Gwalwa Daraniki Association

Kulaluk Prawn Farm Project

(Aquaculture)

Development Permit

DP97/0077

Northern Territory Planning Authority

Lot 5182 Town of Darwin

Purpose

Consent is hereby granted, in pursuant of section 52(1)(a)(i) of the Planning Act for the purpose of a prawn farm, subject to the conditions in the schedule and for the reasons set out in the attached statement of reasons.

This permit is issued by JOHN MALEY and PATRICIA DAVIES, as delegates of the Northern Territory Planning Authority.

Dated this 12th day of February 1997

NORTHERN TERRITORY PLANNING AUTHORITY

Planning Act

Section 52

DEVELOPMENT PERMIT

DP97/0077

DESCRIPTION OF LAND THE SUBJECT OF THIS PERMIT

Lot No:	LOT 5182
Town/Hundred:	TOWN OF DARWIN
Street Address:	DICK WARD DRIVE

PURPOSE

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This permit is issued by JOHN MALEY and PATRICIA DAVIES, as delegates of the Northern Territory Planning Authority.

Dated this 12 day of February 1997

J V MALEY
Delegate
Northern Territory
Planning Authority

P DAVIES
Delegate
Northern Territory
Planning Authority

SCHEDULE OF CONDITIONS

DEVELOPMENT PERMIT

DP97/0077

1. Works carried out under this permit shall be in accordance with drawing number 96/1131 and endorsed as forming part of this permit.

2. Waste sediment should be deposited into a bunded area separated from other operations, until sufficient leaching has occurred. Leachate should not be released into the environment except via discharge channels, where concentrations will be subject to discharge licence conditions.

3. The applicant shall, prior to commencement of operations, obtain all relevant licences under the *Water Act* and comply with the conditions of such at all times.

4. A monitoring program should be incorporated into the proposed operation to the requirements and satisfaction of the Secretary, Department of Lands, Planning & Environment to ensure that water quality is not affected by the proximity of the Ludmilla wastewater treatment plant..

5. Kerb crossovers to and driveways to the site shall be provided and disused crossovers removed, public footpath/cycleways shall be provided, stormwater shall be collected and discharged into Council's drainage network, and reinstatement works completed, all to the requirements and satisfaction of the Technical Services Manager, Darwin City Council at no cost to Council.

6. Nature strips shall be reinstated, landscaped and maintained to the requirements and satisfaction of the Technical Services Manager, Darwin City Council.

7. Electrical reticulation to the site to be provided to the requirements and satisfaction of the Power and Water Authority, at no cost to the Authority.

8. Water reticulation to the site and sewage disposal from the site to be provided to the requirements and satisfaction of the Power and Water Authority, at no cost to the Authority.

9. Any easements or reserves required for the purposes of electricity, sewers, water supply, stormwater drainage, roads, telecommunications, or for any other purpose, shall be made available free of cost to the Northern Territory of Australia, the Commonwealth of Australia and, if relevant, to the local authority under whose jurisdiction the subdivision proposal falls.

10. Upon cessation of the use, the area used for ponds shall be rehabilitated to the requirements and satisfaction of the Secretary, Department of Lands, Planning & Environment..

...continued...

NORTH AUSTRALIAN AQUACULTURE COMPANY

ACN 068 222 908

P.O. Box 54
Berrimah N.T. 0828
Phone: 019 102 632
0419818106
Fax: (08) 8981 1462

PRAWN FARM PROJECT

A project has been developed to construct and operate 3 hectares of prawn ponds built of earth on a mudflat on Lot 5182 Town of Darwin, leased to the Gwalwa Daraniki Association and indicated on the accompanying aerial photograph and plan.
The site has been surveyed for water quality, soil quality, salinity and accessibility and has been found to be particularly suitable for aquaculture use.

PRODUCTION

The small-scale farm will produce two crops per year of tiger prawns (Penaeus monodon) for the local and domestic market.
The majority of product will be sold through SAFCOL on the bouyant domestic market.
The farm will also serve as a training ground to provide Aquaculture skills to Aboriginal people within the local community and provide a working model for potential farmers in isolated communities to gain some insight into the potential for Aquaculture projects on Aboriginal land throughout the Northern Territory.

The farm will be operated by a manager and one full time farm worker as well as casual harvest labour.

The farm, in the future, may also carry out research on other viable potential aquaculture candidates including Spiny lobsters, Rock cod, Oysters and Coral trout.

Environmental Assessment

The Ludmilla Bay and Creek system serves as an aquatic habitat and food source for a wide variety of fishes. Ludmilla Creek and Bay are also used for recreational fishing and boating.

Assessment has been made of the likely impact of the prawn farm on the local habitat, and the potential impact of other land users in the immediate area on the Aquaculture operation.

The effect of prawn farms on their environment in Australia is typically a healthy and flourishing natural marine life in the area, through added nutrients released from the farm ponds.

No pesticides, herbicides or industrial pollutants will be used on the farm and the operation is focused upon environmentally clean, sustainable aquaculture causing no disruption or forseeable hindrance to other occupiers or future users of the area.

Additionally, the farm will not be in view of the general public due to the location behind vegetation and distance of over 400 metres from the nearest public street, Dick Ward Drive.

The farm will be aesthetically pleasing and operate harmoniously within the natural habitat in the region.

Wastewater Treatment Plant:

The Wastewater Treatment Plant on Dick Ward Drive was investigated for any potential impact it may have on the farming operation.

Commissioned in 1977 the plant operates on a lime assisted sedimentation process where raw sewage influent enters the building and is processed.

Solid matter is separated and passed to a furnace, burnt, and the ash matter deposited as land fill. Fluid passes through the building and is treated.

A portion of effluent is diverted for irrigation use. The remaining treated fluid effluent is pumped through piping to the outfall pipe situated off East Point, to be diluted within the harbour.

During the wet season, in times of heavy rainfall a high volume of rainwater is bypassed through the plant to join urban runoff and stormwater drainage into Ludmilla Creek.

Comprehensive analysis and dye testing in the creek have revealed the tidal current and drift to dispel the discharge of Ludmilla creek to the west following East Point and further into the harbour away from the property.

To ensure a supply of good quality seawater year round the farm will draw water from a point Northeast of the mouth of Ludmilla creek, 1.8 kilometres from the effluent outfall and avoiding sudden salinity changes or inconsistent water quality parameters in times of heavy rain.

CONSTRUCTION

Construction will consist of earthen ponds, pump, 12 x 10m shed & demountable accomodation. Ponds should be quite easy to construct with a small dozer and scraper. The construction and establishment of the farm to turn-key stage ready for stocking is expected to take around two months.

There is little chance of expansion on the block therefore the farm will be designed and built with a high degree of efficiency in mind to demonstrate commercial viability in a small scale Aquaculture farm.
Construction of the farm will cost around $100,000 with a further $40,000 to equip. No permanent infrastructure is planned and the farm will be capable of being dismantled and removed entirely in the future if necessary.

Electricity Supply

Electricity will be connected approx. 300 metres to the site from the existing 100kwa transformer on the property, which has ample capacity in reserve. The farm will draw a maximum of 30 kilowatts.
A diesel generator of 25 kva capacity will be used in the event of mains failure, to provide smooth uninterrupted power supply to the farm site.

Water supply

The farm will draw seawater on high tides via a 200mm centrifugal pump and HDPE piping, supplying the ponds with a partial exchange of seawater daily (5-10%). Seawater will be discharged into the existing tidal drainage canal on the property.
Approximately 2000-4000 cubic metres of seawater will flow through the system daily.

A freshwater supply pipe will be installed to provide household needs.

Equipment

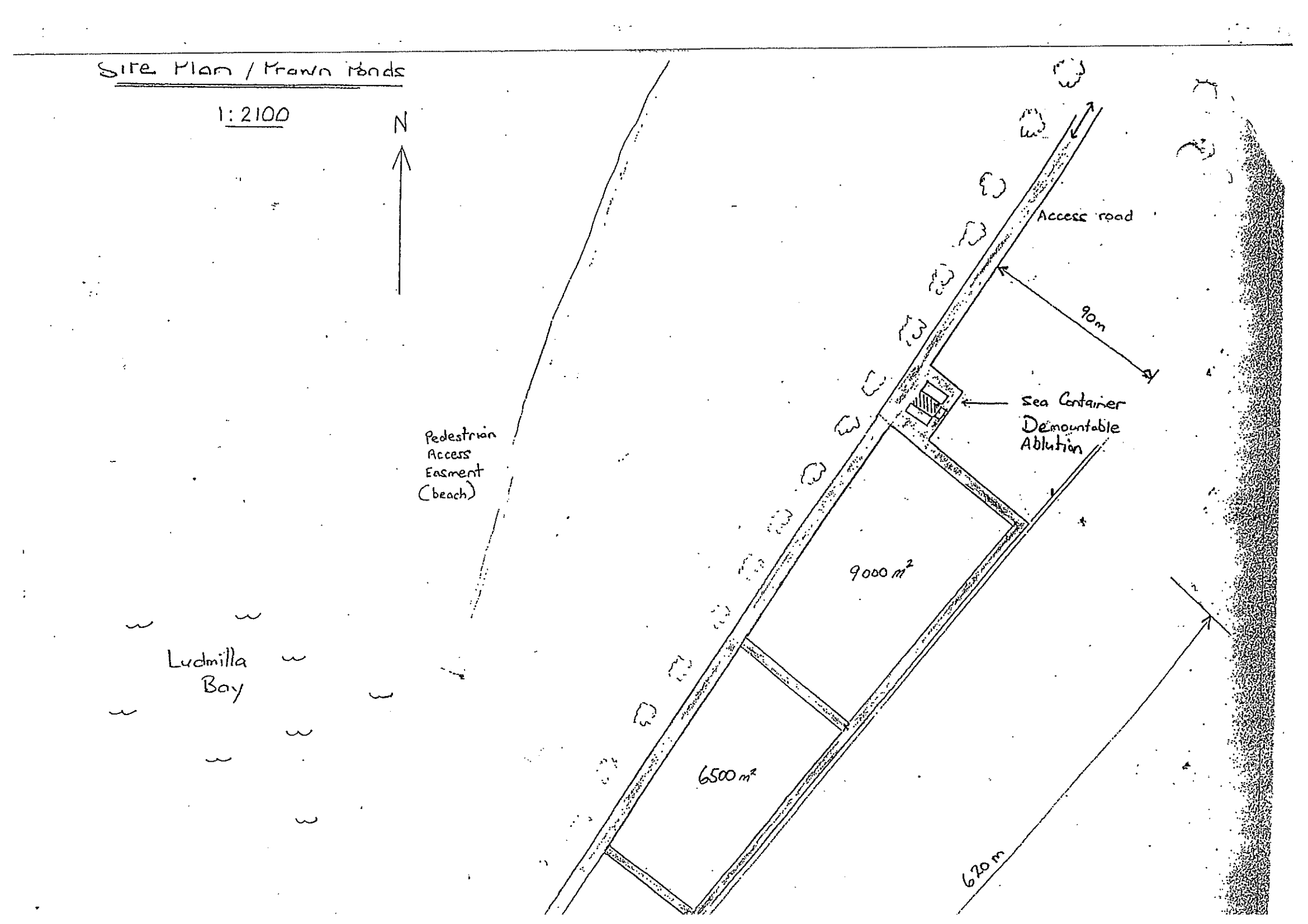
A ute, Quad bike, trailer, pressure pump, paddlewheel aerators and feeder will be used in the day to day running of the farm.

Test Equipment

Full water quality test instruments will be used to monitor pond conditions including electronic dissolved oxygen meter, ph meter and temperature and salinity guages.

Site Plan / Crown Lands

1:2100



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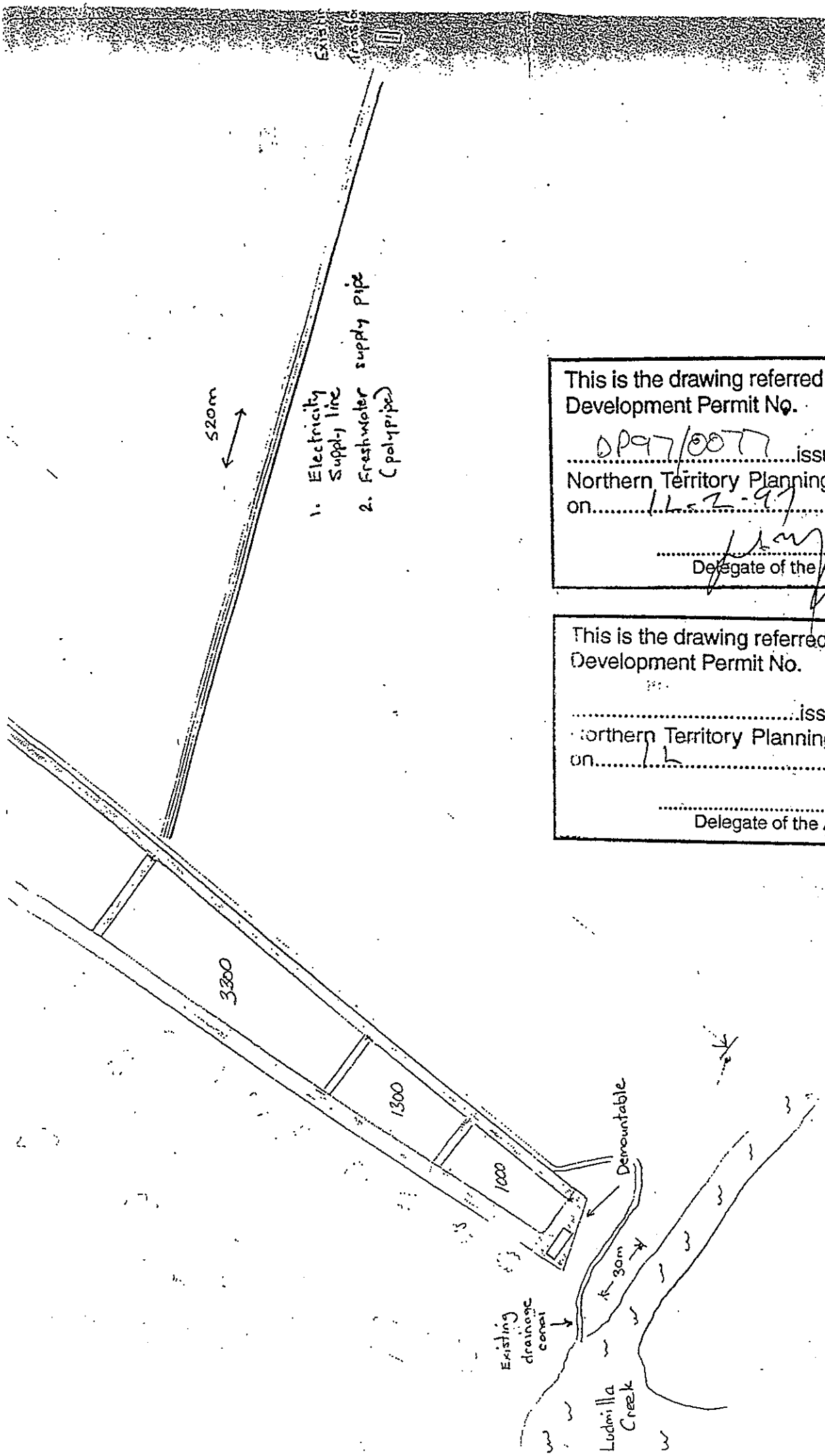

This is the drawing referred to in Development Permit No.

DP97/0077 issued by the Northern Territory Planning Authority on 11-2-97

Delegate of the Authority

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Delegate of the Authority