

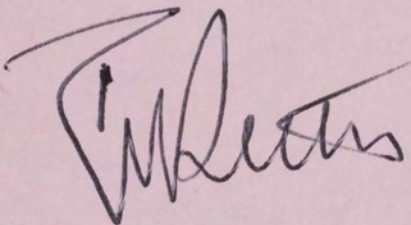
CONFIDENTIAL
CABINET DECISION

No. 6909.....

Submission No.: 5905

Title: INFORMATION PAPER - BERRY SPRINGS DISTRICT CENTRE

Cabinet noted the information.



R. A. SETTER
Secretary to Cabinet.

11 July 1991

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FOR CABINET

SUBMISSION No: 5905

<p>Title:</p> <p>Minister</p> <p>Purpose:</p> <p>Relation to existing policy:</p> <p>Timing/ legislative priority:</p> <p>Announcement of decision, tabling, etc:</p> <p>Action required before announcement:</p> <p>Staffing implications, numbers and costs, etc:</p> <p>Total cost:</p>	<p>BERRY SPRINGS DISTRICT CENTRE</p> <p>THE HON. MAX ORTMANN MLA MINISTER FOR LANDS AND HOUSING</p> <p>CABINET INFORMATION PAPER</p> <p>ACCORDS WITH GOVERNMENT'S OBJECTIVES OF PLANNING FOR ORDERLY DEVELOPMENT</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>
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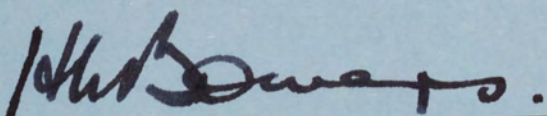
Department/~~Authority~~ OF THE CHIEF MINISTER

COMMENT ON CABINET SUBMISSION No.

TITLE: BERRY SPRINGS DISTRICT CENTRE - INFORMATION PAPER

COMMENTS:

The preferred scale and location of the district centre on a nominated site already zoned for the purpose is noted.



SIGNED: HUGH BOWERS

DESIGNATION: SECRETARY

DATE: 1 JUL 1991

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Department/Authority.....NORTHERN TERRITORY TREASURY.....

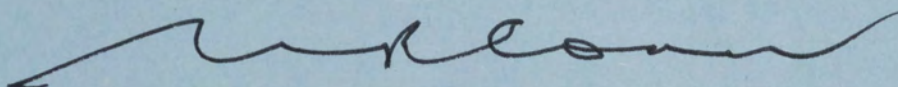
COMMENT ON CABINET SUBMISSION No.

TITLE:BERRY SPRINGS DISTRICT CENTRE.....

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COMMENTS:

The financial and budgetary implications are unlikely to emerge until next century.



SIGNED: N R CONN

DESIGNATION: UNDER TREASURER

DATE: 28 JUNE 1991

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Department/Authority: LAW

COMMENT ON CABINET SUBMISSION NO.

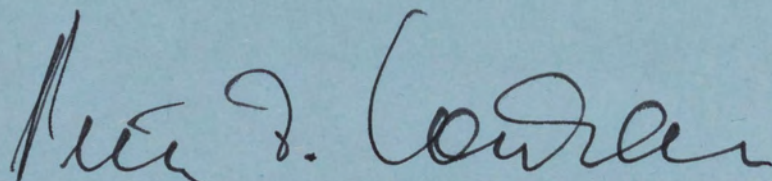
TITLE: BERRY SPRINGS DISTRICT CENTRE - INFORMATION PAPERS

COMMENTS:

There appear to be no constitutional or legal barriers to the proposal.

LEGAL RESOURCE IMPLICATIONS:

The Submission does not appear to raise any additional legal resource implications at this point in time.



SIGNED: Peter Conran
DESIGNATION: Secretary, Department of Law
DATE: 26 June 1991

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26/6/91

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RECOMMENDATION

1. It is recommended that Cabinet note the information contained within this Submission.

BACKGROUND

2. The Department of Lands and Housing has been requested to prepare a Cabinet Information Paper which addresses the scale and siting of a district centre to serve the Berry Springs catchment population.

3. The scale and siting of a district centre to serve the Berry Springs catchment population has been addressed in a March 1991 report entitled "Berry Springs District Centre -Progress Report". A copy of that report is set out at Attachment A.

CONSIDERATION OF ISSUES

4. The scale of provision of land uses within the district centre is principally related to the catchment population it is intended to serve, as well as to the range of services intended to be offered. Due cognisance has been given to the proximity of the central business district of the new town of Weddell. The prediction is for a Berry Springs District Centre catchment population of 14 000 persons. This does not include any of the population of Weddell and is a population that will not be reached for

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many years. Current catchment population is between 800 and 900 persons.

5. The nominated district centre site is located on the southern side of the Cox Peninsula Road, directly opposite the Berry Springs Service Station.

6. The nominated district centre site was identified in 1985 by the then Department of Lands. The Darwin River and Berry Springs Progress Association and other community groups endorsed the selection. The Darwin Rural Area Plan 1983 was amended accordingly to give statutory (zoning) recognition to the site. The site was later nominated as the district centre site in the 1987 Draft Darwin Rural Area Strategy Plan. The location has been confirmed by publication of the more recent Litchfield Land Use Structure Plan 1990.

7. A preliminary land use concept plan was prepared in respect of the site and circulated to service authorities in December 1989. Concerns regarding possible adverse impacts of run-off and effluent on the nearby Berry Springs Nature Reserve and the Territory Wildlife Park have necessitated closer scrutiny of the site and of the options available. The "Berry Springs District Centre - Progress Report" at Attachment A evaluates two other possible site options against the nominated site.

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8. One option is the site directly opposite the zoned site. It is located on the northern side of the Cox Peninsula Road and accommodates the Berry Springs Service Station and the Berry Springs Hardware Store. The Progress Report concludes that it is not possible to support selection of this site as it would require acquisition which could not be justified in view of the proximity of equally suitable areas of vacant crown land. A summary of these conclusions is at page 18 of Attachment A.

9. The other site option considered is the vacant Crown land adjoining the nominated district centre site to the east and located within the Hardys Creek catchment. The Progress Report concludes that, notwithstanding the status of the land and its location within a catchment other than the Berry Creek catchment, there is little reason to nominate the site in preference to the one already zoned for the purpose.

10. Planning objectives for the Berry Springs District Centre will be articulated in a land use concept plan, and that plan will be an integral part of the proposed publication, the "Litchfield District Centres Land Use Concept Plan". That publication will also contain land use concept plans for the district centres at Humpty Doo and Freds Pass.

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FINANCIAL CONSIDERATIONS

11. Not applicable.

REGULATORY IMPACT

12. Not applicable.

EMPLOYMENT AND INDUSTRIAL RELATIONS

13. Not applicable.

COMMONWEALTH STATE AND LOCAL GOVERNMENT RELATIONS

14. No Commonwealth interests are affected. The Shire of Litchfield will be consulted regarding the land use concept plan for Berry Springs.

COORDINATION AND CONSULTATION

15. There has been consultation with other Government Departments and Authorities during the preparation of the Progress Report. This Submission has not been formally circulated.

LEGISLATION

16. Not applicable.

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PUBLICITY

17. Not applicable.

TIMING

18. Within Government priorities.

A handwritten signature in black ink, consisting of several overlapping, vertical, wavy lines that form a stylized, somewhat abstract representation of the name 'Max Ortmann'.

MAX ORTMANN

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BERRY SPRINGS
DISTRICT CENTRE
PROGRESS REPORT

1991

INTRODUCTION

Regional Context
District Centre Site Selection
District Centre Zoning

BERRY SPRINGS DISTRICT CENTRE

INITIATION

Project Description
Target Results
Objectives
PROGRESS REPORT

COMMERCIAL CENTER DEVELOPMENT

Structure of Centre
Process

DISTRICT CENTRE LAND USE

Project Goals and Objectives
The Berry Springs District Centre
Land Use Allocation

**MARCH 1991
STRATEGIC LAND USE AND
DEVELOPMENT DIVISION
DEPARTMENT OF LANDS & HOUSING**

Introduction and Objectives
Adaptive Zoning Approach
Commercial and Retail Services Activities
Light Industrial and Service-Commercial Provision
Residential Provision
Provision for District Land Use

CONCLUSION

Summary of Findings
Key Points of Development
Recommendations
Future Plans of Development

BERRY SPRINGS DISTRICT CENTRE PROGRESS REPORT

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- District Centre Site Selection
- District Centre Zoning
- Aims, Objectives of Progress Report

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- Target Forecast
- Growth Rate

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- Hierarchy of Centres
- Hierarchy

DISTRICT CENTRE LAND USES

- District Centre Activities
- Role of the Berry Springs District Centre
- Local Factors Influencing Land Use Allocation

SCALE OF PROVISION

- Infrastructure Considerations
- Adjusted Population Catchment
- Commercial and Retail Services Provision
- Light Industrial and Service Commercial Provision
- Residential Provision
- Provision for Other Land Uses

IMPLEMENTATION

- Design Principles
- Initial Phase of Development
- Intermediate Phase of Development
- Ultimate Phase of Development

LOCATIONAL OPTIONS

- Options Available
- Evaluation of the Options
- The Preferred Option

REGIONAL CONTEXT

SUMMARY

- The Scale of the District Centre
- Preferred Location

The Darwin Regional Structure Plan 1994 establishes the broad framework for a population of up to 4 million in the region. The Mitchell Land Use Structure Plan 1990 provides a long-term view of the long-term development of Darwin's rural hinterland, much of which is located within the Mitchell Shire.

The Mitchell Land Use Structure Plan 1990 has identified the role of Berry Springs as providing a district centre accommodating commercial, industrial, recreational, and community uses to cater for those attracted to the locality as a place to live or visit.

The rate at which the Berry Springs District Centre is developed will be determined by several factors, including the growth of the regional population, the strength of consumer choice, patterns of work and leisure and the personal and public cost associated with the selected lifestyle.

DISTRICT CENTRE SITE SELECTION

The Darwin Regional Structure Plan 1994 first nominated the Berry Springs locality as suitable for the establishment of a district centre. The following year the Department of Lands explored three possible district centre sites:

1. Behind the Berry Springs Primary School;
2. Opposite the Berry Springs Primary School; and
3. Opposite the existing Berry Springs Service Station further to the east along the Cox Peninsula Road.

Land use commitments have subsequently ruled out the first two options, and in 1997 the Draft Darwin Rural Area Strategy Plan gave recognition to this situation and nominated the district centre site as being opposite the existing Berry Springs Service Station on the southern side of the Cox Peninsula Road.

INTRODUCTION

REGIONAL CONTEXT

The Darwin Regional Land Use Structure Plan 1990 establishes the broad future land use principles for a population of up to 1 million in the region. The Litchfield Land Use Structure Plan 1990 provides a more fine-grained view of the long term development of Darwin's rural hinterland, much of which is located within the Litchfield Shire.

The Litchfield Land Use Structure Plan 1990 has identified the role of Berry Springs as providing a district centre accommodating commercial, industrial, recreational and community uses to cater for those attracted to the locality as a place to live or visit.

The rate at which the Berry Springs District Centre is developed will be determined by several factors, including the growth of the regional population, the strength of consumer choice, patterns of work and leisure and the personal and public cost associated with the selected lifestyle.

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DISTRICT CENTRE ZONING

The Darwin Rural Area Plan 1983, as amended, has given statutory recognition to the district centre site -

- a) District Centre (DC) zoning has been applied to that part of Section 1567 together with the western portion of Section 1578 that are located south of the Cox Peninsula Road, as well as the northernmost part of Section 1566.
- b) Special Purposes (SP) zoning has been applied to the eastern portion of Section 1578 located south of the Cox Peninsula Road.

A Draft Planning Instrument (DPI DR30, File PA 90/008) seeks to extend the District Centre to the south by way of incorporation of Section 1568 and the remainder of Section 1566, as well as a road reserve, into Zone DC. The matter is on hold pending determination of more detailed planning and development objectives for the locality.

Vide Figure 1.

AIMS, OBJECTIVES OF PROGRESS REPORT

The aim of this Progress Report is to;

- a) firstly, examine the likely scale of the district centre and the role it will play in serving the Berry Springs catchment population; and
- b) then examine remaining options for the location of a district centre and evaluate them against the zoned site.

POPULATION

PRESENT POPULATION

The present population within the Berry Springs catchment is estimated as being between 800 and 900 persons.

TARGET FORECAST

The Darwin Regional Land Use Structure Plan 1990 is based on a population horizon of 1 million of which some 10% are expected to reside in rural residential circumstances. No time is nominated by which the horizon population is expected to be achieved. Within this context the Berry Springs District Centre catchment population is estimated to be approximately 14,000 persons.

GROWTH RATE

For the 1986-1991 inter-censal period the population of the Berry Springs catchment is expected to increase by some 300 to a likely 900 persons.

A population increase of the same order is anticipated for the 1991-1996 period, resulting in a likely 1996 population of some 1,200 persons, less than 10% of the estimated ultimate catchment population.

COMMERCIAL CENTRE HIERARCHY

HIERARCHY OF CENTRES

The Darwin Regional Land Use Structure Plan 1990 and the Litchfield Land Use Structure Plan 1990 have adopted a hierarchy of centres as a framework for provision of facilities and associated investment. The hierarchy is based on experience of social and economic needs.

HIERARCHY

Details of commercial centre hierarchy is included in the Freds Pass District Centre Progress Report, and is reproduced below:-

LEVEL	POPULATION CATCHMENT	SERVICE	EXAMPLE CENTRES
Regional	50,000 + (variable)	Major administration, office, retail and entertainment facilities	Palmerston Weddell
District	15-20,000	Intermediate retail, industrial and commercial needs Community and recreation needs	Humpty Doo Berry Springs Freds Pass
Local	5,000	Convenience shopping and services	Howard Springs

DISTRICT CENTRE LAND USES

DISTRICT CENTRE ACTIVITIES

The land uses that might reasonably be located within a district centre include:

Residential

Detached Housing (low Density)
Attached Housing (medium density)

Industrial

Light Industry
Car Repair Station
Service Commercial
Transport Terminal

Community

Bus Interchange
Police Station
Fire Station
Produce Market
Church
Public Hall
Child Care Centre
Medical Clinic
Primary School
Junior High School
Recreation Facilities

Business/Commercial

Supermarket
Shops
Hotel/Tavern
Motel
Restaurant
Offices
Service Station
Retail Plant Nursery

ROLE OF THE BERRY SPRINGS DISTRICT CENTRE

The role of a district centre has been described earlier in this report as that of providing commercial, industrial, recreational and community uses to cater for those attracted to the locality as a place to live or visit.

The central and southern parts of the Litchfield Shire will accommodate three district centres, one at Humpty Doo, another at nearby Freds Pass, and the third at Berry Springs. Humpty Doo is already well established and will serve the likely largest catchment population in the Shire in the role described above. Freds Pass, by comparison fulfils a specialist role in that its prime function is to cater for the recreational needs of the Shire's rural community.

The Berry Springs District Centre will fulfil a generalist role similar to that of Humpty Doo, serving a catchment population estimated to be about two-thirds the size of that served by Humpty Doo, but local factors are such that it will differ somewhat to Humpty Doo in the matter of land use allocation.

LOCAL FACTORS INFLUENCING LAND USE ALLOCATION

The local factors that need to be taken into account and reflected in land use allocation for Berry Springs District Centre include:

- a) An extremely strong demonstrated commitment by rural residential dwellers to the rural lifestyle with the likelihood that this allegiance will continue into the foreseeable future. This commitment to a rural lifestyle will require the provision of community facilities in the district centre.
- b) Recent and continuing calls for an end to indiscriminate location of industrial activities in the rural residential zones demonstrate the need to make land available for light industrial and service commercial purposes within the district centre.
- c) The difficulty faced by the Planning Authority in resisting highway ribbon development may be overcome in part by providing appropriately zoned land in the district centre. This is closely allied to (b) above.
- d) Churches, community facilities and so on, rather than being located randomly throughout the rural residential area, need to be concentrated in the district centre wherever possible.
- e) Ageing of the population will result in some rural residential dwellers opting to reside on urban-sized allotments within the district centre when those dwellers are no longer able to cope with their holdings.
- f) Owners and employees of business, teachers, rangers and others that work in and near the district centre will also need to be catered for by way of the provision of urban-sized allotments within the district centre.
- g) A number of district centre activities are already well established elsewhere in the district and are not physically capable of incorporation in the district centre, e.g. Berry Springs Primary School and Early Childhood Unit, two Community Halls and an oval, and there is no need to duplicate these facilities in the district centre.

- h) Proximity to established tourist destinations in the locality, including Berry Springs Nature Reserve, the Territory Wildlife Park, the Lakes Tourist Resort, Darwin River Dam and Tumbling Waters, and proximity to proposed tourist attractions such as the orchid farm proposed for Darwin River Road, points to the need for the provision of tourist accommodation as well as provision for day visitors.
- i) The Cox Peninsula Road is already an important rural arterial, carrying traffic to and from the very popular Litchfield Park, as well as Bynoe Harbour, Mandorah and other parts of the Cox Peninsula. The district centre will serve as a timely rest and refuelling stop for vehicles involved in journeys to and from these destinations. The long term prospect for this arterial is a connecting route between major urban centres.
- j) The northern and north-western part of the catchment population will be located closer to the CBD of the new town of Weddell than to the Berry Springs District Centre, and it is reasonable to conclude that those persons will utilise Weddell for retail purchases and commercial needs. Notwithstanding, the same people could be expected to purchase irrigation equipment, fertiliser, agricultural chemicals, stockfeed and other goods for their agricultural pursuits, from the Berry Springs District Centre.
- k) Freds Pass District Centre is intended to cater for the major organised recreational needs of the Litchfield Shire, and the oval and community halls adjacent to the Berry Springs Primary School will accommodate the short and intermediate term needs of the local populace insofar as organised recreation is concerned. The district centre, whilst it will need to provide for organised recreation in the long term, should not seek to usurp the role of Freds Pass, or unnecessarily duplicate what already exists adjacent to Berry Springs Primary School.
- l) The existing Berry Springs Service Station, Berry Springs Hardware Store and Berry Springs General Store, all located on the northern side of the Cox Peninsula Road opposite and to the west of the zoned District Centre Site, are not of a scale likely to inhibit the growth of a properly planned district centre.

SCALE OF PROVISION

INFRASTRUCTURE CONSIDERATIONS

Electricity and Telephone

Existing services available to the zoned district centre site, as well as other potential district centre sites along the Cox Peninsula Road, include electricity and telephone.

Water

Reticulated water supply is not available to the zoned district centre site, or to other potential district centre sites along the Cox Peninsula Road, but the provision of a supply might be by one of two methods -

- a) drawing water from the Darwin River Dam rising mains (some 4 kilometres to the east of the zoned District centre site) and passing it into treatment and storage tanks on or near the site; or
- b) on-site groundwater extraction with the water passed into treatment and storage tanks.

No detailed investigation has been made to determine the availability, or otherwise, of sufficient groundwater supplies to meet the demands of a district centre, or to assess the likely impact of extraction on Berry Springs Nature Reserve or the Territory Wildlife Park. However, an hydrology study undertaken in 1985 suggests that groundwater resources in the locality are not suited for any development requiring significant water supplies.

The provision of a reticulated water supply to the district centre is essential to ensure economic usage of subdivided land and to avoid water supply contamination risks that would be inherent in a district centre relying on a string of wells or bores for water supply, where sewerage is by way of septic tank and absorption trench. The type of water supply provided will be dependent upon an assessment of the cost-benefit of each of the proposed methods.

Sewer

Sewer reticulation is not available anywhere in the Berry Springs area and the eventual provision of a reticulated sewerage system is desirable, given that the intensity of development in the district centre justifies such provision. A resident population in the Berry Springs District Centre that will justify the commissioning of a reticulated sewerage system will take a very long time to achieve and until that threshold is in sight, sewage disposal will need to be by way of septic tanks and absorption trenches.

The district centre should provide for the eventual installation of a sewerage scheme, with the lagoons located on flood-free land no closer than 800 metres to urban development, the prevailing recommended buffer zone width.

Roads

The future status of the Cox Peninsula Road is Rural Arterial, and as such the minimum spacing between intersections providing access is 1,000 metres. In respect of the zoned District Centre site, the intersection separation between Finn Road and the road giving access to Lake Dean is not to be less than 350 metres. The latter-mentioned road is presently being up-graded to satisfy a requirement of the NT Planning Authority in respect of the recent conditional approval of the Lakes Tourist Resort.

ADJUSTED POPULATION CATCHMENT

Whilst the prediction is for a Berry Springs District Centre catchment population of some 14,000 persons, it is reasonable to assume a "leakage" of some 4,000 to the Weddell CBD in respect of retail needs. It is also reasonable to assume that there will be comparatively little leakage of the predominantly rural-residential catchment dwellers in respect of light industrial and service commercial needs.

Commercial and Retail Services Provision

Based on the assumption that 0.4 m² to 0.6m² of Retail floor space per person is required to satisfy local needs (Darwin Area Retail Census 1986) an effective population catchment of 10,000 persons will require an allocation of some 4,000 m² of Retail floor space.

LIGHT INDUSTRIAL AND SERVICE COMMERCIAL PROVISION

Predominant industrial activities will be located in the regional centres of Darwin and Weddell, and the district centre will need to accommodate a relatively small light industrial and service commercial area to serve the whole catchment population.

In these circumstances an allocation of 1.5 hectares per 1,000 of actual catchment population is warranted, resulting in a provision requirement of 21 hectares.

RESIDENTIAL PROVISION

A range of lot sizes need to be provided -

- a) 1,000 m² allotments, to be released for use when sewer reticulation is in place, but earlier if the capacity for on-site septic tank and absorption trench disposal can be conclusively demonstrated;
- b) 4,000 m² allotments, to be released in the initial stage of development of the District Centre because of the capacity for on-site sewerage disposal; and
- c) allotments varying in size from 1,000 m² to 2,000 m² (1 hectare) to accommodate medium density development such as flats and townhouses, to be released only when sewer reticulation is in place.

PROVISION FOR OTHER LAND USES

A Junior High School site, with associated open space capable of separate development and use, will require a total land allocation of some 14 hectares.

Other community uses, child care centre, churches, police station and so on, warrant a provision of a further 6 hectares of land.

No provision is intended to be made for the creation of horticultural lots, despite the suitability of some soils in the Berry Creek locality for horticultural purposes. Horticultural activities are already permissible on rural land throughout the Litchfield Shire and in the interest of maintaining a compact district centre there is no need to introduce rural activities into what is essentially an urban node intended to service these rural activities.

IMPLEMENTATION

DESIGN PRINCIPLES

The design principles set out below are based on the assumption that the District Centre will be located adjacent to the principal road in the catchment, the Cox Peninsula Road. A district centre relying for access on any other road in the catchment would not likely succeed.

Commercial and Retail Services

Commercial and retail development needs to be readily visible from the Cox Peninsula Road, particularly when approached from the direction of the Stuart Highway, but not directly accessible from the road. Easily accessed, adequate and well shaded parking also needs to be apparent.

In keeping with the rural surrounds, the development should promote a feeling of spaciousness, and a low plot ratio and generous landscaping provision will assist to this end.

Tourist Accommodation

Similarly, tourist accommodation needs to be open to view from Cox Peninsula Road, with adequate and well shaded parking apparent. Tourist accommodation might take the form of a motel with licenced restaurant, a hotel, caravan park and the like.

Medium density residential development might reasonably be located adjacent to tourist accommodation, acting as a transition between such accommodation and the residential area.

Residential Development

Residential development needs to be effectively separated from light industrial/service commercial development in particular, and from commercial and retail development where there is a likelihood that conduct of these activities will be injurious to the amenity of the residential neighbourhood.

Light Industrial and Service Commercial Development

Such development in the long term will likely constitute the "backbone" of District Centre and ought to be separated by open space or the like, from residential development.

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INITIAL PHASE OF DEVELOPMENT

Septic tanks with absorption trenches will need to be utilised in the initial phase of development to accept household sewerage, bearing in mind -

- a) that the likely commercial/retail element of the District Centre in the initial stage will be small; and
- b) that whilst significantly larger floor areas might be allocated to light industrial uses -
 - i. light industrial uses are by definition uses that are not likely to be injurious to the local environment by way of waste emissions;
 - ii. consent conditions for light industry will address waste discharges and emissions and may impose requirements for grease traps, arrestors, interceptors or the like, dependent upon the nature of the activity; and
 - iii. it is unlikely that any residential element associated with light industrial activity will contribute to any cumulative effluent problem.

Septic tanks using a pump out system are considered unsuitable for reasons of cost, and the likelihood of either the owner or pump-out contractor making indiscriminate dumpings to defray costs.

Initial development of the District Centre, reliant on septic tanks with absorption trenches, is reasonable given the expected slow growth rate for the locality.

The point has been made earlier in this document that the provision of a reticulated water supply to the District Centre is essential at the outset of development of the District Centre.

Stormwater drainage is capable of causing major problems to the local environment not only by way of erosion, but also by way of sedimentation and turbid discharge into waterways. Uncontrolled discharges into a waterway such as Berry Creek would have the potential to reduce the aesthetic appeal of the creek as a recreational waterway, lead to siltation of the streambed and have a detrimental effect on fish and wildlife downstream from the discharge point.

As development proceeds erosion usually follows a two stage pattern. Initially a significant increase in sediment load is experienced in run-off during the construction phase of a development as a consequence of the removal of covering vegetation, which is followed by a steady decrease in the erosion rate as roads, kerbing and guttering, drains, lawns etc. are established.

The Berry Springs District Centre, regardless of location, will of necessity be developed over a long period of time and it is essential that appropriate strategies are in place and adhered to to minimise the impact of run-off. Such strategies should include -

- a) Concurrent (or prior) establishment of a retardation basin at the lowest point of the district centre site, the basin to accommodate a sediment filter/trap at its outlet;
- b) Maximum possible drainage work to be provided as early as possible in the subdivision;
- c) Paving of the roads and carparking areas as early as possible after formation; and
- d) Revegetation of disturbed areas as expeditiously as possible.

INTERMEDIATE PHASE OF DEVELOPMENT

Some time prior to the absorptive capacity of the district centre site being exceeded, an intermediate sewerage treatment and effluent disposal system will need to be employed. This can be achieved by upgrading from septic tanks to collection of effluents into a small-bore sewerage system for central treatment in oxidation ponds.

The oxidation pond needs to be located on flood free land at an acceptable distance from the urban elements of the district centre.

Dry season disposal of treated effluent from the oxidation ponds in the intermediate and ultimate system can be by way of irrigation applied to open space, median strips and other grassed areas within the district centre, whereas wet season disposal can be achieved by piping into a creek for discharge. In the case of the district centre being located within the Berry Creek catchment, treated effluent can be disposed of by pumping to the adjoining catchment for discharge into Hardys Creek.

ULTIMATE PHASE OF DEVELOPMENT

The use of septic tanks will be discontinued when a threshold of development warranting a fully reticulated sewerage system is achieved. Dry and wet season methods of effluent disposal will remain the same as described for the intermediate phase of development.

LOCATIONAL OPTIONS

OPTIONS AVAILABLE

Recent developments within the Berry Springs population catchment have transpired to -

- a) render unavailable the district centre site considered most appropriate from a planning point of view at the rear of the Berry Springs Primary School; and
- b) render unavailable the most favoured second option for a district centre site (again from a planning point of view) opposite the Berry Springs Primary School.

The remaining site evaluated by the Department of Lands in 1985, and endorsed by the Darwin River and Berry Springs Progress Association and the Koolpinyah Branch of the Country Liberal Party, is the site nominated in the 1987 Draft Darwin Rural Area Strategy Plan and the more recent Litchfield Land Use Structure Plan 1990.

A draft Land Use Concept Plan was drawn up in 1989 in respect of this site, and comments sought from the various service authorities. The service authorities have drawn attention to a number of concerns associated with development of the site and these are primarily related to its position within the Berry Creek catchment. This site has been evaluated against all other potential sites in the catchment area to confirm (or otherwise) that it is the most appropriate location for a district centre, using the following criteria:

- a) located adjacent to Cox Peninsula Road;
- b) located within close proximity to the existing commercial and tourist developments on Cox Peninsula Road; and
- c) if possible, located such that they will not further proliferate the string of developments along the Cox Peninsula Road.

Within these criteria the following additional sites have been evaluated -

- a) land on the northern side of Cox Peninsula Road, accommodating the Berry Springs Service Station and the Berry Springs Hardware Store; and
- b) the vacant Crown land adjoining the nominated district centre site to the east and located within the Hardys Creek catchment.

The nominated district centre site, together with the additional sites described above, is depicted at Figure 2.

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EVALUATION OF THE OPTIONS

Set out below is a comparison of alternative sites with the nominated district centre site. Common to all three sites is the need for substantial government investment if they are to be provided with reticulated water supply and sewerage.

ALTERNATIVE A. Land on the northern side of Cox Peninsula Road, opposite the nominated district centre site:-

Advantages

- . Utilises existing developed area as "Core".
- . Obviates any potential "existing use" problems which might occur if another site selected.

Disadvantages

- . Private land. Difficult to expect and obtain compliance to any plan prepared by Government and the timing of development would be removed from Government control.
- . Acquisition of the land might prove too costly, and would be difficult to justify in view of Crown holdings in the locality.
- . Inconsistent with the published Government planning and development objectives for the locality which reflect community expectations.
- . If engineering responses are inadequate, stormwater drainage has the potential to impact adversely on Berry Creek and the Berry Springs Nature Reserve.

ALTERNATIVE B. Land on the southern side of Cox Peninsula Road, adjoining the nominated district centre site to the east:-

Advantages

- . Sufficient land available to allow for the provision of reticulated water and sewerage schemes, and to allow Government to turn-off land for development to assist in financing those schemes.
- . Minimal likely adverse impact on Berry Creek catchment.
- . Direct collection and treatment of sewerage, and direct disposal of treated effluent.

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Disadvantages

- . Elongates the ribbon of development along the Cox Peninsula Road thereby increasing servicing costs and introducing the potential for vehicular traffic conflicts.
- . Inconsistent with the published Government planning and development objectives for the locality, and the expressed wishes of local community interest groups.
- . If engineering responses are inadequate, stormwater drainage has the potential to impact adversely on Hardys Creek.
- . If engineering responses are inadequate, effluent has the potential to impact adversely on Hardys Creek.
- . Development of the site is contingent upon relocation of the Shire Council's Garbage Dump.

NOMINATED DISTRICT CENTRE SITEAdvantages

- . Reinforces and gives effect to the Government's published planning and development objectives for the locality and supports the expressed wishes of local community interest groups.
- . Sufficient land available to allow for the provision of reticulated water and sewerage schemes, and to allow Government to turn-off land for development to assist in financing those schemes.

Disadvantages

- . If engineering responses are inadequate, stormwater drainage has the potential to impact adversely on Berry Creek.
- . If engineering responses are inadequate, effluent has the potential to impact adversely on Berry Creek.
- . Development of the site will require eventual relocation of the Shire Council's Garbage Dump.

PREFERRED OPTION

Both suggested alternative sites have merit but are, on balance, inferior to the nominated District Centre site.

Utilisation of the existing Berry Springs Service Station and Hardware Store as a "core" for the District Centre is not supported as it is not possible to justify acquisition of the site in view of the proximity of suitable areas of vacant land already in public ownership.

Land to the east of the nominated District Centre site has some appeal principally because it is in a catchment other than the Berry Creek catchment, but given that stormwater drainage and treated effluent disposal is responsibly managed, there are simply not sufficiently compelling other reasons to reverse previous selection of the nominated site.

In the circumstances the nominated and already zoned site is the most appropriate site to accommodate the Berry Springs District Centre. Potential stormwater drainage impacts can be minimised or obviated by the use of retardation basins and sediment traps, and potential treated effluent impacts may be obviated by the expedient of re-use through irrigation during the dry season, and discharge into a flowing watercourse during the wet season. Water quality at nearby Berry Springs Nature Reserve is most important, and it is equally important that it is perceived publicly to be good. To this end, and for the want of certainty, wet season treated effluent should be piped into Hardys Creek for discharge.

An alternative arrangement for effluent treatment merits consideration. The arrangement would have sewerage collected at a point in the district centre site, then pumped to an oxidation pond located on vacant Crown land in the adjoining Hardys Creek catchment. Disposal following treatment would be as described above for dry and wet seasons. The advantages of the arrangement would be the removal of any possibility of Berry Creek being affected by treated effluent, and a more compact district centre, its layout unaffected by proximity to the oxidation pond. There is, of course, a cost penalty associated with pumping sewerage from one catchment to another.

SUMMARY

SCALE OF THE DISTRICT CENTRE

The district centre must provide for a range of activities to satisfy the local needs of the catchment population. The scale of provision is principally determined by the anticipated catchment population, and in this case influenced by the proximity of the CBD of the new town of Weddell.

Retail and commercial floor space provision in particular will reflect the centre's proximity to Weddell, and the likely emphasis of the centre will be in catering for light industrial and service commercial activities associated with rural residential and hobby farming pursuits.

Provision for some tourist accommodation is essential in view of the host of tourist attractions that are located in the Berry Springs locality, or rely upon the Cox Peninsula Road for access. Similarly, provision for residential development in the centre is essential to meet the accommodation requirements of local retirees, district centre employees and private and public sector employees working in the locality.

Community uses such as a child care centre, churches, high school, recreational facilities and the like also need to be catered for and appropriate areas of land should be set aside for these purposes. There is, however, a need to ensure that any open space provision made in the Centre is not to the detriment of open space already established in the Berry Springs locality, or at Freds Pass.

PREFERRED LOCATION

The Berry Springs District Centre is best located on the site already zoned for that purpose on the southern side of the Cox Peninsula Road, opposite the existing Berry Springs Service Station and the Berry Springs Hardware Store.

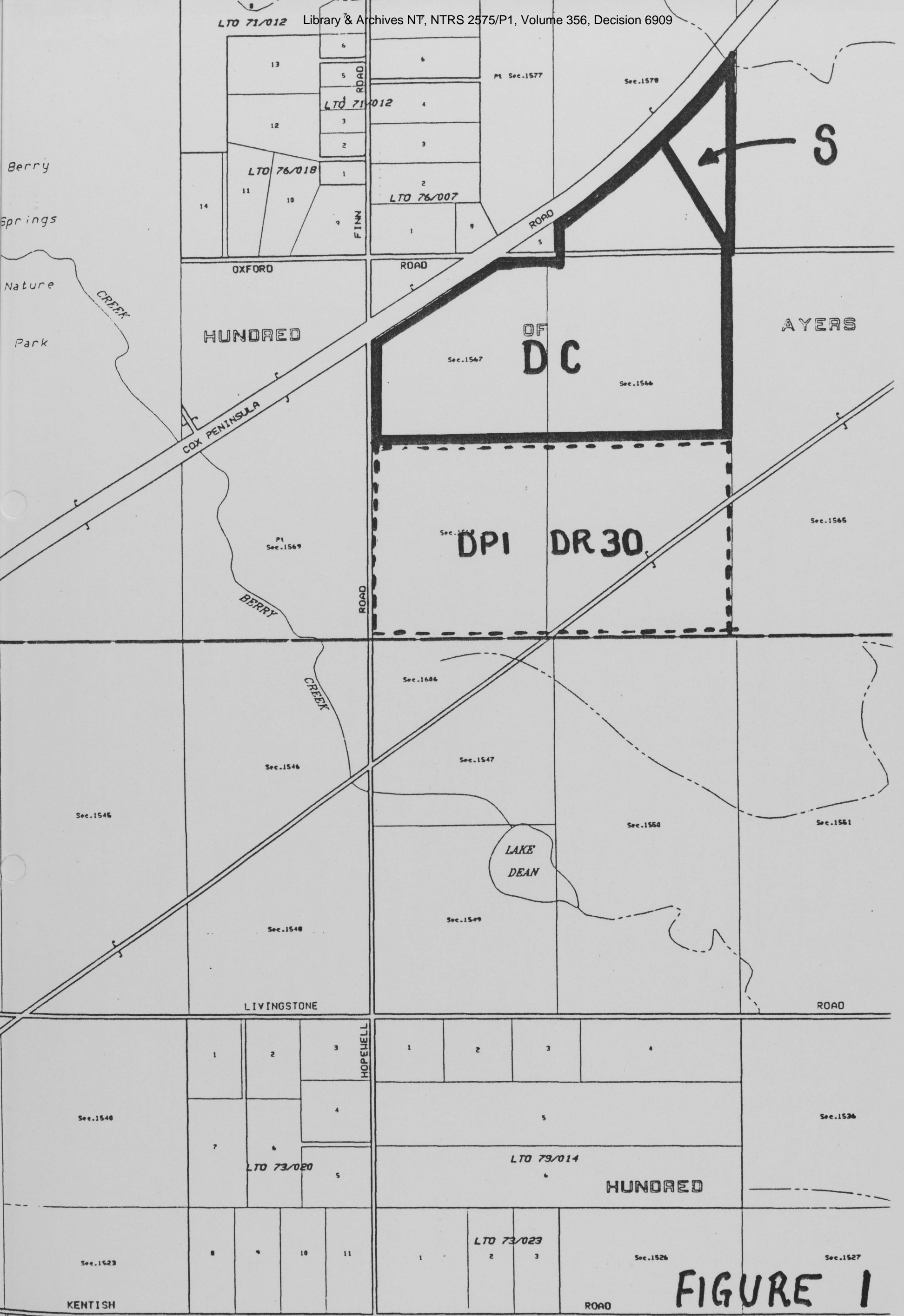


FIGURE 1

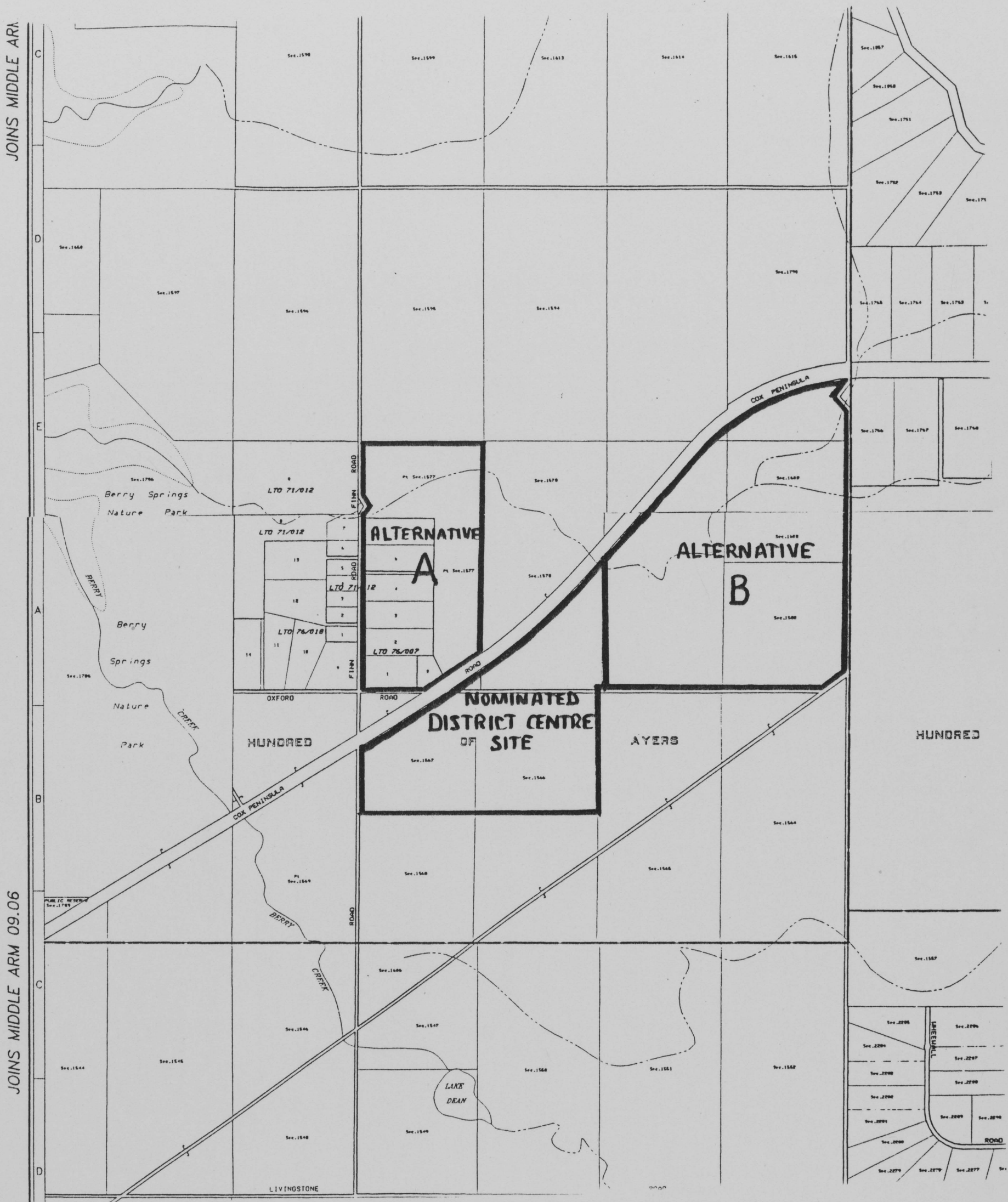


FIGURE 2