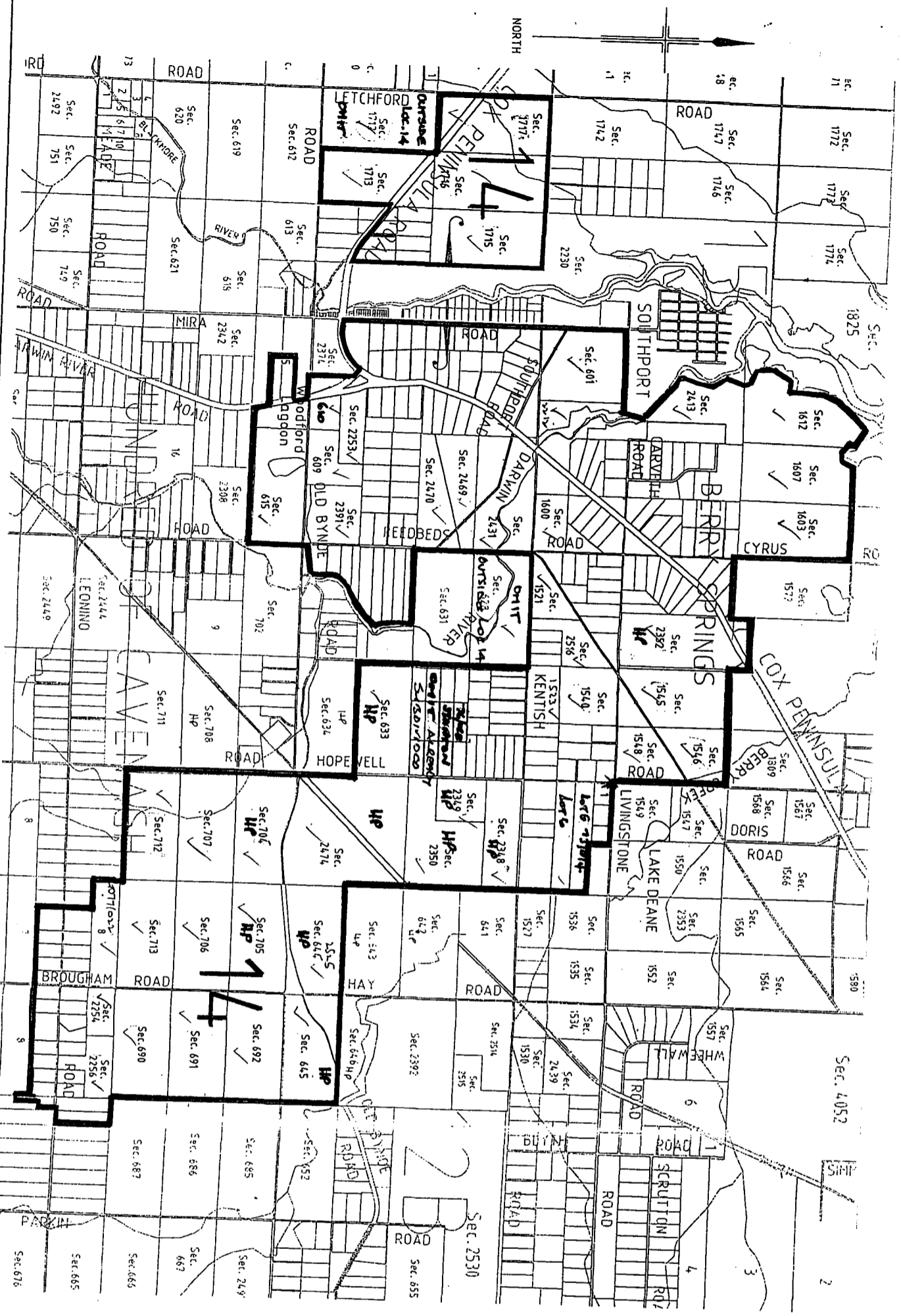
Telephone: +61 8 8981 8022
 Facsimile: +61 8 8981 8050
 Email: cwda@oct4.net.au

Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>MWK</i>
Date	7/11/98

Title
CATCHMENT AREA 13C

Date	NOVEMBER 1998
Scale	1: 50 000
Job No	2741
Drawing No	13C
Rev	



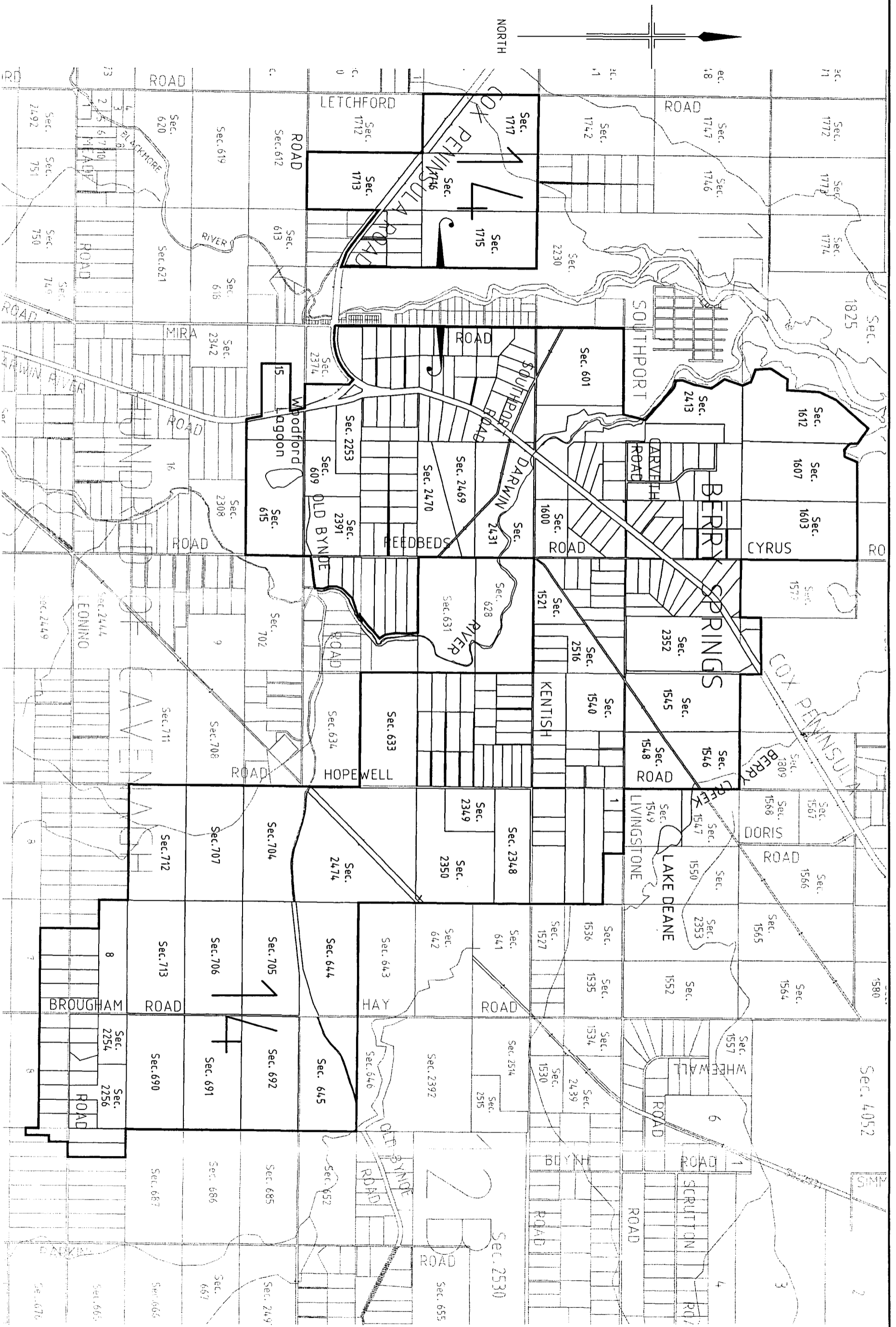
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Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	MMA & SK
Date	13/11/98

Title
 CATCHMENT AREA 14

Date	NOVEMBER 1998
Scale	1: 50 000
Job No	2741
Drawing No	14
Rev	



Connell Wagner

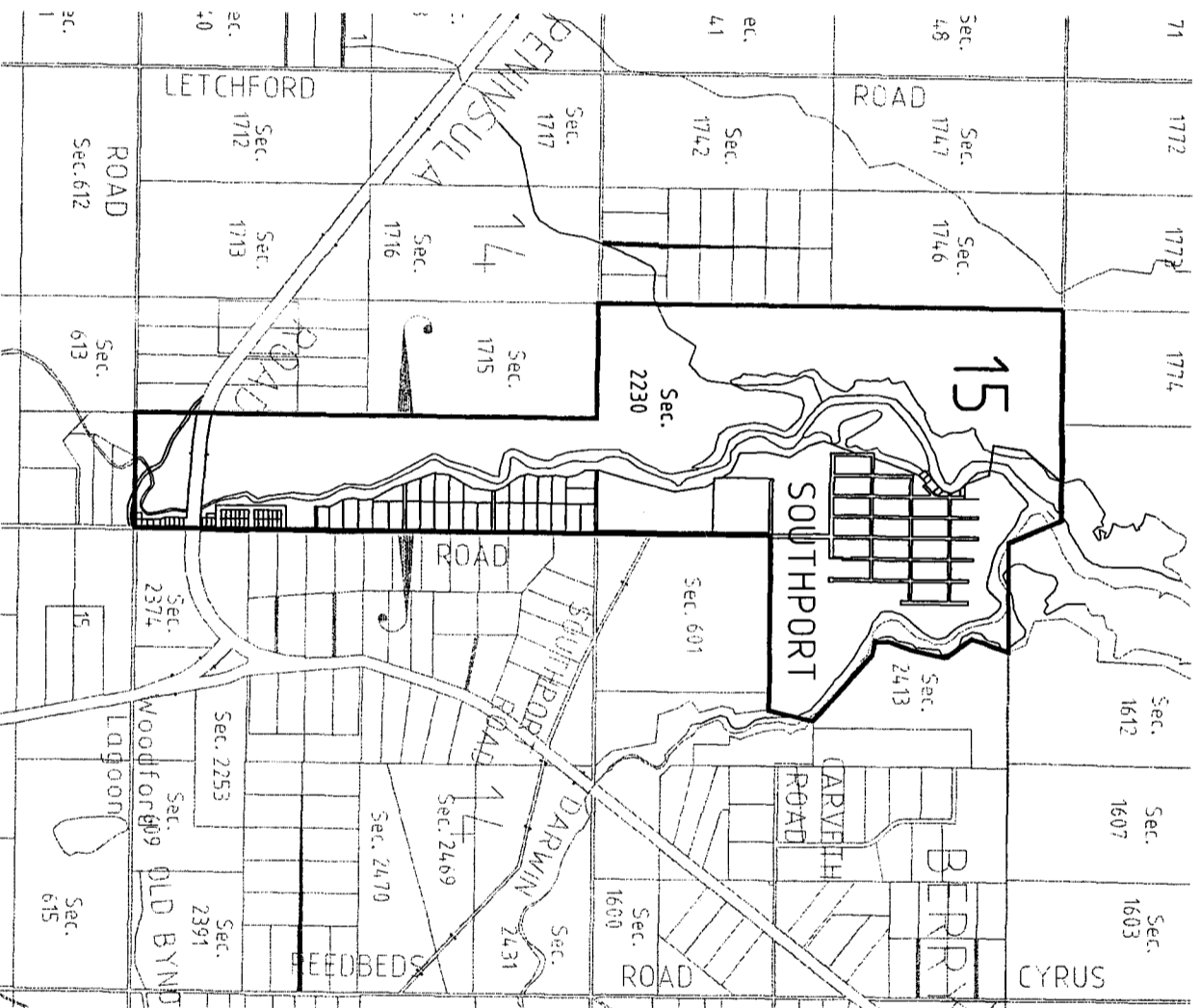
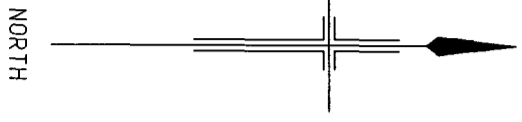
Connell Wagner Pty Ltd ACN 005 139 873 Telephone: +61 8 8981 8022
 62 Cavenagh Street Darwin Facsimile: +61 8 8981 8050
 Northern Territory 0800 Australia Email: cwwar@octel.net.au

Project: LITCHFIELD DEVELOPER CONTRIBUTIONS PLAN FOR ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	<i>M. R. G. G. G.</i>
Date	18/11/98

Title: CATCHMENT AREA 14

Date	NOVEMBER 1998
Scale	1: 50 000
Job No	Z74.1
Drawing No	14
Rev	



Project
**LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE**

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Designed MS

Drawn BC

Checked SCP

Approved *Mark P Sph*

Date 19/11/98

Title
CATCHMENT AREA 15

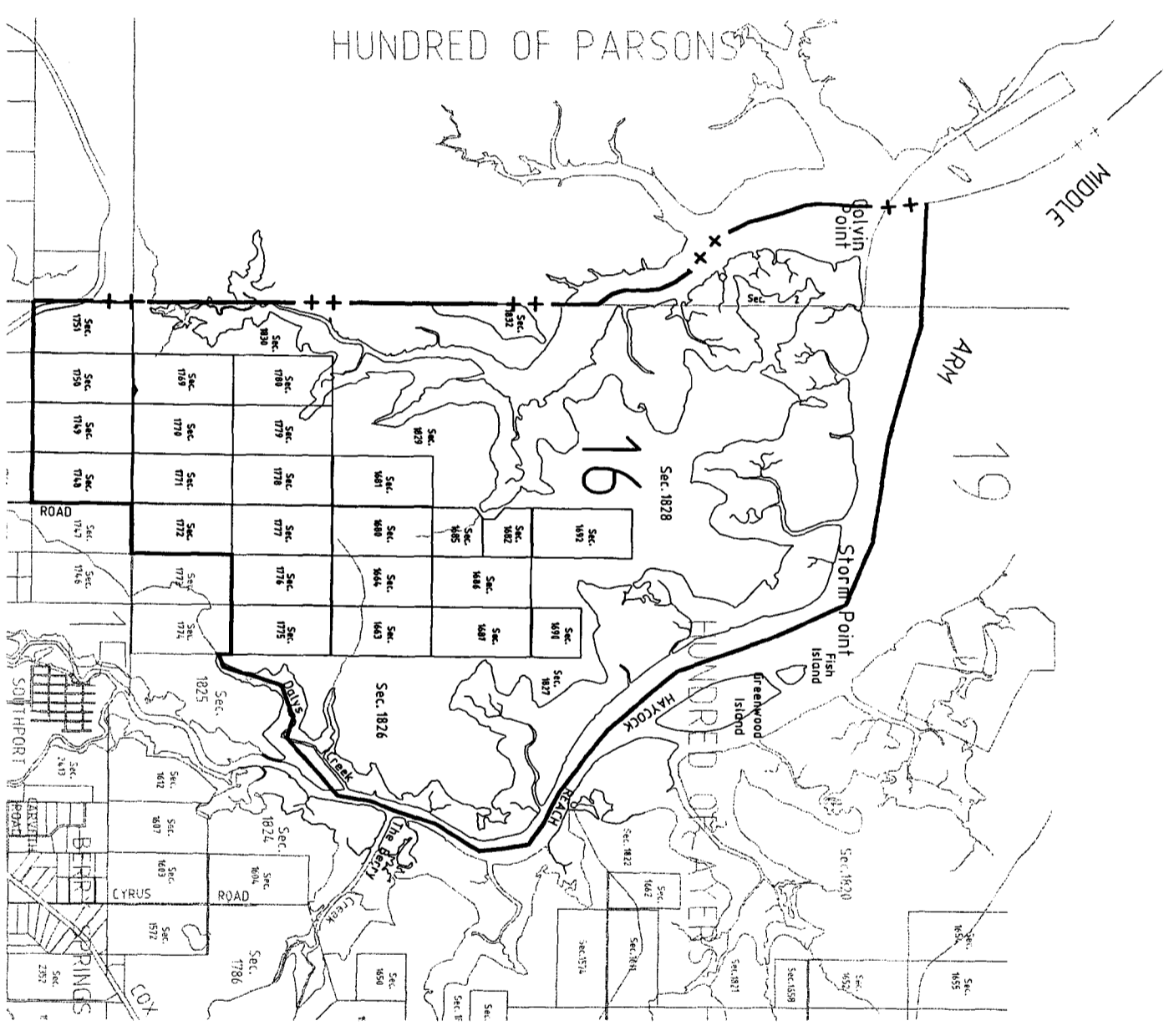
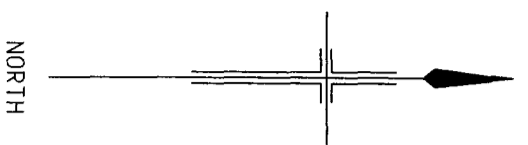
Date
 NOVEMBER 1998

Scale
 1: 50 000

Job No
 Z74.1

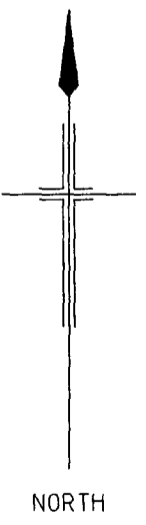
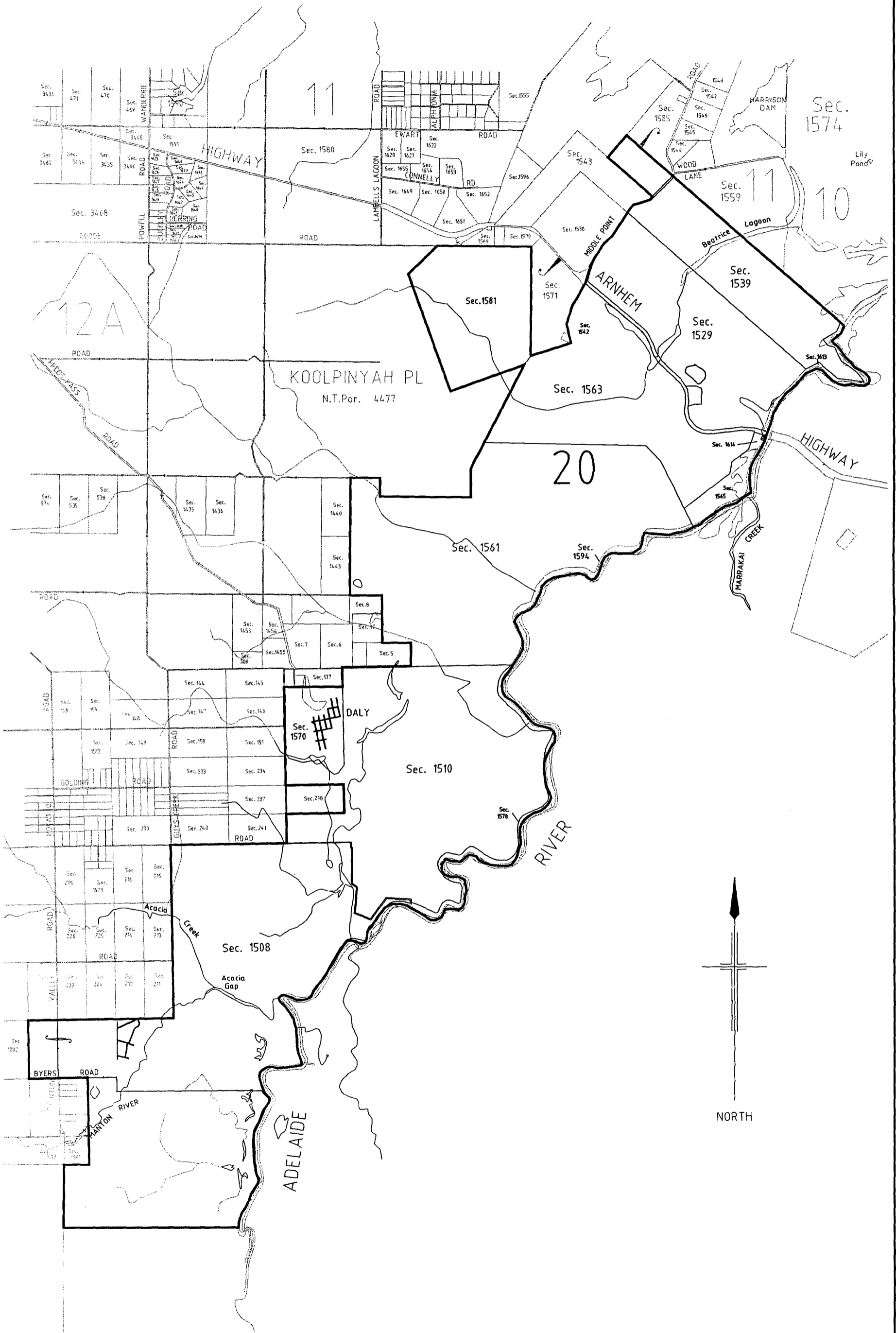
Drawing No
 15

Rev



Project LITCHFIELD DEVELOPER CONTRIBUTIONS PLAN FOR ROADS AND DRAINAGE		Title CATCHMENT AREA 16	
Designed MS	Drawn BC	Checked SCP	Date <i>M. K. E. Syle</i> 13/11/98
Date NOVEMBER 1998		Scale 1: 100 000	
Job No 2741		Drawing No 16	
Telephone: +61 8 8981 8022 Facsimile: +61 8 8981 8050 Email: cwddor@oct4.net.au		Rev	

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Project
 LITCHFIELD DEVELOPER
 CONTRIBUTIONS PLAN FOR
 ROADS AND DRAINAGE

Designed	MS
Drawn	BC
Checked	SCP
Approved	Mark & Syk
Date	19/11/98

Title
 CATCHMENT AREA 20

Date	NOVEMBER 1998
Scale	1: 100 000
Job No	Z741
Drawing No	20
Rev	