

Report to the DCA

This report is prepared under section 30P of the *Planning Act 1999*, and considers the submissions made in relation to the proposal

DEVELOPMENT CONSENT AUTHORITY LITCHFIELD DIVISION

PROPOSED CONCURRENT APPLICATION PA2026/0049

Amendment proposal to rezone Section 5544 (2658) Stuart Highway, Livingstone,
Hundred of Cavenagh
from Zone SL23 (Specific Use Litchfield) to Zone GI (General Industry)

And

A development proposal seeking consent to for a subdivision to create 105 lots

Agenda Item Number: **7**
Meeting Date: 17 June 2026

Bookmark A -	Location Plan
Bookmark B -	Application Material
Bookmark C -	Technical Assessment
Bookmark D -	Service Authority comments

1. GENERAL INFORMATION

ADDRESS:	Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Cavenagh
CURRENT ZONE:	Zone SL23 (Specific Use Litchfield)
PROPOSED ZONE:	Zone GI (General Industry)
SUMMARY OF APPLICATION:	Subdivision to create 105 lots
APPLICANT:	Kevin Dodd of Earl James and Associated
LAND OWNER:	Bilba Capital Pty Ltd (via Director Adrian Brown)
AREA:	90.51 ha

2. LEGISLATIVE REQUIREMENTS

The Minister for Lands, Planning and Environment is responsible for determining proposals to amend the NT Planning Scheme 2020 (including the amendment component of a concurrent application).

The *Planning Act 1999* establishes requirements relating to the exhibition, consultation and reporting of concurrent applications.

Under section 30N, the consent authority must conduct a hearing if any submissions are received during the exhibition period.

Under section 30P, the consent authority must (following any required hearing and taking account of matters under section 30P(2)) make a preliminary decision that if the Minister were to approve the amendment proposal, the authority would be likely to consent or refuse to consent to the development proposal.

Under section 30Q of the Act, the consent authority must give the Minister a written report that includes the preliminary decision, the submissions received, the issues raised in submissions or during consultation, and any other information that the consent authority believes the Minister should take into account when considering the proposal.

Upon receipt of a notice of approval of the amendment proposal from the Minister, the consent authority must determine, as required by section 30W(1) to either consent, alter and consent or refuse the development proposal.

Third Party Appeal Rights

There is no third party right of appeal in relation to any decision by the Minister of Lands, Planning and Environment in relation to the *amendment proposal* nor are there any third party appeal rights in relation to the *development proposal*.

3. ASSESSMENT SYNOPSIS

This report concludes that the Authority should:

- make a preliminary decision that if the Minister were to approve the amendment proposal the consent authority would be likely to consent to the development proposal;
- provide a report to the Minister including the preliminary decision, the submissions and the issues raised in the submissions; and
- delegate to the Chair the determination of the development proposal subject to the Minister's decision on the amendment proposal.

4. PROPOSAL

On 25 February 2026, Kevin Dodd of Earl James and Associates lodged a concurrent application comprising an amendment proposal to rezone Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Cavenagh from Zone SL23 (Specific Use Zone 23 – Litchfield) to Zone GI (General Industry) and a development proposal seeking consent for a subdivision, to create 105 lots in 2 stages.

The 90.51 ha lot (the site) is in Zone SL23 of the Northern Territory Planning Scheme 2007 (NTPS2007). The site is bounded by a live export facility (Santavan Export Facility) to the north, Stuart Highway to the east, an access road to the AACo Abattoir to the south, and the AustralAsia Railway corridor to the west.

Stage 1 of the proposed subdivision will create 56 lots, of which 1 lot will then be further subdivided in Stage 2 to create an additional 50 lots. A variety of lot sizes are proposed, ranging from 1940 m² to 5.032 ha. The subdivision will be serviced by only 1 external connection to the Stuart Highway, proposed to be located in the north-east of the site. Through the amendment proposal, the lots would then be developed for land uses in accordance with Zone GI (General Industry).

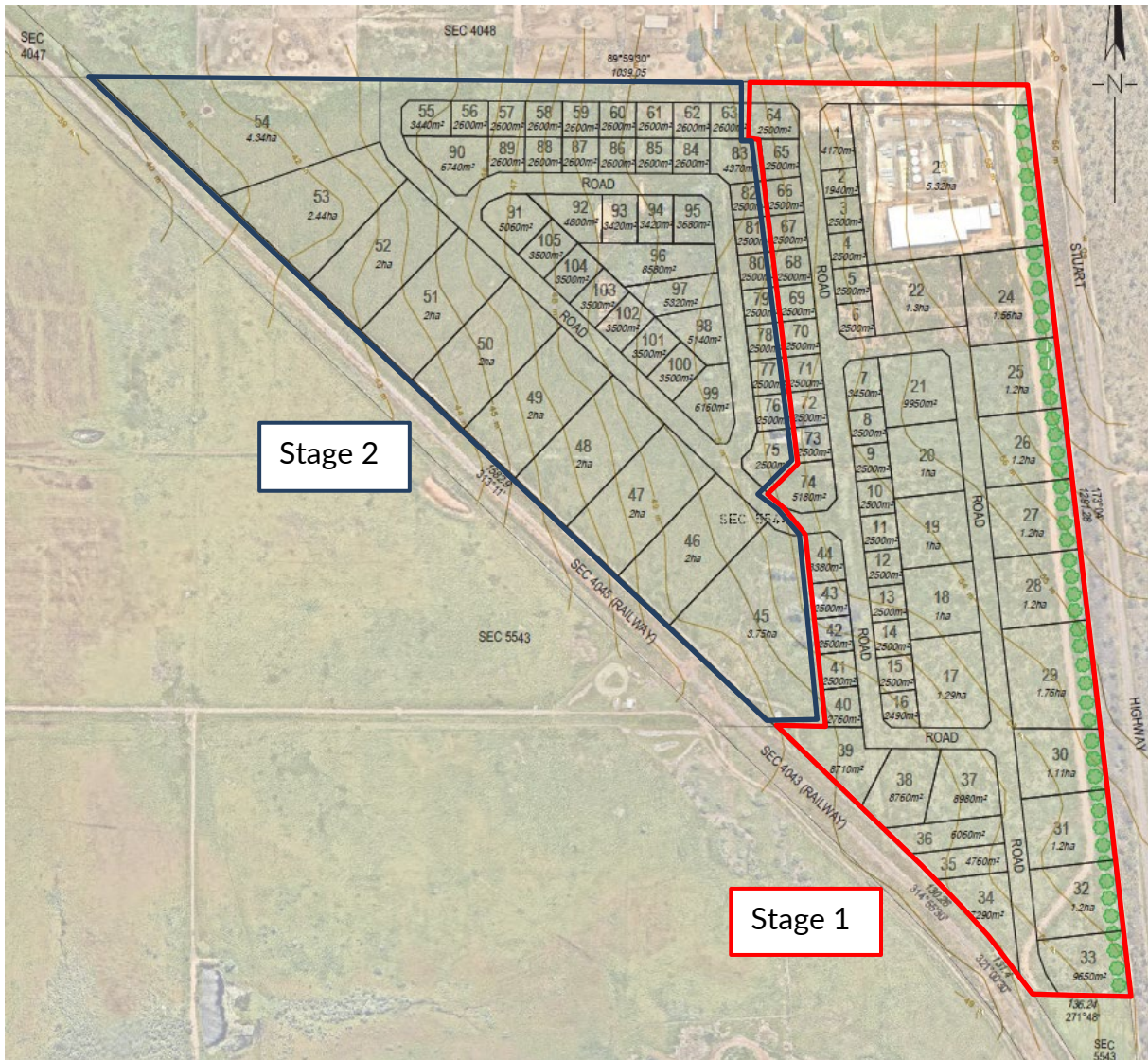
A pre-lodgement meeting with planning advisors, as required by Section 30B of the *Planning Act 1999*, was held on 28 January 2026.

At this meeting the applicant broadly outlined the proposed development and advised that the existing building on site is proposed to be retained on an individual lot. The applicant also advised that the preferred development pathway be via a concurrent process as it will allow for a single application, a single exhibition period for the Planning Scheme amendment and development application components of the application and also allow for a single submission/comment from authorities and members of the community.

The above reason was noted and the following matters were raised for the applicant's consideration and for noting in relation to the proposal discussed at that time:

- The Litchfield Subregional Land Use Plan (LSLUP) does not support the introduction of industry where separate from a Rural Activity Centre.
- further consideration of the environmental impacts on groundwater resources be included in any application.

- Previous advice provided at a pre-application Development Assessment Forum dated 26/08/2025, with specific consideration of the following:
 - Increased drainage toward railway corridor;
 - Power and Water's comments regarding insufficient capacity, and requesting a coordinated strategy; and
 - Water Resources Division's concerns about demand on groundwater resources and erosion control.



Subdivision layout and staging

The site has the following relevant planning history:

- On 27 April 2016 development permit DP16/0175 was issued for the purpose of intensive animal husbandry. The works approved under this permit did not proceed, with the permit subsequently lapsing.
- On planning scheme amendment 503 to the NT Planning Scheme 2007 was issued for the purpose of rezoning the site from Zone R (Rural) to a specific use zone to facilitate strategic industrial development (pipe manufacturing and ancillary uses).

- On 20 September 2019 development permit DP19/0253 was issued for the purpose of light industry exceeding 8.5 m in height. While no certificate of compliance has been issued for this development, it is understood that the development of the land proceeded in accordance with the permit.

A copy of the exhibition material including the application is at **Bookmark B**.

5. SITE AND LOCALITY CONTEXT

The site has a street frontage to the Stuart Highway, is triangular in shape, and slopes towards the west. A review of the survey plan found that the subject lot is encumbered by a number of power supply, water supply, and access easements.

In the wider context, the site is located in an area intended to be developed for rural purposes to the east, south and west, and urban purposes to the north. Land uses in the locality comprise an on-site industry-light (plastics manufacturing), bushland/rural-scale residential to the east, and abattoir and livestock uses to the south, west and north. The site is not considered to have any direct frontage to a sensitive land use.

The site is mostly cleared of native vegetation, and is located edge of a minor tributary within the Berry Creek catchment.

A copy of the survey plan is provided at **Bookmark A3**.

6. PUBLIC EXHIBITION

The application was placed on public exhibition for a period of 28 days in accordance with the requirements of the *Planning Act 1999* from 3 April to 4 May 2026. No public submissions were received for this application.

7. PRELIMINARY DECISION ABOUT DEVELOPMENT PROPOSAL(SECTION 30P OF THE PLANNING ACT)

Section 30P(2) of the *Planning Act 1999* establishes matters the consent authority is required to consider in making a preliminary decision in relation to the development proposal.

The matters discussed below are those identified in section 30P(2) that are relevant to this proposal and need to be considered.

(a) the planning scheme that applies to the land to which the application relates (the land);

The application proposes to rezone the land to Zone GI (General Industry) of the Northern Territory Planning Scheme 2020 (NTPS2020), and as such, a subdivision to create 105 lots requires consent under clause 1.8 (When development consent is required). It is identified as *Impact Assessable* under clause 1.8(1)(c)(ii); therefore, the Litchfield subregional land use plan (being the most detailed strategic framework document), the zone purpose and outcomes of Zone GI (General Industry), and clauses 6.4.1 (Lot Size and Configuration for Subdivision in Zones LI, GI and DV), 6.4.2 (Site Characteristics for Subdivision in Zones LI, GI and DV), and 6.4.3 (Infrastructure for Subdivision in Zones LI, GI and DV), need to be considered.

These clauses have been considered and it is found that the proposal complies with the relevant requirements of the NTPS2020 except in relation to the Litchfield subregional land use plan, and clause 6.4.3 (Infrastructure for Subdivision in Zones LI, GI and DV), which is discussed further below.

A copy of the technical assessment is at **Bookmark C1**.

Part 2 – Strategic framework

Litchfield Subregional Land Use Plan 2016

The Litchfield Subregional Land Use Plan is the most detailed and relevant Strategic Framework document and identifies the site and surrounds as broadly ‘rural’, where residential, horticultural, agricultural and other rural activities are expected. The LSLUP advocates for management of land uses to maintain the quality and amenity of the natural environment and rural lifestyles/activities. Specific priorities include the protection of land and water resources, conservation of significant vegetation communities and wildlife habitats and the maintenance of publicly accessible reserves.

Of note, the statement of policy for the rural area (#13) intends that these areas “*Maintain rural amenity and lifestyle choice*”, with an associated principal stating “*Continue to support the subdivision of suitable land outside rural activity centres into 2 ha lots in Zone RL (Rural Living) and into 8 ha lots in Zone R (Rural)*”.

The proposed rezoning and subsequent subdivision to facilitate the use of the land for primarily industrial purposes, in accordance with Zone GI, is therefore inconsistent with the strategic identification of the immediate locality.

The LSLUP also identifies the need to provide adequate buffers to mitigate adverse impacts on sensitive land uses and minimise land use conflicts. Rural land uses are sensitive to industrial activities (such as from the generation of dust, odours or machinery noise) and benefit from appropriate separation. The proposed rezoning does not specifically consider any form of separation or buffering between the proposed and surrounding zones and would allow for industrial development at a greater intensity than can currently occur at neighbouring properties under Zone R. As such, this application is considered to be contrary to the LSLUP (strategic framework).

Under Section 30W(3) of the *Planning Act 1999* (the Act), the Development Consent Authority (DCA) cannot determine an application for development that is inconsistent with the applicable planning scheme without first notifying the Minister under section 30W(3). Section 30W(6) of the Act allows the DCA to make a determination, provided that the Minister is notified of this prior to and raises no objection with the DCA considering the proposal.

The Chair of the DCA wrote to the Minister on 30 April 2026 and the Minister responded on 3 June 2026 granting the DCA the power to determine the development proposal pursuant to section 30W(6). A copy of the letter from the Chair to the Minister is provided at **Bookmark C2**, with response from the Minister provided at **Bookmark C3**.

Whilst noting the departure from the strategic framework, it should also be noted that:

- a 30 m wide road corridor is proposed along 900 m (69%) of the northern site boundary, with only one lot to continue to have a shared boundary with Section 4048 Hundred of

Strangways. On this basis, it is expected that any future development of Section 4048 for urban land uses would be to account for its proximity to industrial subdivision.

- The immediate locality is comprised of cleared, rural acreage with limited existing residential development. In addition, it is noted that the site is bounded by the North Australian Railway to the south and west (over which is the AACo abattoir), Stuart Highway to the east, and intensive animal husbandry to the north. These land uses already provide a reasonable limitation to the future intensification of residential development or its potential in the surrounding locality.

Part 3 – Overlays

The site is not affected by any overlays.

Part 4 – Zoning

Clause 4.15 (Zone GI – General Industry)

The purpose of this zone is to *Ensure that lots within industrial subdivisions are appropriately provided, connected and integrated with the required infrastructure.*

While the application was considered to be generally consistent with the relevant zone outcomes, it is considered that outcomes 7 and 8 warrant particular attention.

Zone outcome 7 intends that *"Development does not impose unsustainable demands on surface water and groundwater"*.

While the application indicated that groundwater extraction may take place in the event that connection to reticulated water was not possible, Water Services of the Power and Water Corporation subsequently advised that connection is not envisaged. As such, it is expected that the subdivision will rely upon groundwater extraction for service the lots in the first instance.

Further to the above, zone outcome 8 intends that *"Appropriate urban services including, roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure are available. If lots are unsewered, provision for the disposal of effluent must be made on-site so that the effluent does not pollute ground or surface waters"*.

The application was circulated to the service authorities responsible for roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure. Their comments are discussed further at section 7(j) and 7(l) of this report.

Part 6 – Subdivision and consolidation requirements

Pursuant to clause 1.10 (Exercise of Discretion by the Consent Authority), subclause (5), of the NTPS2020, *The consent authority may consent to a proposed development which is not in accordance with a requirement set out in Parts 3, 5 or 6 only if it is satisfied that the variation is appropriate having regard to:*

- (a) The purpose and administration clauses of the requirement; and*
- (b) The considerations listed under Clause 1.10(3) or 1.10(4).*

The subdivision is not in accordance with clause 6.4.3(3), because the proposed road hierarchy includes one permanent and two temporary cul-de-sacs where this clause requires that a

subdivision “provides a simple layout with a clear hierarchy of roads, avoiding culs-de-sac, battle-axe lots and sharp curves, and discouraging unrelated through traffic”.

Administratively, subclause 1 states *The consent authority may consent to a subdivision that is not in accordance with sub-clauses 2-8, only if it is satisfied the subdivision is consistent with the purpose of this clause*, where the purpose of this clause is to “Ensure that lots within industrial subdivisions are appropriately provided, connected and integrated with the required infrastructure”.

A variation to this clause is considered acceptable in this instance for the following reasons:

- The triangular shape of the site limits the potential for a lot layout which maximises the development potential of the site for industrial purposes and which maintains a continuous/regular road network.
- It is reasonably considered that the single permanent instance of a cul-de-sac will not prevent the efficient movement of vehicles at the development. Notwithstanding, it is recommended that that a permit condition requiring the preparation of a traffic impact assessment will consider the functionality of this permanent cul-de-sac.
- The interim presence of 2 cul-de-sacs in Stage 1 are not reasonably expected to adversely impact the functionality of the subdivision.

(b) the amendment proposal in the application;

The amendment proposal within this application relates to a proposed change in the zoning of part of the site from Zone SL23 to Zone GI. The merits of the proposal are discussed in section 7(i) of this report.

In summary, the amendment proposal is inconsistent with the strategic framework. However, the site can be developed for the proposed use due to its location between reasonably compatible uses along each of its boundaries and provided that waste disposal, water supply, access, traffic and stormwater flows are appropriately effectively managed through design of the subdivision and its infrastructure.

(c) any significant development report given to the consent authority under section 30D(6)(c)(iii);

The Minister did not request a significant development report under section 30D(6)(c)(iii) in relation to this application.

(d) any interim development control order in force for the land;

No interim development control orders have been declared in relation to this proposal.

(e) any environment protection objective, as defined in section 5 of the Waste Management and Pollution Control Act, that is relevant to the land;

There are no declared environment protection objectives under the *Waste Management and Pollution Control Act 1998*.

(f) any information received as a result of consultations carried out, submissions received, or evidence given at a hearing;

The application was placed on public exhibition for a period of four weeks, between 3 April and 4 May 2026. No public submissions were received under section 30M of the *Planning Act 1999*.

(g) a matter that the Minister has, under section 30ZC(1), directed the consent authority to consider in relation to concurrent applications generally;

The Minister has not given any direction under section 30ZC(1) in relation to this application.

(i) the merits of the development proposal as demonstrated in the application;

The application submits that it has the following merits:

The proposed amendment (rezoning), and the associated subdivision, will provide for a strategic industrial precinct, outside the Darwin urban area and adjacent to the Stuart Highway. As well as providing an opportunity for industrial uses to develop outside the urban living area, the Livingstone Industrial Precinct will also provide an opportunity for industrial uses currently operating on rural allotments to re-locate to a dedicated industrial precinct, thus improving the amenity of existing rural living areas.

Further merits of the proposal include:

- strengthen the NT's freight and logistics network.*
- Create jobs and encourage private investment.*
- Promote manufacturing industries.*
- Generate activity on a regional area.*

The variety of lot sizes proposed for the Precinct will provide an opportunity for a range of uses.

The current Bilba activities will be comprised with an allotment with an area of over 5 hectares and Bilba is likely to utilise a further 10 lots for new ventures. Bilba alone predicts that the development of the precinct will result in its own workforce increasing to up to 60 people.

The smaller lots proposed for the precinct suit conventional industrial activities whilst the larger lots adjacent to the railway corridor are ideally suited to equipment storage, laydown areas, and logistics support.

Firms such as Tamboran, APA, Exact Contracting and Suncable have indicated interest in the larger lots as they recognise the merits of a precinct adjacent to the Stuart Highway which allows them from having to traverse through residential areas to the current, larger industrial lots in the vicinity of the Darwin Port. A letter from Tamboran supporting the current proposal is included with this application.

Bilba, through its manufacturing industries, is involved in the Beetaloo gas project. In recent times it has been dealing with large American firms that will require large poly line pipes to support the project.

These American firms have also indicated an interest in utilising the larger allotments proposed for the Livingstone precinct for the storage of pipes and as a staging base for their Beetaloo activities.

One of the main drivers for the Livingstone Industrial Precinct are the constraints associated with the existing industrial precincts in the Darwin area.

These constraints include:

- *The use of Darwin Port for general logistics and transport, reducing capacity for its primary offshore oil and gas operations.*
- *Road-train traffic moving through urban and peri-urban areas, including near Gateway Shopping Centre in Palmerston, Coolalinga Shopping Centre, and other non-industrial commercial zones.*
- *Major transport bottlenecks along Kirkland Road, Elrundie Avenue, and University Avenue, restricting efficient heavy-vehicle movement.*
- *Road-train movements within residential suburbs such as Marlow's Lagoon and Palmerston creating noise, dust, and aesthetic impacts, reducing local amenity and increasing landuse conflict.*
- *Existing freight routes constrained by roundabouts, narrow roads, and limited turning space, making them not fit for purpose.*
- *Freight routes through built-up areas exposing inexperienced road users to safety risks when sharing roads with heavy vehicles.*
- *Lack of dedicated, logistics-focused industrial land with direct highway access to support safe and efficient heavy-vehicle operations.*

(j) the capability of the land to support the development proposal and the effect of the proposal on the land, and on other land, the physical characteristics of which may be affected by the proposal;

The application is supported by a land suitability assessment, stormwater management plan and a site soil wastewater disposal evaluation (albeit in relation to a previously proposed live export facility). These documents note the land has the capacity to support the proposed subdivision. This conclusion has been generally confirmed through comments from relevant service authorities.

Notwithstanding the Litchfield Council advised that the stormwater management plan will need to consider the capacity of the existing stormwater drains to take post development flows from each lot and additional flows coming from the outside of the site. The Crown Land Estate of the Department of Lands, Planning and Environment also advised that any development which increases stormwater flow within the railway corridor will require the consent of the AustralAsia Railway Corporation (ARC).

It should also be noted that while the application did not include a subdivision specific site and soil evaluation report, the application states that previous investigations found the land capable of supporting on-site wastewater treatment, and that compliant septic systems can be installed on each proposed lot. This claim cannot be supported given that Power and Water (Water Services) advised that there is insufficient water supply to service the subdivision, suggesting the developer is proposing to source water from the groundwater supply. The Water Resources division of the Department of Lands, Planning and Environment advises, on the other hand, that the applicant must confirm proposed water use/servicing and submit an application for a Ground Water Extraction Licence.

To address this matter, a condition precedent requiring the applicant to provide evidence that water servicing will be made available to the lots to the requirements of the Power and Water Corporation and/or Water Resources of the Department of Lands, Planning and Environment has been recommended.

Once the source of water supply is determined, the adequacy of the site and soil evaluation report can be confirmed and an appropriate separation distances between septic discharge points and any bores can be evaluated and final subdivision design confirmed.

To address this matter, a condition precedent requiring the provision of a bespoke site and soil evaluation by a suitably qualified person be required prior to the endorsement of plans has been recommended. In addition, it is recommended that a Caution Notice be included on the titles of newly created lots stating that 'Reticulated sewerage service is not available to the lot. As such, an on-site sewage system will be required with separation distances in accordance with the Northern Territory Code of Practice for Wastewater Management (as amended) from the adjoining open stormwater drainage channels'.

Provided the above are appropriately addressed to the satisfaction of the consent authority through the recommended permit conditions, the land can be considered as capable of accommodating the proposed subdivision.

(k) the public facilities or public open space available in the area in which the land is situated and any requirement for the facilities, or land suitable for public recreation, to be provided by the applicant;

There is not considered to be a requirement for the provision of public facilities such as open spaces as part of the proposed application. Public utilities, such as reticulated power and stormwater, are considered at section 7(l) of this report.

(l) the public utilities or infrastructure provided in the area in which the land is situated and any requirement for:
(i) public facilities and services to be connected to the land; and
(ii) facilities, infrastructure or land to be provided by the applicant;

Below is a summary of service authority submissions received –

Local authority:

Litchfield Council (Bookmark D1) advised that they're supportive of the application, noting that the locating of industrial areas in in fringe areas with good transport access may relieve impacts on other areas of the Litchfield local government area.

Notwithstanding, Council raised that their support is conditional on the following matters being addressed. A DAS response is provided in the second column.

Litchfield Council comment	DAS response
the NT Subdivision and Development Guidelines requirement is for Category A (Set 1) infrastructure, where the application refers to Category D.	These matters can be addressed through the inclusion of a standard permit condition requiring infrastructure to be to the standards of Litchfield Council, and a permit

As the proposed stormwater detentions basins are intended to become Council assets, these will need to be designed and constructed with a 1:6 batter.	note stating that the development must comply with the technical standards of Category A (Set 1) infrastructure of the Northern Territory Subdivision Development Guidelines.
All roads should incorporate adequate turnaround facilities, with the traffic impact assessment to consider future land uses.	
The applicant may need to enter into agreements with the authority responsible for the railway corridor for any stormwater discharge from the northmost detention basin.	Comments have been sought from the railway operator. Notwithstanding, a permit condition requiring approval from the Crown Land Estate of the Department of Lands, Planning and Environment has been recommended.
Consideration should be had as to whether the northern boundary is appropriate buffered from intended urban development, which may include residential land uses.	See discussion as section 7(a) of this report.
The application does not seek an extended permit timeframe, despite being a substantial subdivision. It is emphasised that the delivery of the subdivision will involve various service authorities.	Noted. The applicant may request that the Authority consider applying a 10-year timeframe for the permit, on the basis that significant headworks and site preparation works will be required to progress this master planned subdivision.
Waste management in the locality still relies upon the Shoal Bay Waste Management Facility. While the LSLUP mentions future waste management facilities, Council note that there have been no subsequent planning or discussions in relation to this.	Noted. While the provision of conveniently accessible waste management facilities is considered to be a matter relevant to the capability of the site to operate for its intended general industrial purposes, this aspect is considered relevant to the development of each lot in the future. As such, this matter is considered acceptable on the basis that the provision of additional waste management facilities in greater Darwin is beyond the scope of this specific subdivision application.
Potential for access to Section 5543 Hundred of Strangways at the southern end of the site is not supported	The provision of an additional access point to Section 5543, and adequacy of the proposed road layout can be addressed through the recommended traffic impact assessment.
All roads should incorporate adequate turnaround facilities (cul-de-sacs) supported by turning path diagrams, and it should be demonstrated that heavy vehicle access to each lot is possible.	
Adequate environmental controls should be considered, especially in relation to management of hazardous waste, sediment run-off, and weed management.	Noted. Standard permit conditions relating to staged erosion and sediment control plan and advisory notes stating that the development must comply with the technical standards of the Northern Territory Subdivision

	Development Guidelines and any relevant environmental legislation and regulation will be imposed on any permits granted.
--	--

Should the application be approved, Council requested the following – conditions relating to a monetary contribution, engineering design for the road and associated infrastructure, a road safety audit, and that easements for Council matters are provided to Council; and permit notes relating to the information on Council's fees, and that works over Council property will required a works permit.

DAS response: The conditions requested above have been included within the recommended conditions.

Service authorities:

Power and Water Corporation (PWC) Power Services (Bookmark D2) advised that they do not object to the application, and provided standard comments that are reasonably expected for an application of this nature. Of note, Power Services advised that the applicant's preferred consultant will need to provide a high voltage master plan, and that infrastructure will need to comply with PWC standards.

DAS response: Standard permit conditions and notes relating to works being to the requirements of Power Services have been included within the recommended conditions.

PWC Water Services (Bookmark D3) did not object to the application on the provision that no new water connections are provided to the proposed lots, as there is no capacity in the existing PWC network. Water Services also advised that there is no reticulated sewerage in the locality, and that an existing water supply easement in the south of the site is still required.

DAS response: A condition precedent requiring the applicant to nominate source of water supply to the requirements of Water Services has been recommended.

The Development Coordination Branch of the Department of Lands, Planning and Environment (DLPE, who coordinate responses from various DLPE entities) (**Bookmark D4**) provided comments that are reasonably expected for an application of this nature.

The *Land Assessment Branch* advised of the soil conditions of the site.

DAS response: Noted.

The *Land Management Unit* advised that erosion and sediment control measures should implemented as part of this development.

DAS response: Noted. Standard ESCP permit conditions and notes have been recommended on the permit.

The *Weed Management Branch* advised of the presence and management requirements for various weeds which may be present at the site.

DAS response: Noted. Standard permit notes relating to weeds has been recommended on the permit.

The *Heritage Branch* advised that there are no recorded Aboriginal or Macassan archaeological places or objects at the site, however, that the likelihood of unrecorded Aboriginal or Macassan archaeological places is possible. The Heritage branch requested that a condition requiring an unexpected finds protocol be considered on any future permit to address this risk. In addition, the Heritage Branch advised that the site is located within close proximity of the former WWII Livingstone Military Airfield, and that there is a risk that unexploded ordnance (UXO) may still be present within the subdivision footprint.

DAS response: Noted. A condition precedent requiring the preparation of an unexpected finds protocol has been recommended on the permit. In addition, a permit note advising of the UXO risk has also been recommended.

The *Environmental Regulation Division* advised that the proposal does not appear to trigger the licensing requirements of an Environment Protection Approval (EPA) under the *Waste Management and Pollution Control Act 1998* (WMPC Act). Notwithstanding, the Environmental Regulation Division requested that standard notes relating to the General Environmental Duty be included on any future permit.

DAS response: Noted. Standard permit notes relating to WMPC Act matters has been recommended on the permit.

The *Water Resources Division* advised that the site is within the Darwin Rural Adelaide River Water Control District and overlies the Noonamah Groundwater System. Water Resources further advised that the applicant must confirm proposed water use and submit an application for a Ground Water Extraction Licence. Any bore work will require a bore work permit.

DAS response: The application states that the preference is that the subdivision be connected to reticulated water, with groundwater extractions as an alternative supply. As Water Services have clearly articulated that their support for the application is on the basis that there are no new water connections to the lots, it is considered likely that the subdivision will instead rely upon groundwater extraction.

The Authority may wish to confirm with the applicant how water will be sourced/extracted and subsequently provided to each lot.

The *Crown Land Estate* advised that no stormwater should discharge into the adjacent railway corridor held under Crown Lease Term and managed by the AustralAsia Railway Corporation (ARC) with that corporation's consent.

DAS response: The application proposes to continue using existing table drain and culverts within the ARC (Crown) lease area. A condition precedent requiring in-principle approval from the Crown Land Estate of the Department of Lands, Planning and Environment for the proposed stormwater management has been recommended on the permit. It is noted that flows are expected to be mitigated through the proposed installation of 4 open air stormwater detention basins within the site, designed to the requirements of the Litchfield Council.

Transport and Civil Infrastructure (TCI) of the Department of Logistics and Infrastructure (DLI, **Bookmark D5**) provided comments that are reasonably expected for an application of this type. A summary of the comments of note, and a DAS response, is provided below.

TCI comment	DAS response
<p>Prior to the endorsement of plans, a 25 metre three chord truncation shall be provided to the property boundaries at each corner of the intersection of the proposed subdivision road with the Stuart Highway</p>	<p>A condition precedent requiring amended drawings which show a 25 m three chord truncation to the single property located adjacent to the internal access road and Stuart Highway intersection has been recommended.</p>
<p>Prior to the commencement of any works, the developer is required to complete the consultation process with evidence of support from the affected landowners/occupants for the following:</p> <ul style="list-style-type: none"> • The existing access to Section 4048 Hundred of Strangways (Santavan Export Facility) off Stuart Highway shall be relocated to the proposed subdivision access road, and a 25 metre three chord truncation shall be provided to the property boundary at the corner of the intersection of the proposed subdivision road with the Stuart Highway. • The existing accesses to Hughes Airfield and PWC Booster Station off Stuart Highway shall be relocated to suitable locations. 	<p>A condition precedent requiring in-principle approval for the Stuart Highway/internal road intersection has been recommended. This permit condition can then clarify that DLI expect the existing access to Section 4048 Hundred of Strangways (Santavan Export Facility) off Stuart Highway will be relocated to the proposed internal road network, and that the existing accesses to Hughes Airfield and PWC Booster Station off Stuart Highway will need to be relocated to a suitable location, to the requirements of TCI.</p>

TCI also requested permit conditions in relation to a traffic impact assessment report, site accesses and geometry, swept path diagrams, road safety audits, works within the road reserve, stormwater, construction management plan/works, fencing of the Stuart Highway frontage, signage, lighting, and rehabilitation of the road corridor.

DAS response: Standard permit conditions and notes have been included within the recommended conditions to address the above matters.

The application was also circulated to the Survey Land Records, DLPE, however, no comments were received from this service authority.

(m) the potential impact on the existing and future amenity of the area in which the land is situated;

Amenity is defined in the *Planning Act 1999* as *in relation to a locality or building, any quality, condition or factor that makes or contributes to making the locality or building harmonious, pleasant or enjoyable.*

The proposed subdivision to create 105 lots to facilitate industrial development is considered to reasonably mitigate its adverse amenity impacts within the locality for the following reasons:

- The site is located between an existing and functioning railway corridor and the Stuart Highway
- The area to the south-west is generally developed as an abattoir (currently un-used)
- The area to the north of the site is currently developed for live export purposes
- The subdivision will have direct access to the Stuart Highway, which will be built to the standards and requirements of the Transport and Civil Infrastructure of the Department of Logistics and Infrastructure
- The provision of 4 stormwater detention basins will reasonably reduce the potential for adverse impacts in relation to the increase of impermeable surface.

(n) the public interest, including (if relevant) how the following matters are provided for in the application:

- (i) community safety through crime prevention principles in design;***
- (ii) water safety;***
- (iii) access for persons with disabilities;***

Not applicable.

(na) if the development proposal relates to a subdivision or consolidation of land in a Restricted Water Extraction Area - whether the subdivision or consolidation complies with the restrictions of sections 14A and 14B of the Water Act 1992 and the requirements of section 14C(1) of that Act;

The subject lot is not located within a declared restricted water extraction area.

(o) if the development proposal relates to a subdivision of land on which a building is, or will be, situated - whether the building complies, or will comply, with any requirements prescribed by regulation in relation to the building (including, for example, requirements about the structural integrity and fire safety of the building);

A statement has been provided confirming that no building will cease to comply with the *Building Act 1993* if the proposed development were to proceed. This statement is considered acceptable and is provided at **Bookmark B11**.

(p) any potential impact on natural, social, cultural or heritage values (including, for example, the heritage significance of a heritage place or heritage object under the Heritage Act 2011);

There are no known natural, social, cultural or heritage values of note on the subject lot or in the immediate surrounding area, nor were any identified as part of the public exhibition or assessment of this application.

(q) any beneficial uses, quality standards, criteria, or objectives, that are declared under the Water Act 1992;

The site is located within the declared Darwin Harbour catchment with declared beneficial uses as being for aquaculture, environment, cultural, rural stock and domestic purposes. These beneficial uses apply to both surface water and groundwater within the declared extent.

In the event that groundwater extraction is required as part of this application, it is considered that any impacts to declared beneficial uses will be considered as part of the groundwater

extraction licence process. It is noted that it is otherwise the responsibility of the developer and landowner to ensure that land use does not result in a contravention of the *Water Act 1992*.

(r) other matters the consent authority considers relevant.

No other matters have been identified as warranting consideration.

(2A) If a development proposal is required to be referred to the NT EPA under Part 4, Division 3 of the Environment Protection Act 2019, the consent authority must not make a preliminary decision under this section in relation to the development proposal unless:

- (a) the NT EPA has determined that an environmental impact assessment is not required under that Act for that proposal; or*
- (b) if the NT EPA has determined that an environmental impact assessment is required – an environmental approval has been granted under that Act for the proposal and the decision is consistent with that approval; or*
- (c) the Environment Protection Act 2019 otherwise permits the making of the preliminary decision.*

In response to (a), the Environment Division did not communicate the need for an environmental impact assessment. As such, pursuant to (c), the consent authority may make a decision by virtue that referral is not reasonably required.

8. RECOMMENDATION SUMMARY

The consent authority is required to make a number of related decisions about a concurrent application. The decisions required in relation to the amendment proposal and development proposal are summarised below.

Recommendation 1 relates to the preliminary decision the consent authority is likely to make, as required by section 30P, on the development proposal seeking consent to a subdivision to create 105 lots at Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Strangways, in the event the Minister were to approve the amendment proposal.

Note that the preliminary decision does not result in a development permit at this stage in the concurrent application process.

Recommendation 2 relates to the report the consent authority is required, under section 30Q to provide to the Minister.

Recommendation 3 delegates to the Chair the determination of the development proposal contained in the application after receipt of a notice from the Minister under section 30U(1) Minister's decision on the amendment proposal.

Note that the determination of the development proposal will also give effect to the amendment proposal contained in the concurrent application.

9. RECOMMENDATION 1

Recommendation 1:

As required by section 30P(1)(a), the consent authority must make a preliminary decision that, if the Minister were to approve the amendment proposal to rezone Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Strangways that it would be likely to determine to consent to the development under section 30W(1)(a) conditionally for the purpose of a subdivision to create 105 lots subject to the following conditions:

CONDITIONS PRECEDENT

1. Prior to the endorsement of plans and prior to the commencement of works (including site preparation), the applicant is provide evidence that water servicing will be made available to the lots to the requirements of the Power and Water Corporation and/or Water Resources of the Department of Lands, Planning and Environment, to the satisfaction of the consent authority.
Please refer to note 1 for further information.
2. Prior to the endorsement of plans and prior to commencement of works (including site preparation), amended plans to the satisfaction of the consent authority must be submitted to and approved by the consent authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions and must be generally in accordance with the plans submitted with the application but modified to show:
 - a. A 25 metre three chord truncation shall be provided to the property boundaries at each corner of the intersection of the proposed subdivision road with the Stuart Highway, to the requirements of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure.
 - b. Any other changes required as a result of other conditions precedent on this permit.
3. Prior to the endorsement of plans and prior to the commencement of works (including site preparation), a stormwater management plan demonstrating the on-site collection of stormwater and its discharge offsite, shall be submitted to, and approved by Litchfield Council, Crown Land Estate of the Department of Lands, Planning and Environment, and Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority. The plan shall clarify the ownership of stormwater drainage infrastructure and include hydraulic capacity assessments of the receiving open unlined drains and any downstream associated structures for the proposed post-development during 5% and 1% annual event probability (AEP) flows, demonstrating that water levels and velocities are not worsened downstream. It should also demonstrate how stormwater quality objectives will be achieved in downstream environments, including identification and sizing of suitable treatment measures (at-source and/or end-of-line) for the relevant design events and pollutant loads.
4. Prior to the endorsement of plans and prior to the commencement of works (including site preparation), a traffic impact assessment report is to be prepared by a suitably qualified traffic engineer. The report must detail the subdivision's traffic generation, trip distribution, traffic operation impact, the nature and timing of impacts, and recommend measures required to accommodate and/or mitigate the traffic impacts of the subdivision, including construction traffic. All road sections and/or intersections where

traffic generated by the subdivision increases the existing traffic, existing proportion of heavy vehicle traffic or equivalent standard axles (ESAs) by 5% or more must be assessed. The impacts of the subdivision on public transport facilities, pedestrian and cycle facilities shall also be assessed. In addition, this report shall consider the relocation of the Section 4048 Hundred of Strangways (Santavan Export Facility) access to be from this proposed subdivision, and the relocation of the existing accesses to Hughes Airfield and Power and Water Corporation booster station off the Stuart Highway. This report shall be to the requirements of Litchfield Council and Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority. Swept path diagrams for the design vehicle shall be provided with the detail design drawings submitted for road agency approval to demonstrate the suitability of any intersection design geometry.

5. Prior to the endorsement of plans and prior to the commencement of works (including site preparation), it must be demonstrated by a site and soil evaluation report and associated plan completed by an appropriately qualified site and soil evaluator, that an on-site wastewater management system complying with the requirements of the Code of Practice for Wastewater Management can be installed for each lot.
6. Prior to the commencement of works (including site preparation), engineering design and specifications for the proposed and affected roads, street lighting, stormwater drainage, site earthworks, vehicular access, pedestrian/ cycle corridors and streetscaping are to be submitted to and approved by Litchfield Council, to the satisfaction of the consent authority.
7. Prior to the commencement of works (including site preparation), the applicant is to prepare a site construction management plan (SCMP) to the requirements of Litchfield Council and Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority. The SCMP should specifically all appropriate site management measures, including construction access, proposed haulage routes, vehicle types, protection of existing assets, protection of public access and a risk assessment.
8. Prior to the commencement of works (including site preparation), the applicant is to prepare a dilapidation report covering infrastructure within the Stuart Highway road reserves to the requirements of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority.
9. Prior to the commencement of works (including site preparation), a Type 2 Erosion and Sediment Control Plan (ESCP) must be developed in accordance with the Department of Lands, Planning and Environment (DLPE) ESCP Procedures. The ESCP must be certified by a suitably qualified and experienced professional and must be submitted to Development Assessment Services (via email: das.ntg@nt.gov.au). Please refer to notes 2, 3 and 4 for further information.
10. Prior to the commencement of works (including site preparation), the applicant is to prepare an unexpected finds protocol to the requirements of the Heritage Branch of the Department of Lands, Planning and Environment, to the satisfaction of the consent authority.

GENERAL CONDITIONS

11. The works carried out under this permit shall be in accordance with the drawings endorsed as forming part of this permit.
12. The subdivision must proceed in the order of stages as shown on the endorsed plan unless otherwise agreed in writing by the consent authority.
13. The owner of the land must enter into agreements with the relevant authorities for the provision of water supply, drainage, sewerage, and electricity and telecommunication networks to the development shown on the endorsed plan in accordance with the authorities' requirements and relevant legislation at the time.
Please refer to notes 5, 6 and 7 for further information.
14. Any developments on or adjacent to any easements on site shall be carried out to the requirements of the relevant service authority to the satisfaction of the consent authority.
15. All existing and proposed easements and sites for existing and required utility services must be vested in the relevant authority for which the easement or site is to be created.
16. Engineering design and specifications for the proposed and affected roads, street lighting, stormwater drainage, vehicular access, pedestrian/cycle corridors, and streetscaping shall be to the technical requirements and approval of Litchfield Council, with all approved works constructed at the developer's expense. Note: Design drawings shall be approved by Litchfield Council prior to construction of the works.
17. The proposed cul-de-sac terminating at the site's southern boundary must be fenced to prevent unauthorised connections through to Section 5543 Hundred of Strangways, in accordance with Litchfield Council standards and requirements, to the satisfaction of the consent authority.
18. Stormwater is to be collected and discharged into the drainage network to the technical standards of and at no cost to Litchfield Council, to the satisfaction of the consent authority.
19. A monetary contribution is required to be paid to Litchfield Council in accordance with its development contribution plan.
20. All works recommended by the traffic impact assessment are to be completed to the requirements of Litchfield Council and Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority.
21. Prior to finalisation of engineering design and specifications for the proposed and affected roads, a road safety audit shall be prepared by a suitability certified traffic auditor to the satisfaction of Litchfield Council and Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority.
22. The proposed new intersection with Stuart Highway shall be designed and constructed to include protected turn lanes to meet current standards in accordance with the Austroads 'Guide to Traffic Management', 'Guide to Road Design', relevant Australian

Standards and the requirements of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure. The geometry of the intersection shall be suitable for the expected levels of traffic impact and accommodate the turning paths of all vehicles utilising the intersection. Street lighting shall be provided at the intersection in accordance with the current version of AS/NZS 1158 Lighting for roads and public spaces (all parts) and DLI's technical specifications.

23. Where unfenced, the Stuart Highway frontage is to be appropriately fenced in accordance with the Transport and Civil Infrastructure of the Department of Logistics and Infrastructure's standards and requirements to deter unauthorised vehicular and/or pedestrian movement, to the satisfaction of the consent authority. Gates are not to be provided in the Stuart Highway fencing.
24. The existing accesses, where made redundant, shall be scarified, and the verge and fencing reinstated in accordance with the standards and requirements of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority.
25. Upon completion of any works within or impacting upon the Stuart Highway road reserve, the road reserve shall be rehabilitated to the standards and requirements of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure, to the satisfaction of the consent authority.
26. The loads of all trucks entering and leaving the site of works are to be constrained in such a manner as to prevent the dropping or tracking of materials onto streets. This includes ensuring that all wheels, tracks and body surfaces are free of mud and other contaminants before entering onto the sealed road network. The use of shaker screens/ rubble pads to remove loose material from trucks prior to entering the road network is a requirement. Where tracked material on the road pavement becomes a potential safety issue, the developer will be obliged to sweep and clean material off the road.
27. Before issue of titles and pursuant to section 34 of the *Land Title Act 2000*, a Caution Notice shall be lodged with the Registrar-General on the parent parcel to include the following advice on all proposed lots indicated on the endorsed drawings. The Caution Notice is to state: 'A reticulated sewerage service is not available to the lot. As such, an on-site sewage system will be required with separation distances in accordance with the Northern Territory Code of practice for Wastewater Management (as amended)'. Evidence of lodgement on the parent parcel shall be provided to the satisfaction of the consent authority.

Notes

1. A groundwater extraction licence may be required under the *Water Act 1992* for any bore used for purposes other than rural stock and domestic water supply. For advice on water extraction licences please contact the Water Licensing and Regulation Branch of the Department of Lands, Planning and Environment.
2. The DLPE ESCP Procedures factsheet is available at: <https://environment.nt.gov.au/rangelands/technical-notes-and-fact-sheets/land-management-technical-notes-and-fact-sheets>.

3. A suitably qualified and experienced professional in erosion and sediment control as defined by the International Erosion Control Association (IECA) Australasia at <https://www.austieca.com.au/rsp-esc/suitably-qualified-professional>.
4. Information regarding erosion and sediment control can be obtained from the IECA Best Practice Erosion and Sediment Control 2008 books available at www.austieca.com.au and Land Management Factsheets available at <https://nt.gov.au/environment/soil-land-vegetation>. For further advice, contact the Development Coordination Branch: (08) 8999 4446.
5. The Power and Water Corporation advises that the Water and Sewer Services Development Section (developer.concierge@powerwater.com.au) and Power Network Engineering Section (powerdevelopment@powerwater.com.au) should be contacted via email a minimum of 1 month prior to construction works commencing in order to determine the Corporation's servicing requirements, and the need for upgrading of on-site and/or surrounding infrastructure.
6. All developers, including owner-builders, are required to comply with Commonwealth telecommunications requirements. Under Commonwealth law, developers are generally required to provide fibre-ready pit and pipe in their developments at their expense. Developers may be able to access an exemption from these arrangements in some circumstances. For more information visit www.infrastructure.gov.au/tind.
7. If you choose nbn to service your development, you will need to enter into a development agreement with nbn. The first step is to register the development via <http://www.nbnco.com.au/develop-or-plan-with-the-nbn/new-developments.html> once registered nbn will be in contact to discuss the specific requirements for the development. Nbn requires you to apply at least 3 months before any civil works commence. All telecommunications infrastructure should be built to nbn guidelines found at <http://www.nbnco.com.au/develop-or-plan-with-the-nbn/new-developments/builders-designers.html>.
8. Any proposed works which fall within the scope of the *Construction Industry Long Service Leave and Benefits Act 2005* must be notified to NT Build by lodgement of the required Project Notification Form. Payment of any levy must be made prior to the commencement of any construction activity. NT Build should be contacted via email (info@ntbuild.com.au) or by phone on (08) 8936 4070 to determine if the proposed works are subject to the Act.
9. Litchfield Council's current Fees and Charges may apply to the certain conditions. Additional information can be found at www.litchfield.nt.gov.au.
10. A Works Permit is required from Litchfield Council before commencement of any work within the road reserve, which would include creation of any driveway crossover connecting to Litchfield Council's road network.
11. Litchfield Council advise that as the development is proposed within an industrial zone (General Industry), the NT Subdivision and Development Guidelines requirement is for Category A (Set 1) infrastructure. Litchfield Council refers to the NT Subdivision and Development Guidelines for all references and standards unless expressly advised otherwise.

12. The developer, its contractor or service provider is required to obtain a 'Permit to Work within the NTG Road Reserves' prior to the commencement of any works within the Stuart Highway road reserve.
13. The installation of any services or service connections within the Stuart Highway road reserve are subject to Transport and Civil Infrastructure of the Department of Logistics and Infrastructure approval. All service-related works are to be contained within the appropriate nominal service corridor (refer standard drawing CS-3001).
14. All proposed work (including the provision or connection of services) within, or impacting upon the Stuart Highway road reserve shall be designed, supervised and certified on completion by a practising and registered civil engineer, and shall be in accordance with the standards and specifications of Transport and Civil Infrastructure of the Department of Logistics and Infrastructure. Design documents must be submitted to TCI for road agency approval, irrespective of approvals granted by other authorities, e.g. Power & Water Corporation (PWC). No works within, or impacting upon the NTG road reserves are to commence prior to gaining road agency approval. Note that a development permit issued under the *Planning Act 1999* is not an approval for access onto a Territory Road. Approval for access to be taken from, or constructed within the NTG controlled road reserve rests solely with TCI, DLI as the approving road authority.
15. All landscaping and setback requirements under the Northern Territory Planning Scheme shall be contained within the development area boundaries. Any landscaping proposed by the developer additional to planning requirements and within the Stuart Highway road reserve shall be to the standards and approval of TCI, DLI.
16. The finish of any Prime Identification sign, if erected, shall be such that, if illuminated, day and night readability is the same and is of constant display (i.e. not flashing or variable message). The sign shall be positioned:
 - a. so as not to create sun or headlight reflection to motorists; and
 - b. be located entirely (including foundations and aerially) within the subject lot.
17. Advertising signage, either permanent or temporary, e.g. 'A' frame, vehicle or trailer mounted shall not be erected or located within the Stuart Highway road reserve.
18. Any floodlighting or security lighting provided on site is to be shielded in a manner to prevent the lighting being noticeable or causing nuisance to Stuart Highway traffic.
19. All landscaping and setback requirements under the Northern Territory Planning Scheme shall be contained within the Lot boundaries. Any landscaping proposed by the developer additional to planning requirements and within the Stuart Highway road reserve shall be to the standards and approval of TCI, DLI.
20. All land in the Northern Territory is subject to the *Weeds Management Act 2001* (WM Act). The WM Act describes the legal requirements and responsibilities that apply to owners and occupiers of land regarding declared weeds. Section 9 general duties include the requirement to take all reasonable measures to prevent land being infested with a declared weed and to prevent a declared weed from spreading. There are additional duties including a prohibition on buying, selling, cultivating, moving or propagating any declared weed and the requirement to notify the Weed Management Branch of a declared weed not previously present on the land within 14 days of

detection. Information regarding weed management is available on the Department of Lands, Planning and Environment (DLPE) website: <https://nt.gov.au/environment/weeds>, or alternatively contact the Weed Management Branch for further advice on (08) 8999 4567.

21. There are statutory obligations under the *Waste Management and Pollution Control Act 1998* (the Act), that require all persons to take all measures that are reasonable and practicable to prevent or minimise pollution or environmental harm and reduce the amount of waste. The proponent is required to comply at all times with the Act, including the General Environmental Duty under Section 12 of the Act. There is also a requirement to obtain an authorisation prior to conducting any of the activities listed in Schedule 2 of the Act. Guidelines to assist proponents to avoid environmental impacts are available on the Northern Territory Environment Protection Authority website at <https://ntepa.nt.gov.au/publications-and-advice/environmental-management>. The Act, administered by the Northern Territory Environment Protection Authority, is separate to and not reduced or affected in any way by other legislation administered by other Departments or Authorities. The Environment Operations Branch of the Environment Division may take enforcement action or issue statutory instruments should there be non-compliance with the Act.
22. The permit holder is advised that it is an offence to disturb or destroy prescribed archaeological places without consent under the *Heritage Act 2011*. Should any heritage or archaeological material be discovered during the clearing operation, cease operation and please contact the Heritage Branch of the Department of Lands, Planning and Environment.
23. The Heritage Branch advises that the site is located within close proximity of the former Livingstone Military Airfield, which was in use during the Second World War. There is a risk that unexploded ordnance (UXO) may still be present within the subdivision footprint. Please find further details at the following website: <https://uxo-map.defence.gov.au/>.
24. There should be no discharge of stormwater into adjoining land held under Crown Lease Term by the Australasia Railway Corporation without its approval.
25. Any new on-site wastewater management system is to be installed in accordance with the Code of Practice for Wastewater Management.
26. Reticulated sewerage service is not available to the lot. As such, an on-site sewage system will be required with separation distances in accordance with the Northern Territory Code of Practice for Wastewater Management (as amended) from the adjoining open stormwater drainage channels.

10. REASONS FOR RECOMMENDATION 1

1. The application proposes a subdivision, to create 105 lots in 2 stages at Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Cavenagh. Concurrent to this application, the Minister is considering an amendment to the Northern Territory Planning Scheme 2020 to rezone the site from Zone SL23 (Specific Use Zone 23 – Litchfield, established under the NTPS2007) to Zone GI (General Industry).

The 90.51 ha site is bounded by a live export facility (Santavan Export Facility) to the north, Stuart Highway to the east, an access road to the AACo Abattoir to the south, and the AustralAsia Railway corridor to the west.

Stage 1 of the proposed subdivision will create 56 lots, of which one lot will then be further subdivided in Stage 2 to create an additional 50 lots. A variety of lot sizes are proposed, ranging from 1940 m² to 5.032 ha. The subdivision will be serviced by one external connection to the Stuart Highway, proposed to be located in the north-east of the site. Through the amendment proposal, the lots would then be developed for land uses in accordance with Zone GI (General Industry).

2. Pursuant to section 30P(2)(a) and (b) of the *Planning Act 1999*, the consent authority must take into account any planning scheme that applies to the land to which the application relates and the amendment proposal contained within the application.

The application proposes to subdivide to create 105 lots which requires consent under clause 1.8 (When development consent is required). It is identified as *Impact Assessable* under clause 1.8(1)(c)(ii); therefore, the Litchfield subregional land use plan (being the most detailed strategic framework document), the zone purpose and outcomes of Zone GI (General Industry), and clauses 6.4.1 (Lot Size and Configuration for Subdivision in Zones LI, GI and DV), 6.4.2 (Site Characteristics for Subdivision in Zones LI, GI and DV), and 6.4.3 (Infrastructure for Subdivision in Zones LI, GI and DV), need to be considered.

These clauses have been considered and it is found that the proposal complies with the relevant requirements of the NTPS2020 except in relation to the Litchfield subregional land use plan, and clause 6.4.3 (Infrastructure for Subdivision in Zones LI, GI and DV), which are discussed further below.

Part 2 – Strategic framework

Litchfield Subregional Land Use Plan 2016

The Litchfield subregional land use plan (LSLUP) is the most detailed and relevant Strategic Framework document and identifies the site and surrounds as broadly 'rural', where residential, horticultural, agricultural and other rural activities are expected. The LSLUP advocates for management of land uses to maintain the quality and amenity of the natural environment and rural lifestyles/activities. Specific priorities include the protection of land and water resources, conservation of significant vegetation communities and wildlife habitats and the maintenance of publicly accessible reserves.

Of note, the statement of policy for the rural area (#13) intends that these areas "*Maintain rural amenity and lifestyle choice*", with an associated principal stating "*Continue to support the subdivision of suitable land outside rural activity centres into 2 ha lots in Zone RL (Rural Living) and into 8 ha lots in Zone R (Rural)*".

The proposed rezoning and subsequent subdivision to facilitate the use of the land for primarily industrial purposes, in accordance with Zone GI, is therefore inconsistent with the strategic identification of the immediate locality.

The LSLUP also identifies the need to provide adequate buffers to mitigate adverse impacts on sensitive land uses and minimise land use conflicts. Rural land uses are sensitive to industrial activities (such as from the generation of dust, odours or machinery noise) and

benefit from appropriate separation. The proposed rezoning does not specifically consider any form of separation or buffering between the proposed and surrounding zones and would allow for industrial development at a greater intensity than can currently occur at neighbouring properties under Zone R. As such, this application is considered to be contrary to the LSLUP (strategic framework).

Under Section 30W(3) of the *Planning Act 1999* (the Act), the Development Consent Authority (DCA) cannot determine an application for development that is inconsistent with the applicable planning scheme without first notifying the Minister under section 30W(3). Section 30W(6) of the Act allows the DCA to make a determination, provided that the Minister is notified of this prior to and raises no objection with the DCA considering the proposal.

The Chair of the DCA wrote to the Minister on 30 April 2026 and the Minister responded on 3 June 2026 granting the DCA the power to determine the development proposal pursuant to section 30W(6).

While noting the departure from the strategic framework, it should also be noted that:

- A 30 m wide road corridor is proposed along 900 m (69%) of the northern site boundary, with only one lot to continue to have a shared boundary with Section 4048 Hundred of Strangways. On this basis, it is expected that any future development of Section 4048 for urban land uses would be able to account for its proximity to industrial subdivision.
- The immediate locality is comprised of cleared, rural acreage with limited existing residential development. In addition, it is noted that the site is bounded by the North Australian Railway to the south and west (over which is the AACo abattoir), Stuart Highway to the east, and intensive animal husbandry to the north. These land uses already provide a reasonable limitation to the future intensification of residential development or its potential development in the immediate locality.

Part 3 – Overlays

The site is not affected by any overlays.

Part 4 – Zoning

Clause 4.15 (Zone GI – General Industry)

The purpose of this zone is to *Ensure that lots within industrial subdivisions are appropriately provided, connected and integrated with the required infrastructure.*

While the application is generally consistent with the relevant zone outcomes, it is considered that outcomes 7 and 8 warrant particular attention.

Zone outcome 7 intends that *"Development does not impose unsustainable demands on surface water and groundwater"*.

While the application indicated that groundwater extraction may take place in the event that connection to reticulated water was not possible, Water Services of the Power and Water Corporation subsequently advised that connection is not envisaged. As such, it is

expected that the subdivision will rely upon groundwater extraction for service the lots in the first instance.

Further to the above, zone outcome 8 intends that *“Appropriate urban services including, roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure are available. If lots are unsewered, provision for the disposal of effluent must be made on-site so that the effluent does not pollute ground or surface waters”*.

The application was circulated to the service authorities responsible for roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure. Conditions requiring this infrastructure be the requirement of the relevant service authority have been included on the permit.

Part 6 – Subdivision and consolidation requirements

Pursuant to clause 1.10 (Exercise of Discretion by the Consent Authority), subclause (5), of the NTPS2020, *The consent authority may consent to a proposed development which is not in accordance with a requirement set out in Parts 3, 5 or 6 only if it is satisfied that the variation is appropriate having regard to:*

- (a) The purpose and administration clauses of the requirement; and*
- (b) The considerations listed under Clause 1.10(3) or 1.10(4).*

The subdivision is not in accordance with clause 6.4.3(3), because the proposed road hierarchy includes one permanent and two temporary cul-de-sacs where this clause requires that a subdivision *“provides a simple layout with a clear hierarchy of roads, avoiding culs-de-sac, battle-axe lots and sharp curves, and discouraging unrelated through traffic”*.

Administratively, subclause 1 states *The consent authority may consent to a subdivision that is not in accordance with sub-clauses 2-8, only if it is satisfied the subdivision is consistent with the purpose of this clause, where the purpose of this clause is to “Ensure that lots within industrial subdivisions are appropriately provided, connected and integrated with the required infrastructure”*.

A variation to this clause is acceptable in this instance for the following reasons:

- The triangular shape of the site limits the potential for a lot layout which maximises the development potential of the site for industrial purposes and which maintains a continuous/regular road network.
 - It is reasonably considered that the single permanent instance of a cul-de-sac will not prevent the efficient movement of vehicles at the development.
 - A permit condition requiring the preparation of a traffic impact assessment will consider the functionality of this permanent cul-de-sac, to confirm its suitability.
 - The interim presence of 2 cul-de-sacs in Stage 1 are not reasonably expected to adversely impact the functionality of the subdivision, with no concerns raised by the Litchfield Council.
3. Pursuant to Section 30P(2)(j) of the *Planning Act 1999*, the consent authority must take into consideration the capability of the land to support the development proposal and the effect of the proposal on the land, and on other land, the physical characteristics of which may be affected by the proposal.

The application is supported by a land suitability assessment, stormwater management plan and a site soil wastewater disposal evaluation (albeit in relation to a previously proposed live export facility). These documents note the land has the capacity to support the proposed subdivision. This conclusion has been generally confirmed through comments from relevant service authorities.

Notwithstanding the Litchfield Council advised that the stormwater management plan will need to consider the capacity of the existing stormwater drains to take post development flows from each lot and additional flows coming from the outside of the site. The Crown Land Estate of the Department of Lands, Planning and Environment also advised that any development which increases stormwater flow within the railway corridor will require the consent of the AustralAsia Railway Corporation (ARC).

It is also noted that while the application did not include a subdivision specific site and soil evaluation report, the application states that previous investigations found the land capable of supporting on-site wastewater treatment, and that compliant septic systems can be installed on each proposed lot. This claim cannot be supported given that Power and Water (Water Services) advised that there is insufficient water supply to service the subdivision, suggesting the developer is proposing to source water from the groundwater supply. The Water Resources division of the Department of Lands, Planning and Environment advises, on the other hand, that the applicant must confirm proposed water use/servicing and submit an application for a Ground Water Extraction Licence.

To address this matter, a condition precedent requiring the applicant to provide evidence that water servicing will be made available to the lots to the requirements of the Power and Water Corporation and/or Water Resources of the Department of Lands, Planning and Environment has been included on the permit.

Once the source of water supply is determined, the adequacy of the site and soil evaluation report can be confirmed and an appropriate separation distances between septic discharge points and any bores can be evaluated and final subdivision design confirmed.

To address this matter, a condition precedent requiring the provision of a bespoke site and soil evaluation by a suitably qualified person be required prior to the endorsement of plans has been included on the permit. In addition, it is recommended that a Caution Notice be included on the titles of newly created lots stating that 'Reticulated sewerage service is not available to the lot. As such, an on-site sewage system will be required with separation distances in accordance with the Northern Territory Code of Practice for Wastewater Management (as amended) from the adjoining open stormwater drainage channels'.

Provided the above are appropriately addressed to the satisfaction of the consent authority through the recommended permit conditions, the land can be considered as capable of accommodating the proposed subdivision.

4. Pursuant to Section 30P(2)(l) of the *Planning Act 1999*, the consent authority must take into account the public utilities or infrastructure provided in the area in which the land is situated and any requirement for:
 - (i) public facilities and services to be connected to the land; and
 - (ii) facilities, infrastructure or land to be provided by the applicant;

Service authority comments were provided from Litchfield Council, the Power and Water Corporation, the Department of Lands, Planning and Environment, and the Department of Logistics and Infrastructure.

A series of conditions precedent, general conditions, and permit notes address the comments raised by these authorities.

5. Pursuant to Section 30P(2)(m) of the *Planning Act 1999*, the consent authority must take into account the potential impact on the existing and future amenity of the area in which the land is situated.

Amenity is defined in the Planning Act 1999 as in relation to a locality or building, any quality, condition or factor that makes or contributes to making the locality or building harmonious, pleasant or enjoyable.

The proposed subdivision to create 105 lots to facilitate industrial development is considered to reasonably mitigate its adverse amenity impacts within the locality for the following reasons:

- The site is located between an existing and functioning railway corridor and the Stuart Highway
- The area to the south-west is generally developed as an abattoir (currently un-used)
- The area to the north of the site is currently developed for live export purposes
- The subdivision will have direct access to the Stuart Highway, which will be built to the standards and requirements of the Transport and Civil Infrastructure of the Department of Logistics and Infrastructure.
- The provision of 4 stormwater detention basins will reasonably reduce the potential for adverse impacts in relation to the increase of impermeable surface.

11. RECOMMENDATION 2

That under section 30Q of the *Planning Act 1999*, the consent authority report to the Minister for Lands, Planning and Environment advising of the likely decision in relation to the development proposal, issues raised in the submissions, issues raised at the hearing and any other matters it considers the Minister should take into account when considering the amendment proposal.

12. RECOMMENDATION 3

That, pursuant to section 86(1) of the *Planning Act 1999*, the Development Consent Authority delegates its powers to the Chair or in the absence of the Chair any member of the Litchfield Division of the Authority to:

- determine pursuant to Section 30W(1)(a) to consent to the development proposal contained in the concurrent application and consent to the concurrent application after receipt of a notice under Section 30U(1) that the Minister has approved the amendment proposal contained in the application;
- issue a development permit under section 54(1) in relation to the development proposal to develop Section 5544 (2658) Stuart Highway, Livingstone, Hundred of Strangways for the purpose of a subdivision to create 105 lots; and
- issue the relevant notices under Section 30Y.

AUTHORISED



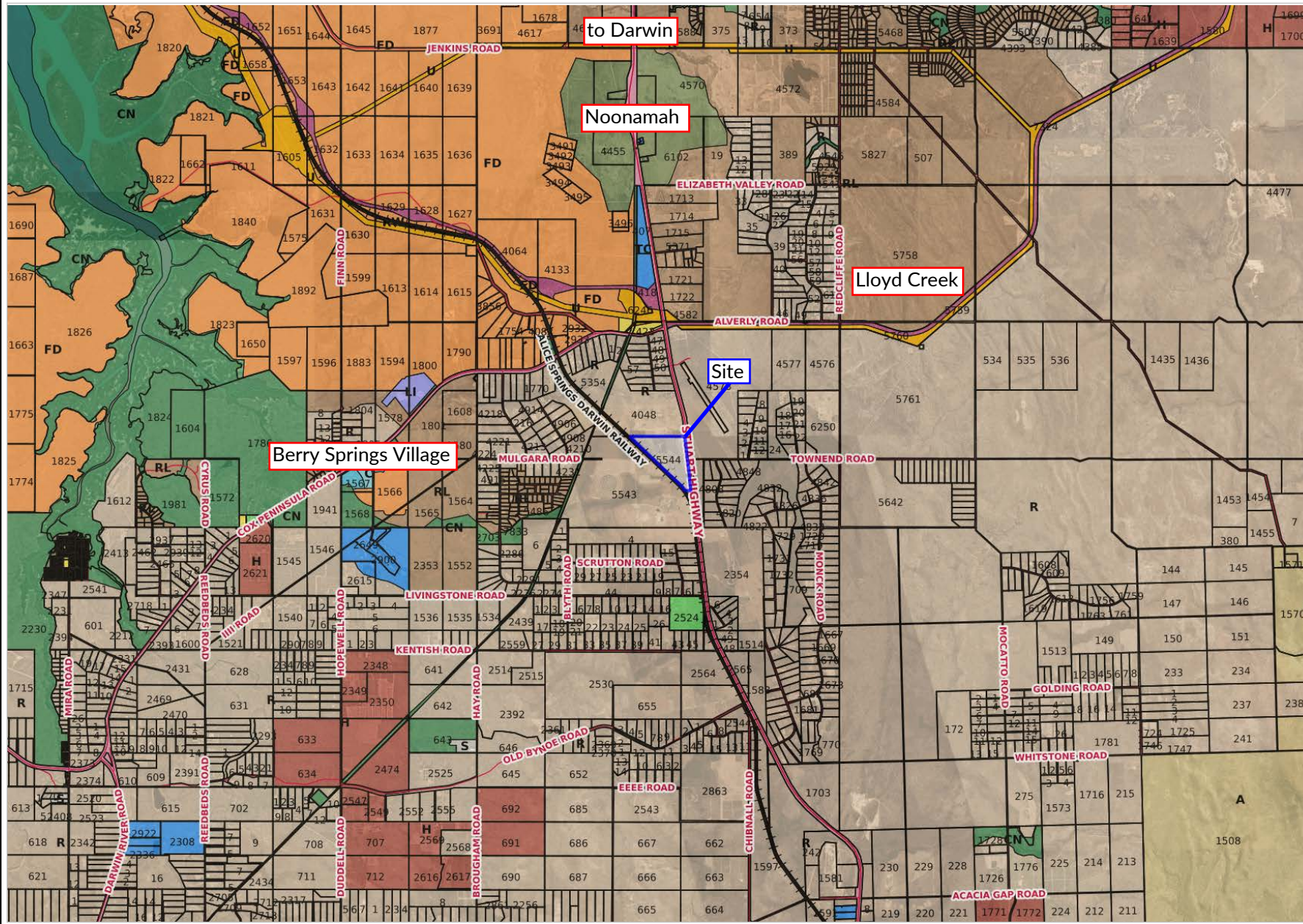
.....

Ellen Shannon
Senior Planner
Lands Planning

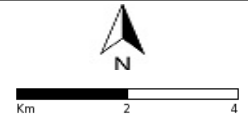


.....

Kaleb Thomas
Senior Planner
Development Assessment Services



- ### Legend
- TOWN_PLANNING_ZONES
- A - Agriculture
 - CV - Caravan Park
 - CB - Central Business
 - C - Commercial
 - CL - Community Living
 - CP - Community Purpose
 - CN - Conservation
 - DV - Development
 - RR - Rural Residential
 - GI - General Industry
 - HT - Heritage
 - HR - High Density Residential
 - H - Horticulture
 - LI - Light Industry
 - M - Main Road
 - MR - Medium Density Residential
 - LMR - Low-Medium Density Resid
 - CA - No Planning Scheme Control
 - OR - Organised Recreation
 - PM - Proposed Main Road
 - PS - Public Open Space
 - RW - Railway
 - RD - Restricted Development
 - R - Rural
 - RL - Rural Living
 - SC - Service Commercial
 - LR - Low Density Residential
 - S - Specific Use



nrmaps.nt.gov.au
Geospatial Services Unit



Creative Commons Attribution 4.0 International Public License

<https://creativecommons.org/licenses/by/4.0/legalcode>

Department of Lands, Planning and Environment
© Northern Territory Government

Concurrent Application

Proposed Development Report

Section 5544, Hundred of Strangways

This report forms part of a Concurrent Application seeking approval to change the zoning of part of Section 5544, Hundred of Strangways from Specific Use zone SL23 to General industry (GI) and then subdivide Section 5544 in order to create 105 lots.

Clause 30C(3)(b) of the Planning Act requires the reasoning for a concurrent application. The concurrent application process is being utilised as it will allow for a single application, a single exhibition period for the Planning Scheme amendment and development application components of the application and also allow for a single submission/comment from authorities and members of the community.

The report will assess the compliance of the proposed subdivision with the relevant sections of the NT Planning Scheme on the basis that the proposed zoning is in place.

Subdivision Proposal

Section 5544, Hundred of Strangways is located on the western side of the Stuart Highway, approximately 2.5kms south of the Cox Peninsula Road intersection and is owned by the Bilba Group of companies (Bilba).

Bilba purchased the property in 2018 with the intention of developing a base for its Northern Territory manufacturing operations.

Following an application seeking an amendment to the NT Planning Scheme, the Minister rezoned Section 5544 from zone R (Rural) to a specific use zone (SL23). SL23 designated part of Section 5544 for *uses related to or servicing the agricultural, horticultural or mining industries*.

In accordance with the intention of the zone, Bilba has established a manufacturing plant that manufactures precast troughs, PE pipe 25-160mm, concrete precast products, steel fabrication and water tanks. The plant incorporates a manufacturing warehouse, hardstand storage areas, office and a retail showroom.

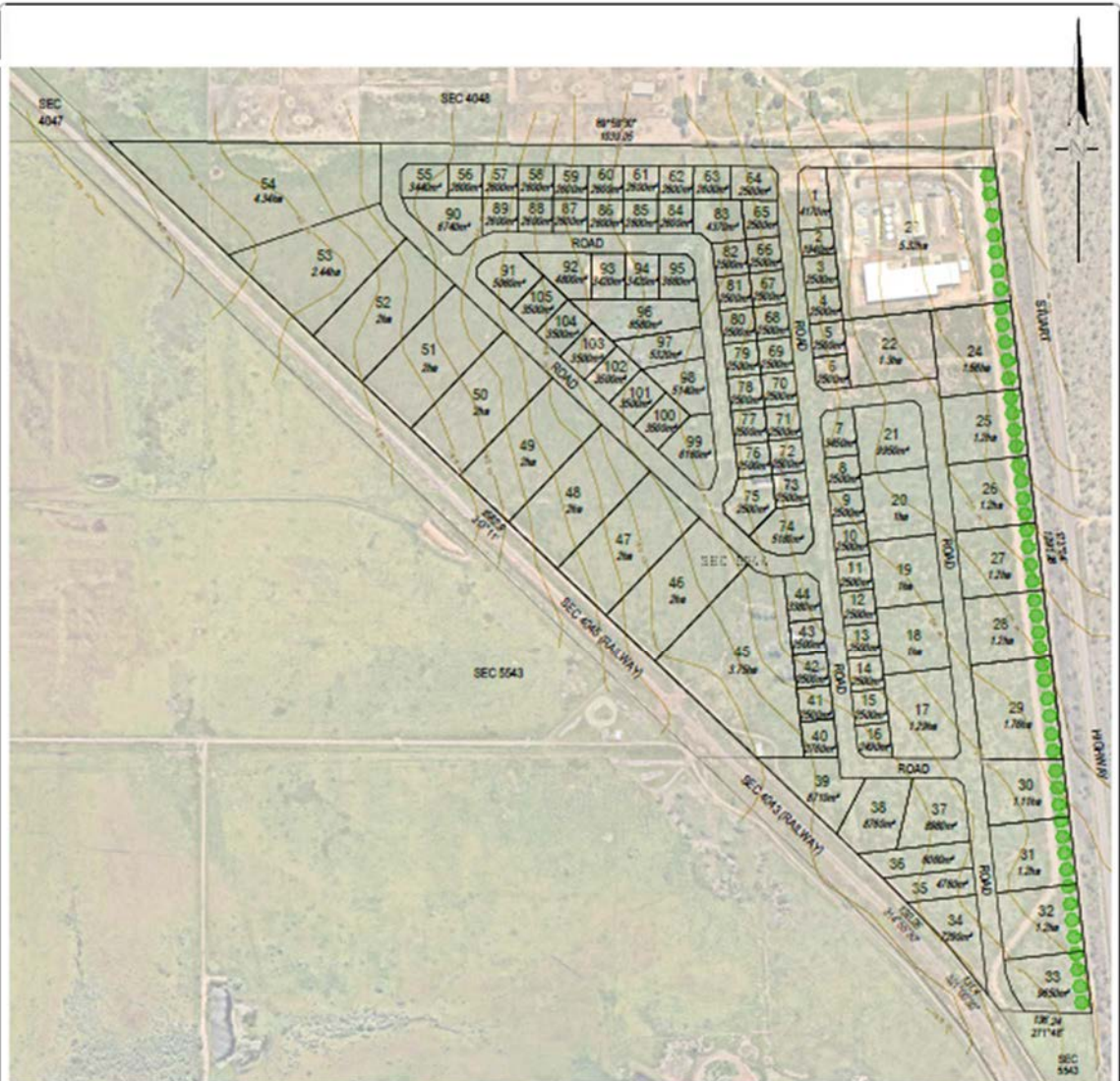
Direct access from the Stuart Highway was approved by the Minister in 2024 and this has enhanced the accessibility for the community utilising the Bilba operations.

Such has been the interest in the industries that have established on Section 5544, Bilba is now proposing to expand the precinct and subdivide the land to allow them to expand their own operations as well as providing an opportunity for other businesses to develop in this strategic locality.

Based on discussions with prospective purchasers, design consultants and Government agencies, a concept subdivision plan has been developed for the Livingstone Industrial Precinct, with lots ranging in size from 2,500m² to over 5 hectares. The concept subdivision is indicated on plans 25/10555/12, 13 and 14 (plans 25/1055/13 and 14 indicate the proposed staging of the subdivision).

Following engineering design and a Traffic Impact Assessment, approval in principle has been obtained from Department of Logistics and Infrastructure for the upgrade of the current direct access into a public road intersection providing access to the future subdivision


This report forms part of a Concurrent Application seeking approval to subdivide Section 5544 in order to create 105 lots in two stages.



LOCATION PLAN
Not to Scale

Note
Easements should be confirmed with the current Certificate of Title
Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Neasmap, dated 02/05/2025
Aerial image is shown for background information only
and is not rectified or accurately positioned



 <p>SURVEY & PLANNING CONSULTANTS 13 HARVEY STREET DARWIN NT 0801 PH. (08) 8981 2484 FAX. (08) 8981 5255 d.james@eja.com.au www.eja.com.au</p>	<p>SECTION 5544 HUNDRED OF STRANGWAYS</p>		<p>Scale: 1:800 (A3)</p>
	<p>CONCEPT SUBDIVISION</p>		<p>Licensed Surveyor: Date: _____ Datum: _____</p>
	<p>Client: BELBA GROUP</p>		<p>Drawn by: LC Date: 19/03/2025 Drawing No: _____</p>
			<p>Cell File: 10995-13.DWG Drawing No: 25/10555/12</p>

The proposed subdivision layout





An aerial view of the existing Bilba facility

46(3)(a) – Compliance with the NT Planning Scheme

Property details:

Section 5544, Hundred of Strangways

Title details: Volume 827 Folio 280

Survey Plan: LTO2012/066

Address: 2658 Stuart Highway, Livingstone

Easements: Electricity supply Easement to Power and Water Corporation

Right of Way "B" Easement to Power and Water Corporation

Right of Way "A" Easement granted over Lot(s) 5543

Lot Area: 90.51 hectares

46(3)(aa) – Interested parties

Applicant Details

Earl James and Associates

Representative: Kevin Dodd

Address: GPO Box 884, Darwin NT 0801

Email: kdodd@eja.com.au

Phone: 08 89812494

Landowner:

Bilba Capital Pty Ltd (ACN 623 007 787) as trustee for the Bilba Capital Trust (ABN 58 964 697 234)

Address: PO Box 102, Katherine NT 0851

Phone: c/o 08 89812494

Strategic Framework

The Darwin Regional Land Use Plan (DRLUP) and Litchfield Subregional Land Use Plan (LSLUP) guide land use in this area.

Whilst neither the DRLUP nor the LSLUP identify subject land for industrial use, the Minister subsequently approved Specific Use Zone SL23 to provide an opportunity for strategic industrial uses on the outskirts of Darwin.

The rezoning recognised that non-rural activities were already in place in the vicinity including the AACo abattoir, the feedlot and livestock holding yards on the corner of the Stuart Highway and Elizabeth Valley Road, the cattle export facility immediately to the north and the Bushfires NT head office located on the corner of Townend Road and the Stuart Highway.

The change in zoning being sought by this application recognises the changing nature of the immediate area and will facilitate an industrial precinct that will complement, not conflict with, the future land uses identified for adjacent landholdings.

Policy 19 of the LSLUP in relation to Industry reads:

Facilitate industrial land uses within urban/peri-urban areas and rural activity centres to meet market demand.

It is highly unlikely that this *Policy* is referring to *General Industry* as the stated purpose of General Industry is to *provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the amenity of the locality.*

This is evidenced by the actual rural activity centre area plan for Humpty Doo that actually refers to Light Industry and not General Industry as is being proposed by the current application.

This is understandable as it would not be desirable to position General Industrial in an activity centre in proximity to urban and peri-urban residential development.

The obvious merit of the current proposal is that the General Industry being proposed is far removed from residential areas.



Zoning

As previously mentioned, the intention is to change the zoning of the subject and from Specific Use zone SL23 to General Industry (GI).

Following is an assessment of the proposed subdivision in relation to the GI zone.

Zone Purpose

Provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the amenity of the locality, in locations with access to services and transport networks capable of supporting heavy industry.

The subdivision being proposed by the current application certainly meets the Purpose of the GI zone.

The property is bounded on the eastern side by the Stuart Highway, and the North Australian Railway corridor abuts the western boundary.

Immediately to the north is a cattle export facility and the short southern boundary of section 5544 (approximately 136 meters) adjoins a small portion of the AACo abattoir property.

The proposed industrial precinct will in no way detrimentally impact the amenity of the area as there are existing land use buffers (abattoir, feedlot) as well as the railway and Stuart Highway, separating the precinct from existing rural living areas.

The site also has direct access to the NT's main thoroughfare, a critical asset to support the future industrial uses.

Zone Outcomes

1. *Predominantly industrial activities that require separation from sensitive uses due to the nature of operations and the scale of activities, including fuel depot, industry-general, industry-light, industry-primary, motor body works, recycling depot, transport terminal and warehouse.*

As previously mentioned, the eastern boundary of the site abuts the Stuart Highway and the North Australian railway corridor is adjacent to the western boundary.

The activities that are likely to take place in the precinct will be separated from any adjacent, 'sensitive' uses.

2. *Non-industrial activities, including bar-public, food premises cafe/takeaway, primarily servicing local employees, and office, shop, and showroom sales, may be established where they serve the needs of the industrial uses on the site and are compatible with the ongoing industrial use of the zone.*

Development of non-industrial uses will complement the industrial activities and will also be available to the rest of the community and passersby.

3. *Other non-industrial activities such as education establishments, indoor leisure and recreation, and hotel/motel, may also be established where they do not jeopardise the ongoing operation and viability of industrial activities.*

4. *Any other non-industrial activities may only be established where they do not compromise or conflict with the ongoing primary use of the locality for industry purposes.*

5. *Subdivision primarily provides for a range of lot sizes, including an appropriate proportion of larger lots to cater for larger format industry uses.*

The subdivision design provides for lot sizes ranging from 2,500m² to over 5 hectares.



The range of lot sizes will suit a wide variety of uses from small, light industry to larger transport activities and laydown yards.

6. *Industrial activities have access to the appropriate level of transport infrastructure and do not interfere with the safe and efficient operation of the surrounding road network.*

The strategic position of the site, with direct access onto the NT's main transport route, the Stuart Highway, is what makes the location ideally suited to the subdivision being proposed.

The current Stuart Highway access is to be upgraded to an intersection, and the concept design has received in-principle support from road authorities, Litchfield Council and the adjacent landowner. The new intersection will also provide formalised access for the existing cattle-export operations on the property to the north.

All internal roads will be designed and constructed in accordance with Litchfield Council requirements.



The existing access off the Stuart Highway

7. *Development does not impose unsustainable demands on surface water and groundwater.*

Byrne Consultants, an NT civil engineering design consultancy has carried out preliminary work on modelling water demand for the subdivision. The investigations have determined there are various options available for the provision of water to service the proposed industrial precinct.

Utilising groundwater is one option and if this option is pursued during the detailed engineering design it may involve an application for a water extraction licence.

8. *Appropriate urban services including, roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure are available. If lots are unsewered, provision for the disposal of effluent must be made on-site so that the effluent does not pollute ground or surface waters.*

Alek Gangur, Senior Electrical Engineer from AGA Consulting Engineers has carried out an assessment of the power requirements for the proposed industrial precinct.

The assessment has considered the potential power demand of the subdivision, the connection to the existing reticulation on the Stuart Highway road reserve and the future internal reticulation.

A Negotiated Connection Application (NCA) has been submitted to Power and Water Corporation (PWC) in order to determine the electrical servicing strategy.

PWC has determined that the power demand for Stage 1 (55 lots) can be supplied from the existing network feeder and supply for Stage 2 can be provided following its suggested augmentation of the network.

Potential options for the provision of water supply include utilising the existing reticulated water adjacent to the site (the capacity of this reticulation is being assessed), augment the new infrastructure being constructed as part of the Manton Dam 'return to service', a system utilising groundwater for initial stage demands (transitioning to PWC supply once augmentation works have been carried out on the Manton Dam return to service project) and on-site storage to meet firefighting demands.

Water supply demands can be achieved using one, or a combination of the above options.

Reticulated sewerage is not available in this locality so on-site systems will be utilised for wastewater management.

Stormwater management has been assessed by Byrne Consultants.

The site grades to the southwest, allowing stormwater runoff to be conveyed through a combination of kerb and channel, table drains, pits and pipes to the existing cross-rail culverts.

It is proposed that a system of detention basins will be utilised to attenuate post-development flows, with the basins located within the subdivision layout.

The stormwater management system will also incorporate measures to ensure any run-off from the site is free of contaminants.

9. *Development that is not defined in Schedule 2 (Definitions) may occur only when assessment has determined that the development is appropriate in the zone, having regard to the purpose and outcomes of this zone and such matters as the location, nature, scale and intensity of the development.*

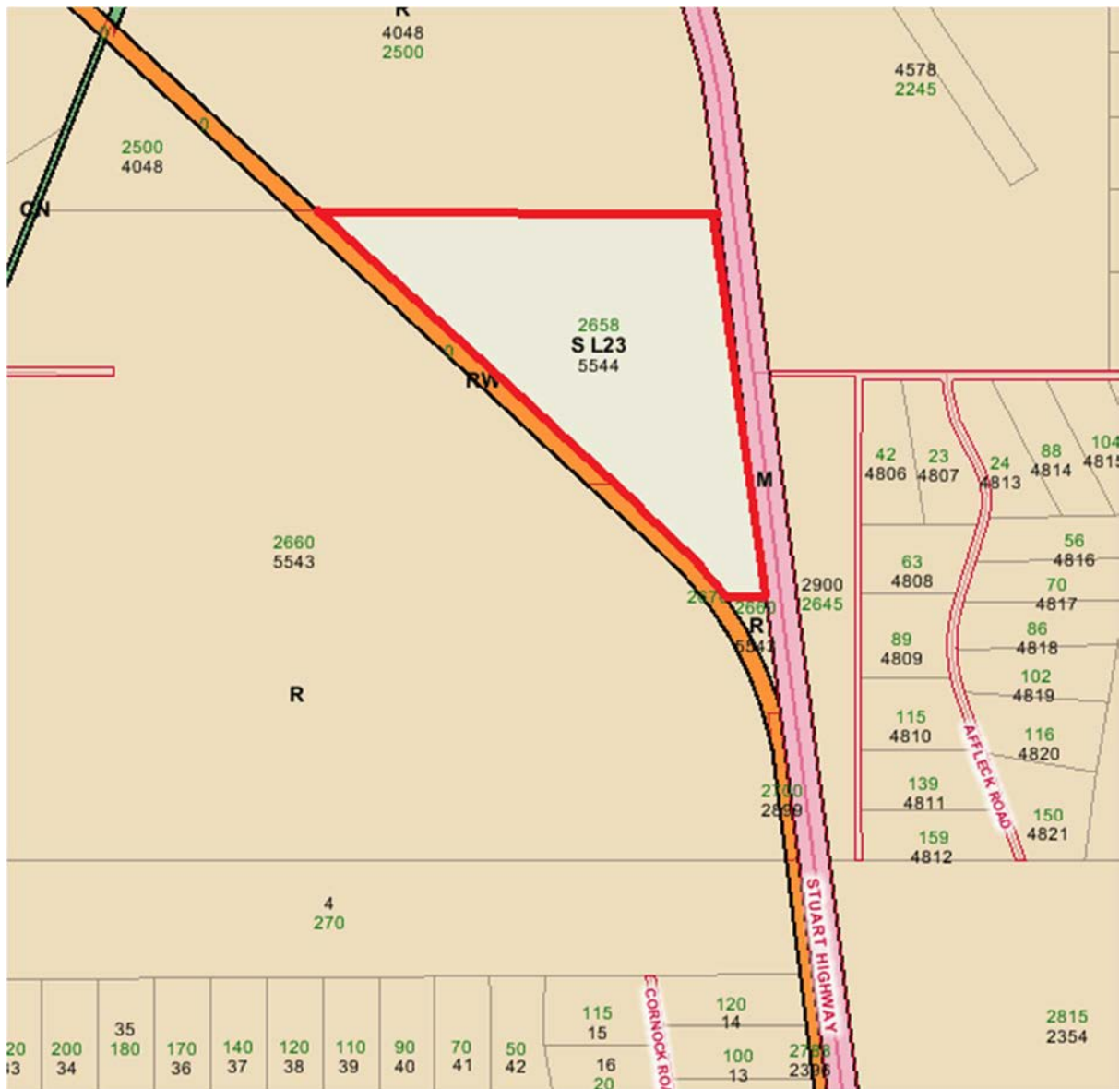
Any future development on the proposed parcels will take this Clause into account.

Overlays

The Overlays in the NTPS identify areas of land that have specific development requirements.

The Record of Administrative Interests for Section 5544 advises that no Overlays apply to the land.





Existing zones

30C(4)(a) – Compliance with an Interim Development Control Order

The subject land is not subject to any Interim Development Control Orders.

30C(4)(b) – Public Environmental Report or Environment Impact Statement

There is no requirement for the proposed development to be referred to the NT EPA under Part 4, Division 3 of the Environment protection Act 2019 and the proposed development has not been referred to the NT EPA under that legislation.

30C(4)(c) – Assessment of the proposed amendment with respect to 30D(4A):

This concurrent application includes a separate report that deals with the proposed amendment to the NT Planning Scheme.



30C(4)(d) – The physical characteristics of the land

The contours depicted on plan 25/10555/12 have been generated from Geoscience Australia data and indicate that the land slopes steadily (between 1% and 2%) down from the north east corner to the western, railway corridor boundary.

A comprehensive soil survey and land capability assessment that was prepared by EnviroAg Australia for a previous owner.

This report determined that the primary land unit across the site was type 3B. This land unit type comprises well drained soils.

30C(4)(e) – Public facilities or open space

The proposal does not create a demand for any additional open space as this is an industrial precinct.

It is likely that new food premises (eg: café/takeaways, restaurants) will develop in the precinct in the future to cater for the industrial businesses and the businesses will also be able to utilise the existing facilities in the locality.

As the industrial precinct will provide a location for uses such as transportation and freight industries to be based, there is also the potential for the precinct to include some form of accommodation to support these uses.

30C(4)(f) – Public utilities and infrastructure

Details regarding servicing and infrastructure have previously been discussed in this report.

30C(4)(g) – Potential impact on the existing and future amenity of the area

There are already established non-rural activities were already in place in the vicinity including the AACo abattoir, the feedlot and livestock holding yards on the corner of the Stuart Highway and Elizabeth Valley Road, the cattle export facility immediately to the north and the Bushfires NT head office located on the corner of Townend Road and the Stuart Highway

The proposed subdivision will not have a negative impact on adjacent landowners however it will improve the amenity of other rural living areas by providing an opportunity for industrial uses currently operating on rural properties to re-locate to a purpose-built industrial precinct.



Bushfires NT Headquarters on the corner of Townend Road and the Stuart Highway

30C(4)(h) – Assessment of the benefit or detriment to the public interest of the development

There will be no detriment to the public interest however the proposal will create jobs, established an expanded industrial precinct outside the urban living environment, promote manufacturing industries and encourage private investment.

30C(4)(ha) – Restricted Water Extraction Area

The proposal does not fall within a declared Restricted Water Extraction Area.

30C(4)(i) – Building regulations

Included with this application is confirmation a building certifier that the proposed boundaries will not result in a conflict with the Building Act in relation to setbacks from the existing buildings.

30C(4)(j) – Unit Titles Act

Not applicable



Part of the existing Bilba manufacturing plant

Conclusion

The proposal to rezone the land to General industry, and develop 105 new lots in two stages, will have wide ranging benefits the local community and the overall NT economy.

The suitability of the site for industrial activities has already been recognised by the NT Government when the SL23 zoning was designated to Section 5544.

Bilba has subsequently developed its manufacturing business that is providing employment for local residents and a variety of products to service the NT economy.

The potential for an expanded industrial precinct in this location has appealed to other large format enterprises that do not want to establish within an urban area due to the conflict with everyday urban activities.

Existing General Industry areas in the Darwin, Winnellie and East Arm areas require road trains having to traverse through urban areas past homes, schools and community service areas.

Firms such as Tamboran, APA, Exact Contracting and Suncable have indicated an interest in establishing in the Livingstone Industrial Precinct and many others are sure to see the benefits of this location.

Following discussions with US firms involved with the Beetaloo gas project, Bilba is also proposing to increase its footprint in order to manufacture large quantities of polyline pipes to support the onshore gas industry.

The new precinct will encourage private investment and provide employment opportunities for many local residents.

Concurrent Application

Amendment Proposal

Section 5544, Hundred of Strangways

Reason for Concurrent Application

Section 5544, Hundred of Strangways is located on the western side of the Stuart Highway, approximately 2.5kms south of the Cox Peninsula Road intersection and is owned by the Bilba Group of companies (Bilba).

Bilba purchased the property was purchased in 2018 with the intention of developing a base for its Northern Territory manufacturing operations.

Following an application seeking an amendment to the NT Planning Scheme, the Minister rezoned Section 5544 from zone R (Rural) to a specific use zone (SL23). SL23 designated part of Section 5544 for *uses related to or servicing the agricultural, horticultural or mining industries*.

In accordance with the intention of the zone, Bilba has established a manufacturing plant that manufactures precast troughs, polyethylene pipes, tank liners and fencing products. The plant incorporates a manufacturing warehouse, hardstand storage areas, office and a retail showroom.

Direct access from the Stuart Highway was approved by the Minister in 2024 and this has enhanced the accessibility for the community utilising the Bilba operations.

Such has been the interest in the industries that have established on Section 5544, Bilba is now proposing to expand the precinct and subdivide the land to allow an opportunity for other businesses to develop in this strategic locality.

Based on discussions with prospective purchasers, design consultants and Government agencies, a concept subdivision plan has been developed for the Livingstone Industrial Estate, with lots ranging in size from 2,500m² to over 5 hectares. The concept subdivision is indicated on plans 25/10555/12, 13 and 14 (plans 25/1055/13 and 14 indicate the proposed staging of the subdivision).

Following engineering design and a Traffic Impact Assessment, approval in principle has been obtained from Department of Logistics and Infrastructure, Litchfield council and the adjoining landowner for the upgrade of the current direct access into a public road intersection providing access to the future subdivision

This report forms part of a Concurrent Application seeking approval to change the zoning of Section 5544 to zone GI (General Industry), in order to facilitate the proposed subdivision.

The Application follows a Pre Application Forum attended by Bilba representatives, consultants, DLPE representatives, Litchfield Council, Power and Water Corporation and other Government agencies.

The purpose of the Pre Application Forum was to provide an opportunity for the proposal to be explained and to identify any potential issues.

In addition, a Concurrent Application – Pre-application meeting has been held with DLPE representatives from Lands Planning and Development Assessment Services

The concurrent application process is being utilised as it will allow for a single application, a single exhibition period for the Planning Scheme amendment and development application components of the application and also allow for a single submission/comment from authorities and members of the community.



Section 5544

When considering a concurrent application under the Planning Act 1999, the Minister must also consider the following (Clause 30D(4A):

- (a) whether the proposed amendment promotes the purpose and objectives of this Act;

The proposed amendment is consistent with the Purpose of the Act as it will apply a zone to the subject land that will enable a subdivision that achieves the required objectives.

The amendment will facilitate a subdivision that is an appropriate use of the land and water resources, has access to public utilities and infrastructure, and will involve appropriate public consultation.

- (b) whether the proposed amendment, other than a proposed amendment to a strategic framework, is contrary to any strategic framework in the planning scheme;

The Darwin Regional Land Use Plan (DRLUP) and Litchfield Subregional Land Use Plan (LSLUP) guide land use in this area.

Whilst neither the DRLUP nor the LSLUP identify subject land for industrial use, the Minister subsequently approved Specific Use Zone SL23 to provide an opportunity for strategic industrial uses on the outskirts of Darwin.

The rezoning recognised that non-rural activities were already in place in the vicinity including the

AACo abattoir, the feedlot and livestock holding yards on the corner of the Stuart Highway and Elizabeth Valley Road, the cattle export facility immediately to the north and the Bushfires NT head office located on the corner of Townend Road and the Stuart Highway.

The change in zoning being sought by this application recognises the changing nature of the immediate area and will facilitate an industrial precinct that will complement, not conflict with, the future land uses identified for adjacent landholdings.

Policy 19 of the LSLUP in relation to Industry reads:

Facilitate industrial land uses within urban/peri-urban areas and rural activity centres to meet market demand.

It is highly unlikely that this *Policy* is referring to *General Industry* as the stated purpose of General Industry is to *provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the amenity of the locality.*

This is evidenced by the actual rural activity centre area plan for Humpty Doo that actually refers to Light Industry and not General Industry that is being proposed by the current application.

This is understandable as it would not be desirable to position General Industrial in an activity centre in proximity to urban and peri-urban residential development.

Therein lies the merit of the current proposal as the General Industry being proposed is far removed from residential areas.

Glyde Point is identified for industrial development however the proposed Livingstone Industrial Precinct has the added benefit of being positioned on a strategic corridor with direct access on the Stuart Highway.



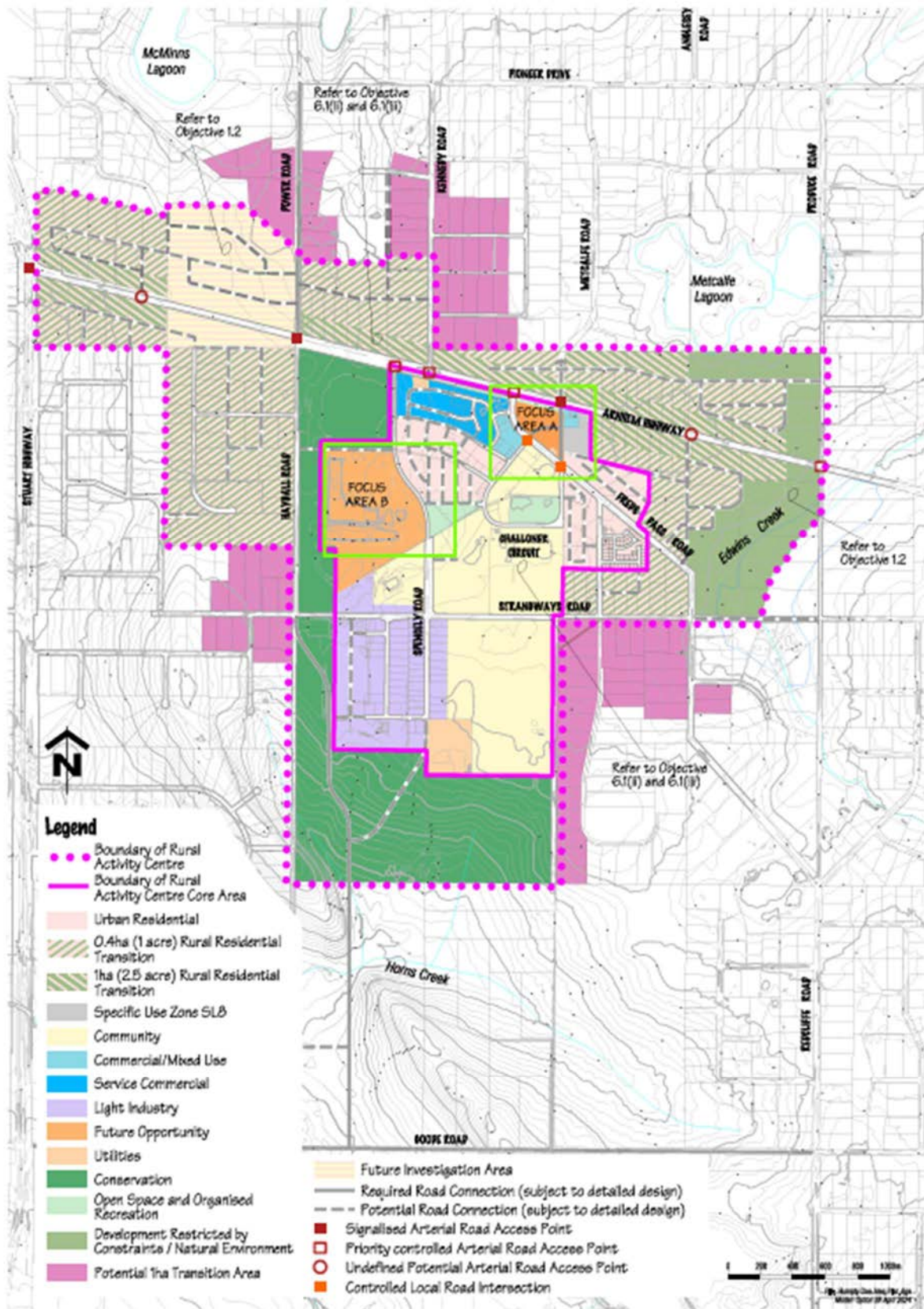


Figure 5: Land Use Structure Plan showing the 'core area', transition areas, and focus areas

Extract from the Humpty Doo Rural Activity Centre Area Plan showing Light Industry

(e) the merits of the proposed amendment and whether the amendment is in the public interest;

The proposed amendment (rezoning), and the associated subdivision, will provide for a strategic industrial precinct, outside the Darwin urban area and adjacent to the Stuart Highway.

As well as providing an opportunity for industrial uses to develop outside the urban living area, the Livingstone Industrial Precinct will also provide an opportunity for industrial uses currently operating on rural allotments to re-locate to a dedicated industrial precinct, thus improving the amenity of existing rural living areas.

Further merits of the proposal include:

- strengthen the NT's freight and logistics network.
- Create jobs and encourage private investment.
- Promote manufacturing industries.
- Generate activity on a regional area.

The variety of lot sizes proposed for the Precinct will provide an opportunity for a range of uses.

The current Bilba activities will be comprised with an allotment with an area of over 5 hectares and Bilba is likely to utilise a further 10 lots for new ventures. Bilba alone predicts that the development of the precinct will result in its own workforce increasing to up to 60 people.

The smaller lots proposed for the precinct suit conventional industrial activities whilst the larger lots adjacent to the railway corridor are ideally suited to equipment storage, laydown areas, and logistics support.

Firms such as Tamboran, APA, Exact Contracting and Suncable have indicated interest in the larger lots as they recognise the merits of a precinct adjacent to the Stuart Highway which allows them from having to traverse through residential areas to the current, larger industrial lots in the vicinity of the Darwin Port. A letter from Tamboran supporting the current proposal is included with this application.



An aerial view of the existing Bilba facility

Bilba, through its manufacturing industries, is involved in the Beetaloo gas project. In recent times it has been dealing with large American firms that will require large poly line pipes to support the project.

These American firms have also indicated an interest in utilising the larger allotments proposed for the Livingstone precinct for the storage of pipes and as a staging base for their Beetaloo activities.

One of the main drivers for the Livingstone Industrial Precinct are the constraints associated with the existing industrial precincts in the Darwin area.

These constraints include:

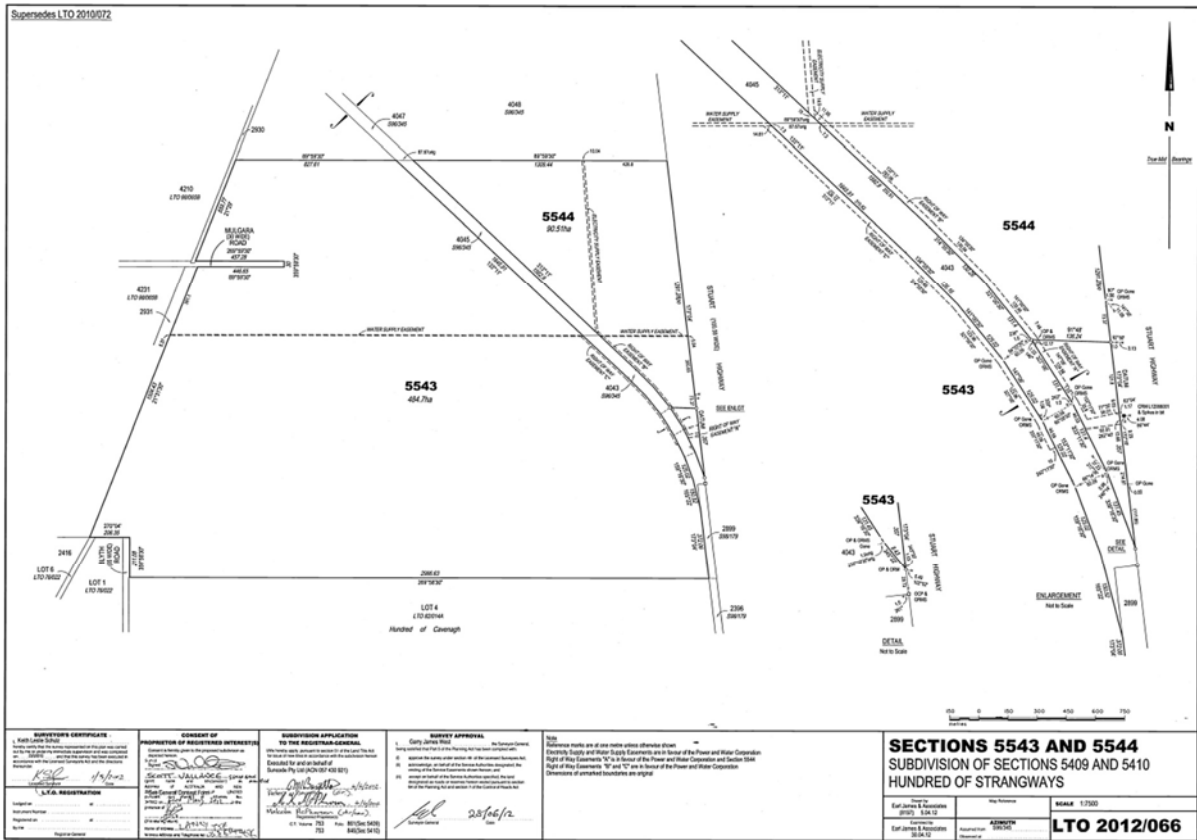
- The use of **Darwin Port** for general logistics and transport, reducing capacity for its primary offshore oil and gas operations.
- Road-train **traffic** moving through **urban and peri-urban areas**, including near Gateway Shopping Centre in Palmerston, Coolalinga Shopping Centre, and other non-industrial commercial zones.
- **Major transport bottlenecks** along Kirkland Road, Elrundie Avenue, and University Avenue, restricting efficient heavy-vehicle movement.
- Road-train movements within residential suburbs such as Marlow's Lagoon and Palmerston creating **noise, dust, and aesthetic impacts, reducing local amenity and increasing land-use conflict**.
- Existing freight routes **constrained by roundabouts, narrow roads, and limited turning space**, making them not fit for purpose.
- Freight routes through built-up areas exposing **inexperienced road users to safety risks** when sharing roads with heavy vehicles.
- **Lack of dedicated, logistics-focused industrial land** with direct highway access to support safe and efficient heavy-vehicle operations.

(f) any report received from the Commission under subsection (3);

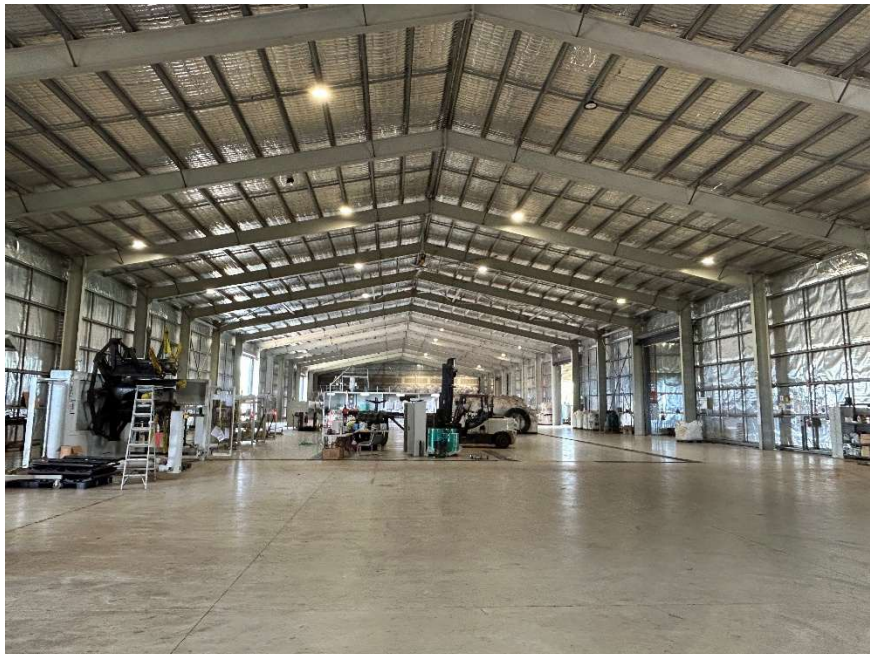
We are not aware of any report from the Commission that relates to the subject land.

(g) any other matters the Minister considers appropriate.

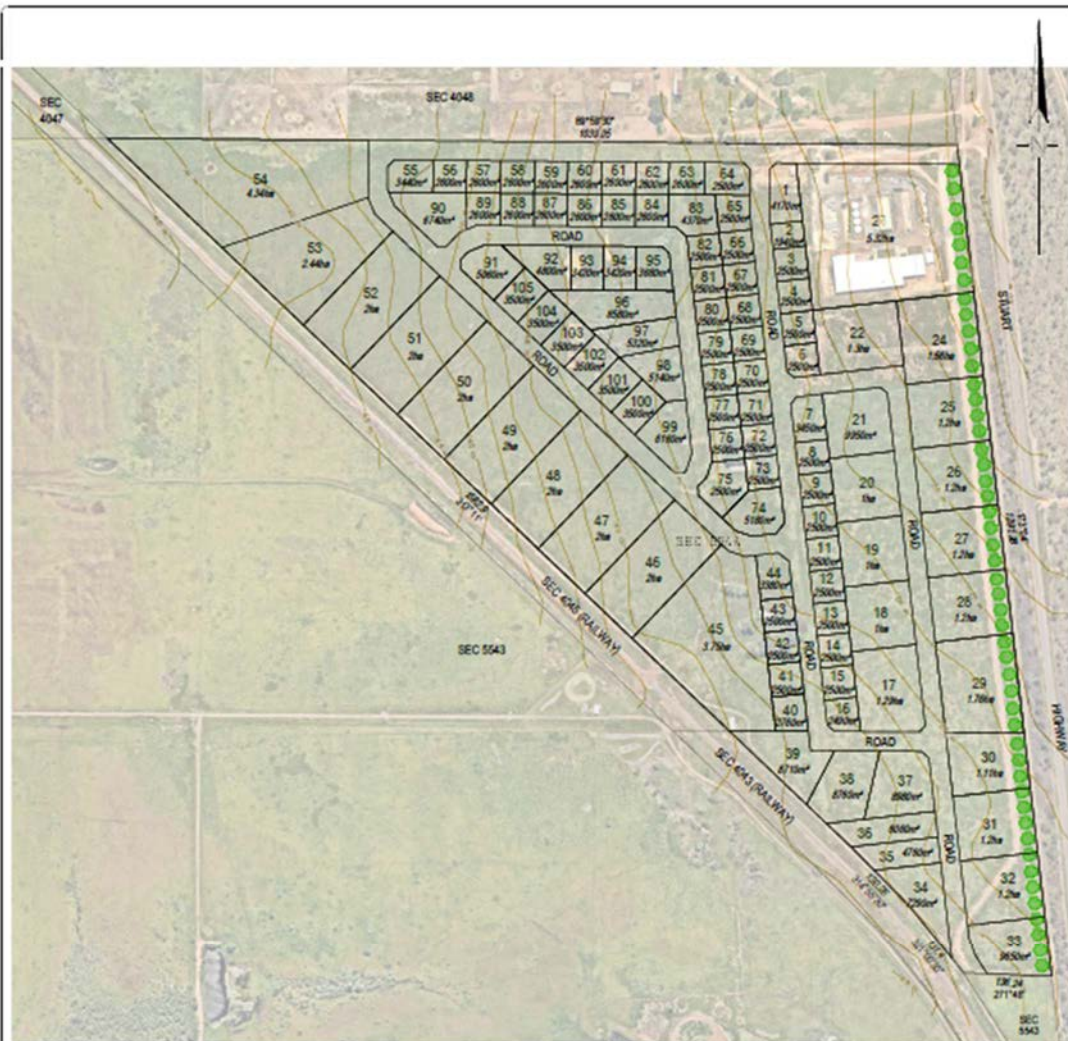
For the Minister to consider.



Survey plan LTO2012/066




Part of the existing Bilba facility



LOCATION PLAN
Not to Scale

Note
Easements should be confirmed with the current Certificate of Title
Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Neasmap, dated 02/05/2025
Aerial image is shown for background information only
and is not rectified or accurately positioned



	SURVEY & PLANNING CONSULTANTS 19 HARVEY STREET DARWIN NT 0801 Ph: (08) 8981 2464 Fax: (08) 8981 5205 darwin@eja.com.au www.eja.com.au	SECTION 5544 HUNDRED OF STRANGWAYS	Licensed Surveyor: Date:	Scale: 1:800 (A3) Datum:
		CONCEPT SUBDIVISION	Drawn by: LC Date: 19/08/2025	Drawing No:
		Client: SLSA GROUP	Cad File: 12555-12.DWG	25/10555/12

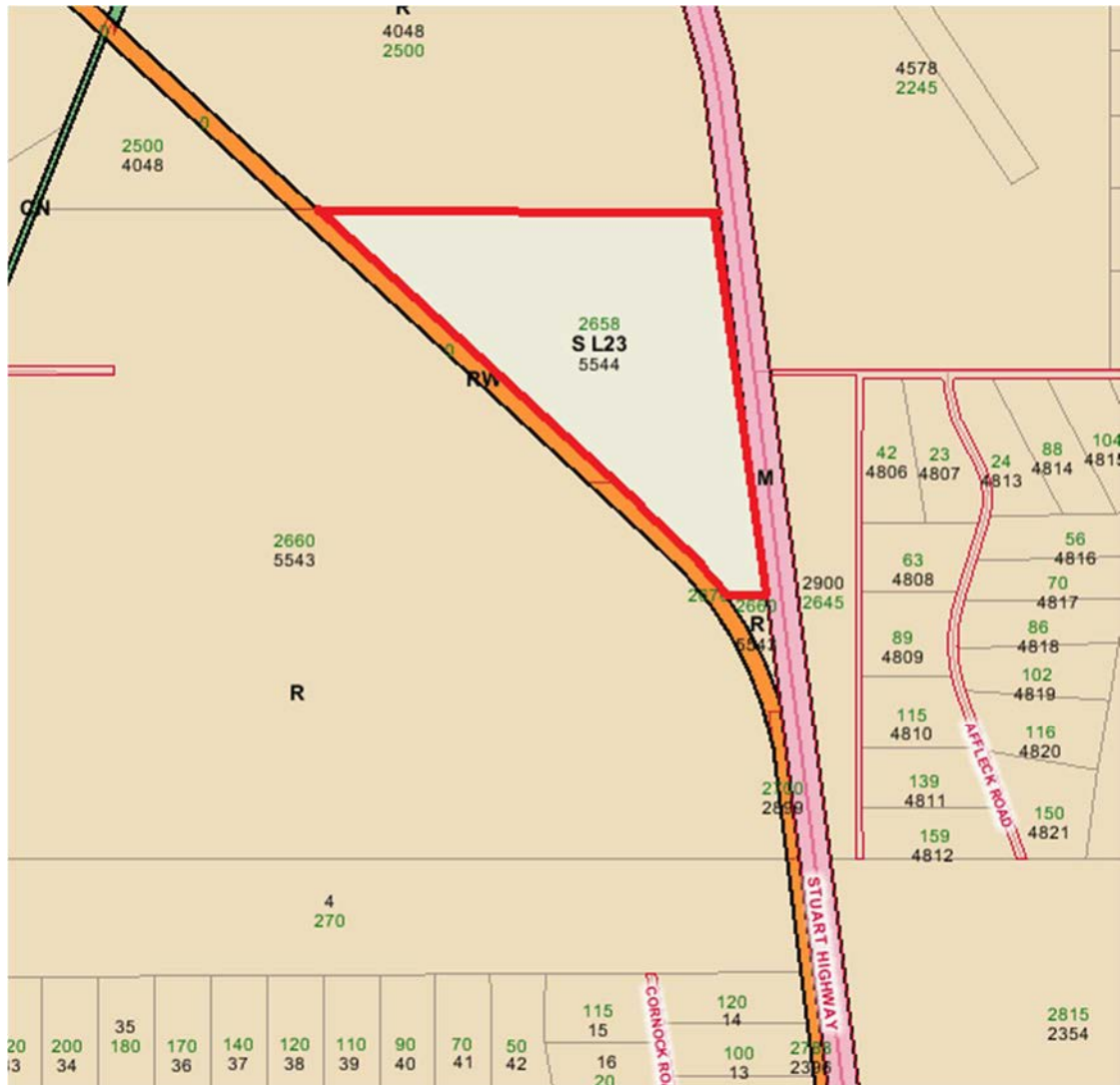
The proposed subdivision arrangement



Description of the Proposed Amendment

The objective of this application is to develop an industrial subdivision comprising 105 lots.

In order to achieve that objective, the first step is to amend the NT Planning Scheme and change the zoning of Section 5544, Hundred of Strangways from SL23 to GI (General industry) and to then subdivide the land in order to create the 105 lots in two stages.



Existing zonings in the area

Strategic Framework

As previously mentioned in this report, the Darwin Regional Land Use Plan (DRLUP) and Litchfield Subregional Land Use Plan (LSLUP) guide land use in this area.

The DRLUP identifies the subject area as *Rural Lifestyle* and the LSLUP identifies the area as *Rural Area*.

Whilst neither the DRLUP nor the LSLUP identify the subject land for industrial use, the Minister subsequently approved Specific Use Zone SL23 to provide an opportunity for strategic industrial uses on the outskirts of Darwin. This decision would have taken into account the other existing uses in the vicinity.

The change in zoning being sought by this application recognises the changing nature of the immediate area and will facilitate an industrial precinct that will complement, not conflict with, the future land uses identified for adjacent landholdings.

The purpose of zone GI is:

Provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the amenity of the locality, in locations with access to services and transport networks capable of supporting heavy industry.

The subdivision being proposed by the current application certainly meets the Purpose of the GI zone.

The property is bounded on the eastern side by the Stuart Highway, and the North Australian Railway corridor abuts the western boundary.

Immediately to the north is a cattle export facility and the short southern boundary of section 5544 (approximately 136 metres) adjoins a small portion of the AACo abattoir property.

The proposed industrial precinct will not have a negative impact on the amenity of the area but does have direct access to the NT's main thoroughfare, a critical asset to support the future industrial uses.

Below are the zoning tables for the existing SL23 zone and the proposed GI zone.
SL23

1. For the purposes of this zone, Section 5544 Hundred of Strangways is to be considered as two areas of land, shown as Area A and Area B on the diagram to this zone, where:
 - (a) Area A, bounded by a thick black line, shown solid where the boundary is fixed; and shown dashed where the boundary may be adjusted for site design purposes providing Area A is not greater than 22.7 hectares; and
 - (b) Area B is the remaining area of Section 5544.
2. The purpose of this zone is to facilitate:
 - (a) development within Area A for uses related to or servicing the agriculture, horticulture or mining industries in northern Australia, and which address the rural character of the area; and
 - (b) development of Area B in accordance with Zone R (Rural)

Provisions for Area A
3. Without consent Area A may be used or developed for a caretaker's residence and light industry in accordance with this zone and the requirements of Zone GI (General Industry).
4. With consent Area A may be used or developed for the following purposes in accordance with Zone GI:
 - (a) Fuel Depot
 - (b) General Industry
 - (c) Office
 - (d) Warehouse
5. All other defined land uses within the NT Planning Scheme if proposed as the primary use of the land are prohibited.
6. Any land use established under subclauses 3 and 4, including set down areas, outdoor storage and the like, shall be located a minimum distance from the boundaries to:
 - (a) the Stuart Highway of 50 m, inclusive of a 5 m firebreak and a 15 m width of established native vegetation; and
 - (b) Section 4048 of 15 m, inclusive of a 5 m firebreak and a 10 m width of established native vegetation.

There is to be a minimum 10m setback to all other boundaries, including any unit title boundaries.
7. Subdivision of the land within Area A is to be in accordance with the provisions for industrial subdivision under Part 5 of the

Planning Scheme.

8. Notwithstanding subclause 7, the minimum lot size within Area A is 1 hectare.

Provisions for Area B

9. Area B may be used or developed in accordance with the requirements of Zone R (Rural).
10. Notwithstanding subclause 9, retail agricultural stall and plant nursery require consent in Area B.
11. Subdivision of the land within Area B is to be accordance with the requirements of Part 5 of the Northern Territory Planning Scheme as if the land were in Zone R.



Zone GI

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Agriculture	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.7.1 Rural Development (Agriculture, Horticulture and Intensive Animal Husbandry)
Animal Boarding	Impact assessable	3.6 LSF – Land Subject to Flooding 3.7 LSSS – Land Subject to Storm Surge	5.2.4 Car Parking 5.2.5 Loading Bays 5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.7.2 Animal Related Use (Animal Boarding and Stables)
Bar-Public	Impact assessable	3.8 LADR – Land Adjacent to a Designated Road 3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.5.10 Nightclub Entertainment Venue, Bar-Public and Bar-Small 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Caravan Accommodation	Permitted				5.4.11 Caravan Accommodation
Car Park	Permitted	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Car Wash	Merit assessable				5.5.9 Car Wash 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Demountable Structures	Permitted				5.8.7 Demountable Structures
Dwelling-Caretakers	Permitted				5.4.12 Dwelling-Caretakers 5.6.1 Setbacks and Building Design in Zones LI, GI and DV
Education Establishment	Impact assessable				5.6.1 Setbacks and Building Design Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.2 Education Establishment

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Emergency Services Facility	Merit assessable	3.4 CR – Coastal Reclamation 3.6 LSF – Land Subject to Flooding	5.2.1 General Height Control 5.2.4 Car Parking 5.2.5 Loading Bays		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.6 Emergency Service Facility
Excavation and Fill	Impact assessable	3.7 LSSS – Land Subject to Storm Surge	5.2.6 Landscaping		5.8.9 Excavation and Fill
Food Premises-Café/Take Away	Merit assessable	3.8 LADR – Land Adjacent to a Designated Road	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.5.11 Food Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Food Premises-Restaurant	Impact assessable	3.9 DHD – Dredging in Darwin Harbour 3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.5.11 Food Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Fuel Depot	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Hotel/Motel	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-General	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-Light	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-Primary	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Leisure and Recreation	Impact assessable	3.4 CR – Coastal Reclamation 3.6 LSF – Land Subject to Flooding	5.2.1 General Height Control 5.2.4 Car Parking 5.2.5 Loading Bays		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.5 Leisure and Recreation
Medical Clinic	Permitted	3.7 LSSS – Land Subject to Storm Surge 3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping 5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Motor Body Works	Permitted	3.9 DHD – Dredging in Darwin Harbour			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.6.3 Motor Body Works and Motor Repair Station
Motor Repair Station	Permitted	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.6.3 Motor Body Works and Motor Repair Station
Office	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Passenger Terminal	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Place of Worship	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.4 Exhibition Centre, Place of Assembly and Place of Worship

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Plant Nursery	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Recycling Depot	Permitted	3.6 LSF – Land Subject to Flooding	5.2.4 Car Parking		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Renewable Energy Facility	Impact assessable	3.7 LSSS – Land Subject to Storm Surge	5.2.5 Loading Bays		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Service Station	Merit assessable	3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.8 Renewable Energy Facility
Sex Services-Commercial Premises	Permitted	3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.5.8 Service Station 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Sex Services-Home Based Business	Permitted	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.5.14 Sex Services-Commercial Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Shop	Impact assessable				5.4.10 Home Based Businesses 5.5.5 Shops in Zones CV, CL, LI, GI, DV, OR and CN 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Showroom Sales	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Telecommunications Facility	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.8.10 Telecommunications Facility
Transport terminal	Permitted	3.6 LSF – Land Subject to Flooding	5.2.4 Car Parking		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Vehicle Sales and Hire	Permitted	3.7 LSSS – Land Subject to Storm Surge	5.2.5 Loading Bays		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Veterinary Clinic	Permitted	3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Warehouse	Permitted	3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
All other uses defined in Schedule 2 (Definitions)	Prohibited	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			
Undefined Uses Any use not defined in Schedule 2 (Definitions)	Impact assessable				Part 2, Part 3, Part 4, Part 5 of this Planning Scheme

The only Permitted uses in zone GI are:

- Caravan Accommodation
- Car Park
- Demountable structures
- Dwelling – Caretakers
- Industry – General
- Industry – Light
- Industry – Primary
- Medical Clinic
- Recycling depot
- Sex Services – Home Based Services
- Transport Terminal

All other defined uses will require assessment and at that time the appropriateness of the use can be determined by the consent authority.

Land Suitability

A Land Suitability Assessment (LSA) in accordance with the NT Land Suitability Guidelines forms part of this application.

The LSA has been prepared by consulting engineers, Byrne Consultants.

This Land Suitability Assessment concludes that *the Site has a Suitability Class of S2 which is considered 'Moderately Suitable'. There is no constrained land within the proposed 75.82 hectare lots, and no land suitability issues which cannot be overcome with standard engineering practices.*

This application also includes a comprehensive soil survey and land capability assessment that was prepared by EnviroAg Australia for a previous owner.

The report was prepared in order to determine the suitability of the site for a live export facility however the soil assessment determined that the soils were well drained and consequently suitable for on-site wastewater treatment and disposal.

Infrastructure

Alek Gangur, Senior Electrical Engineer from AGA Consulting Engineers has carried out an assessment of the power requirements for the proposed industrial precinct.

The assessment has considered the potential power demand of the subdivision, the connection to the existing reticulation on the Stuart Highway road reserve and the future internal reticulation.

A Negotiated Connection Application (NCA) has been submitted to Power and Water Corporation (PWC) in order to determine the electrical servicing strategy.

PWC has determined that the power demand for Stage 1 (55 lots) can be supplied from the existing network feeder and supply for Stage 2 can be provided following its suggested augmentation of the network.

Byrne Consultants, as part of an infrastructure report it has prepared for the proposed industrial precinct, has carried out preliminary work on modelling water demand for the subdivision.

Potential options for the provision of water supply include utilising the existing reticulated water adjacent to the site (the capacity of this reticulation is being assessed), a system utilising groundwater for initial stage demands (transitioning to PWC supply once augmentation works have been carried out on the Manton Dam return to service project) and on-site storage to meet firefighting demands.

Water supply demands can be achieved using one, or a combination of the above options.

Reticulated sewerage is not available in this locality so on-site systems will be utilised for wastewater management.

Stormwater management has been assessed by Byrne Consultants.

The site grades to the southwest, allowing stormwater runoff to be conveyed through a combination of kerb and channel, table drains, pits and pipes to the existing cross-rail culverts.

It is proposed that a system of detention basins will be utilised to attenuate post-development flows, with the basins located within the subdivision layout.

The stormwater management system will also incorporate measures to ensure any run-off from the site is free of contaminants.

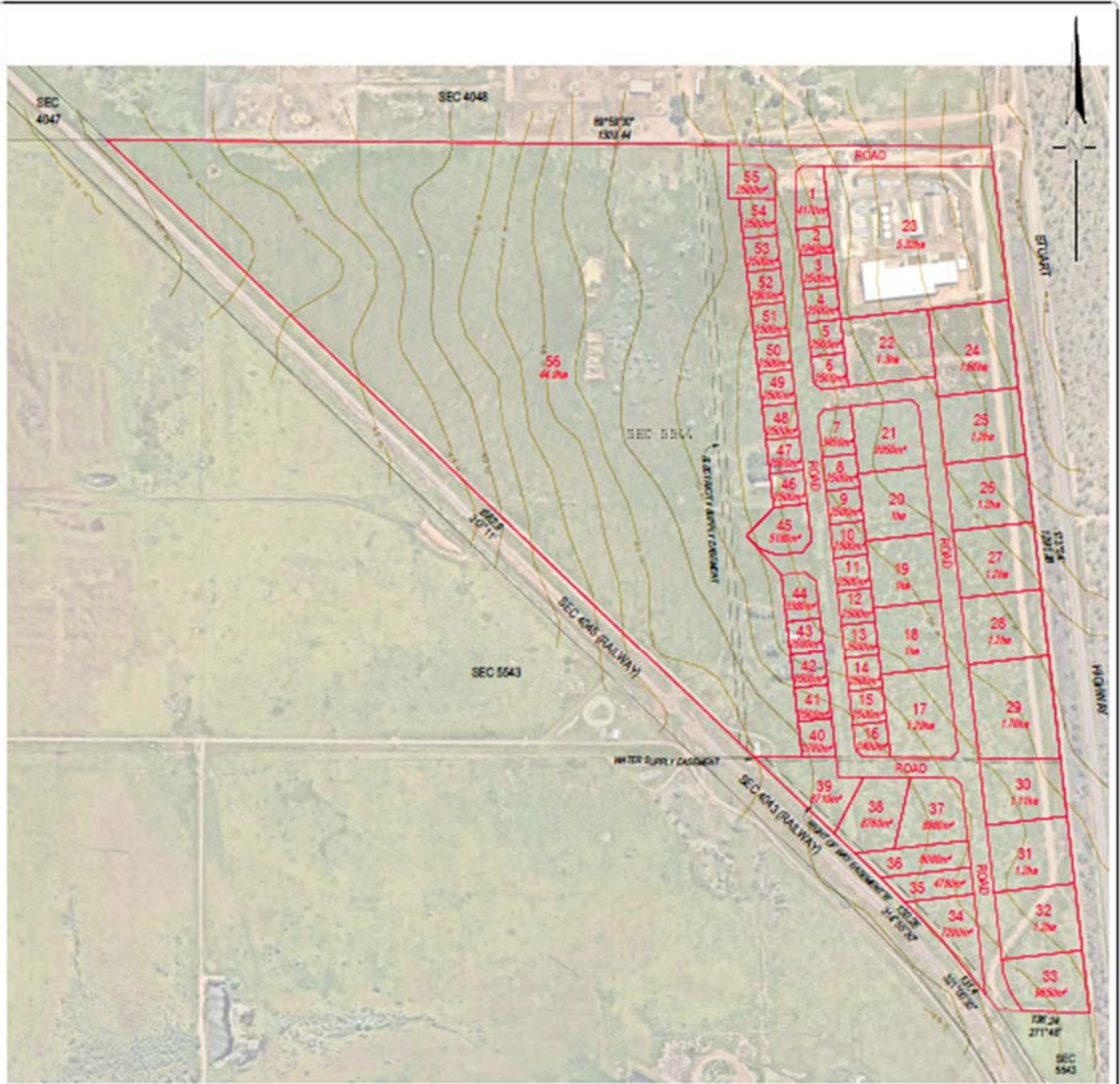




The existing access off the Stuart Highway

As previously mentioned, access into the subdivision will be from a new intersection to be developed in the northeastern corner of the property. This intersection, for which approval in principle has been granted, will replace the existing direct access from the Stuart Highway, and will also provide access the adjoining property to the north.

All internal roads and drainage will be designed and constructed in accordance with Litchfield Council standards.



LOCATION PLAN
Not to Scale

Note
Easements should be confirmed with the current Certificate of Title
Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Neemap, dated 02/05/2025
Aerial image is shown for background information only
and is not rectified or accurately positioned
Contours obtained from Geoscience Australia. Contours interval = 1m

Stage 1
Subdivision of Section 5544 to create Lots 1 to 56

Stage 2 (Refer to plan 1055-14)
Subdivision of Lot 56 to create Lots 57 to 100



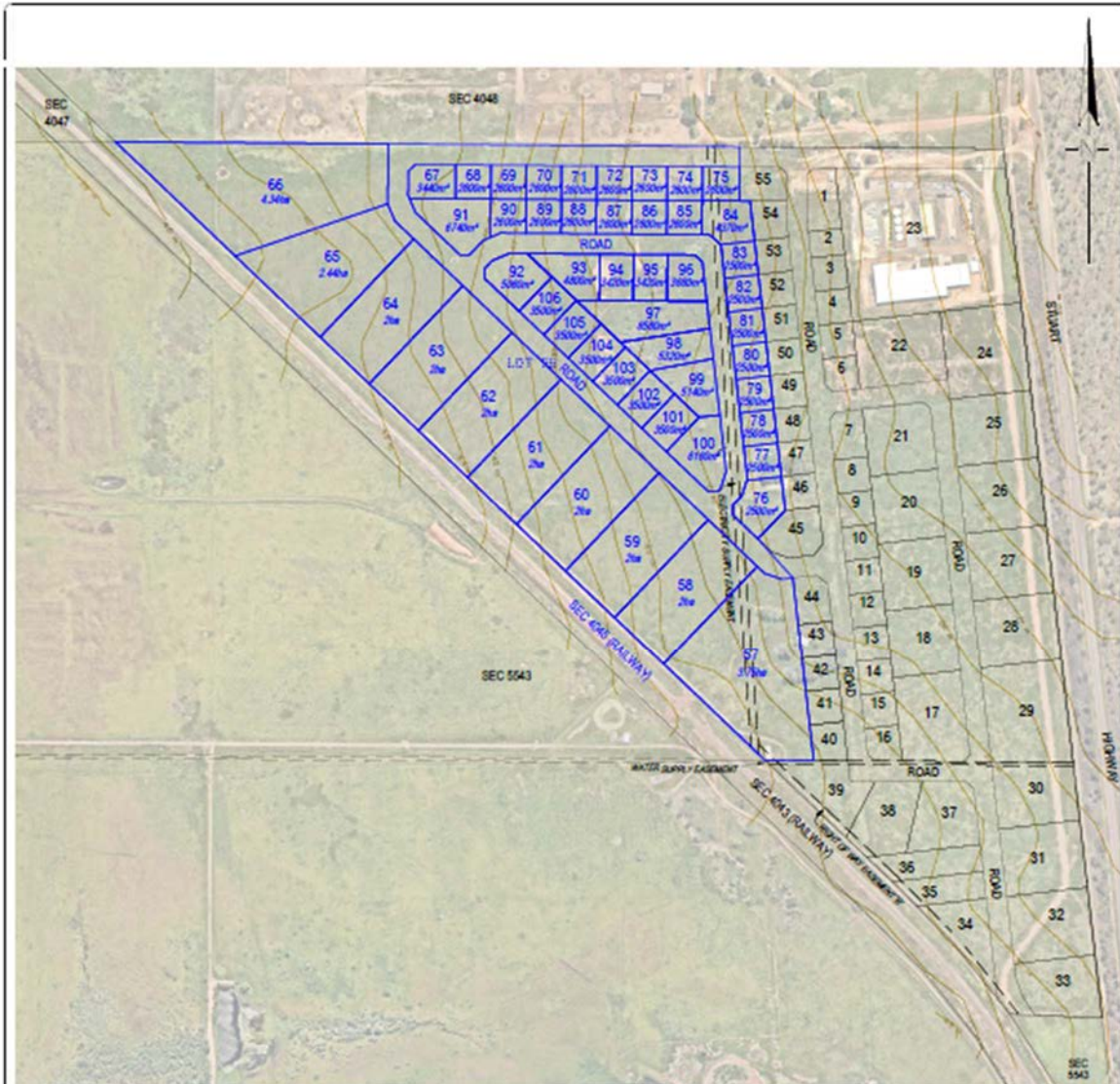
eja
SURVEY & PLANNING CONSULTANTS
10 HARVEY STREET
DARWIN NT 0801
PH: (08) 8981 2484
FAX: (08) 8981 5255
darwin@eja.com.au
www.eja.com.au

SECTION 5544
HUNDRED OF STRANGWAYS
DEVELOPMENT APPLICATION
Client: BLBA GROUP

Scale: 1:800 (A3)	
Licensed Surveyor:	Date:
Drawn by: LC	Date: 15/12/2025
Client File: 1055-13.DWG	Drawing No: 25/1055/12

Stage 1 of the subdivision





LOCATION PLAN
Not to Scale

Note
Easements should be confirmed with the current Certificate of Title
Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Nearemap, dated 02/05/2025
Aerial image is shown for background information only
and is not rectified or accurately positioned

Stage 1 (Refer to plan 1055-13)
Subdivision of Section 5544 to create Lots 1 to 56

Stage 2
Subdivision of Lot 56 to create Lots 57 To 100



eja
earl james & associates

SURVEY & PLANNING CONSULTANTS
10 HARVEY STREET
DARWIN NT 0801
PH: (08) 8981 2454
FAX: (08) 8981 5255
darwin@eja.com.au
www.eja.com.au

SECTION 544
HUNDRED OF STRANGWAYS

DEVELOPMENT APPLICATION

Client: BLSA GROUP

Scale: 1:8000 (A3)
Licensed Surveyor: _____
Date: _____
Drawn by: LO
Date: 15/12/2025
Drawing No: _____
Cad File: 1555-14.DWG
25/10555/14

Stage 2 of the subdivision



Conclusion

The proposed Planning Scheme amendment will facilitate the development of an industrial subdivision away from the Darwin urban environment and adjacent to major transport routes.

The industrial precinct will expand on an existing, manufacturing facility and in the vicinity of other non-rural activities that will benefit from the proposed precinct.

Site investigations have determined that there are no physical impediments to the subdivision proposal and there are options available to service the lots being proposed.

Amendment of the NT Planning Scheme as proposed by this application will create jobs, encourage private investment and will facilitate suitable development in the area.

In summary, the merits of the proposed Planning Scheme Amendment include:

- Provide an opportunity for general industrial uses to establish outside the urban environment.
- Establish an industrial precinct that removes the need for road train traffic to have to traverse through urban areas to access existing industrial sites at East Arm and Berrimah.
- Establish an industrial precinct that is separated rural living areas.
- Provide employment opportunities for rural residents.
- Facilitate a purpose-built industrial precinct that will encourage industrial uses currently operating on rural living allotments to re-locate.
- Facilitate private investment.
- Encourage large format enterprises to establish in the NT.
- Supports the Beetaloo Basin project

Land owner/s authorisation to lodge a development application

The Planning Act 1999

Before you fill in the form

Signatures from ALL landowners registered on the land title must be provided.

The authorisation must be dated within six months of the submission of the application.

Fields marked with an asterisk (*) are required.
Fields marked with a carat (^) are required if applicable.

Applicant

In accordance with Section 46(3)(aa)(i) of the *Planning Act 1999*, a development application is to contain the name and contact details of the applicant AND any person on whose behalf the application is made.

Name of Applicant/Consultant or Acting agent	Earl James and Associates		
Address	GPO Box 884, Darwin NT 0801		
Phone	89812494	Email	kdodd@eja.com.au

Persons on whose behalf the application is made:

Person/s on whose behalf the application is made:	Bilba Capital Pty Ltd		
Address	PO Box 102, Katherine NT 0851		
Phone	0427 825 259	Email	adrian@bilbagroup.com.au

The applicant is hereby authorised to lodge a development application over the subject land described as:

*Lot/NT portion	Section 5544
*Location/town	Hundred of Strangways
*Street address	2657 Stuart Highway, Livingstone



The application is for the purpose of:**Proposed development**

Brief description of proposed development

Concurrent Application to rezone to GI and a subdivision to create 105 lots.

Landowner/s signature

In accordance with Section 46(3)(aa)(ii) of the *Planning Act 1999*, a development application is to contain the **name and contact details of the owner of the land** to which the application relates.

Written authorisation from each:

- **Individual owner:** Each person listed on the title must provide written authorisation for the application.
- **Companies:** For each company listed on the title, written authorisation must be obtained from the **director** or **authorised representative** of the company. This authorisation confirms that the company is giving consent for the application and that the person signing on behalf of the company has the legal authority to do so.

*Full name	Adrian Brown		
^Company name	Bilba Capital Pty Ltd		
^Title <i>(e.g. director/authorised representative)</i>	Director		
Phone	0427 825 259	Email	adrian@bilbagroup.com.au
*Signature			
*Date	12/02/2026		

Landowner signature

*Full name			
^Company name			
^Title <i>(e.g. director/authorised representative)</i>			
Phone		Email	
*Signature			
*Date			

Land owner/s authorisation to lodge a development application

Any Persons with an interest in the land (as applicable)

In accordance with section 46(3)(aa)(iii) and (iv) of the *Planning Act 1999*, a development application is to contain the name and contact details of **any person who entered into an agreement with the applicant and/or landowner, to acquire an estate or interest in the land to which the application relates; and any person with an interest** prescribed by regulation.

^Full name			
^Company name			
^Title <i>(e.g. director/authorised representative)</i>			
Phone		Email	

Any Persons with an interest in the land

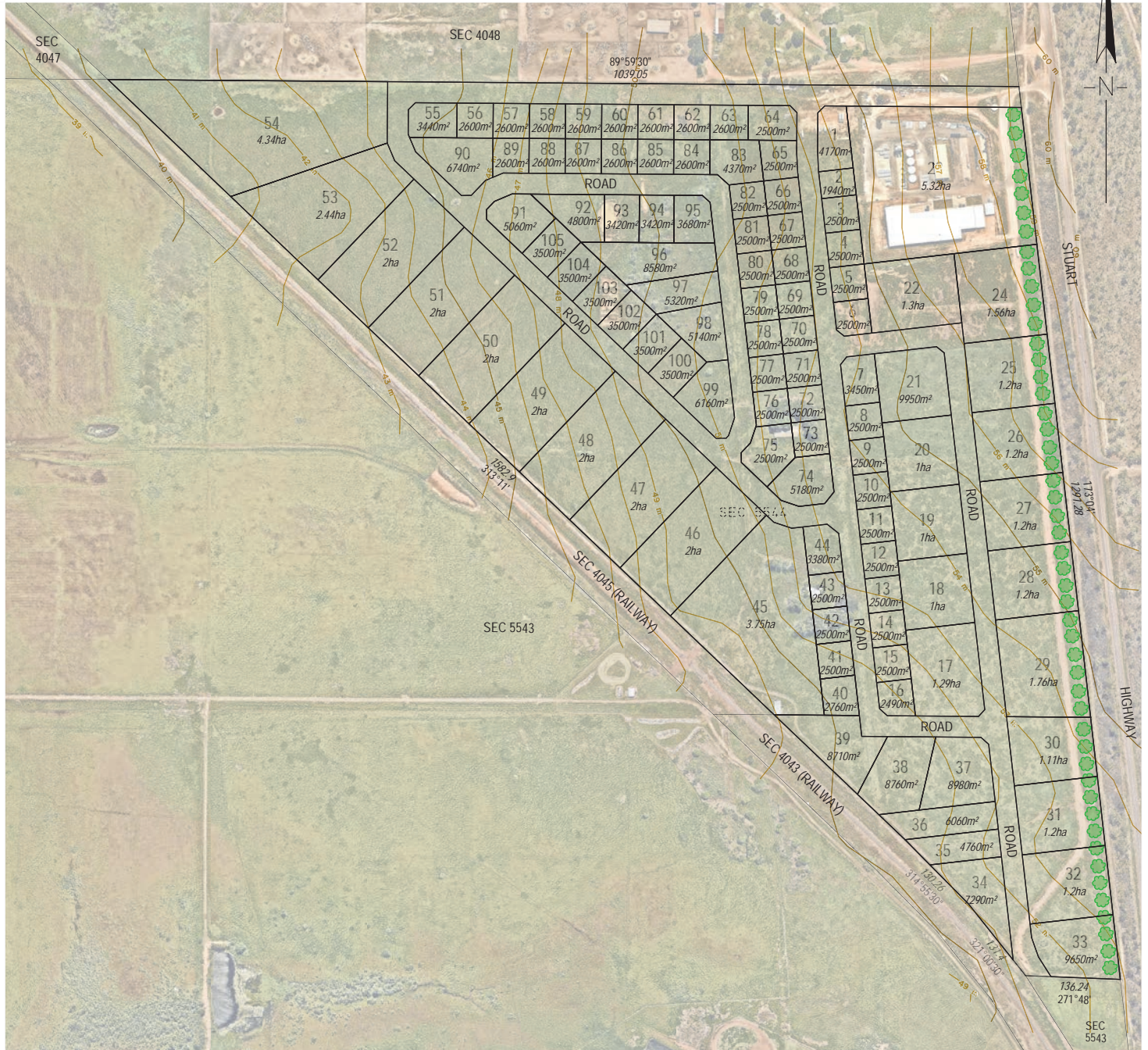
^Full name			
^Company name			
^Title <i>(e.g. director/authorised representative)</i>			
Phone		Email	

Privacy Note

The Department of Lands, Planning and Environment, on behalf of the Minister, is authorised under the *Planning Act 1999* to collect the information on this form, or otherwise provided by you, to consider a proposal to grant a Development Permit or to amend a planning scheme. Failure to provide the information in full may result in delays in processing of the application.

Some of the personal information provided by you on this application may be publicly available, as part of a public exhibition process. The information is also regularly provided to other Northern Territory Government agencies, the Australian Valuation Office, local governments and Commonwealth Government Departments and agencies, as required by law.

Collection of personal information on this form is done in accordance with the privacy legislation within the Northern Territory *Information Act 2002*. For more information, please refer to the Northern Territory Government's privacy statement located at <https://nt.gov.au/copyright-disclaimer-and-privacy> Any personal information provided can be subsequently accessed by you on request.



LOCATION PLAN

Not to Scale

Note
 Easements should be confirmed with the current Certificate of Title
 Contours should be confirmed with the current Certificate of Title
 Contours obtained from Geoscience Australia. Contours interval = 1m
 Areas and dimensions (including easements) are subject to survey
 Aerial image obtained from Nearmap, dated 02/05/2025
 Aerial image is shown for background information only
 and is not rectified or accurately positioned



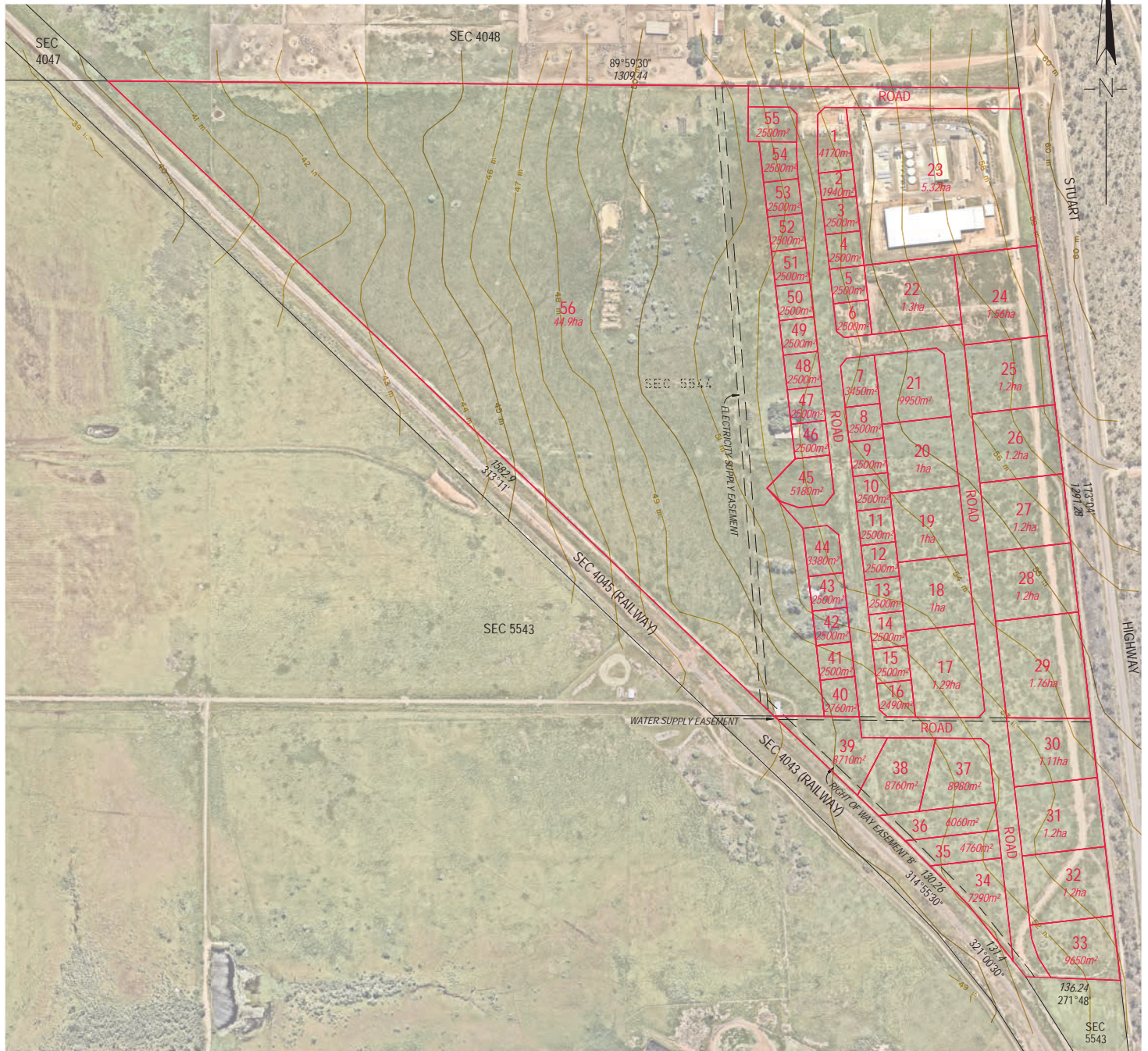
SURVEY & PLANNING
 CONSULTANTS
 10 HARVEY STREET
 DARWIN NT 0801
 PH. (08) 8981 2494
 FAX. (08) 8981 5205
 darwin@eja.com.au
 www.eja.com.au

SECTION 5544
 HUNDRED OF STRANGWAYS

CONCEPT SUBDIVISION

Client: BILBA GROUP

..... Licensed Surveyor:	Scale: 1:6000 (A3)
Date:	Datum:
Drawn by: LC	
Date: 13/08/2025	Drawing No:
Cad File: 10555-12.DWG	25/10555/12



LOCATION PLAN
Not to Scale

Note

Easements should be confirmed with the current Certificate of Title
Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Nearmap, dated 02/05/2025
Aerial image is shown for background information only
and is not rectified or accurately positioned
Contours obtained from Geoscience Australia. Contours interval = 1m

Stage 1

Subdivision of Section 5544 to create Lots 1 to 56

Stage 2 (Refer to plan 1055-14)

Subdivision of Lot 56 to create Lots 57 to 100



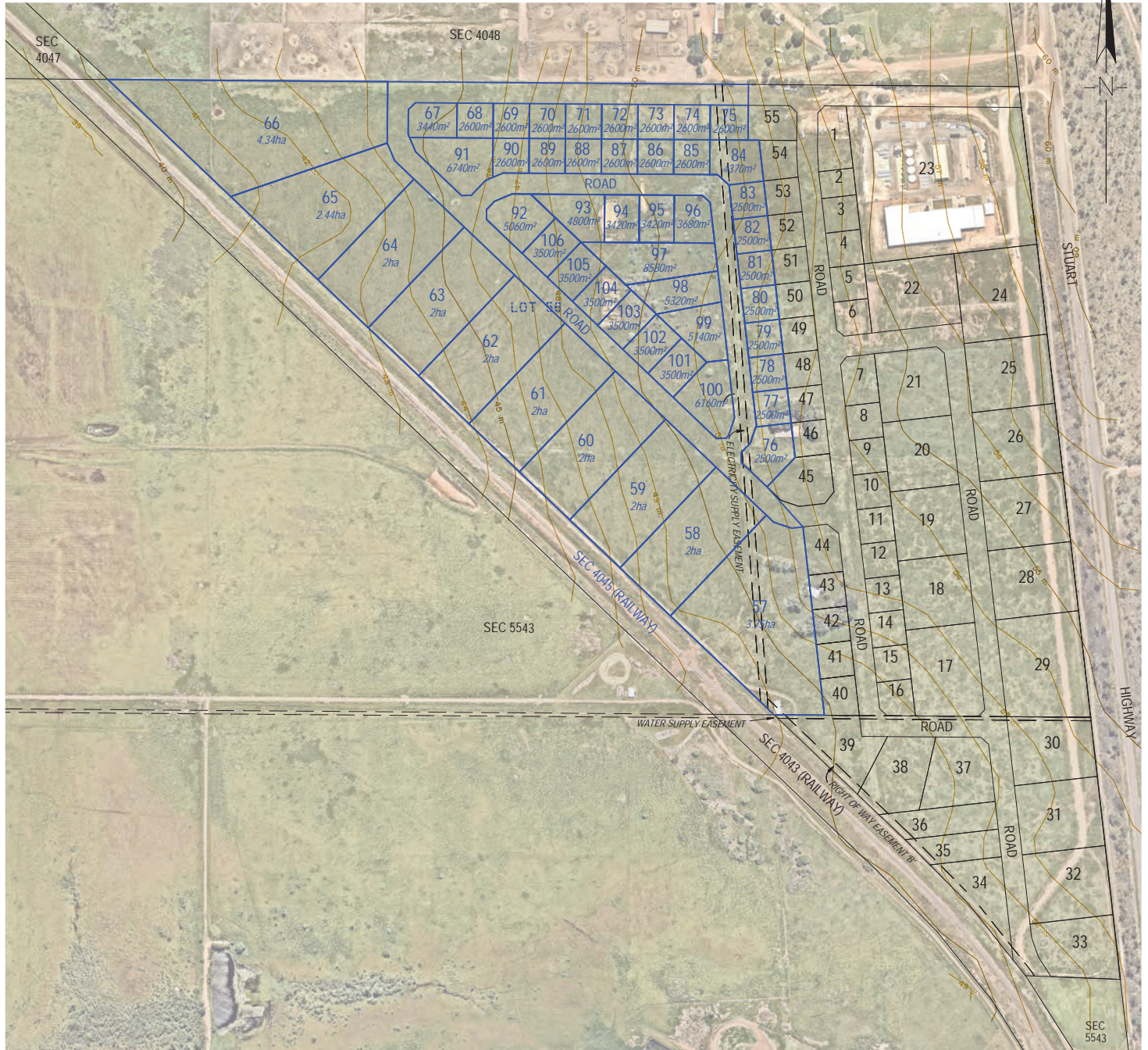
SURVEY & PLANNING CONSULTANTS
10 HARVEY STREET
DARWIN NT 0801
PH. (08) 8981 2494
FAX. (08) 8981 5205
darwin@eja.com.au
www.eja.com.au

**SECTION 5544
HUNDRED OF STRANGWAYS**

DEVELOPMENT APPLICATION

Client: BILBA GROUP

..... Licensed Surveyor:	Scale: 1:6000 (A3)
Date:	Datum:
Drawn by: LC	Date: 15/12/2025
Cad File: 10555-13.DWG	Drawing No: 25/10555/12



LOCATION PLAN
Not to Scale

Note
Easements should be confirmed with the current Certificate of Title Contours obtained from Geoscience Australia. Contours interval = 1m
Areas and dimensions (including easements) are subject to survey
Aerial image obtained from Nearmap, dated 02/05/2025
Aerial image is shown for background information only and is not rectified or accurately positioned

Stage 1 (Refer to plan 1055-13)
Subdivision of Section 5544 to create Lots 1 to 56

Stage 2
Subdivision of Lot 56 to create Lots 57 To 100



SURVEY & PLANNING CONSULTANTS
10 HARVEY STREET
DARWIN NT 0801
PH. (08) 8981 2494
FAX. (08) 8981 5205
darwin@eja.com.au
www.eja.com.au

**SECTION 5544
HUNDRED OF STRANGWAYS**

DEVELOPMENT APPLICATION

Client: BILBA GROUP

..... Licensed Surveyor:	Scale: 1:6000 (A3)
Date:	Datum:
Drawn by: LC	
Date: 15/12/2025	Drawing No:
Cad File: 10555-14.DWG	25/10555/14

NORTHERN TERRITORY OF AUSTRALIA

CONCURRENT APPLICATION PA2026/0049

The Minister for Lands, Planning and Environment has accepted a concurrent application made by Kevin Dodd of Earl James & Associates. The application seeks to:

- rezone Section 5544 Hundred of Strangways (2658 Stuart Highway, Livingstone) from Zone SL23 (Special Use Zone Litchfield) to Zone GI (General Industry); and
- subdivide to create 105 lots.

The proposed amendment is intended to facilitate a strategic industrial precinct, outside of the Darwin urban area and provide a dedicated industrial precinct for the locality.

Provided on the Development Applications Online (DAO) website are:

- Proposed Amendment/ Statement of Effect documents (detail of the proposal); and
- Supporting Information Documents.

Attached to this Explanatory Document are:

- extracts from the NT Planning Scheme 2007 relating to Zone SL23 (Special Use Zone Litchfield);
- extracts from the NT Planning Scheme 2020 relating to Zone GI (General Industry); and
- a locality map and proposed zoning map.

Period of Exhibition and Lodging a Submission

The exhibition period is from **Friday 3 April 2026** to **Friday 1 May 2026**.

The Concurrent Application includes both an amendment proposal and a development proposal. Written submissions about the concurrent application may address the amendment proposal, the development proposal, or both. Submissions received during the exhibition period will be taken into consideration by both the Minister and the consent authority in their determination of the respective components of the application.

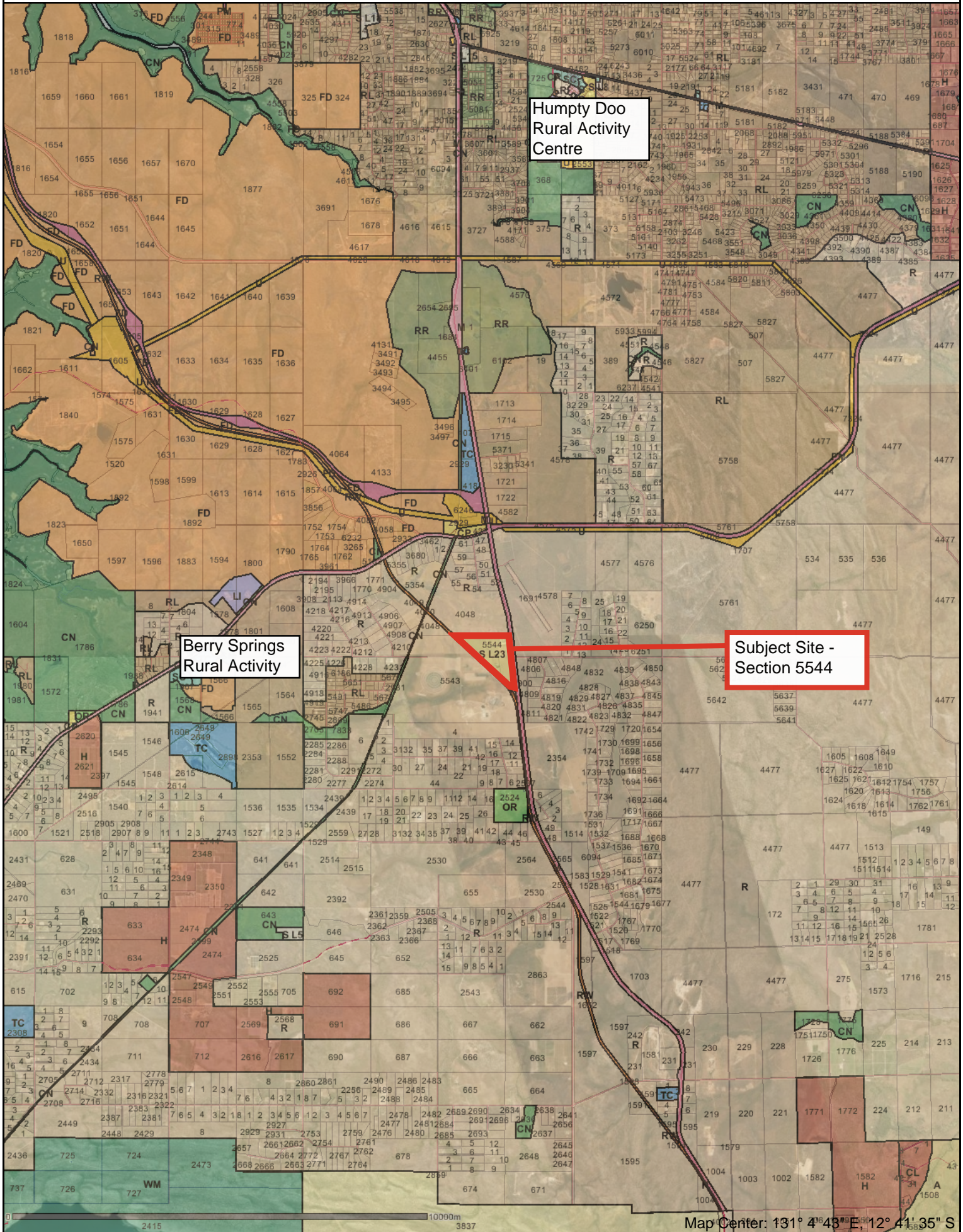
Submissions in relation to a concurrent application must be in writing and include the name and postal address of the author and may be made publicly available in full.

Written submissions are to be received by 11.59pm on **Friday 1 May 2026** and can be made through:

- the [DAO website](#) using the relevant “Make Submission” tab; or
- Postal letter and addressed to:
Director, Development Assessment Services
Department of Lands, Planning and Environment
PO Box 1680
DARWIN NT 0801;
- Email: das.dlpe@nt.gov.au; or
- Hand delivered to: Level 1, Energy House, 18-20 Cavenagh Street, Darwin City

For more information please contact Ellen Shannon, on (08) 8999 7694 or ellen.shannon@nt.gov.au.

Locality Plan



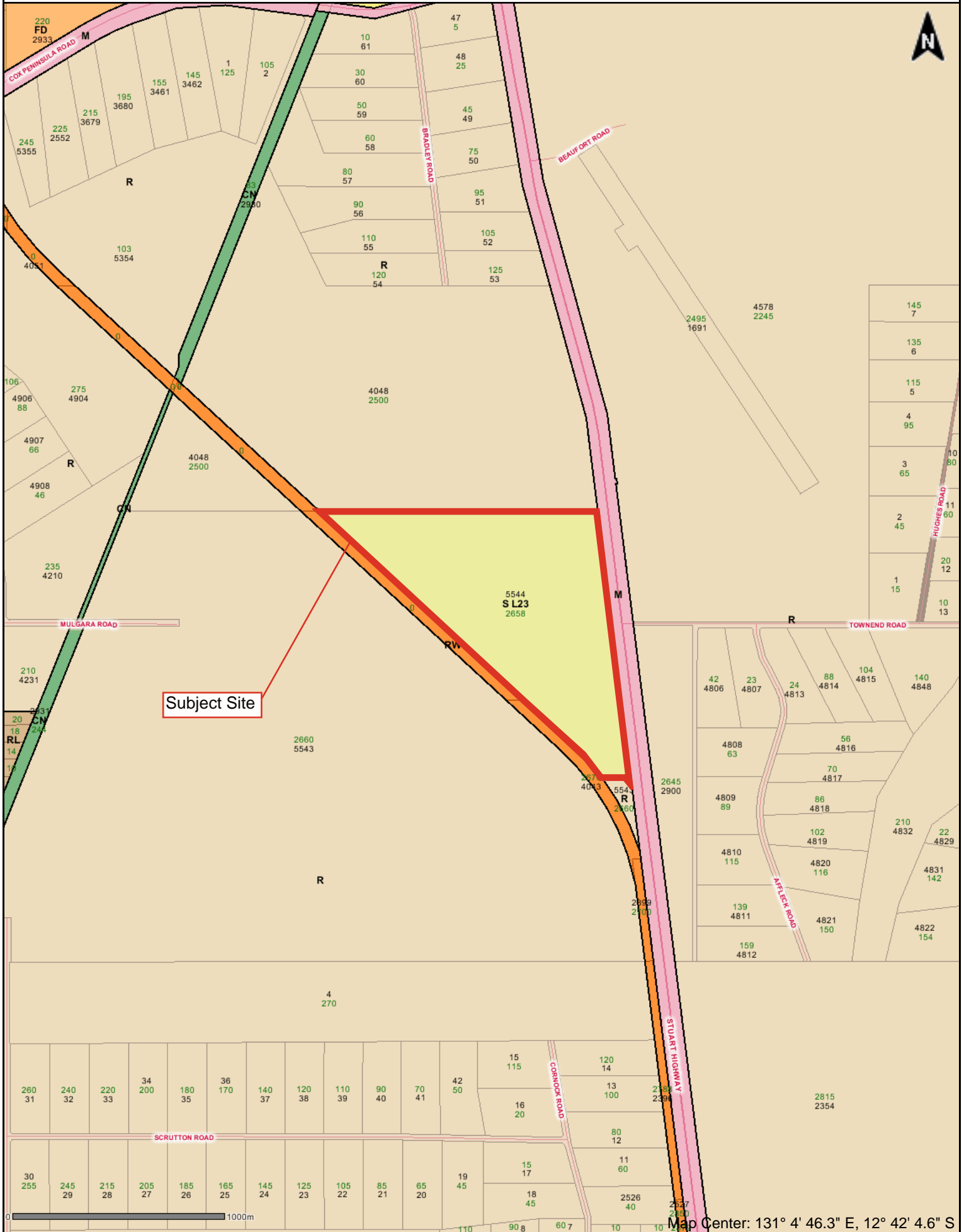
Humpty Doo
Rural Activity
Centre

Berry Springs
Rural Activity

Subject Site -
Section 554

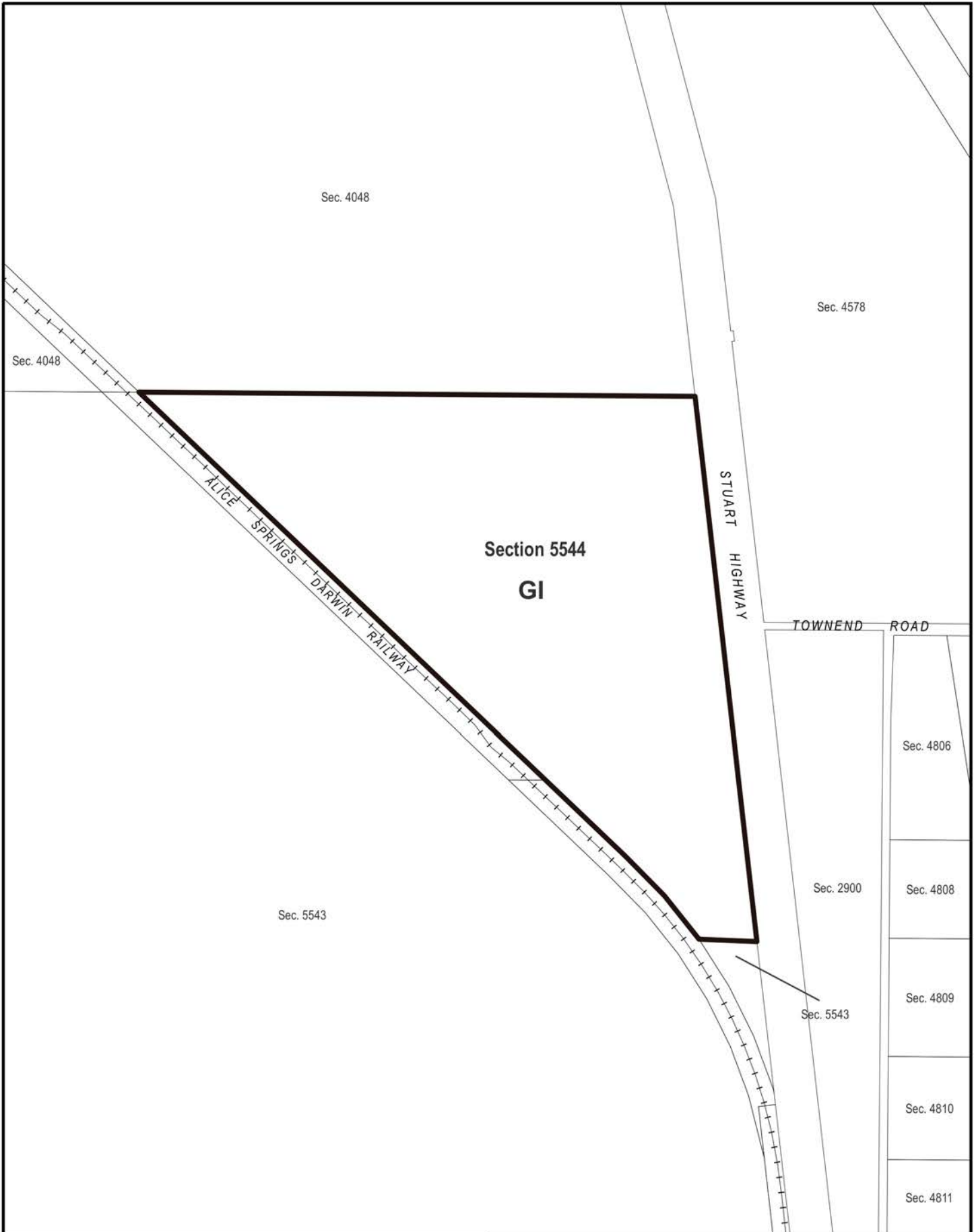
Map Center: 131° 4' 43" E, 12° 41' 35" S

Locality Plan - Existing Zoning



Subject Site

Map Center: 131° 4' 46.3" E, 12° 42' 4.6" S



Proposed NT Planning Scheme
 Amendment PA2026/0049
 Rezone Section 5544
 Hundred of Strangways
 Rezone from Zone SL23 (Specific Use)
 to Zone GI (General Industry)



Department of Lands, Planning and Environment



Scale: 1: 12000 @A4



File No: PA2026/0049

Date: 17/03/2026

SL23

Amendment No. 503
published in the NT
News on 07.09.2018
introduces SL23

1. For the purposes of this zone, Section 5544 Hundred of Strangways is to be considered as two areas of land, shown as Area A and Area B on the diagram to this zone, where:
 - (a) Area A, bounded by a thick black line, shown solid where the boundary is fixed; and shown dashed where the boundary may be adjusted for site design purposes providing Area A is not greater than 22.7 hectares; and
 - (b) Area B is the remaining area of Section 5544.
2. The purpose of this zone is to facilitate:
 - (a) development within Area A for uses related to or servicing the agriculture, horticulture or mining industries in northern Australia, and which address the rural character of the area; and
 - (b) development of Area B in accordance with Zone R (Rural)

Provisions for Area A
3. Without consent Area A may be used or developed for a caretaker's residence and light industry in accordance with this zone and the requirements of Zone GI (General Industry).
4. With consent Area A may be used or developed for the following purposes in accordance with Zone GI:
 - (a) Fuel Depot
 - (b) General Industry
 - (c) Office
 - (d) Warehouse
5. All other defined land uses within the NT Planning Scheme if proposed as the primary use of the land are prohibited.
6. Any land use established under subclauses 3 and 4, including set down areas, outdoor storage and the like, shall be located a minimum distance from the boundaries to:
 - (a) the Stuart Highway of 50 m, inclusive of a 5 m firebreak and a 15 m width of established native vegetation; and
 - (b) Section 4048 of 15 m, inclusive of a 5 m firebreak and a 10 m width of established native vegetation.

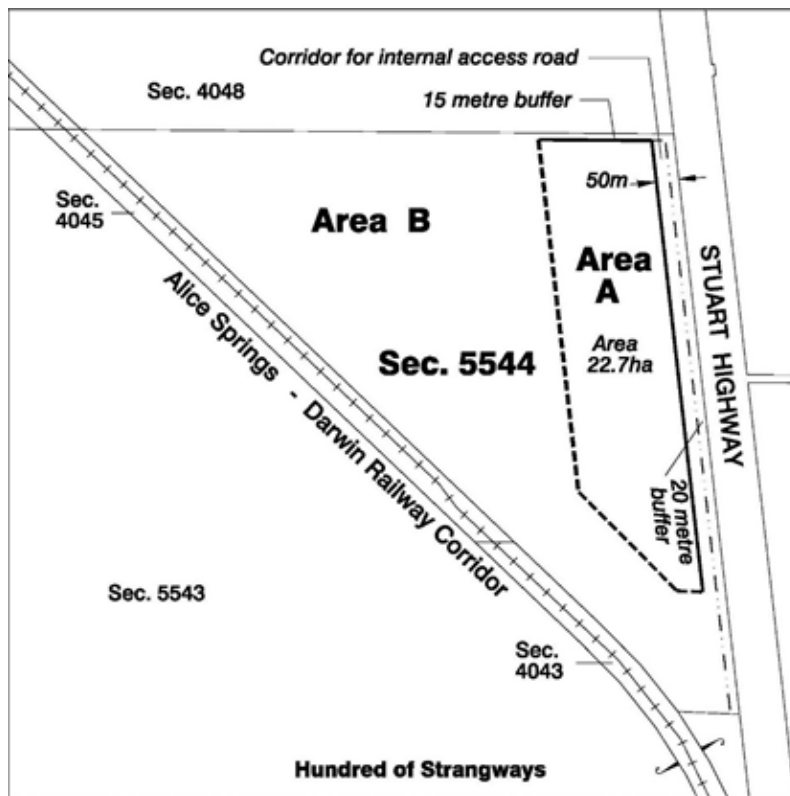
There is to be a minimum 10m setback to all other boundaries, including any unit title boundaries.
7. Subdivision of the land within Area A is to be in accordance with the provisions for industrial subdivision under Part 5 of the

Planning Scheme.

8. Notwithstanding subclause 7, the minimum lot size within Area A is 1 hectare.

Provisions for Area B

9. Area B may be used or developed in accordance with the requirements of Zone R (Rural).
10. Notwithstanding subclause 9, retail agricultural stall and plant nursery require consent in Area B.
11. Subdivision of the land within Area B is to be accordance with the requirements of Part 5 of the Northern Territory Planning Scheme as if the land were in Zone R.



4.15 Zone GI – General Industry

Zone Purpose

Provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the **amenity** of the locality, in locations with **access** to services and transport networks capable of supporting heavy **industry**.

Zone Outcomes

1. Predominantly industrial activities that require separation from sensitive uses due to the nature of operations and the scale of activities, including **fuel depot, industry-general, industry-light, industry-primary, motor body works, recycling depot, transport terminal** and **warehouse**.
2. Non-industrial activities, including **bar-public, food premises-cafe/takeaway**, primarily servicing local employees, and **office, shop, and showroom sales**, may be established where they serve the needs of the industrial uses on the **site** and are compatible with the ongoing industrial use of the zone.
3. Other non-industrial activities such as **education establishments**, indoor **leisure and recreation**, and **hotel/motel**, may also be established where they do not jeopardise the ongoing operation and viability of industrial activities.
4. Any other non-industrial activities may only be established where they do not compromise or conflict with the ongoing **primary use** of the locality for **industry** purposes.
5. Subdivision primarily provides for a range of lot sizes, including an appropriate proportion of larger lots to cater for larger format **industry** uses.
6. Industrial activities have **access** to the appropriate level of transport infrastructure and do not interfere with the safe and efficient operation of the surrounding road network.
7. Development does not impose unsustainable demands on surface water and groundwater.
8. Appropriate urban services including, roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure are available. If lots are unsewered, provision for the disposal of effluent must be made on-site so that the effluent does not pollute ground or surface waters.

9. Development that is not defined in Schedule 2 (Definitions) may occur only when assessment has determined that the development is appropriate in the zone, having regard to the purpose and outcomes of this zone and such matters as the location, nature, scale and intensity of the development.

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Agriculture	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.7.1 Rural Development (Agriculture, Horticulture and Intensive Animal Husbandry)
Animal Boarding	Impact assessable	3.6 LSF – Land Subject to Flooding 3.7 LSSS – Land Subject to Storm Surge	5.2.4 Car Parking 5.2.5 Loading Bays 5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.7.2 Animal Related Use (Animal Boarding and Stables)
Bar-Public	Impact assessable	3.8 LADR – Land Adjacent to a Designated Road 3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.5.10 Nightclub Entertainment Venue, Bar-Public and Bar-Small 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Caravan Accommodation	Permitted				5.4.11 Caravan Accommodation
Car Park	Permitted	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Car Wash	Merit assessable				5.5.9 Car Wash 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Demountable Structures	Permitted				5.8.7 Demountable Structures
Dwelling-Caretakers	Permitted				5.4.12 Dwelling-Caretakers 5.6.1 Setbacks and Building Design in Zones LI, GI and DV
Education Establishment	Impact assessable				5.6.1 Setbacks and Building Design Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.2 Education Establishment

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Emergency Services Facility	Merit assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.6 Emergency Service Facility
Excavation and Fill	Impact assessable	3.6 LSF – Land Subject to Flooding	5.2.4 Car Parking		5.8.9 Excavation and Fill
Food Premises-Café/Take Away	Merit assessable	3.7 LSSS – Land Subject to Storm Surge	5.2.5 Loading Bays		5.5.11 Food Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Food Premises-Restaurant	Impact assessable	3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping		5.5.11 Food Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Fuel Depot	Impact assessable	3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Hotel/Motel	Impact assessable	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-General	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-Light	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Industry-Primary	Permitted				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Leisure and Recreation	Impact assessable	3.4 CR – Coastal Reclamation 3.6 LSF – Land Subject to Flooding	5.2.1 General Height Control 5.2.4 Car Parking 5.2.5 Loading Bays		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.5 Leisure and Recreation
Medical Clinic	Permitted	3.7 LSSS – Land Subject to Storm Surge 3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping 5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Motor Body Works	Permitted	3.9 DHD – Dredging in Darwin Harbour			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.6.3 Motor Body Works and Motor Repair Station
Motor Repair Station	Permitted	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.6.3 Motor Body Works and Motor Repair Station
Office	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Passenger Terminal	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Place of Worship	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.4 Exhibition Centre, Place of Assembly and Place of Worship

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Plant Nursery	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Recycling Depot	Permitted	3.6 LSF – Land Subject to Flooding 3.7 LSSS – Land Subject to Storm Surge	5.2.4 Car Parking 5.2.5 Loading Bays 5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Renewable Energy Facility	Impact assessable	3.8 LADR – Land Adjacent to a Designated Road 3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI 5.8.8 Renewable Energy Facility
Service Station	Merit assessable	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			5.5.8 Service Station 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Sex Services-Commercial Premises	Permitted				5.5.14 Sex Services-Commercial Premises 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Sex Services-Home Based Business	Permitted				5.4.10 Home Based Businesses
Shop	Impact assessable				5.5.5 Shops in Zones CV, CL, LI, GI, DV, OR and CN 5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI
Showroom Sales	Impact assessable				5.6.1 Setbacks and Building Design in Zones LI, GI and DV 5.6.2 Expansion of existing Developments in Zones LI and GI

ASSESSMENT TABLE – ZONE GI – GENERAL INDUSTRY					
Defined Use	Assessment Category	Overlays	General Development Requirements	Location Specific Development Requirements	Specific Development Requirements
Telecommunications Facility	Impact assessable	3.4 CR – Coastal Reclamation	5.2.1 General Height Control		5.8.10 Telecommunications Facility
Transport terminal	Permitted	3.6 LSF – Land Subject to Flooding	5.2.4 Car Parking		5.6.1 Setbacks and Building Design in Zones LI, GI and DV
Vehicle Sales and Hire	Permitted	3.7 LSSS – Land Subject to Storm Surge	5.2.5 Loading Bays		5.6.2 Expansion of existing Developments in Zones LI and GI
Veterinary Clinic	Permitted	3.8 LADR – Land Adjacent to a Designated Road	5.2.6 Landscaping		5.6.1 Setbacks and Building Design in Zones LI, GI and DV
Warehouse	Permitted	3.9 DHD – Dredging in Darwin Harbour	5.2.7 Setbacks for Development Adjacent to Land in Zones LR, LMR, MR or HR		5.6.2 Expansion of existing Developments in Zones LI and GI
All other uses defined in Schedule 2 (Definitions)	Prohibited	3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance			
Undefined Uses Any use not defined in Schedule 2 (Definitions)	Impact assessable				Part 2, Part 3, Part 4, Part 5 of this Planning Scheme

Concurrent Application
RECORD OF MEETING - Pre-application meeting

30B Meeting with planning adviser required before making concurrent application

30B(4) The purpose of the meeting is to enable the planning adviser to give the person information and guidance relevant to the concurrent application.

This document will be completed by the planning adviser(s) and a copy retained on TRM LUPD2016/0010-102.

Copy of the completed record of meeting document will be provided to applicant at conclusion or shortly after the meeting.

Preliminary details	
1	Appointment date & time Date: 28/01/2026 Time: 11:00am
2	Attendees (including DLPE staff in attendance) David Burrow (Senior Planner), Lands Planning George Maly (Manager), Development Assessment Services Kevin Dodd, Earl James and Associates Adrian Brown, Bilba Group (online) Isobel Heffernan, Bilba Group (online)
3	Meeting start / end time Start: 11:00 End: 12:20
4	Land details Parcel details (lot # / street address) Section 5543 and 5544, Hundred of Strangways / 2658 Stuart Highway, Livingston.
5	Land area subject of application 90 hectares
6	Current zone Zone SL23 (Special Use Zone Litchfield)
7	Current land use Industry and rural.
8	Proposal summary (<i>This summary may evolve through the course of discussions</i>) Rezoning: To rezone land from SL23 to GI (General Industry)*. *In practice, this increases the potential area for industrial uses from 22.7 hectares to 90 hectares (67.3-hectare increase). Development: Subdivision to create 105 Lots between 1940m ² and 5.32 hectares in area, with access off Stuart Highway.

9	Record of discussion – key points, issues discussed	
	<p>Issues or items that:</p> <ul style="list-style-type: none"> • need to be considered by applicant and addressed in the proposal • have potential to guide, constrain or prevent the proposal • are likely to generate public comment or comment/requirements from service authorities 	
	Amendment aspects discussed:	
	• Established policy / planning direction for locality (including published policy documents)	☒
	• Compatibility with existing land uses on site and surrounding area	☒
	• Significant Development Report – likely to be required?	☒
	• Land capability	☒
	• Public/community facilities & open space	☒
	• Utilities, facilities and infrastructure	☒
	• Impact on existing and future amenity of the area	☒
	• Public interest	☒
	• Natural, social, cultural or heritage values	☒
	<p>NOTES:</p> <p>The applicant professes that there is a need for larger industrial sites outside of urban areas and identifies the site as suitable. It is recommended that the applicant include their justification in any subsequent application.</p> <p>The Litchfield Subregional Land Use Plan (LSLUP) is applicable to the site and does not support the introduction of industry where separate from a Rural Activity Centre. It is suggested that the applicant contact the Department's Land Development Unit (LDU), who are actively working toward a better understand of industrial land supply and an approach to industrial land in the area. However, currently the Strategic Framework does not support the use of land identified for rural purposes for industry.</p> <p>It is noted that the existing Special Use Zone already identifies a portion of the site for industrial activities.</p>	
	Development aspects:	
	• Compliance with requirements of proposed zone (preliminary advice only)	☒
	• Environmental assessment	☒
	• Utilities, facilities and infrastructure	☒
	• Existing buildings on-site	☒

NOTES:

It is recommended that further consideration of the environmental impacts on groundwater resources be included in any application. Please refer to comments made by Land Resources DLPE, in the Meeting Minutes of the Pre-application Development Assessment Forum held on 26/08/2025 (see attached).

Please refer to comments made by Power and Water Corporation in the Meeting Minutes of the Pre-application Development Assessment Forum held on 26/08/2025. These comments indicated that the existing system does not have capacity to service the site (see attached).

The existing building on site is proposed to be located on an individual Lot.





10	Concurrent application process	
	Concurrent application process (including next steps and decision points) have been discussed	<input checked="" type="checkbox"/>
	<p>NOTES</p> <p>Applicant queried the merits of a Concurrent Application process. There are positives and negatives to each pathway, and the choice is dependent on the applicant's wishes.</p> <p>It is recommended that the applicant consult directly with Power and Water Corporation, Land Resources Division, and Land Development Unit prior to submitting any application for Zone GI (General Industry), to agree on an approach to addressing the provision of services, mitigating environmental risk and the provision of industry in a more coordinated manner.</p>	

11	General notes – any other items or issues to be considered	
	<p>NOTES</p> <p>Previous advice provided from Lands Planning in email dated 12/09/2025 (attached).</p> <p>Previous advice provided at Pre-application Development Assessment Forum dated 26/08/2025 (attached), with specific consideration of the following:</p> <ul style="list-style-type: none"> • Increased drainage toward railway corridor, • Power and Water's comments regarding insufficient capacity, and requesting a coordinated strategy, and • Water Resources Division's concerns about demand on groundwater resources and erosion control. 	

12	Advice to applicant		
	Recommendation to consult with other agencies prior to application lodgement		
	Aboriginal Areas Protection Authority	<input checked="" type="checkbox"/>	Department of Lands, Planning and Environment – Crown Land Estate
	Civil Aviation Safety Authority	<input type="checkbox"/>	Department of Lands, Planning and Environment – Survey Land Records
	Council	<input checked="" type="checkbox"/>	Department of Agriculture and Fisheries
	Darwin International Airport	<input type="checkbox"/>	Department of Logistics and Infrastructure - Public Transport
	Darwin Port Corporation	<input checked="" type="checkbox"/>	Department of Logistics and Infrastructure - Transport Assets
	Department of Defence	<input type="checkbox"/>	Department of Logistics and Infrastructure - Transport Planning
	Department of Health – Environmental Health	<input checked="" type="checkbox"/>	NBN Co
	Department of Health – Medical Entomology	<input checked="" type="checkbox"/>	Northern Territory Police
	Department of Justice	<input type="checkbox"/>	NT Fire and Rescue Service

Department of Lands, Planning and Environment – Development Co-ordination, Rangelands Division:- -Heritage Water Resources - NTEPA Vegetation Assessment Unit	<input checked="" type="checkbox"/>	NT Work Safe	<input type="checkbox"/>
Power and Water Corporation - Water	<input checked="" type="checkbox"/>	Power and Water Corporation - Power	<input checked="" type="checkbox"/>
<p>Other:</p> <p>To reiterate, it is strongly recommended that the applicant consult with:</p> <ul style="list-style-type: none"> • The relevant railway authority regarding the proposal's potential impact on the railway corridor, • Power and Water Corporation to coordinate the provision of services, and • The Land Resources Division regarding groundwater (bore allocation), erosion control, and separation distances from an abattoir. 			
<p>The final decision on the <u>amendment proposal</u> contained within a concurrent application rests with the Minister for Infrastructure, Planning and Logistics.</p> <p>The final decision on the <u>development proposal</u> contained within a concurrent application rests with the consent authority.</p> <p>The advice and opinions expressed during a pre-application meeting in no way pre-empts the Minister or consent authority's decision(s) on the proposal.</p> <p>The advice provided above is preliminary only, made on the basis of information immediately available at the time of meeting and the professional opinion of the Planning Adviser. Full assessment of the application will occur after lodgement of the application and may result in a different outcome.</p>			

Post meeting action	
13	DLPE follow up action (if any): Not applicable.
14	DLPE Contact name and details Not applicable.

15 This is a true record of discussions (please sign):	
Applicant(s)	Planning Adviser(s)
 9/2/2026	 30/01/2026
Name: Kevin Dodd, Earl James and Associates	Name: David Burrow (Senior Planner), Lands Planning
 09/02/2026	 George Maly 2026.02.10 10:45:05 +09'30'
Name: Adrian Brown, Bilba Group	Name: George Maly (Manager), Development Assessment Services

PRIVACY NOTE:

The Department of Lands, Planning and Environment, is authorised under the *Planning Act 1999* to collect the information on this form, or otherwise provided by you, to consider a concurrent application.

Some of the personal information provided by you on this form may be publicly available, as part of a public exhibition process. The information may also be provided to other NT Government agencies, the Australian Valuation Office, local governments and Commonwealth Government Departments and agencies, as required by law.

Collection of personal information on this form is done in accordance with the privacy legislation contained within the *Information Act 2002 (NT)*. For more information please refer to the Department of Lands, Planning and Environment privacy statement located at <https://environment.nt.gov.au/>.

Any personal information provided can be subsequently accessed by you on request.

Response to Discussion Points Raised During Concurrent Application Meeting on 28th January 2026

This document formalises the Bilba Groups response to the discussion points raised during the Concurrent Application Meeting held on 28 January 2026 regarding Livingstone Industrial Estate (Lot 5544, Hundreds of Strangways, Livingstone), including matters requiring further consideration, issues that may influence or constrain the proposal, and items likely to attract public or service authority comment.

Amendment aspects discuss:
<i>Established policy / planning direction for locality (including published policy documents)</i>
<ul style="list-style-type: none"> Lands Planning noted “The Litchfield Subregional Land Use Plan (LSLUP) is applicable to the site and does not support the introduction of industry where separate from a Rural Activity Centre. It is suggested that the applicant contact the Department’s Land Development Unit (LDU), who are actively working toward a better understand of industrial land supply and an approach to industrial land in the area. However, currently the Strategic Framework does not support the use of land identified for rural purposes for industry.” Upon internal review we note the LSLUP does not contain an explicit prohibition on general industry within rural zones. The LSLUP provides limited policy guidance regarding the co-existence of low-impact industrial uses with established rural or agricultural activities. It is acknowledged that the Rural Activity Centre (RAC) planning diagrams identify light industry only; this indicates an intent for RACs to accommodate light industrial uses, with general industry not identified or envisaged within these areas, as such uses would not be suitable given the scale and amenity expectations of RACs.
<i>Compatibility with existing land uses on site and surrounding area</i>
<ul style="list-style-type: none"> The proposal is intended to be of a scale and nature that is compatible with the surrounding rural context and does not detract from the primary rural function of the locality. The subject site is located within a context characterised by non-sensitive land uses, including a national road corridor, intensive livestock facility, abattoir, firefighting and emergency service logistics headquarters, and an adjoining railway line. These surrounding uses contribute to an environment where industrial-type activities are already present and where potential land use impacts are already managed. Subject to appropriate siting, design and operational controls, it is considered that the proposed use can coexist with surrounding rural and agricultural activities without giving rise to land use conflict. Under the NT Planning Scheme, only a limited range of uses are permissible within the General Industry zone, with most being impact assessable, ensuring that non-compatible activities will not occur on the site. The site currently contains an established manufacturing plant and warehouse, which has coexisted with surrounding rural and agricultural land uses without recorded amenity concerns.
<i>Significant Development Report – likely to be required?</i>
<ul style="list-style-type: none"> The Lands Planning team did not indicate that the proposal would be likely to require a Significant Development Report as part of the assessment process.

Land capability

- Byrne Consultants have undertaken a land suitability assessment, which confirmed the site is S2 (Moderately Suitable), identified no constrained land within the proposed 75.82-hectare lots, and found no suitability issues that cannot be addressed through standard engineering practices.
- A comprehensive soil survey and land capability assessment was previously prepared by EnviroAg Australia, which found the site's well-drained soils to be suitable for on-site wastewater treatment and disposal.

Public / community facilities & open space

- Consistent with the nature of an industrial estate, the proposal does not include dedicated public or community facilities or public open space.

Utilities, facilities & infrastructure

- Ministerial approval was granted on 12 June 2024 for direct access to the Livingstone Industrial Estate from the Stuart Highway.
- Aurecon has undertaken a traffic impact assessment and designed an upgraded intersection for said access, which has received in-principle support from the Department of Logistics and Infrastructure, Litchfield Council, and the adjoining landowner.
- Electrical servicing has been assessed by AGA Consulting Engineers, and PWC has confirmed Stage 1 can be supplied from the existing network, with Stage 2 supported following augmentation.
- Byrne Consultants has undertaken preliminary water demand modelling, with supply options including existing reticulation, interim groundwater, and on-site storage for firefighting.
- The subdivision is intended to incorporate separate potable and non-potable lines. PWC is currently unable to provide detailed potable demand data for industrial uses, servicing infrastructure will be designed as fit-for-purpose with future augmentation and handover arrangements to be progressed as required, while on-site wastewater systems will be utilised as reticulated sewer is not available.
- Byrne Consultants have undertaken stormwater management planning, with runoff managed through internal drainage infrastructure, detention basins, and measures to ensure stormwater is appropriately treated.

Impact on existing and future amenity of the area

- The current zoning framework already permits General Industry related development over 22.7 hectares under the existing Special Use Zone (SL23), indicating that such uses have been deemed compatible with the character and amenity of the area.
- General Industry activities have been operational on the site since 2018, in accordance with special use zoning (SL23) with no complaints received regarding impacts on rural amenity or lifestyle from the local community or neighbouring lot owners.
- The proposal is designed to preserve rural amenity and the established rural lifestyle of the locality through the provision of green buffers and the retention of larger lot sizes.
- The limited range of permissible and impact-assessable uses within the General Industry zone provides a framework to ensure rural amenity and lifestyle values are not adversely affected.
- The nearest existing residential dwelling is located approximately 500 metres from the site, resulting in a low risk of amenity impacts to residents.

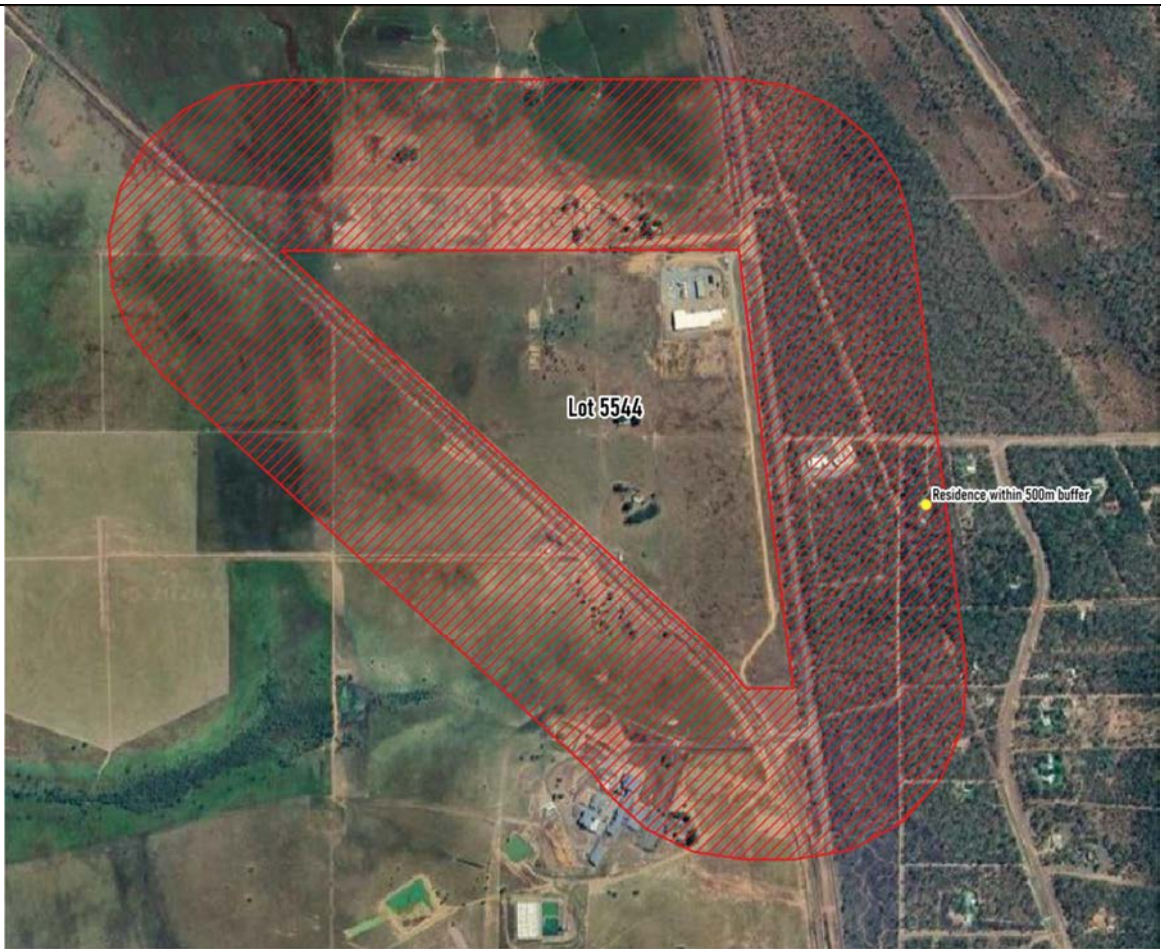


Figure 1: 500m buffer surrounding Lot5544

Public interest

- The proposal responds to the identified need for larger industrial sites outside of urban areas, with the subject site well suited to accommodate such development given its scale, location and existing industrial context.
- The proposal is expected to deliver positive public interest outcomes through the creation of employment opportunities during construction and ongoing operation.
- The development will support local and regional businesses by providing additional industrial land supply and opportunities for service and logistics-related uses.
- The site’s strategic location on the Stuart Highway provides efficient access to key transport corridors, supporting orderly economic development in the region.
- The proposal contributes to broader economic growth and investment within the Litchfield area while maintaining appropriate management of rural amenity and land use compatibility.

Natural, social, cultural or heritage values

- Natural, social, cultural and heritage values will be protected and managed in accordance with the NT Planning Scheme, relevant legislation and regulations, and applicable engineering and environmental standards.

Development aspects:

Compliance with requirements of proposed zone (preliminary advice only)

- The proposal has been prepared to align with the intent and requirements of the proposed General Industry (GI) zone under the NT Planning Scheme.

- The GI zone provides an appropriate framework for industrial development, with most uses subject to impact assessment to ensure compatibility and appropriate management of potential impacts.
- Ongoing assessment and detailed design will ensure future development is consistent with zone provisions and relevant statutory requirements.

Environmental Assessment

- Lands Planning recommended “further consideration of the environmental impacts on groundwater resources be included in any application”.
- Byrne Consultants’ water, wastewater and stormwater servicing assessments have been conducted and identify appropriate supply options, on-site management measures, and treated runoff controls.
- Further environmental impact studies will be completed in accordance with the requirements of the NT Planning Scheme and relevant legislation.

Utilities, facilities and infrastructure

- Lands Planning noted Power and Water Corporation’s advice that existing servicing infrastructure may have limited capacity; however, Byrne Consultants have investigated servicing options and proposed solutions for staged water supply, while electrical capacity for Stage 1 is available from the existing network with augmentation planned for future stages.

Existing buildings on site

- The existing buildings on site include manufacturing workshops, a retail showroom, offices and hardstand storage areas, which are proposed to be contained within an individual lot as part of the subdivision layout.



SIMON BYRNE PTY LTD
ABN 78 124 388 192
PO Box 36789, Winnellie NT 0821
e. info@byrneconsultants.com.au
w. www.byrneconsultants.com.au

13 November 2025
Report NT25110-SSR-001_0.docx

Our Ref: NT25110-SSR-001_0.docx

Mr Adrian Brown
Bilba Group Pty Ltd
2658 Stuart Highway, Livingstone NT 0822

Dear Adrian

Byrne Consultants has been engaged to conduct a preliminary service investigation for the proposed industrial subdivision of Sec 5544 Hundred of Strangways. The proposed development is for 105 Lots ranging in size from 1,940 - 53,200m². Based on preliminary discussions with the various authorities, please see below summaries for proposed servicing connections/details.

Darwin

T8, Ground Floor
60 Winnellie Road,
Winnellie NT 0820
P: (08) 8947 2476

Gold Coast

Shop 6001
19 Robina Town Centre Drive,
Robina QLD 4226
P: (07) 5628 2794

Sunshine Coast

30 Chancellor Village
Boulevard,
Sippy Downs QLD 4556
P: (07) 5329 4507

Executive Summary

Roads

Access to the proposed 105-lot industrial subdivision will be provided via the existing intersection on the Stuart Highway, located at the site's north-eastern boundary via a CHR/CHL intersection. Internal roads will be designed to a Category A access road cross section with kerb and channel.

Electrical

A Negotiated Connection Application (NCA) has been submitted to Power and Water Corporation (PWC) to determine the electrical servicing strategy for the subdivision. The ultimate configuration and supply capacity will depend on the outcome of that application and PWC's review.

Water Supply

Preliminary demand modelling (based on a PWC agreed planning demand rate of 0.25 L/s/ha) indicates an annual demand of approximately 428 ML for the full 90.5 ha development.

PWC has advised there is currently insufficient capacity in the existing network to service the subdivision. Two future supply options were identified:

1. Augmenting the Strauss Water Treatment Plant project (approx. 5-year timeframe, requiring headworks contributions).
2. Developing a private groundwater supply, supported by the local aquifer, with bores capable of up to 15 L/s yield.

A groundwater-based system could meet early-stage demand (≤ 500 ML/year) under a Tier 1 licence, with potential transition to PWC supply once augmentation works are complete. Firefighting storage of approximately 864 kL will be incorporated within overall on-site storage to satisfy NTPFES requirements.

Wastewater Management

No reticulated sewer infrastructure exists in the area. Each lot will therefore require an on-lot wastewater management system (WMS) designed and certified under the *Building Act 1993 (NT)* and the *Code of Practice for Wastewater Management*.

Communications

The NBN network passes the site's primary access point. It is expected that NBN Co will provide service to the development. Confirmation will occur following receipt of the development permit and submission of a formal NBN application.

Stormwater

The site naturally grades to the southwest, allowing drainage via kerb and channel, table drains, pits, and pipes to existing cross-drainage culverts. Post-development modelling confirms an increase in peak flow due to added impervious surfaces. To mitigate impacts and maintain pre-development discharge rates, detention basins have been incorporated into the layout. Preliminary sizing based on the Boyd method indicates sufficient storage capacity is available within the site to satisfy Council's stormwater management requirements.

1 Roads

Site access to the subdivision is to be managed through the existing access road and intersection from the Stuart Highway at the north-eastern boundary of the allotment. A Traffic Impact Assessment (TIA) has been undertaken by Aurecon which outlines the requirement for an intersection upgrade at the access. A concept CHR/CHL intersection design has been prepared by Aurecon and is understood to have received in-principal support for DLI, Litchfield Council and Strangways Developments (neighbouring lot owner to the north).

Although the internal road falls under a Category D infrastructure category, Bilba has expressed their preference in adopting a kerb and channel road cross section to mitigate parking in the table drains and for overall aesthetics of the development. The internal roads will adopt a Category A road cross section.

2 Electrical

It is understood that a Negotiated Connection Application (NCA) has been submitted to PWC on 16th Oct 2025.

The electrical servicing strategy will be determined pending the outcomes of the NCA accordingly.

3 Water Supply

3.1 Existing PWC Network

Power Water Corporation (PWC) information indicates that Lot 5544 has water mains located to the east, west and south as shown in Figure 3.1 and Figure 3.2 below. These mains include:

- East - DN300 MSCL water main located in the Stuart Highway road reserve – originally the Manton Dam raw water supply to Darwin, currently potable water supply flowing north to south, pumped from Noonamah.
- South - DN225 PVC main located in an easement through Lot 5544 – potable water supply to Mala Plains subdivision area.
- West – DN1350 and DN1050 MSCL – Darwin River raw water supply to Darwin.

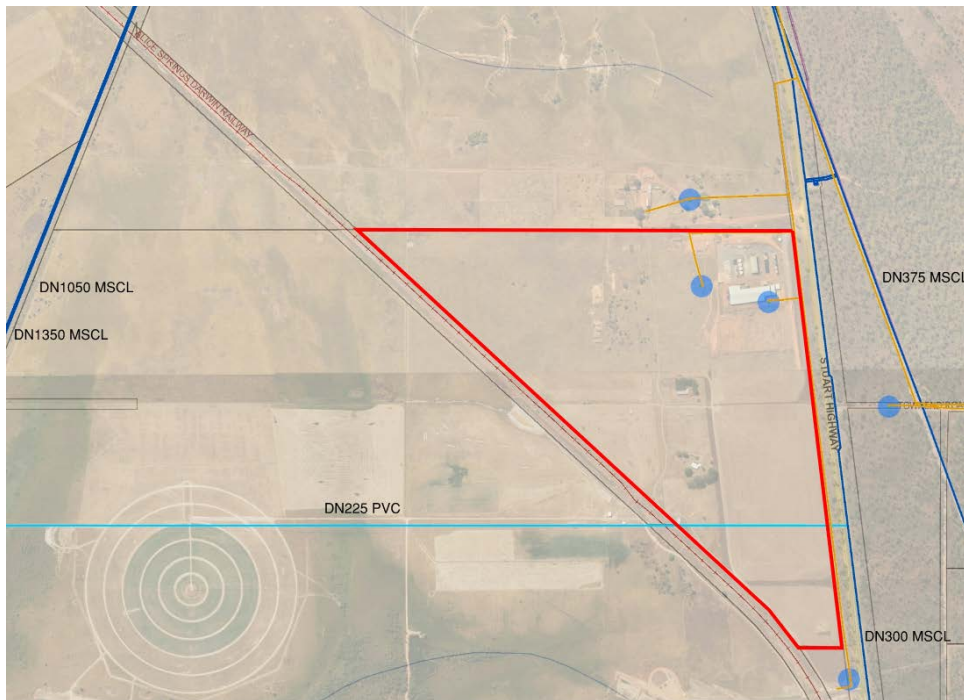


Figure 3.1 – PWC Water Mains (source: PWC)

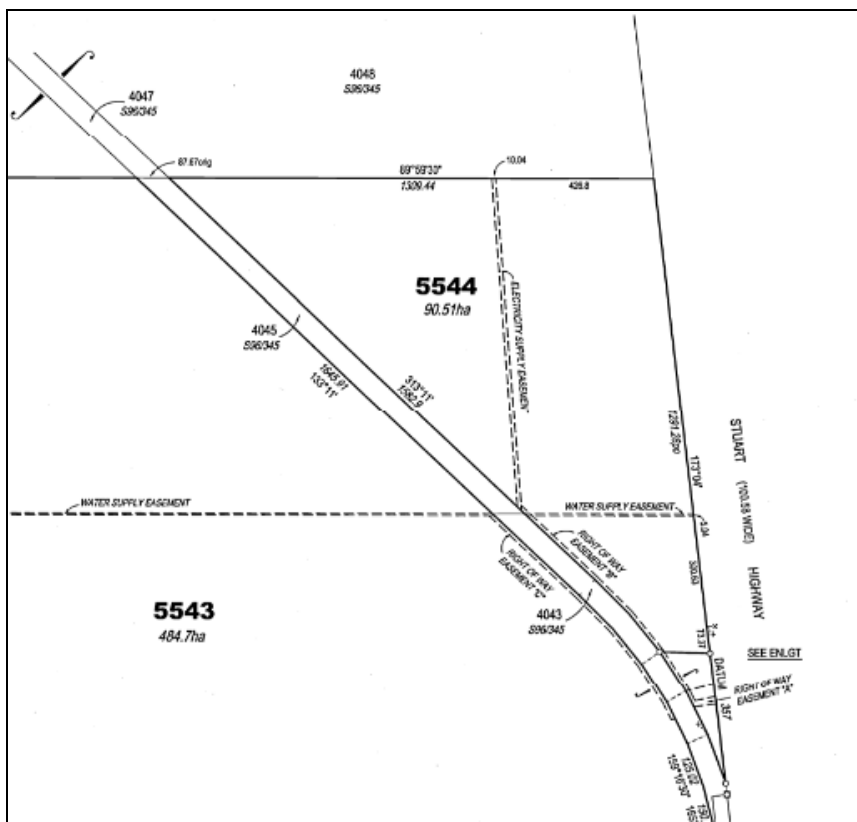


Figure 3.2 – PWC Water Main Easement (source: NT Atlas)

3.2 Water Demand Estimate

3.2.1 Proposed Subdivision Demand Estimates

Water demand for a proposed development would typically be estimated based on the PWC NT Supplement to the Water Supply Code of Australia and the proposed subdivision layout. The PWC supplement has three different levels of water demand for industrial areas:

- High demand – 1.6 L/s/gross ha
- Moderate demand – 1.1 L/s/gross ha
- Low demand – 0.45 L/s/gross ha

PWC has advised that based on monitoring of existing industrial areas such as East Arm, that a planning demand of 20 EP/gross ha or 0.25 L/s/gross ha is more likely. As such, water demand for the proposed subdivision has been based on 3 development scenarios at a planning demand rate of 0.25 L/s/gross ha.

Table 3.1: Water demand for subdivision stages

Subdivision Stage	Gross Area (ha)	Peak Day Flowrate (L/s)	Peak Hour Flowrate (L/s)	Required Mains Fire Flow (L/s)	Peak Day Demand (ML/day)	Annual Demand (ML/annum)
Stage 1 & Stage 2	90.5	14	27	78	1.2	428
Stage 1	45.6	7	14	69	0.6	216
Stage 2	44.9	7	14	69	0.6	212

It is noted that the proposed subdivision is located in an unsewered area. This means that all wastewater generated on-site will need to be treated and disposed of on site. As such, it is expected that the type of industry that would occupy the subdivision is likely to be a lower water demand type industry and the 0.25 L/s/ha water demand scenario is considered appropriate.

3.3 Water Network Available Capacity

PWC was contacted to discuss the available capacity of the existing water reticulation network. PWC advised there is insufficient available capacity for the subdivision (whether in peak or off-peak times), however the Darwin Region Water Supply Infrastructure Program, including the return of Manton Dam to service and the Strauss water treatment plant (under construction) provides a future opportunity to supply the proposed industrial subdivision.

Given PWC's advice, two options for water supply to the proposed subdivision are available:

- Augment PWC Strauss project
- Develop a ground water supply

3.3.1 Augment PWC Strauss project

PWC has advised there may be an opportunity for a developer to augment the proposed works at the Strauss Project to provide additional capacity in the water reticulation network. Required works at Strauss are likely to include:

- New water pumping station
- Water reservoir

Any augmentation works would need to be agreed, designed, and constructed by PWC with a likely timeframe of around 5 years. Headworks funding contributions would be required from developers requiring the augmentation works.

3.3.2 Ground Water Availability

Lot 5544 is located over the Burrel Creek formation. The groundwater system is referred to as a *fill and spill system* and relies on annual wet season rainfall for replenishment. Aquifer depth may be up to 100 m below surface level with yields variable from 0.5 L/s up to 60 L/s (NRETAS).

A number of bores are located on Lot 5544 and the immediate surrounding area with yields ranging from 0.9 L/s (RN000079) to 15 L/s (RN039920) as shown below in Table 4.2:

Table 3.2: Lot 5544 and immediate area registered bores

Bore no	Name	Yield (L/s)	Completion date	Drilled depth (m)	Completion depth (m)	Depth to water (m) at date of drilling	Purpose	Construction
RN000079	ARMY NO 70 S=1697	0.9	1943-11-04	64	63.7	0	Production	Constructed&Capped
RN039934	Enviro AG (2658 Stuart Hwy) 35		2016-09-12	15	15		Investigation	Constructed&Capped
RN039935	Enviro AG (2658 Stuart Hwy) 30		2016-09-12	27	27		Investigation	Constructed&Capped
RN039920	Enviro Ag (Stuart Highway)	15	2016-09-10	120	120	12	Production	Constructed&Capped
RN039930	Enviro AG (2658 Stuart Hwy 15)		2016-09-08	15	15		Investigation	Constructed&Capped
RN039931	Enviro AG (2658 Stuart Hwy) 10		2016-09-08	30	30		Production	Constructed&Capped
RN039932	Enviro AG (2658 Stuart Hwy) 25		2016-09-10	15	15		Investigation	Constructed&Capped
RN039020	Suncode Pty Ltd (Wellard Rural Exports Pty Ltd)	6	2015-05-09	114	113	6	Production	Constructed&Capped
RN039933	Enviro AG (2658 Stuart Hwy) 20		2016-09-10	27	27		Investigation	Constructed&Capped
RN000030	ARMY NO 71 S=1697 H=STRANGWAYS	1	1943-11-10	79.3	76.2	0	Production	Equipped

Assuming RN039920 was equipped at 15 L/s pumping capacity and pumped at 20 hours per day for 365 days per year, this bore could yield around 390 ML per annum. This yield would meet the annual demand from Stage 1 and is approximately 90% of the total demand for Stage 1 and Stage 2. It is noted that relying on this bore alone to supply the proposed subdivision presents a risk as there is no redundancy in the system and ideally another bore of around 15 L/s would be drilled and equipped.

3.3.3 Ground Water Extraction Licence

Lot 5544 is located in the Darwin Rural Adelaide River water control district which includes:

- Noonamah
- Berry Springs
- Cox Peninsula
- Adelaide River catchment

Water extraction in the water control district must be licenced. Licences take a tier system approach:

- Tier 1 - < 500 ML per annum, simple application
- Tier 2 - > 500 ML per annum, significant application

Licence application requirements are outlined on the water Resources website at:

[Water extraction licence application tiers | NT.GOV.AU](#)

A previous development proposal for the site indicated an expected need for groundwater extraction of around 250 ML per annum with an associated bore construction permit BCPD01821.

Water Resources was contacted to discuss the site potential for groundwater development and advised:

- Across the region, approximately 1GL may be available for extraction from the aquifer
- The water extraction application process will require extensive assessments/supporting information and may not be supported for an annual demand over 1 ML
- An annual water demand more closely aligned with the previously approved 250 ML per annum would be viewed more favourably
- The proposed development would require a water extraction licence with a timeframe of around 6 months for assessment and processing
- Typical minimum bore separation distance is 75 m

3.3.4 Ground Water Supply Options

Ground water supply options may include:

- Centralised system (potable) – bores, reservoir, pumps, treatment, disinfection and reticulation network
- Centralised system (non - potable) – bores, reservoir, pumps, and reticulation network
- Individual on-lot - bore

A private (not PWC) centralised water supply would require a supported operation and maintenance system to ensure on-going supply and monitoring. If the system is a non-potable supply, individual lots would be required to ensure a potable water supply was available to each lot.

Individual on lot bores would be the responsibility of the lot owner. Due to the number of bores required and the potentially low yields in some areas, on-lot bores are not considered viable.

3.4 Firefighting Requirements

NTPFES was contacted to discuss firefighting requirements. Options for the proposed industrial subdivision discussed included:

- Centralised water supply with storage tanks and booster pump to provide an equivalent firefighting capacity to a PWC street system (may still require on lot water storage dependent on industry).
- On-lot solution for each lot with minimum storage capacity dependent on Australian Standards, industry type and building.

NTPFES advised that irrespective of the water supply system, the building certifier would ultimately remain responsible for the certification of the fire system for each building.

A centralised firefighting storage would typically be required to meet the 60 L/s firefighting flow requirement for 4 hours, which would require a minimum storage volume of 864 kL. It is expected that this storage would be accommodated within any on site storage for the water supply.

Fire Flow (L/s)	Fire Demand - Time (Hours)	Fire Storage (kL)
60	4	864

3.5 On-site Water Storage

The proposed subdivision could be considered similar to a minor community with a typical required storage volume of two days (inclusive of firefighting requirement) at peak day supply for a groundwater supplied system.

Subdivision Stage	Peak Day Demand (ML)	Storage Requirement (Days)	Water Storage (ML)
Stage 1 and Stage 2	1.2	2	2.4
Stage 1	0.6	2	1.2
Stage 2	0.6	2	1.2

3.6 Water Supply Options

Based on the available information and advice from the relevant authorities, the following options are available for further consideration:

Option	Provider	Potable Supply	Timeframe	Head works	Retic	Cost	Rank
Augment Strauss	PWC	Yes	5 years	Tanks Pumps	Street mains	Very high	1
Ground Water	Private	On-site treatment	2 year	2 x Bore Rising main 2 x Tank Pumps	Street mains	High	2

3.7 Water Infrastructure Phasing

Phase 1 - Assuming a ground water supply <500 ML per annum is available and approved, the proposed subdivision could be developed initially as private water infrastructure. If this infrastructure was developed to PWC standards it may be suitable for future transfer to PWC.

Phase 2 – Augmentation of the Strauss Project (timeframe approximately 5 years) to provide the total water demand for the subdivision. When PWC supply available, disconnect the groundwater supply and transfer the storage, pumping and reticulation infrastructure to PWC.

4 Wastewater Management

4.1 Existing Infrastructure

No existing sewer network is available in the proposed development area, and an on-site wastewater treatment system will be required.

4.2 On-Site Wastewater Requirements

The proposed development site is located in the Darwin Tier 1 Building Control Area and requires full certification of all building works including on-site wastewater management systems (WMS). All WMS within building control areas are regulated by the Department of Infrastructure, Planning and Logistics – Building Advisory Services (BAS) and must comply with the *Building Act 1993 (NT)* and *Regulations*.

BAS was contacted to discuss the requirements for on-site wastewater treatment and disposal. BAS confirmed that on-site wastewater requirements must be designed to the Code of Practice for Wastewater Management. BAS also advised that separation distance to bores can be reduced if secondary treatment systems are used.

4.3 Wastewater Load Estimate

Wastewater loads will be dependent on the type of industry and cannot be estimated at this time.

For reference purposes a 10 person system would produce 1,500 L per day of effluent for disposal.

4.4 Wastewater Treatment

Wastewater treatment options include:

- Centralised system
- Individual on-lot WMS

Centralised wastewater collection, treatment and disposal systems require a high level of operation and maintenance and as such are not recommended for a development of this nature. Such a system would also need to be licenced with applicable regulatory requirements on effluent disposal and discharge.

As such, it is expected that each lot will be responsible for its own on-lot wastewater treatment and disposal. The Code of Practice for Wastewater Management sets out the required setbacks from bores, buildings, adjacent lots, waterways, etc. Required setback / separation distances for a typical septic system include:

- Bores – 100 m
- Buildings – 2 m

A site soil evaluation would be required to determine the suitability of the land to accept ongoing treated wastewater effluent for disposal, however based on the available soil assessments and bore reports for the site it is expected that the proposed lots would have an allowable long term design loading rate (DLR) of around 5 mm / day / m². For example, at a DLR of 5 a 1500L per day load would require a disposal area of approximately 300 m². Areas of heavier clay soil may require special design requirements for land disposal or use of alternative disposal methods such as irrigation or non-release evapotranspiration beds.

4.5 On-lot Services Minimum Indicative Lot Size

If each lot owner was to be responsible for an on-lot water supply (bore) and an on-lot wastewater system, the indicative minimum lot size to provide adequate separation between bores and wastewater systems would be approximately 1.5 ha with a minimum lot frontage of 100 m and lot depth of 150 m. Due to the number of bores required and the potentially low yields in some areas, on-lot bores are not considered viable.

5 Communications

The NBN network passes directly past the sole access to the development. It is expected that NBN will service the development as opposed to Telstra. This will be verified once an approved development permit has been received and the application to NBN can be lodged.

6 Stormwater

The existing site grades provide adequate fall toward the southwest, allowing stormwater runoff to be conveyed through a combination of kerb and channel, table drains, pits and pipes to the existing cross-rail culverts.

Hydrologic analysis confirms that post-development peak flows will increase as a result of the introduction of impervious areas associated with the proposed road network and future industrial lots. To mitigate these increases and ensure compliance with Council's requirements, a system of detention basins has been incorporated to attenuate post-development flows to match pre-development conditions at the site's discharge points. The preliminary sizing of these basins, based on the Boyd method, indicates that sufficient space is available within the subdivision layout to accommodate the required storage volumes.

If you require further clarification or additional information on any of the above, please don't hesitate to contact me on (08) 8947 2476.

Yours sincerely,

Ben McGregor
Civil Engineer
Byrne Consultants

Response to Litchfield Subregional Land Use Plan 2016

This document provides the Bilba Groups response to the Litchfield Subregional Land Use Plan 2016 regarding Livingstone Industrial Estate (Lot 5544, Hundreds of Strangways, Livingstone).

<i>Statements of Policy:</i>
<p>1. <i>Facilitate urban residential land uses within identified urban / peri-urban areas and rural activity centres to meet market demand.</i></p>
<ul style="list-style-type: none"> This policy relates specifically to the facilitation of residential land uses within identified urban / peri-urban areas and rural activity centres. Livingstone Industrial Estate site is located outside these identified areas and is not intended to conflict with this direction.
<p>2. <i>Provide urban land in Holtze to support the Palmerston Regional Hospital, associated medical precinct and neighbourhood centre.</i></p>
<ul style="list-style-type: none"> This policy relates specifically to the provision of urban land in Holtze to support the Palmerston Regional Hospital and associated precincts. Livingstone Industrial Estate site is located outside these identified areas and is not intended to conflict with this direction..
<p>3. <i>Preserve the viability of Crown land set aside for the City of Weddell.</i></p>
<ul style="list-style-type: none"> This policy relates specifically to preserving the viability of Crown land set aside for the future City of Weddell, and while the Livingstone Industrial Estate site is located outside this area, the development proposal supports the broader strategic direction by providing appropriately separated industrial land on the outskirts of Weddell, contributing to employment opportunities and economic development to service the future city.
<p>4. <i>Facilitate new areas of rural residential development outside rural activity centres.</i></p>
<ul style="list-style-type: none"> This proposal supports rural residential development outside Rural Activity Centres by centralising industrial activity within a dedicated and appropriately buffered precinct, reducing the potential for scattered industrial uses on rural residential lots, while also generating investment, economic activity and employment opportunities that benefit surrounding rural communities.
<p>5. <i>Maintain rural amenity and lifestyle choice.</i></p>
<ul style="list-style-type: none"> The proposal aligns with the policy intent to maintain rural amenity and lifestyle choice by locating industrial activity within a suitable and appropriately managed precinct. Existing planning provisions already allow for general industry activities in this locality, with 22.7 hectares currently zoned Special Use (SL23) for industry related purposes that respond to rural character.

- Prior to the rezoning to Special Use Zone (SL23) and the establishment of the existing facilities, community consultation was undertaken, with the proposal generally well received and recognised for its employment and economic benefits.
- Industrial operations have been established on the site since 2018, including manufacturing and warehouse uses, with no recorded complaints regarding impacts on surrounding amenity or lifestyle.
- The site is situated within a non-sensitive land use context, adjoining major infrastructure and compatible activities including the Stuart Highway corridor, railway line, livestock facilities, an abattoir, and emergency service logistics uses.
- The proposal will assist in centralising industrial uses in a suitable location, reducing the potential for dispersed workshops, truck storage and industrial activities occurring on rural residential lots.
- Rural amenity will be protected through subdivision design measures including green buffers, larger lot sizes, and appropriate separation from sensitive receivers.
- The General Industry zone provides regulatory safeguards, with most uses subject to impact assessment to ensure non-compatible activities do not occur and impacts are appropriately managed.
- The proposal will contribute to employment opportunities, business growth and economic activity that support the long-term viability of rural communities and lifestyle choice.
- With the nearest dwelling located approximately 500 metres from the site, the risk of adverse amenity impacts to residents is low.

6. Provide opportunity for residential land uses in the Rural Area to meet market demand.

- This proposal supports rural residential development outside Rural Activity Centres by centralising industrial activity within a dedicated and appropriately buffered precinct, reducing the potential for scattered industrial uses on rural residential lots, while generating investment, economic activity and employment opportunities that benefit surrounding rural communities.

7. Facilitate unit title subdivision as an option for residential subdivision of large properties with significant areas of constrained land.

- This policy relates to facilitating unit title subdivision as an option for residential subdivision of large properties with constrained land, and while the proposal is not residential in nature nor does it feature constrained land, the industrial subdivision will be undertaken using an appropriate ownership and management framework in accordance with the NT Planning Scheme, to support orderly development, coordinated servicing, and effective long-term land management without conflicting with the intent of this direction.

8. Mitigate the impact of biting insects on residential amenity and public health.

- The proposed development will address industrial amenity and public health requirements in accordance with relevant NT Health advice and applicable standards, including appropriate lot sizing and the use of standard caution notices on land titles.
- The site has been selected in part due to biting insect constraints identified at other industrial locations such as Middle Arm and Darwin Port, supporting the suitability of this precinct for ongoing industrial and 24-hour manufacturing operations.
- Medical Entomology (NT Health) has advised that seasonal mosquito activity is typical of rural Darwin and can be managed.

9. *Facilitate commercial land uses within identified urban and rural activity centres to meet market demand*

- This policy relates specifically to facilitating commercial land uses within identified urban areas and Rural Activity Centres. Livingstone Industrial Estate site is located outside these identified areas and is not intended to conflict with this direction.

10. *Facilitate industrial land uses within urban areas and rural activity centres to meet market demand.*

- It is noted that RAC planning maps identify light industry only, suggesting the RAC framework is primarily intended for smaller-scale industrial activity, with no specific strategic direction in the LSLUP regarding General Industry.
- The site is well suited to accommodate industrial activity due to its established industrial use, economic role, and proximity to communities such as Berry Springs and Hughes (approximately 10 km away), which are expected to provide workforce and supporting services.
- Locating industry in this purpose-designed estate will assist in meeting the need for larger industrial land opportunities outside urban areas and reduce the reliance on heavy vehicle and road train movements through urban / peri-urban / rural activity centres, improving transport efficiency and safety.
- The site is not considered suitable for rural living given the surrounding land use context, which includes intensive livestock facilities, an abattoir, major transport infrastructure, and the Northern Territory emergency services logistics headquarters, all of which are more compatible with an industrial and logistics-focused precinct than a sensitive land uses.
- In this context, the proposal supports the co-location of compatible industrial and logistics-related uses with direct access to the national highway and adjoining rail corridor, while incorporating buffers and controls to mitigate impacts on residential land.

11. *Minimise land use conflict between adjacent agricultural and residential land.*

- This proposal supports the intent to minimise land use conflict between adjacent agricultural and residential land by not introducing residential uses that could be sensitive to surrounding farming activities and instead providing an appropriately located industrial precinct that can coexist with neighbouring agricultural operations without generating amenity or operational constraints.

12. *Minimise the impacts of cattle holding facilities and intensive animal industries.*

- This proposal aligns with the intent to minimise the impacts of cattle holding facilities and intensive animal industries by introducing a compatible General Industry land use that is not sensitive to the operational characteristics of surrounding livestock and intensive agricultural activities, thereby avoiding land use conflict and associated amenity constraints.

13. *Provide a coordinated, efficient and interconnected transport network.*

- This development proposal provides a coordinated, efficient and interconnected transport network, with ministerial approval granted for direct access from the Stuart Highway and an upgraded intersection design prepared by Aurecon receiving in-principle support from the Department of Logistics and Infrastructure, Litchfield Council and neighbouring landowners.

- Internal roads created through the subdivision will vest in Litchfield Council, while the upgraded Stuart Highway intersection will remain under the care, control and maintenance of the Northern Territory Government as part of the broader highway corridor.

14. Resolve problems associated with historic multiple battle-axe lots to establish an interconnected local road network.

- This policy relates to resolving problems associated with historic multiple battle-axe lots, and is not applicable to the proposal, as the subdivision design does not include battle-axe configurations and instead provides an interconnected local road network consistent with current standards.

15. Provide utilities and trunk services sequentially and cost efficiently.

- This proposal supports the policy intent to provide utilities and trunk services sequentially and cost efficiently through a staged servicing approach, with electrical supply available from the existing network for Stage 1 and augmentation planned for future stages, and water, wastewater and stormwater infrastructure designed as fit-for-purpose to meet demand efficiently as the subdivision develops.

16. Support sustainable groundwater use.

- The site is located within the Darwin Rural Water Control District but is not within a specific Water Allocation Plan area.
- Byrne Consultants has undertaken preliminary water demand modelling identifying staged supply options including existing reticulation, interim groundwater and on-site firefighting storage, with separate potable and non-potable networks to be delivered as fit-for-purpose infrastructure in consultation with PWC.
- Future augmentation and connection to the broader supply network progressed as required.
- On-site wastewater and stormwater systems will be designed to applicable standards to protect environmental flows, maintain groundwater sustainability, minimise pollution risks, and safeguard aquifer recharge areas, with further environmental assessment undertaken as required.

17. To conserve natural systems and biodiversity.

- The proposal aligns with the policy intent to conserve natural systems and biodiversity by ensuring development is undertaken in accordance with the NT Planning Scheme, incorporating appropriate stormwater, wastewater and environmental management measures to minimise impacts on groundwater, environmental flows and surrounding ecological values.

18. To minimise detrimental impacts of development on the environment.

- *The proposal aligns with this policy by minimising detrimental environmental impacts through compliance with the NT Planning Scheme and the incorporation of appropriate servicing, stormwater, wastewater and environmental management measures to protect surface water, groundwater and surrounding natural systems*

Review and Interpretation of LSLUP with regard to Livingstone Industrial Estate

This following provides the Bilba Groups interpretation of the Litchfield Subregional Land Use Plan 2016 regarding Livingstone Industrial Estate (Lot 5544, Hundreds of Strangways, Livingstone).

Interpretation	Location	Excerpt
No reference is made specifically to “General industry” within the LSLUP	N/A	N/A
Industry is a land use in Litchfield of strategic importance.	Page 2 Paragraph 10 Dot point 3	“The key challenges and opportunities for Litchfield are [...] land uses in Litchfield of strategic importance, such as defence, major industry, utilities and unique environmental significance.”
Hughes will be an area where most of the growth in Litchfield will occur.	Page 6 Paragraph 2	“Most of the growth in Litchfield will occur in the urban and peri-urban areas of Holtze, Weddell, Hughes, Murrumujuk, and the Noonamah area.”
Weddell will not provide industrial land uses.	Page 6 Paragraph 3	“Weddell will be a primary activity centre housing over 40 000 people and provide district level retail, commercial and community land uses.”
RACs provide for local facilities and services, not general industry. Larger lots are an appropriate buffer to rural areas.	Page 6 Paragraph 4	“Rural activity centres at Berry Springs, Coolalinga / Freds Pass, Howard Springs and Humpty Doo provide for expanded local facilities and services with a range of residential options decreasing in density from urban residential within the core area, transitioning to larger lots as a buffer to rural areas.”
Conflicts exist between agriculture and rural living land uses. Existing surrounding land uses of Livingstone Industrial Estate including a railway, intensive livestock facility and abattoir are considered to conflict with Rural Living.	Page 6 Paragraph 9	“The potential conflicts between horticulture and residential developments will need to be managed as part of accommodating future growth.”
Industrial developments must be separated from urban areas. Industrial developments must provide opportunities for employees to live locally. Transport and infrastructure corridors providing access from industrial developments to the broader region are critical.	Page 6 Paragraph 10	“Glyde Point is identified for major industrial development outside Darwin Harbour. Glyde Point provides the necessary isolation to minimise the impacts of strategic industrial development on established urban areas. The proposed urban area at Murrumujuk will provide opportunities for employees to live locally. Transport and infrastructure corridors will provide access to the broader region.”

<p>The Livingstone Industrial Estate site has low horticultural potential, and any limited loss of opportunity for local food production or food security outcomes will be offset by the broader economic, employment and regional diversification benefits generated through the proposed General Industry development.</p>	<p>Page 8 Paragraph 1</p>	<p>“The land areas that have the greatest potential for horticulture or agriculture are identified on page 32. Proposed alternative use of this land must consider lost opportunities for local food security including reduced transportation, and diversity of regional, Territory and national economies.”</p>
<p>Lot5544 is not located within a priority environmental management area</p>	<p>Page 27</p>	<p>See Map.</p>
<p>Lot5544 is located along existing arterial road and transport corridors and has convenient access to urban areas of Hughes.</p> <p>Connection to major transport link to southern Australia and limit the potential impacts of heavy transport on the network in built up areas is essential for industrial development.</p>	<p>Page 10 Paragraph 4</p>	<p>“The Glyde Point corridor will provide convenient access between the existing port at East Arm and the future industrial area and between Murrumujuk and higher order urban services available in Palmerston. A second link from the Stuart Highway at Cox Peninsula Road to Glyde Point will connect the future industrial area to the major transport link to southern Australia and limit the potential impacts of heavy transport on the network in built up areas.”</p>

Ref: 10555

Concurrent Application

Section 5546, Hundred of Strangways

Compliance with building regulations

This application is seeking approval to subdivide the above property in order to create 105 lots for rural living.

There are existing buildings on Section 5546, but the minimum distance from an existing building to a proposed boundary is approximately 20 metres.

Consequently, there will be no conflict with building regulations in relation to the offset of buildings from a proposed boundary.



Our ref: PS141425-20260213-Section 5544 Subdivision

Your ref: 10555

By email
kdodd@eja.com.au

13 February 2026

Kevin Dodd
Earl James & Associates

Dear Sir

Section 5544 (2658) Stuart Highway, Livingstone

This statement has been prepared to support the lodgement of a subdivision application to the Development Consent Authority.

The proposal is to subdivide Section 5544 Hundred of Strangways into 56 allotments, Lots 1 to 56, as per EJA subdivision plan No. 25/10555/12.

A review of the proposed subdivision plan (No. 25/10555/12) prepared by EJA, has been undertaken by a Building Certifier of WSP Australia Pty Ltd to verify what impact, if any, the proposed subdivision will have in respect to compliance with the *Building Act 1993*.

We advise that as a result of the subdivision, and in consideration of sections 46(k) and 46(l) of the *Planning Act 1999*, the existing buildings on Section 5544 Hundred of Strangways will not cease to comply with the *Building Act 1993* provided that at least 20m setback is provided between existing structures on proposed Lot 23 and any boundary adjoining another allotment.

Should you have any queries please do not hesitate to contact our office on 8980 5900.

Yours faithfully

Dehne Tynan
Associate Director & Senior Building Certifier

Level 5, 37 Woods Street
Darwin NT 0800
GPO Box 4421
Darwin NT 0801

Tel: +61 8 8980 5900
www.wsp.com

Tamboran Resources Corporation

Tower One, International Towers
Sydney Suite 1, Level 39
100 Barangaroo Avenue
BARANGAROO NSW 2000



7 November 2025

Bilba Group

Attention: Adrian Brown

By email: adrian@bilbagroup.com.au

Copy to: isobel@bilbagroup.com.au

Dear Adrian

Letter of Support for Livingstone Industrial Estate

Tamboran Resources Corporation (**Tamboran**) is pleased to provide this letter of support for Bilba Group's proposed industrial subdivision at Lot 5544, Hundreds of Strangways (Livingstone Industrial Estate).

We recognise the importance of developing additional, well-planned industrial land in the Northern Territory to accommodate future growth, attract new investment, and ensure local businesses have access to the facilities they need to operate efficiently and expand. The proposed precinct, offering a range of lot sizes and modern infrastructure, represents a valuable opportunity to enhance the region's industrial capacity and provide businesses with high-quality, purpose-built sites that meet contemporary operational and logistical requirements.

We believe this development would deliver benefits not only to individual operators but also to the broader Northern Territory economy, through improved connectivity, increased employment opportunities, supply chain efficiencies, and the attraction of new commercial activity to the region. The project's strategic location and design will help position the Territory as a competitive and resilient hub for industrial growth well into the future.

Tamboran strongly supports the advancement of this project and the broader goal of strengthening the Territory's industrial and economic base for the benefit of local businesses, communities, and future generations.

Yours faithfully

A handwritten signature in black ink that reads "Faron J. Thibodeaux".

Faron Thibodeaux

Chief Operating Officer

Tamboran Resources Corporation

Section 5544 - Hundred Of Strangways

Land Suitability Assessment

Bilba Group

Nov 2025



byrne.

Document Control

Document: Land Suitability Assessment
 Reference: NT25110-LSA-001_0.docx
 Date: November 2025
 Prepared by Deepika Jaiswal
 Reviewed by Ben McGregor

Rev	Revision Date	Description	Authorised (Position)	Signature
A	28/10/25	Development Application	Lucy Dahl	
0	12/11/25	Development Application	Lucy Dahl	

Prepared by
 Simon Byrne Pty Ltd T/as Byrne Consultants
 PO Box 36789, Winnellie NT 0821
 Phone: (08) 8947 2476
 Website: <https://byrneconsultants.com.au/>
 ABN: 78 124 388 192

Byrne Consultants is certified to ISO9001

Disclaimer

Simon Byrne Pty Ltd T/as Byrne Consultants. All rights reserved.

This report has been prepared on behalf of and for the exclusive use of Bilba Group Pty Ltd and is subject to and issued in accordance with the agreement between Bilba Group Pty Ltd and Byrne Consultants. Byrne Consultants accepts no liability or responsibility whatsoever for this report in respect of any use of or reliance upon this report by any third party.

Byrne Consultants has prepared this report with care and due diligence expected of the consulting profession and by reference to applicable standards, guidelines, procedures and practices current at the date of issue of this report. The passage of time and impacts of future events may require further examination and reevaluation of findings to confirm observations and conclusions expressed in this report.

In preparing this report, Byrne Consultants has relied upon, and presumed accurate, any information provided by Bilba Group Pty Ltd and other sources. Unless noted otherwise, Byrne Consultants has not attempted to verify the accuracy or completeness of any such information.

This report should be read in full and no excerpts are to be taken as representative of findings. Byrne Consultants accepts no responsibility for use of any part of this report in any other context.

Table of Contents

1	Introduction.....	5
1.1	Project Overview.....	5
1.2	Land Suitability Classes	6
2	Land Suitability Assessment	7
2.1	Existing Land Unit Descriptions.....	7
2.2	Drainage	9
2.3	Onsite Wastewater Management.....	9
2.4	Erosion Risk	10
2.5	Soil Salinity	10
2.6	Acid Sulfate soils	10
2.7	Storm Tide flooding.....	11
2.8	Riverine Flood Mapping	12
2.9	Suitability Classification Summary	12
3	Conclusion	13
4	References	14
	Appendix A - NT Land Suitability Classes.....	15
	Appendix B – Soil Survey and Land Capability Assessment.....	18

List of Figures

Figure 1 – Proposed Subdivision Land.....	5
Figure 2: Greater Darwin Land Map Exert.....	8
Figure 3: Existing Bore Locations.....	9
Figure 4: Acid Sulfate Soils map of the Greater Darwin Region (Source: NT Government).....	10
Figure 5: Site Location (Red highlighted part) Relative to Storm Tide Primary Flooding Extents (Source: NR Maps).....	11
Figure 6. Site Location (Red triangle) Relative to Nearby River Systems (Source: NR Maps)	12

List of Tables

Table 2.1 – Land Suitability Classes (NT Land suitability Guidelines, 2020).....	6
Table 3.1. Land Unit Classification.....	8
Table 3.2 Land Suitability Assessment Results	13

1 Introduction

This report outlines the findings of an investigation into the land suitability of Section 5544, Hundred of Strangways, 2658 Stuart Highway, Livingstone (the site).

An assessment of the suitability of the Site for subdivision is required under Clause 4.21 (Zone R – Rural) of the 2020 NT Planning Scheme. A Land Suitability assessment comprises both a desktop and field-based assessment of the Site to determine potential constraints relevant to the proposed subdivision.

1.1 Project Overview

Byrne Consultants was engaged by Bilba Group (the Client) to undertake a Land Suitability Assessment (LSA) for Section 5544, Hundred Strangways, Livingstone. The Site is 90.51ha and was rezoned in August 2018 from Zone R (Rural) to Zone SL23 (Specific Use - Litchfield 23). SL23 specifies dual zoning with the 22.7ha across the primary frontage effectively offering Industrial zoning, and the land to rear being, Rural zoning. The Client proposes to subdivide the Site into 105 lots and rezone to Zone GI (General Industry). In accordance with Clause 6.4 of the Northern Territory Planning Scheme 2020, the subdivision must provide a minimum lot size of 1,225 m² of unconstrained land. The proposed layout satisfies the minimum requirements applicable to land zoned Light Industry (LI), General Industry (GI) and Development (DV) under Clause 6.4 of the NT Planning Scheme 2020.

The site is generally triangular in shape and is bounded by the Stuart Highway to the east, Lot 4048 to the north, the Alice Springs–Darwin railway line to the west and south, and the Livingstone Abattoir access road to the south, which provides access exclusively to the AACo facility.

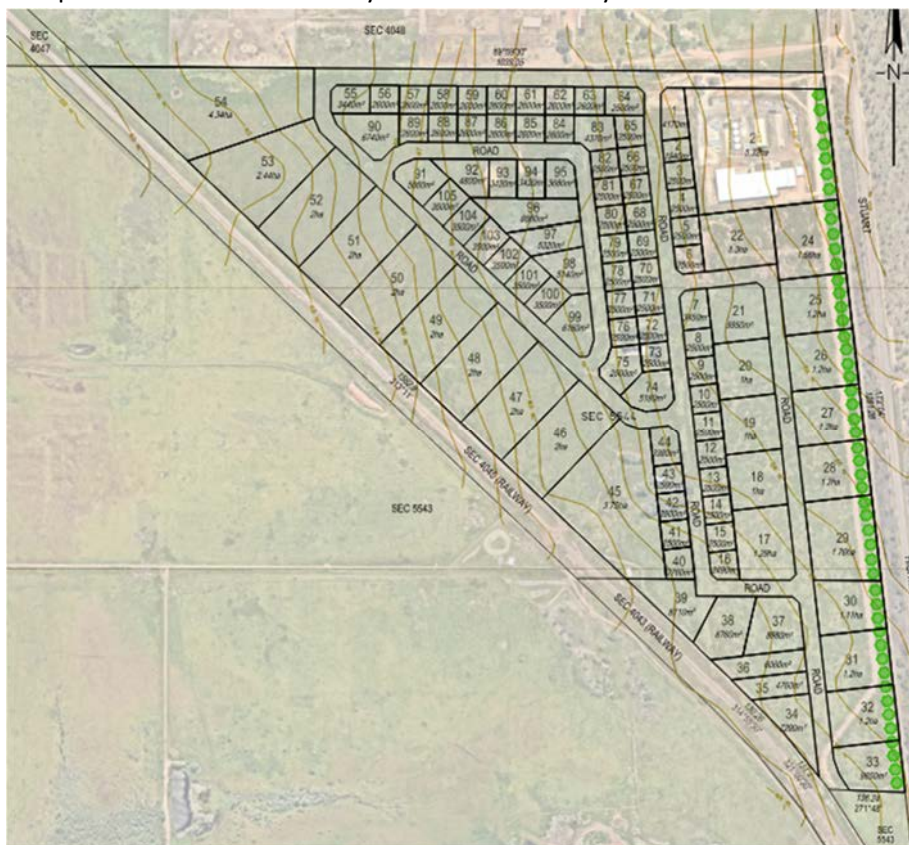


Figure 1 – Proposed Subdivision Land

1.2 Land Suitability Classes

An LSA requires assessment of the environmental conditions of the Site to provide an overall ranking for suitability for development. The findings are assessed against suitability classes defined in the NT Land Suitability Guidelines (NTG 2020) and presented in Table 2.1.

Table 2.1 – Land Suitability Classes (NT Land suitability Guidelines, 2020)

Suitability Classes	Description
Class S1 Highly Suitable	Land having no significant limitations to sustained application for a given land use or only minor limitations. Nil to minor negative economic, environmental, health and/or social outcomes.
Class S2 Moderately Suitable	Land having limitations which in aggregate are moderately severe for sustained application of a given land use. Appreciably inferior to S1 land. Potential negative economic, environmental, health and/or social outcomes if not adequately managed.
Class S3 Marginally Suitable	Land having limitations which in aggregate are severe for sustained application of a given use. Moderate to high risk of negative economic, environmental, health and/or social outcomes if not adequately managed.
Class S4 Not Suitable	Land having limitations which may be insurmountable. Limitations are so severe as to preclude successful sustained use of the land. Very high risk of negative economic, environmental and/or social outcomes if not managed.
Class S5 Not Suitable	Land having limitations which appear so severe as to preclude any possibilities of successful sustained use of the land in the given manner. Almost certain risk of significant negative economic, environmental and/or social outcomes.

2 Land Suitability Assessment

The desktop review undertaken for the Site area has included review of aerial imagery and available online land databases, to identify areas of environmental constraint. A site inspection was undertaken to proof the findings of the desktop review.

A review of aerial photography was undertaken to determine the potential condition of the land, the flow of stormwater, and bore locations.

The assessment of Environmental Constraints was undertaken in accordance with requirements of the relevant Northern Territory Government documents, including:

- NT Planning Scheme 2020
- The NT Land Suitability Guidelines 2020
- NT Subdivision Development Guidelines

The NT governments online resource NR Maps, was used to source the following information:

- Cadastral boundaries
- Contours at a 2,500 scale
- Land units (1:25,000)
- Town Planning Zoning
- Location of bores
- Location of waterways

2.1 Existing Land Unit Descriptions

Land unit classification was sourced from the NT Government Greater Darwin Land Units Map. This map shows the site is predominantly classified as land unit 3b with a relatively small area of 1c to the north and 3c to the south.

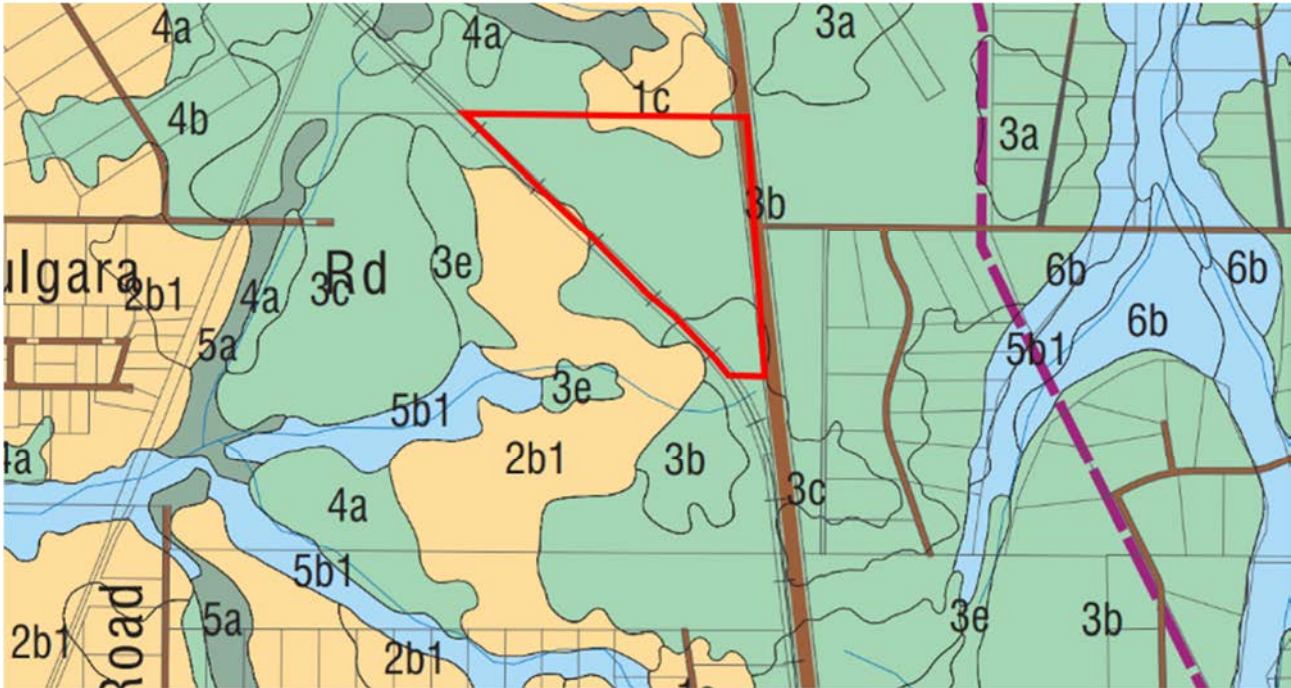


Figure 2: Greater Darwin Land Map Exert

Table 3.1. Land Unit Classification

Land Unit Code	Land Unit Name	Description	Confirmed Onsite
3b	Plains	Landform – Flat to gently undulating upland surface; gradient 0-2.5%; moderately deep gravelly yellow massive earths, minor red massive earths: Eucalypt Open Forest	N/A
1c	Rises	Landform – Short steep slopes and rises; gradient 5-15%; shallow gravelly lithosols: Eucalyptus Woodland	N/A
3c	Plains	Landform- Flat to gently undulating upland surface; gradient 1-3% shallow, gravelly yellow massive earths, minor lateritic lithosols: Eucalypt Woodland, minor Open Woodland.	N/A

2.2 Drainage

The Site slopes from 60m in the top end corner to 49m AHD in the bottom end Corner at a fall of 1-2%. No drainage issues were observed onsite, and the Site is considered to drain 'moderately well'.

The Soil Survey and Land Capability Assessment Report Number 23870.77886 September 2015 (attached at Appendix B) categorised land unit type 3b as being a well-drained soil which correlates with the behaviour of the soil observed whilst onsite by the authors of said report.

This results in a Class S2 Drainage Suitability Class following the NT Land Suitability Guidelines attached at Appendix A.

2.3 Onsite Wastewater Management

The proposed subdivision requires the installation and management of an onsite wastewater management system. In accordance with relevant site assessments and guidelines, a setback distance of 100 meters from existing bores has been established to protect groundwater quality. Bore BH5 and BH6 are located within the site boundary; however, their respective 100-metre setback zones extend beyond the property boundary towards Stuart Highway. The setback distances for all other on-site bores are fully contained within the site. Figure 3 below illustrates these setback zones where wastewater infrastructure installation is restricted. Installation of the onsite wastewater system is permissible outside of these buffer areas, ensuring compliance with setback requirements and protection of groundwater resources.

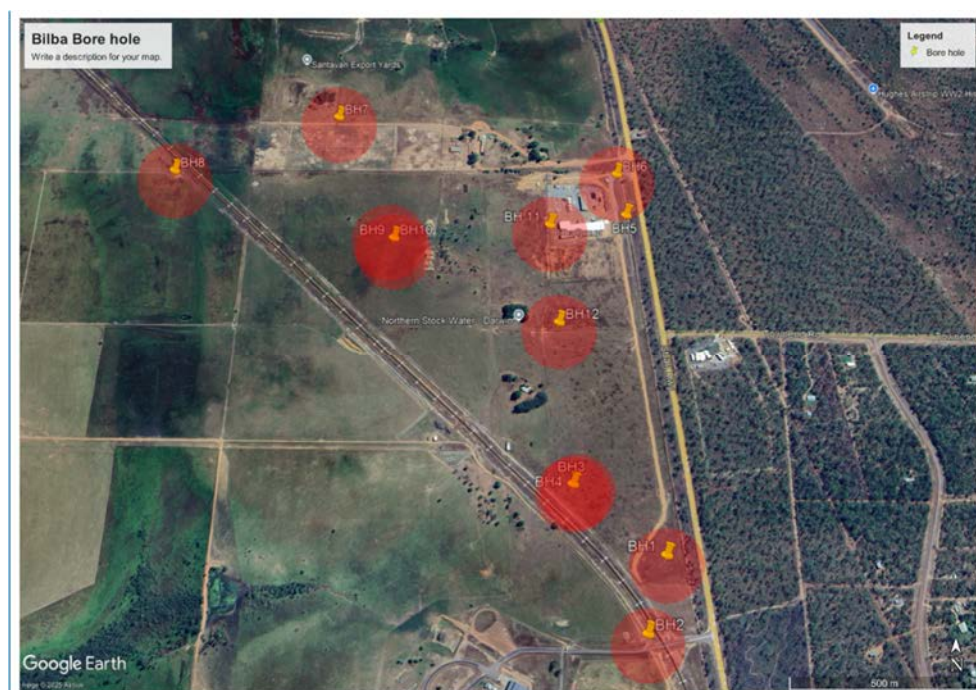


Figure 3: Existing Bore Locations

Based on the Soil Survey and Land Capability Assessment attached at Appendix B, the landform consists of gentle to moderate slopes (5–10%), providing adequate runoff without excessive erosion risk. Overall, the

soil profile and landscape characteristics indicate a moderately well-drained, moderately deep soil system suitable for controlled development and productive land use with appropriate management.

This results in a Class S2 On-Site Wastewater management Class following the NT Land Suitability Guidelines attached at Appendix A.

2.4 Erosion Risk

Based on the land unit mapping, the overall slope of the Site falls below a 2% slope falling within the 0.75 - 5% range. The Site slopes result in a Class S3 erosion risk following the NT Land Suitability Guidelines attached at Appendix A.

The highest elevation of 60m occurs in the northwestern corner and the site falls to 39m at the southeastern corner.

2.5 Soil Salinity

No signs of soil salinity were visually observed during field assessments or identified through soil sampling as outlined in the Soil Survey and Land Capability Assessment Report Number 23870.77886 September 2015.

This results in a Class S1 Soil Salinity Suitability Class following the NT Land Suitability Guidelines attached at Appendix A.

2.6 Acid Sulfate soils

Acid sulfate soils are predominantly found in coastal environments. The site is located greater than 20.8km from the nearest coastline and is not impacted by coastal acid sulfate soils.

The NR Maps database was reviewed, which confirmed that there are no identified inland acid sulfate soils within the site.



Figure 4: Acid Sulfate Soils map of the Greater Darwin Region (Source: NT Government)

This results in a Class S1 Acid Sulfate Soils Suitability Class following the NT Land Suitability Guidelines attached at Appendix A.

2.7 Storm Tide flooding

The Site is not located near or in a coastal area, and is beyond the Primary 100-year Annual Recurrence Interval (ARI) Storm Tide inundation extent. The nearest coastline is 20.8km away, placing the site outside of any Storm Tide Flooding extents. The Site's elevation is between 39m and 60m, above the heights of Storm Tide Flooding extents.

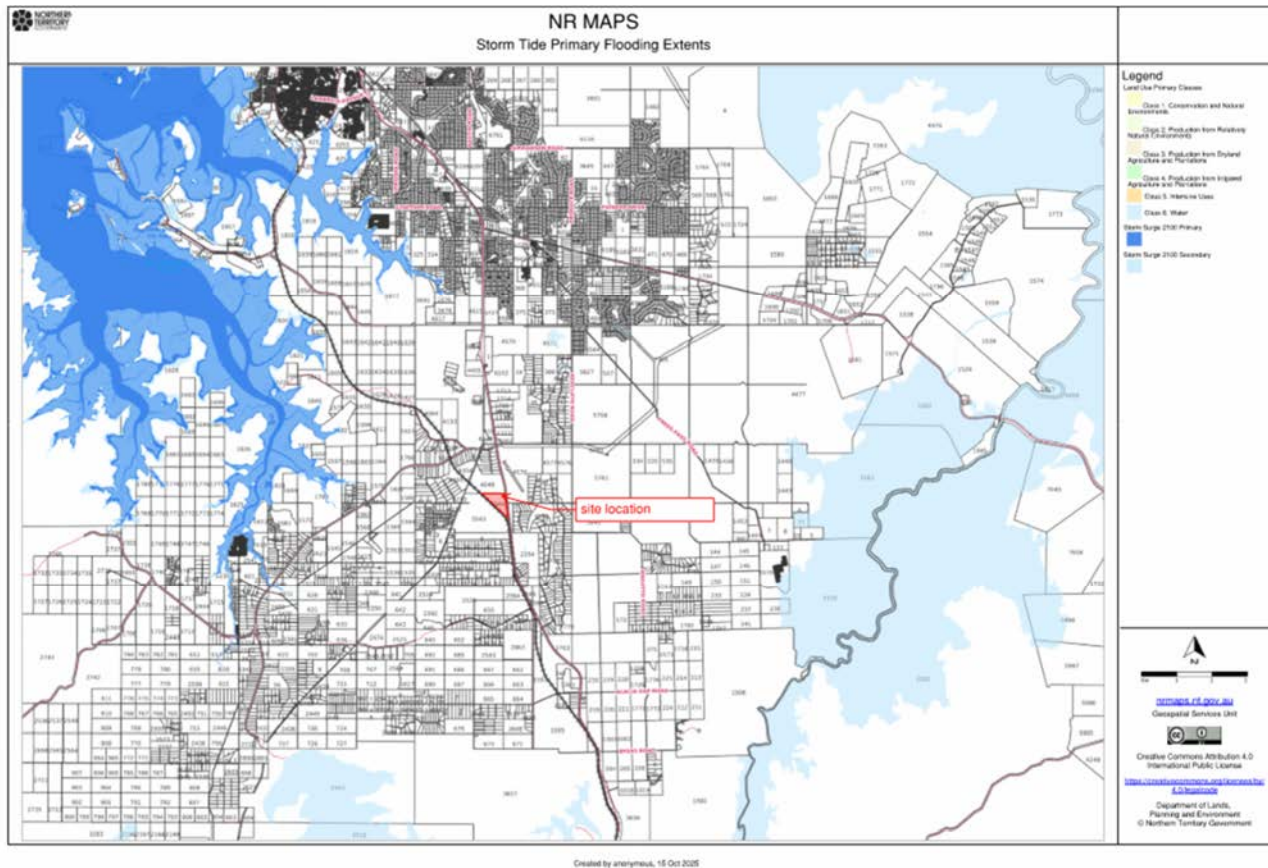


Figure 5: Site Location (Red highlighted part) Relative to Storm Tide Primary Flooding Extents (Source: NR Maps)

This results in a Class S1 Storm tide flooding Suitability Class following the NT Land Suitability Guidelines attached at Appendix A.

2.8 Riverine Flood Mapping

The closest drainage system to the Site is the Blackmore River, at greater than 12.6km separation. The Site is below than the 0.5% Annual Exceedance Probability (AEP) flood level for the Blackmore River, as required by the NT Land Suitability Guidelines to be classed as unconstrained land.

This results in a Class S1 Riverine flooding Suitability Class following the NT Land Suitability Guidelines attached at Appendix A.



Figure 6. Site Location (Red triangle) Relative to Nearby River Systems (Source: NR Maps)

2.9 Suitability Classification Summary

The Site has been assessed as per the NT Land Suitability Guidelines for drainage, on-site wastewater management, erosion risk, soil salinity, acid sulfate soils, storm tide flooding and riverine flooding. The assessed land suitability classifications outlined in Table 3.2 below ranged between an S1 rating and an S3 rating.

Based on the S2 rating for drainage and on-site wastewater management, and S3 rating for erosion, the Site has been given an overall rating of S2. The S2 rating provides a suitability of 'Moderately Suitable'; however, with appropriate engineering measures to manage wastewater onsite, there are no anticipated issues with the proposed subdivision.

See Appendix A for a detailed breakdown of each Suitability Class Parameter and each class requirement.

Table 3.2 Land Suitability Assessment Results

Land Suitability Parameters	Determination	Assessed Results
Drainage	Site drains moderately well	S2
On-site Wastewater Management	<35% clay recorded in soil, drains moderately well, test holes penetrates past 0.5m. Less than >10% Gravel present at surface. Slopes <5%. Supported by SSE.	S2
Erosion Risk	Site slopes approx. 1-2%	S3
Soil Salinity	No salinity present.	S1
Acid Sulfate Soils	No ASS present.	S1
Storm Tide Flooding	No storm tide flooding risks.	S1
Riverine Flooding	No riverine flooding risks.	S1

3 Conclusion

This Land Suitability Assessment concludes that the Site has a Suitability Class of S2 which is considered 'Moderately Suitable'. There is no constrained land within the proposed 75.82 hectare lots, and no land suitability issues which cannot be overcome with standard engineering practices.

4 References

EnviroAg Australia (Wellard's Darwin Integrated Live Export Facility) Soil Survey and Land Capability Assessment for Section 5544 Hundred of Strangways, Livingstone, NT, 0822.

NTG (Northern Territory Government) (2020) Northern territory Land Suitability Guidelines 2020, NTG website, accessed 22 September 2025, <https://nt.gov.au/property/land-planning-and-development/planning-applications-and-processes/subdivide-or-consolidate-land/prepare-a-land-suitability-assessment>

NTG (Northern Territory Government) (2025) Northern Territory Planning and Subdivision Guidelines 2025, NTLIS website, accessed 22 September 2025, <https://www.ntlis.nt.gov.au/sdg-online/>

NTG (Northern Territory Government) (2020) Northern Territory Planning and Development Part 6 – subdivision and consolidation requirements, NTG website, accessed 22 September 2025, <https://nt.gov.au/property/land-planning-and-development/our-planning-system/nt-planning-scheme>

NTG (Northern Territory Government) (2009) Acid Sulfate Soils of the Greater Darwin Region Map, NTG website, accessed 22 September 2025, <https://environment.nt.gov.au/rangelands/publications2/land-soil-vegetation>

NTG (Northern Territory Government) (2025) NR MAPS Natural Resource Maps, NTG website, accessed 2 October 2025, <https://nrmaps.nt.gov.au/nrmaps.html>

NTG (Northern Territory Government) (2014) Elizabeth - Blackmore River flood information Map, NTG resource, accessed 23 October 2025 [Elizabeth-Blackmore 2100 100yr Flooding Sht2 \(7\).pdf](#)

Appendix A - NT Land Suitability Classes

Suitability Classes	Description	Drainage	On-site Wastewater Management		Erosion Risk	Soil Salinity	Acid Sulfate Soils	Storm Tide Flooding	Riverine Flooding
			Risk Category	Equivalent Criteria					
Class S1 Highly Suitable	Land having no significant limitations to sustained application of a given land use, or only minor limitations. Nil to minor negative economic, environmental, health and/or social outcomes.	Rapidly to Well	Low	Well drained soils with >35% clay at depth, deep soils >1.0 m, surface gravel <10%, slopes < 5%	No runoff occurs	<2 ECe dS/m or no potential to be >4dS/m	Not Present	Secondary Storm Tide (1000 year ARI) inundation risk for entire land parcel – Nil Risk not applicable	<0.5% AEP risk of river floodplain flooding for entire land parcel – Risk not applicable
Class S2 Moderately Suitable	Land having limitations which in aggregate are moderately severe for sustained application of a given land use. Appreciably inferior to S1 land. Potential negative economic, environmental, health and/or social outcomes if not adequately managed.	Moderately-Well	Medium	Moderately well drained soils with >20% clay at depth, moderately deep soils 0.5-1.0 m, surface gravel 25-50%, slopes 5-10%	<0.75% slope	2-4 ECe dS/m or no potential to be >4dS/m	Oxidisable Sulfur >0.02% but very low and <50 tonnes to be disturbed*	Primary Storm Tide (100 year ARI) inundation risk for entire land parcel – Nil No Risk	<1% AEP risk of river floodplain flooding for entire land parcel – No Risk
Class S3	Land having limitations which in aggregate are	Imperfectly	High	Imperfectly drained soils	0.75-5% slope, Development will	Soil salinity >4dS/m	Oxidisable Sulfur >0.02%,	Primary Storm Tide (100 year	≥1% AEP risk of river floodplain

Marginally Suitable	severe for sustained application of a given use. Moderate to high risk of negative economic, environmental, health and/or social outcomes if not adequately managed.			with >15% clay at depth, shallow soils 0.25 -0.5 m, surface gravel >50%, slopes >10%	require practice erosion and sediment control involving engineered works. On-going land management required	or potential to be >4dS/m	<100 tonnes to be disturbed*	ARI) inundation risk for part of land parcel – Low Risk	flooding on part of the land parcel other than floodway – Low risk and mitigated.
Class S4 Not Suitable	Land having limitations which may be insurmountable. Limitations are so severe as to preclude successful sustained use of the land in the given manner. Very high risk of negative economic, environmental and/or social outcomes if not managed.	Poor to very Poor	High	Poor to very poorly drained or inundated. On-site wastewater systems will not operate during periods of inundation	>5% slope, Development will require considerable best practice erosion and sediment control involving a significant level of engineered works. High level of on-going land management essential	Soil salinity >8dS/m or potential to be >8dS/m	Oxidisable Sulfur >0.02%, >200 tonnes to be disturbed*	Primary Storm Tide (100 year ARI) inundation risk for entire land parcel including occupied area and emergency exit route - Medium Risk and mitigated	≥1% AEP risk of river floodplain flooding for entire land parcel other than floodway – Medium risk and mitigated.
Class S5 Not Suitable	Land having limitations which appear so severe as to preclude any possibilities of successful sustained use of the land in the given manner. Almost certain risk of significant negative economic,	To be determined on assessment of specific cases	Not Suitable for on-site wastewater management	To be determined on assessment of specific cases. Environmental, social, health or economic risks are considered too high.	To be determined on assessment of specific cases. Environmental, social, health or economic risks are considered too high.	To be determined on assessment of specific cases. Environmental, social, health or economic risks are considered too high.	To be determined on assessment of specific cases. Environmental, social, health or economic risks are considered too high.	Primary Storm Tide (100 year ARI) inundation risk for entire land parcel and the storm tide level is 2m or more above ground level – Very high risk	≥1% AEP risk of river floodplain flooding on entire land parcel and is covered by floodway extent – Very high risk and mitigation not feasible.

	environmental and/or social outcomes.						and mitigation not feasible.	
--	---------------------------------------	--	--	--	--	--	------------------------------	--

Source: Northern Territory Land Suitability Guidelines (July 2020)

Appendix B – Soil Survey and Land Capability Assessment

Darwin

T8 Ground Floor, Winnellie Point
60 Winnellie Road, Winnellie NT 0820
08 8947 2476

Gold Coast

Shop 6001, 19 Robina Town Centre Drive
Robina QLD 4226
07 5628 2794

Sunshine Coast

30 Chancellor Village Boulevard
Sippy Downs QLD 4556
07 5329 4507

info@byrneconsultants.com.au
www.byrneconsultants.com.au

byrne.

~ Commercial-in-Confidence ~

Soil Survey and Land Capability Assessment

Wellard's Darwin Integrated Live Export Facility

Report Number 23870.77886



Prepared for



**Wellard Rural Exports Pty
Ltd**

1A Pakenham Street
FREMANTLE WA 6160
Telephone: (08) 94322800

ABN: 31 109866328

Prepared by



PO Box 1197
MILTON QLD 4064
Telephone: (07) 3367 0001

ABN: 56 135 005 999

Document Status Record

Report Type: Soil Survey and Land Capability Assessment

Project Title: Wellard Darwin Integrated Live Export Facility

Client: Wellard Rural Exports Pty Ltd

Project.Document Number: 23870.77886

File Name: 23870.77886_150904_Wellard_Darwin_Soil Survey_Rev C.docx

Revision	Date of Issue	Author	Reviewed	Quality Assurance	Approved
B	3rd July 2015	Tami Mills Simon Lott	Simon Lott	Steve Webster	Simon Lott
C	4 th Sept 2015	Tami Mills Simon Lott	Michael Lane Simon Lott	Jenni Lott	Simon Lott

Signatures

Notes:

Rev C: Draft report

Client

Company

Distribution:

Recipient

Wellard Rural Exports Pty Ltd

EnviroAg Australia

No. Copies

1

1

This document provides information to address the intent of Project Number 23870 as agreed to by Wellard Rural Exports Pty Ltd.

Disclaimer: In preparing this document EnviroAg Australia Pty Limited may have relied upon certain information and data generated and provided by the client as set out in the terms of engagement agreed for the purposes of this document. Under the terms of engagement, EnviroAg Australia is not required to verify or test the accuracy and/or completeness of such client information and data. Accordingly, EnviroAg Australia does not and cannot warrant that the client information and data relied upon for the purpose of this report is accurate and complete. EnviroAg Australia therefore does not and cannot accept any responsibility and disclaims any liability for errors, omissions or misstatements contained in this report, which have resulted from EnviroAg Australia placing reasonable reliance on such client information and data.

Copyright: The contents of this document are copyright and subject to the Copyright Act 1968. Extracts or the entire document may not be reproduced by any process without the written permission of the Directors of EnviroAg Australia Pty Limited.

Executive Summary

EnviroAg Australia Pty Ltd has been engaged by Wcllard Rural Exports Pty Ltd (Wcllard) to assess the property known as “Livingstone Valley” on Lot 5544 Hundred of Strangways for the suitability for the proposed land use as an Integrated Live Export Facility (ILEF).

This assessment presents the findings of a soil survey of the site. The site was divided into three zones in accordance with their proposed purposes:

- Export cattle holding yard and short term feedlot facility;
- Irrigable area; and,
- Waste systems comprising manure composting, processing and storage area and wastewater holding ponds.

The soil survey works included;

- Detailed assessment of available reference materials including NT Government reports; recent soil surveys of land areas to the south and south-west conducted by the Australian Agricultural Company;
- Traversing the entire site in wet and dry seasons;
- Excavation of 14 test pits;
- Lab testing (both agronomical and geotechnical tests); and,
- Data analysis and compilation.

The soil survey was undertaken by Dr Simon Carl Lott, a certified practicing soil scientist (Level 3), a registered professional engineer (agricultural, civil and environmental) with assistance from field technicians and surveyors.

The objective of this project was to identify soil types and profiles to assess constraints and benefits for all works of the ILEF.

Soil samples collected during the survey were submitted for laboratory analysis. This document interprets the results of those analyses, and compares the chemical and physical attributes of the sampled soils with those of archetypal soils described by Maher (1996). Soils are described in accordance with the Australian Soil Classification (Isbell, 2002).

The assessment found that

- The land at “Livingstone Valley” is considered to be Class 3 for “Production from dry land agriculture and plantations”. The soils on the site were slightly acidic to neutral, with low nutrient composition, presenting a moderately reactive soil.
- The soils best suited for agricultural production are located in the proposed irrigation area.

This soil survey and its results and subsequent conclusions and recommendations as presented in this report are based on a spatial assessment. It is important to note that variations in ground conditions occur over relatively short distances and with depth.

Glossary

The following tables set out key works with a definition and abbreviations and their full meaning.

Table 1 Definitions

Land Capability	Assesses the limitations to land use imposed by the characteristics of the land and specifies management options.
Land Cover	Represents the physical surface of the earth. It includes combinations of natural features such as vegetation, soil, exposed rocks, water bodies as well as anthropogenic (man-made) features such as agriculture and the built environment. Land cover classes can generally be identified by characteristic patterns using remote sensing.
Land Management Practice	Refers to the means by which the land management objective is achieved, that is the 'how' of land use (e.g. cultivation practices, cell grazing or broad acre grazing).
Land use	Refers to the purpose to which land is committed, that what the land manager wants to achieve (e.g. grazing on native or improved pastures).
Land Suitability	Describes the fitness of a given area/type of land for a specified land use.
Salinity	Soil salinity is the salt content in the soil. Salts occur naturally within the soils and water.
Land classification	Land classification refers to land categories and assess quality classes, capability classes or grade, depending upon the characteristics of the land or its potential for agricultural use.
Sodicity	A term given to the amount of sodium held within the soil.
Sorption	The processes in which one substance takes up or holds another (via either absorption or adsorption) through a chemical process in which one substance permeates the other; a fluid permeates or is dissolved by a liquid or solid.
Cation exchange capacity	The total capacity of a soil to hold exchangeable cations. CEC is an inherent soil characteristic and is difficult to alter significantly. It influences the soil's ability to hold onto essential nutrients and provides a buffer against soil acidification.
Average recurrence interval	The average or expected value of the periods between exceedances of a given rainfall total accumulated over a given duration. It is implicit in this definition that the periods between exceedances are generally random.
California bearing ratio	A penetration test for evaluation of the mechanical strength of road subgrades and basecourses.

Table 2 Abbreviations

ARI	Average recurrence interval
CBR	California Bearing Ratio
CEC	Cation Exchange Capacity
Cl	Chlorine
COC	Chain of custody
EC	Electrical Conductivity
ILEF	Integrated Live Export Facility
K	Potassium
MPF	Meat Processing Facility
N	Nitrogen

Na	Sodium
P	Phosphorus
PEQ	Pre-export Quarantine
pH	Potential Hydrogen
SAR	Sodium Adsorption Ratio
SOM	Soil organic matter

DRAFT

Table of Contents

Glossary	iii
1 Introduction	1
1.1 Project Description	1
1.2 Proposed Land Uses	1
1.3 Objectives of the Soil Survey	1
2 Land Utilisation of Wastewater by Irrigation: Guidelines	2
2.2 Modelling of Wastewater Applications	3
3 Methods	4
3.1 Introduction	4
3.2 Desktop Assessment	4
3.3 Test Pits	4
3.4 Laboratory Testing	5
3.5 Data Management	5
4 Soil Survey Results	6
4.1 Existing Soil Mapping	6
4.2 Test Pits	7
4.3 General Properties of the Soils	3
4.4 Soil Survey Dialogue	3
4.5 Landscape Features	6
4.6 Soil Mapping	7
4.7 Soil Physical Properties	7
4.8 Soil Chemistry	9
5 Land Capability, Crop Use of Wastewater Irrigation and Management	12
5.1 Landscape Classification	12
5.2 Soil Characteristics	12
5.3 Wastewater Application to Irrigable Area	12
5.4 Capability of Soils for Irrigation	13
5.5 Nutrient Management	15
5.6 Land Management	16
6 Conclusions and Recommendations	18
6.1 Conclusions	18
6.2 Recommendations	18
7 References	20
8 Appendices	21

List of Tables

Table 1	Definitions	iii
Table 2	Abbreviations	iii
Table 3	Typical soil profile (results noted from Test Pit 2)	3
Table 4	Geotechnical analysis results	8
Table 5	Phosphorus data 0.30-0.60m dbgl (2nd June 2015)	9
Table 6	Agronomic attributes results	10
Table 7	Macro nutrient analysis results	11
Table 8	Expected average nutrient content of treated wastewater	13
Table 9	Nutrient Budget (kg/ha/year)	15

List of Figures

Figure 1	Excavation of Test Pits	5
Figure 2	Land Unit of the Site (Blue Boundary)	6
Figure 3	Location of soil sampling sites overlaid on a satellite image of neighbouring site, AA Co.	1
Figure 4	Location of soil sampling sites overlaid on a satellite image of the development site (Test Pits 1 - 10 and A - D)	2
Figure 5	Test Pit 1	4
Figure 6	Test Pit 2 Ferricrete (Iron precipitate formed Laterite) is visible at depths below 600mm	4
Figure 7	Test Pit 4	4
Figure 8	Test pit 5	4
Figure 9	Test Pit 6	5
Figure 10	Test Pit 7: flooded by inflows from perched water created by downslope transient soil water flows in the wet season	5
Figure 11	Test Pit 8: Very shallow soil profile in the SW of the property	5
Figure 12	Topographic Cross section plan from irrigation area midpoint to nearest watercourses	6
Figure 13	Topographic cross section plan of Controlled Drainage Area Northern and Southern Boundary.	7
Figure 14	Crop Water Demand: Improved Pasture (Mixed)	14

List of Appendices

Appendix A.	Soil Test data from AA Co. Soil Survey	A-1
Appendix B.	Livingston Valley Soil Test Pit Profile Data Sheets	B-1
Appendix C.	Livingstone Valley Soil Test Laboratory Certificates	C-1

1 Introduction

EnviroAg Australia Pty. Ltd. (EnviroAg) has been engaged by Wellard Rural Exports (the client) to assist with assessing the property known as “Livingstone Valley” on Lot 5544 Hundred of Strangways for the suitability for the proposed land use as a live export facility.

As part of the Environmental Assessment EnviroAg conducted a soil survey on the property with soil sampling undertaken in January 2015 and June 2015 by Dr Simon Lott with assistance from field technicians and surveyors. Dr Simon Lott, is a certified practicing soil scientist (Level 3), and registered professional engineer (agricultural, civil and environmental).

1.1 Project Description

Wellard currently lease a pre-export quarantine (PEQ) holding yards close to and outside of Darwin. The existing operations have poor to adequate design and management practices for environmental protection and animal welfare. The existing facilities present environmental and animal welfare risks to Wellard’s business.

Wellard wishes to proceed with the development of a new Integrated Live Export Facility (ILEF), proximate to Darwin, and are investigating the “Livingstone Valley” site as a possible location for this facility.

1.2 Proposed Land Uses

It is proposed that the land will be used for development of the ILEF. Importantly some land areas will be assigned to a controlled drainage area for a feedlot and pre-export quarantine (PEQ) holding yard. These lands will be substantially modified with topsoils and subsoils being stripped from them and the areas made impervious.

Other lands will be placed under infrastructure (sheds, buildings, roads). A large area will be used for wastewater irrigation. The site was divided into three zones in accordance with their proposed purposes;

- Export cattle holding yard and short term feedlot facility;
- Irrigable area; and,
- Waste systems comprising manure composting, processing and storage area and wastewater holding ponds.

1.3 Objectives of the Soil Survey

The objectives of this soil survey were to identify the soil types and profiles to assess constraints and benefits of the soil for the siting of the ILEF in consideration to site earthworks, borrow pits, crop irrigation and wastewater waste application. The soil survey covered both agronomic and geotechnical assessment including physical characteristics and nutrient analysis.

The objective of the soil survey is to;

- Review Northern Territory mapping and land classifications for the site;
- Undertake a soil survey;
- Test selected soil samples; and,
- Assess the soils for their suitability for irrigated agriculture and wastewater utilisation.

2 Land Utilisation of Wastewater by Irrigation: Guidelines

2.1 Guidelines

The sections below set out a brief overview of various State and industry guidelines.

2.1.1 Northern Territory

The NT Government does not have regulations or guidelines for the management of wastewater and the application to land by irrigation and utilisation by crop growth and harvest. The NT EPA has in their "Statement of Reasons"/ Terms of Reference requested that the Environmental Assessment use the South Australian Wastewater Irrigation Management Plan (WIMP) guidelines published by the South Australian Government. However, these guidelines are not very specific and do not have suggested values for soil chemical characteristics, rather it indicates what analyses need to be done.

2.1.2 Queensland

The Queensland government has several guidelines for wastewater management. These are:

- Queensland Water Recycling Guidelines (2005); and,
- Water quality guidelines for recycled water schemes (2008).

However, for land irrigation of agricultural wastewater, the QLD Government recommends the National Beef Cattle Feedlot Guidelines and Environmental Code of Conduct (MLA, 2012).

2.1.3 NSW

The NSW Government relies on the following guidelines for the land utilisation of wastewaters by irrigation:

- Environmental Guidelines: Use of effluent by irrigation (2004); and,
- Strategic environmental compliance and performance review: effluent reuse management (2010).

These guidelines are very similar to the South Australian WIMP guidelines.

2.1.4 Victoria

The Victorian Government relies on the following guidelines for the land utilisation of wastewaters by irrigation:

- Guidelines for wastewater irrigation (1991); and,
- Guidelines for Environmental Management: Use of reclaimed water (2003).

2.1.5 National Feedlot Guidelines

National Beef Cattle Feedlot Environmental Code of Practice (MLA, 2012) set out in detail management practices for the operation of wastewater utilisation areas.

2.1.6 Summary

The South Australian guidelines have been cited by the NT EPA for consideration in the Environmental Impact Statement. They provide a detailed guideline of soil and effluent characteristics suitable for livestock effluent irrigation. These guidelines require a discussion on:

- Soil suitability or limitations for wastewater irrigation, and any soil treatment required to improve the soil;

- Limiting wastewater constituents for disposal to land, any pollutant reduction strategy or pre-treatment requirements, and the minimum land area required to remove the most limiting constituent;
- Hydraulic, organic, nutrient and salt mass balance calculations (kg/Ha/yr) that support the determination of limiting factors to crop growth, and long-term soil loadings;
- Suitable crops, including harvesting requirements to prevent pollutant accumulation in soil and crops;
- Sustainable application rate that maximises nutrient removal and water use efficiency;
- Suitable soil moisture monitoring system to schedule irrigation to crop moisture requirements;
- Appropriate irrigation system layout, controllers and other equipment required to differentiate irrigation application rates between soils of varying capabilities;
- The capacity of the wastewater storage to cope with a 1:10 wet year, and any additional storage capacity requirement to cope with a 1:10 ARI storm of 20 minute duration falling on the catchment; and,
- Potential long-term impact of wastewater irrigation on soil structure or nutrient accumulation.

Notwithstanding these guidelines and their underlining principals, the most applicable guidelines for the proposed development of the ILEF are the National Guidelines for the beef cattle lot feeding industry (MLA, 2012).

2.2 Modelling of Wastewater Applications

Various models exist for modelling wastewater application to land areas (for example MEDLI: Gardner et al., 1996). Most models are physically based and deterministic. Importantly none have been separately calibrated, and validated. Moreover, all are based on traditional assessments of “nutrient” deficit agronomy in subtropical, temperate or Mediterranean climates.

The models do not account for the following management practices and soil development and soil-crop interactions:

- Soil temperature and pH directly affect the availability of soil nutrient. Increasing soil pH will result in an increase in bound nutrient and a reduction in availability of some key macro nutrients that are of environmental concern (e.g. Phosphorus);
- Soil organic matter holds both water and nutrient. In well managed wastewater irrigation systems a general increase in Soil Organic Matter (SOM) is noted. This holds nutrients in complexes reducing the likelihood that it will go into the soil water solution and be leached from the soil profile. The increase in SOM is achieved through soil health management focused on the same;
- Gypsum and lime applications to the soil increase the abundance of calcium. While calcium displaces hydrogen and sodium ions from exchange sites (clays and reactive silts) they also bind with ions such as phosphorus and sulphur to form calcium phosphate and gypsum in the soil. This process essentially builds the soil and removes nutrients from the exchangeable pool of nutrients; and,
- Where nutrients are abundant crops will luxuriantly uptake nutrients at rates above those generally reported in the literature.

No models exist for assessment of the application of wastewater to land for crop utilisation in tropical areas.

Given the above, the land capability assessment has focused on considering the hydraulic loading rates using standard irrigation modelling techniques and then the application of simple nutrient mass balances given potential additions, losses, storage and sorption of phosphorus. This approach has proven to be conservative and is considered most appropriate for the assessment.

3 Methods

3.1 Introduction

The soil survey and its assessment included:

- Detailed assessment of available reference materials including NT Government reports; recent soil surveys of land areas to the south and south-west conducted by the Australian Agricultural Company (AA Co.);
- Traversing the entire site in wet and dry seasons;
- Excavation of test pits;
- Lab testing (both agronomical and geotechnical tests); and,
- Data analysis and compilation.

3.2 Desktop Assessment

The desktop assessment undertook background research on the soils at the site and its surrounds. Of key note is that a detailed survey of the Darwin catchments and their hydrology and hydrogeology has been undertaken. This is reported in Haig and Townsend (2003). The reader is directed to this reference.

A recent soil survey has also been undertaken by AA Co. These data were reviewed and considered as part of the dataset applied to the assessment of the "Livingstone Valley" property (Zinga & Associates, 2011).

3.3 Test Pits

The location of the pits for soils sampling was based upon:

- NT Government soil maps;
- Reference materials;
- Mapping of the proposed land use areas to determine the structural integrity and quality of the soil for foundations and earthworks; and soil type and chemical characteristics for suitable qualities for irrigation and cropping; and,
- Geographic features and constraints (fence lines, roads, wet areas, timber, etc.).

In January 2015 (wet season) 14 test pits were dug using a backhoe (Figure 1) to the depth of refusal ranging from 0.5 m to 1.2 m. A further 4 test pits were excavated in June 2015. Each location was logged with a handheld GPS (accurate to ± 3 m). The approximate locations of the 14 test pit locations selected for sampling are shown in Figure 3 and Figure 4.

Soil profile characteristics were carefully logged. Each pit and its profile was measured and photographed. Disturbed soil samples were collected from each test pit and from each horizon. Samples collected were tagged and sealed in individual plastic bags and forwarded to a NATA certified laboratory in Brisbane for analysis. Physical attributes were identified and logged on site.



Figure 1 **Excavation of Test Pits**

3.4 Laboratory Testing

Bulk and individual soil samples were submitted to NATA accredited laboratories for analysis. Soils from TP1, TP2 and TP3 were forwarded for agronomic analysis. Soils from TP7 were sent for geotechnical testing.

Additional test pit samples (TP A, TP B, TP C and TP D) were collected on the 2nd of June 2015 from the proposed location of the pens, wastewater and water storage pond areas. These samples were specific for geotechnical identification of borrow pit materials for site construction.

3.5 Data Management

The soils' physical characteristics were described and entered onto EnviroAg field soil logs with photographs and GPS locations collected for each test pit. This information was tabulated into spreadsheets for interpretation and collation with laboratory analysis data.

Samples were freighted to the Toowoomba office where they were prepared and forwarded to the relevant laboratory for analysis. This was carried out under Chain of Custody (COC) documentation.

Soil samples were air dried and are currently stored at EnviroAg facilities in Toowoomba QLD.

4 Soil Survey Results

4.1 Existing Soil Mapping

4.1.1 Soil Mapping Units

The NT Government has mapped the soils in the vicinity of Darwin. The Northern Territory maps show that the “Livingstone Valley” site is located in the NT Van Diemen soils group. Within this zone the landscape is undulating to rolling hills and rises. The soils are in most part poorly developed, shallow and gravelly Kandosols, although Tenosols dominate the southern half of the zone.

The maps indicate the property is located within the land units 3b.1. The unit distribution is shown in the diagram Figure 2. Unit 3b covers the majority of the site.

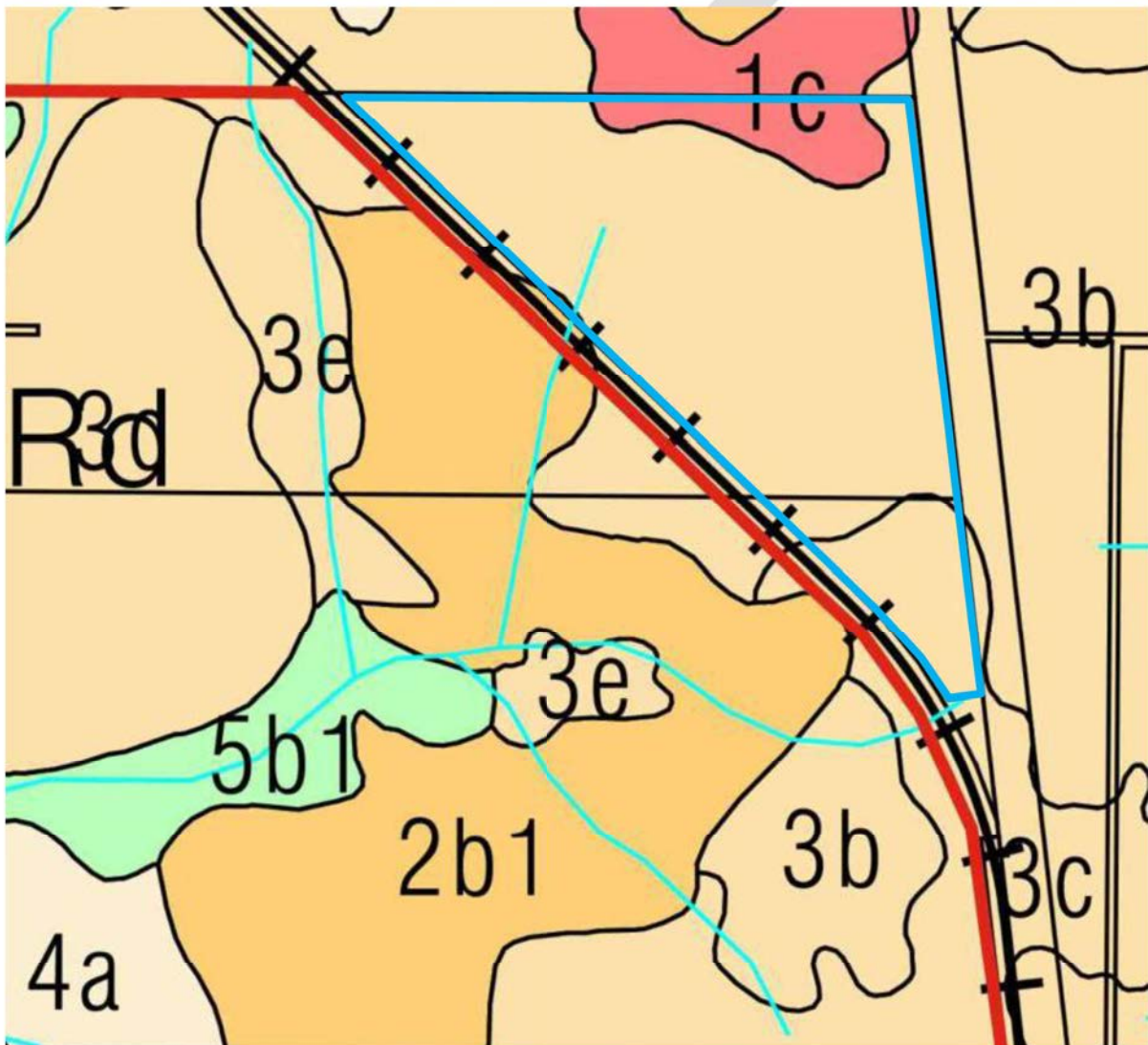


Figure 2 Land Unit of the Site (Blue Boundary)

Unit 1c is described as an area with short steep slopes and rises with gradients between 5-15%; located on shallow gravelly lithosols.

Land Unit 3b is characterised by flat to very gently undulating upland surfaces, with gradient of 0.5 to 2.5%. Soils are generally moderately deep to deep gravelly yellow massive earths usually overlying friable weathered material and minor red massive earths, grading through the soil profile to sandy loam to sandy clay loam and light clay at depth. Soils are well drained. Thus the soils are typical of Kandosols associated with the wet tropics. Most soils in the upper areas of the site are a classic “Darwin lateritic Red Kandosol”.

Kandosols have gravelly sandy to loamy surface soil, gradually changing to sandy clay or clay subsoils with a poor structure, low fertility and poor water holding capacity. The poor structure and laterite can lead to seasonal waterlogging. This has most certainly been observed on site. As a general rule the soils are reasonably infertile and generally acidic.

4.1.2 Local Soil Survey – Australian Agricultural Company MPF

AA Co. meat processing facility (MPF) undertook a soil survey on the property immediately to the south and south west of the “Livingstone Valley” property. The soil survey included an electromagnetic soil survey, soil test pits and drilling of investigative bores.

Figure 3 shows the locations of the test pits that were sampled on AA Co. The data from the investigations are presented in Appendix A as an extract per Zinga and Associates (2011).

In summary the investigation found that:

- The soils at the site were a yellow earth. This assessment applies the current and valid Northcote soil classification system. The Australian Soil Classification (Isbell, 2002) would consider the soil a Kandosol. This is consistent with the soil classifications mapped by the NT Government;
- Surface soils had a low CEC (organic matter and clay content), were well structured and permeable, and had a low nutrient (and especially) phosphorus content; and,
- Surface soils were not suitable for construction of water and wastewater storages but did have some pasture and crop production capacity.

4.1.3 Hydrogeological assessments

The AA Co. MPF undertook a hydrogeological assessment on the property immediately to the south and south-west of the “Livingstone Valley” property. EnviroAg undertook further hydrogeological assessment on “Livingstone Valley”. The assessment is separately reported in Appendix P of the Environmental Impact Statement. The reader is directed to that report.

The hydrogeological assessment reports bore logs which have reported surface stratigraphy and soil characterisation. These data are useful to this assessment.

4.2 Test Pits

As detailed in Section 3.3, a total of 14 test pits were excavated. The location of the 14 test pits is shown in Figure 4 below. The soil profile logs are included in Appendix B. Soil samples were collected from the test pits for both agronomic and geotechnical analysis. Refer Appendix B and Appendix C.

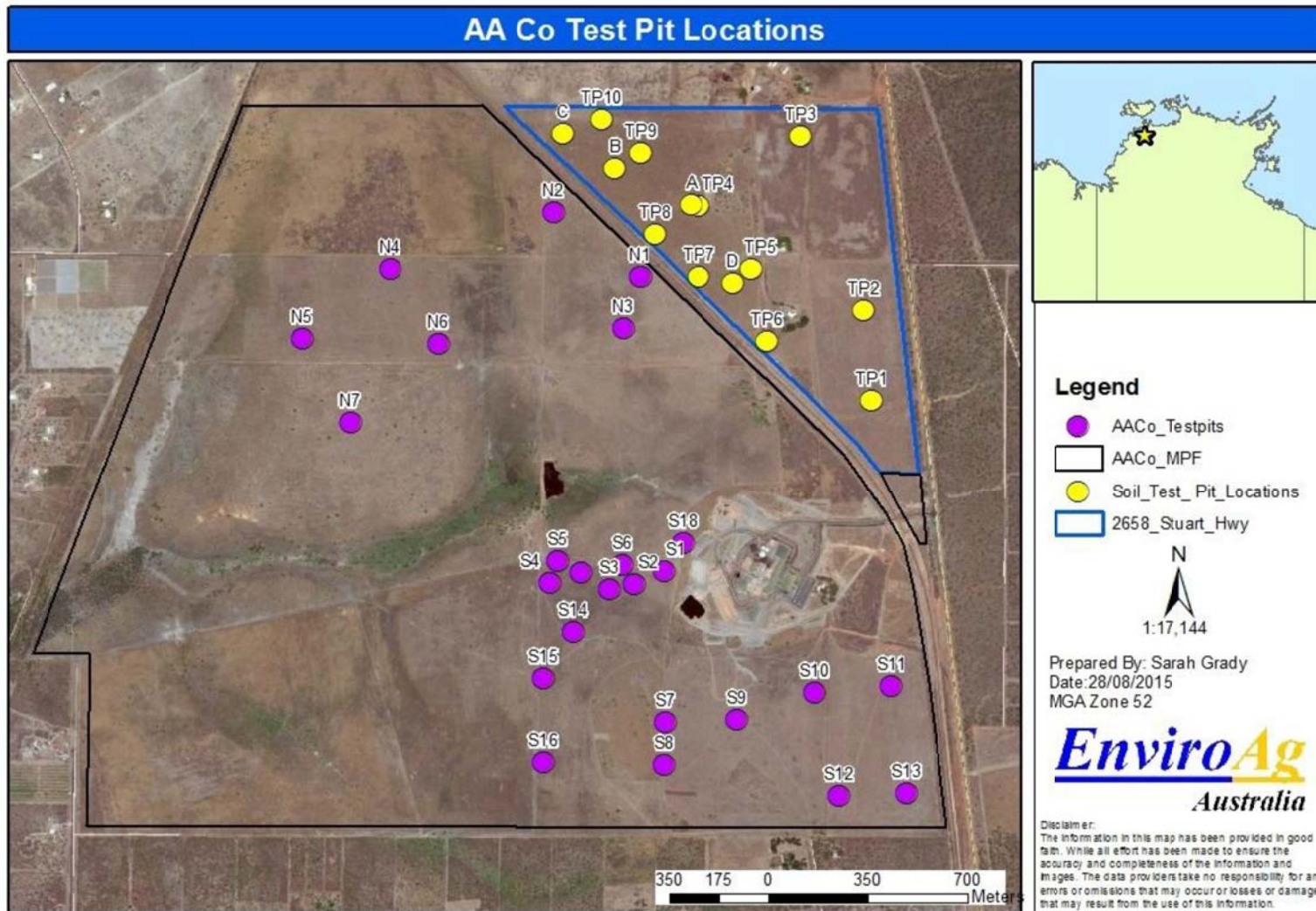


Figure 3 Location of soil sampling sites overlaid on a satellite image of neighbouring site, AA Co.

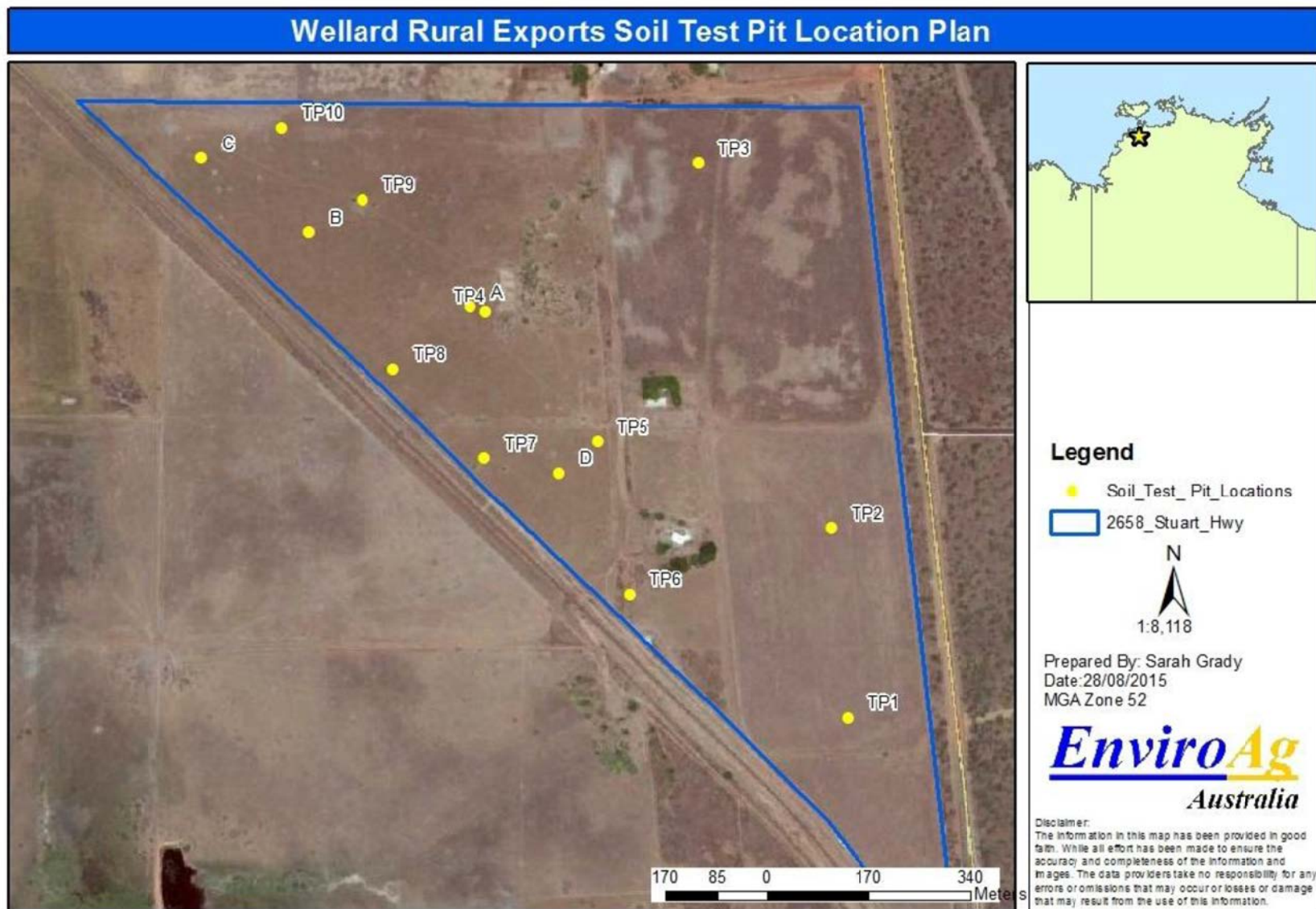


Figure 4 Location of soil sampling sites overlaid on a satellite image of the development site (Test Pits 1 - 10 and A - D)

4.3 General Properties of the Soils

The general properties of the soils are described by the stratigraphic summary in Table 3 below.

Table 3 Typical soil profile (results noted from Test Pit 2)

Depth (m)	Horizon	Description
0.0 - 0.10	A1	Dark brown sandy silt trace of clay. Massive structure with humic layer at a A0 with minor gravel
0.10 - 0.20	A2	Light yellow, yellow, yellow-brown sandy silt. Massive structure, saturated, weak and partially leached
0.20 - 0.30	B1	Orangey yellow clayey, sandy silt, Massive structure. Roots present. Well aggregated.
0.30 - 0.65	B2	Red silty (20-30%) clay (20-30%) with gravel. Massive structure. Roots present
0.65 - 0.90	B3	Red/Yellow gravelly clay. Massive structure with decomposed Ferricrete and red yellow mottles. Roots present. Macro pores present.
0.90 - 1.20	C1	Ferricrete rock with red yellow mottles.

4.4 Soil Survey Dialogue

In January 2015 the property "Livingstone Valley" was saturated from recent rainfalls. Rainfall infiltrated well into surface soils. The soils on the eastern side of the property close to the ridge / plateau drained well. The infiltrated rainfall did produce a transient water that flowed through the soils above the ferricrete. This resulted in some inflow to the soil pits that were excavated.

Soils were generally a brown surface soil with a yellow subsoil overlying and orangey red sandy silt with gravel, overlaying decomposed ferricrete as shown in Figure 5 to Figure 11.

The A1 horizon consisted of a dark brown silty-sand top soil 0-0.10 m. The A2 horizon was reasonably shallow ranging in depth between 0.10 m and 0.35 m and consisted of a yellow to light yellow-brown sandy silt.

The B horizon consisted of an orangey yellow clayey sandy silt overlying a red silty clay with gravel between a depth of 0.30 m and 0.90m.

The C horizon consisted of ferricrete and refusal between 0.70 to 1.20 m. In test pit 7 the ferricrete was broken through and a reddish yellow clay with <30 mm sub angular-rounded gravel to 1.50 mm was noted. Test pits profiles are illustrated Figure 5 to Figure 11.

The area was saturated from recent rainfalls allowing transient water flow through the resulting pits that were excavated. Soils were generally a red sandy silt with gravel, overlaying decomposed ferricrete as shown in Figure 6.

Generally the soil profile was shallow with the A horizon averaging to a depth of 0.28 m and the B horizon depth average of 0.77 throughout the ten test pits. Gravel was encountered throughout the A and B horizons with varying depths of refusal within the ferricrete encountered in the C horizon.

The deepest soils with the greatest opportunity for rooting depth were found in the eastern ridge soils. These soils are currently used for improved pasture production. The shallowest soils were found on the south western lower portion of the property close to the railway line. The soils on the lower slope were extremely wet and this is consistent with notations in references reviewed in the desktop assessment. These soils can only be improved with improved surface drainage that removes excess surface waters that pool to create a waterlogged environment.



Figure 5 Test Pit 1



Figure 6 Test Pit 2 Ferricrete (Iron precipitate formed Laterite) is visible at depths below 600mm



Figure 7 Test Pit 4



Figure 8 Test pit 5



Figure 9 Test Pit 6

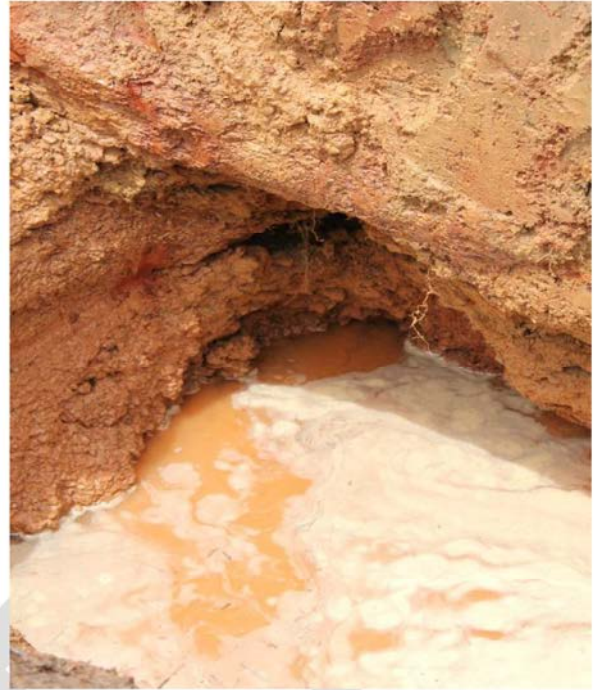


Figure 10 Test Pit 7: flooded by inflows from perched water created by downslope transient soil water flows in the wet season



Figure 11 Test Pit 8: Very shallow soil profile in the SW of the property

4.5 Landscape Features

4.5.1 Irrigation Area

The irrigable area is located on the upslope section of the property which lies on the Easternmost portion of the property boundary. The site is approximately 1km from the nearest water course. A topographic cross section plan from the irrigation area midpoint to the nearest watercourses is shown in Figure 12 below.



Figure 12 Topographic Cross section plan from irrigation area midpoint to nearest watercourses

4.5.2 Controlled Drainage Area

The controlled drainage area of the development is well defined. Rainfall runoff is captured and stored in a wet weather storage pond and a fresh water runoff dam. The storage capacity exceeds that required to hold rainfall runoff from a 1 in 10 year wet year. Should the wastewater systems receive an exceptional wet year exceeding design, then any bypass must pass through the wet weather water storage pond which will substantially dilute any nutrient that it may contain.

The controlled drainage area is located upslope of the water storage facilities. A topographic Cross section plan from the Water storage facilities along the major drainage systems proposed to be developed is shown in Figure 13 below.

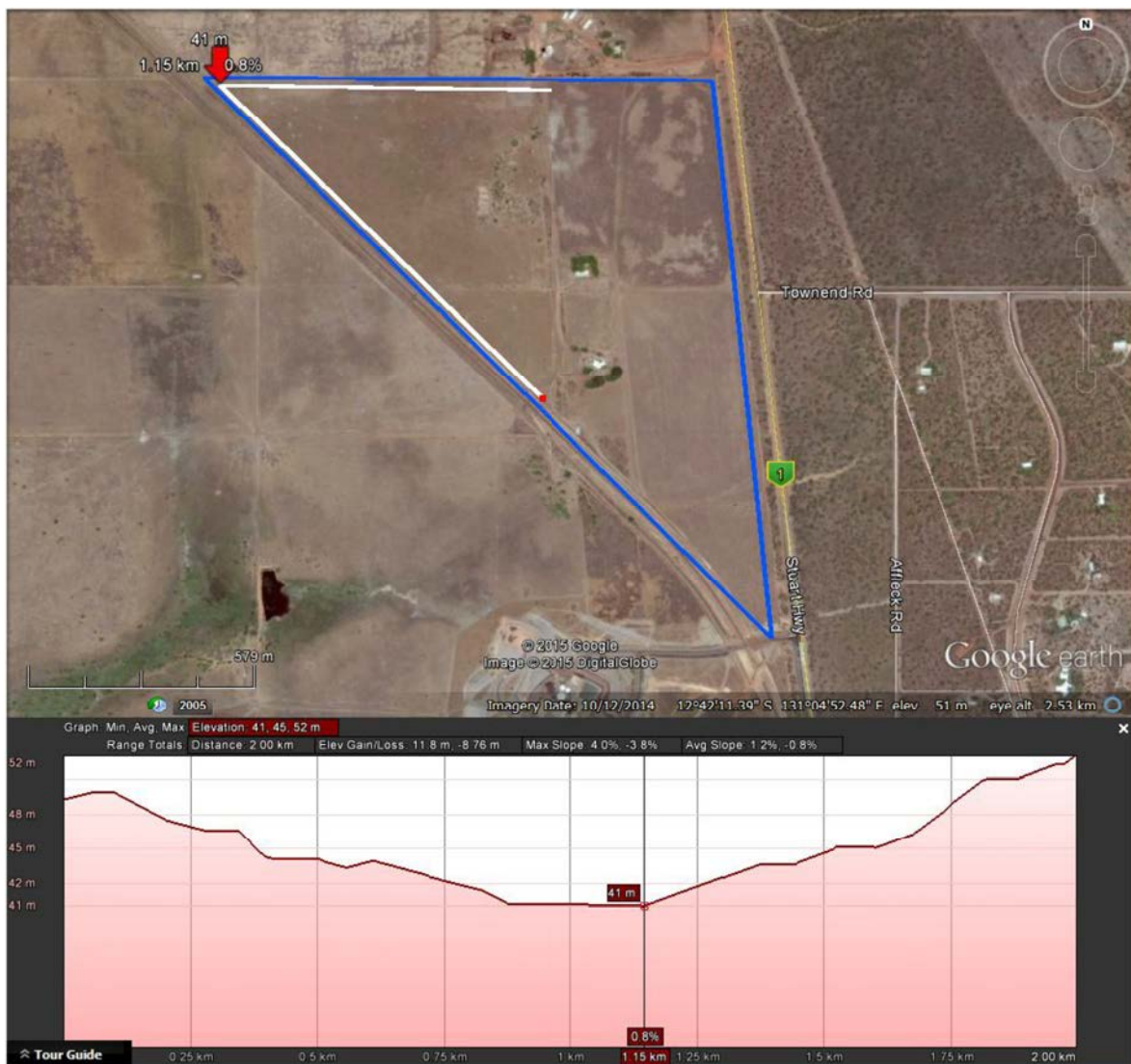


Figure 13 Topographic cross section plan of Controlled Drainage Area Northern and Southern Boundary.

4.6 Soil Mapping

The field survey found that the soils at the site are a yellow Kandosol and are generally consistent with the NT Government mapped unit 3b.

Land unit 1c which is shown on the northern boundary in Figure 2 does not extend as far south as the map would suggest: it essentially borders on the northern property boundary. Thus the entire “Livingstone Valley” property can be considered to be Unit 3b.

The field survey did find that the surveyed soils were shallower than the land unit 3b describes. The soils were massive earths consisting of yellow to red sandy silt and light clays and classified as Kandosols. The soils were overlaid with weathered rock noted as ferricrete.

Appendix B details the Livingstone Valley Soil Test Pit Profile Data Sheets.

4.7 Soil Physical Properties

With regard to the geotechnical characteristics the surface soils, when wet, have a low strength whilst the laterite at depth presents a material that can be robust if not too mineralised and kept dry. “Laterite” is simply a continuous cemented layer of iron and aluminium oxides, formed through accumulation of these elements

during extreme tropical weathering. In this case we are dealing with Ferricrete; which is an iron cemented rock found at depth, below the root zone.

Results from geotechnical analysis performed at the SoilTech Laboratory in Toowoomba QLD are noted in Table 4.

Table 4 Geotechnical analysis results

Sample ID	TP7	TP A	TP B	TP C	TP D
Sampling Date	11/01/2015	2/06/2015	2/06/2015	2/06/2015	2/06/2015
Soil description	Orange gravelly sandy silty clay	Red Brown Gravelly Silty Sandy Clay	Pale brown sandy silty clay	Orange brown gravelly silty sandy clay	Orange brown silty sandy clay
Permeability (m/s)	4.2x10 ⁻¹¹				
CBR % (soaked)	30	15	7	25	30
CBR % (unsoaked)		14	17	25	30
Liquid Limit %	47	51	52	41	37
Plastic Limit %	19	24	22	20	18
Plasticity Index	28	27	30	21	19
Linear Shrinkage %	12.5	11.5	13	8.5	9.5
PSD- Sieve size % passing					
19.00 mm	100				
13.2 mm	97	100		100	100
9.50 mm	91	96		99	97
6.7 mm	84	92		96	81
4.75 mm	76	86	100	85	69
2.36 mm	58	70	100	63	56
1.18 mm	47	59	97	49	48
0.600 mm	42	54	92	40	43
0.425 mm	39	51	89	35	39
0.300 mm	36	49	85	31	35
0.150 mm	29	43	79	24	28
0.075 mm	22	39	74	20	24

4.7.1 Surface Soil Permeability

Permeability analysis was conducted on the sandy silty red clay which yielded a result of $k(20) = 4.2 \times 10^{-11}$ (m/sec). Results are shown in Appendix C. Other tests were initiated for selected materials that contained clay (in similar strata) or for materials in association with the ferricrete. but these had to be abandoned as the permeabilities were too low to make the test feasible.

Permeabilities in the sand are considered to be high.

4.7.2 Phosphorus sorption capacity

The Phosphorus-Colwell is a measure of plant-available phosphorus in the soil. The Colwell-P levels are shown to be very low in the surface of the soils. Total P levels are also low and they decrease with increasing soil depth.

Table 5 Phosphorus data 0.30-0.60m dbgl (2nd June 2015)

Sample ID	Total P (mg/kg)	(Available) Phosphorus-Colwell (mg/kg)	P Sorption Capacity (mg/kg)
TP A	61	<0.5	100
TP B	78	<0.5	126
TP C	38	<0.5	73

The capacity of the soil to absorb Phosphorus is determined by the mineralogy, amount of clay, pH and the temperature of the soil. The in situ soil has a relatively low P sorption capacity as a result of the silty, sandy clay A2 horizon, which has a low absorption and is unreactive. The significant presence of iron at depth would significantly increase the P sorption capacity due to ready precipitation of iron phosphates.

It must be noted that P sorption capacity may be reduced by “flooding” of the soil by increasing the solubility of phosphates. The wet season annually inundates the lower parts of “Livingstone Valley” with surface and shallow water. It is for this reason that wastewater should be irrigated on elevated areas only; as have been selected for the proposed irrigable areas.

The P sorption capacities reported by Zinga (2011) in the soil report for the AA Co. MPF found sorptive capacities of between 106 and 583 mg/kg. The data are not dissimilar to those found in the surface soils at “Livingstone Valley”.

The low P sorption in surface soils and Phosphorus-Colwell readings, combined with the limited total phosphorus depicts an extremely phosphorus deficient soil. Based on the available data the surface soils in the proposed irrigable area can readily sorb 2000 kg/ha/m of soil within the top 1m.

4.8 Soil Chemistry

Agronomic results were obtained from the SGS laboratory for air dried sample analysis and are noted in from Test Pits 1, 2 and 3 for the depths of 0.15-0.30 m and 0.30-0.60 m.

A summary of the data from the laboratory testing is shown in Table 6 and Table 7. This data is comparative to the fundamental text detailed within “Interpreting Soil Results; What do all the Numbers Mean?” (Hazleton and Murphy, 2007).

In summary it is noted that:

- Conductivity levels are very low throughout the profile and indicate non-saline conditions.
- Soil pH is slightly acidic to neutral throughout the profile with pH ranging from 5.1 to 6.1. The soil will benefit from the application of lime and or gypsum.
- The cation exchange capacity of this soil is low, both in surface and subsoils except in Test Pit 3 at 0.15-0.35 m where a thin band of clayier material was found and sampled. This corroborates field soil texture assessments that identified silts and sands throughout the soil horizons.
- Organic carbon levels range from low to very low in surface and subsoils respectively with soil nitrate levels deficient throughout the soil profile. The soil will benefit significantly from the application of composted manures.
- Available nitrogen levels are extremely low, reducing through the profile.
- Colwell-P, a measure of plant-available phosphorus in soils, shows very low phosphorus levels at the surface of the soil which decreased with increasing soil depth. Calculations of plant available P are not obtainable due to the insignificant results of Ortho P Cowell.
- The exchangeable sodium percentages of these soils are also low throughout the profile and provide no risk of soil dispersion. Surface soils exhibited high exchangeable calcium percentages in Test Pit 1 compared with Test Pit 2 and 3.

The soils indicate low fertility with very low cation exchange capacity in the surface soils. The soils are clearly well drained and while this will promote good plant growing conditions due to reductions in water logging, potential for leaching of nutrients to lower in the soil profile exists. Nutrients, when applied, need to be applied frequently in low amounts.

Organic matter contents need to be increased to assist in retention of soil moisture and nutrients.

Table 6 Agronomic attributes results

Wellards Soil Sampling Livingstone												
Date: 11/01/15		pH (aqueous)	EC dS/m	Organic Matter %	Aluminium mg/kg	Sodium mg/kg	Exchangeable Sodium %	Exchangeable Calcium %	Exchangeable Magnesium %	Exchangeable Aluminium %	Cation Exchange meq/100g	Calcium/Magnesium ratio
Guidelines (AS 2159-2009)		5.6-8.4	<3			<2	<6	>5	>1		>12	
Guidelines (SA EPA)		4-9	<2	>2			0-5				>15	
TP1 15-30		7.74	0.04	0.2	<1	10	1.9	83.9	9.3	NA	2.22	9.03
TP1 30-60		7.09	0.03	0.4	<1	22	2.1	78.3	15.5	NA	4.67	5.06
TP2 10-30		5.36	0.02	0.4	33	5	1.4	44.9	18.9	24.5	1.48	2.37
TP2 30-60		6.57	0.03	0.3	<1	55	5.3	48.1	44.3	NA	4.51	1.09
TP3 15-30		6.66	0.07	0.4	<1	577 [^]	26.2	21.7	51.1	NA	9.59	0.42
TP3 30-65		5.45	0.02	0.3	25	26	6.4	45.3	28.8	15.5	1.79	1.57

[^] Suspected outlier due to laboratory data transcription error

Table 7 Macro nutrient analysis results

Wellards Soil Sampling Livingstone		pH (aqueous)	Nitrate Nitrogen mg/kg	Phosphorus - Colwell mg/kg	Sulphur - KCl mg/kg	Potassium mg/kg	Calcium mg/kg	Exchangeable Calcium %	Total Phosphorous
Date: 11/01/15									
Guidelines (AS 2159-2009)		5.6-8.4	>30	>30				>5	>250
Guidelines (SA EPA)		4.9		>1000					
Sample ID									
TP1 15-30		7.74	1	<0.5	4.6	42	372	83.9	46
TP1 30-60		7.09	1	<0.5	3.3	76	732	78.3	61
TP2 10-30		5.36	2	<0.5	2.2	59	133	44.9	38
TP2 30-60		6.57	<1	<0.5	5.2	41	434	48.1	78
TP3 15-30		6.66	3	<0.5	9.3	41	416	21.7	55
TP3 30-65		5.45	2	<0.5	2	28	162	45.3	38

5 Land Capability, Crop Use of Wastewater Irrigation and Management

5.1 Landscape Classification

The Northern Territory Government uses the Australian Land Use and Management (ALUM) Classification (version 6). This provides a nationally consistent system for collecting and presenting land use information.

The ALUM Classification has five primary levels of land use distinguished in order of generally increasing levels of intervention or potential impact on the natural landscape.

The land at "Livingstone Valley" is considered to be Class 3 for "Production from dry land agriculture and plantations" (that is, land used mainly for primary production, based on dry land farming systems).

The Litchfield land use plans show the eastern area proposed for irrigation mapped as Land Class 3.3 which is suitable for cropping or pasture (DIPE, 2009).

5.2 Soil Characteristics

5.2.1 Soil physical properties

The soil physical properties identified at the site are similar to those defined by the NT Government maps and surveys by AA Co. The soil has a silty sand top soil, sandy subsoils overlying thin and variable silty sandy clay (with gravel) over a ferricrete.

The soil is well drained in elevated areas. However low lying areas become water logged in the wet season through both accumulation of pooled surface rainfall-runoff and downslope transient flows through the soil. It is probable that in low lying areas shallow groundwaters are likely during the wet season.

Soils at the top of the slope are suitable for improved pasture and crop production. Soils on the lower slope are not suitable for pasture and crop production due to their shallow depth.

Modelling of the moisture characteristics indicated that the water holding capacity of the soil is expected to be about 0.8mm/cm of soil or 0.08mm/mm (Hazleton and Murphy, 2007). Based on the soil texture of the soils in the proposed irrigation area and a root depth of about 0.9m the expected plant available water holding capacity is about 80mm/m of soil or 72mm in the 0.9m deep soil profile. The percentage of this water that will be available to the plant is expected to be about 50% given the relatively high sand and silt content of the soil (Burk and Dalglish, 2008). Thus the available water for a pasture or crop is expected to be about 36mm. Given irrigation efficiencies and potential need to completely wet the soil irrigation applications will be to a maximum of 50mm and more generally in 25mm applications.

5.2.2 Soil Chemistry

The soil is nutrient deficient. It has significant requirement for amelioration with organic matter, nutrient and probably lime and gypsum to improve its productive capacity.

The P Sorption capacity has been measured to be about 100mg/kg of soil. This is consistent with the values that have been obtained on the property adjoining the property (see Zinga & Associates, 2011). The sorptive capacity of the soil over a 0.9m depth could reasonably be expected to be about 1260kg per ha (see section 4.7.2). Not all of this sorptive capacity should be assumed in the first case and conservative assessment of nutrient loading normally applies a safety factor of 2 which request that only 50% of it is assumed in the calculations.

5.3 Wastewater Application to Irrigable Area

Appendix O in the environmental assessment presents the hydrological assessment of the proposed development. The modelling undertaken and described in the hydrological assessment shows that the annual average yield of wastewater from the facility is expected to be 190ML/year. The yield in the wettest year in 10 years is expected to be 240ML/year.

The total irrigable area proposed is 40 ha. This includes the large irrigable area for fodder production and tree lines, and, garden areas.

The expected average nutrient content of the treated wastewater is shown in Table 8 below.

Table 8 Expected average nutrient content of treated wastewater

Attribute	pH	EC	TS (%)	TN (mg/L)	TP (mg/L)	K (mg/L)	Na (mg/L)
Average	7.2	4000	0.25	150	15	300	150
Average Annual WW Generation (ML)				190			
Mass (kg/ha)	NA	NA	11,875 kg/ha	712.50	71.50	1425	712.5
Losses in Wastewater (Wet Weather Storage) (kg/ha)	NA	NA	50%	40-70% (50%) [^]	10-40 (25%) [#]	(10%)	
				356.25	17.9	142.5	
Irrigation Application (kg/ha)	NA	NA	5937.50	356.25	53.6	1282.5	712.50

[^] Volatilization (denitrification and evaporation)

[#] Chemical precipitation and deposition in algae detritus (sludges)

5.4 Capability of Soils for Irrigation

5.4.1 Expected Leaching Fraction (LF)

The soils are Kandosols. They deliver a useful soil to sustain irrigated agriculture. The wet season delivers a moisture surplus. This significant episodic event provides a leaching fraction.

The SALF program was used to assess the leaching fraction of the soil profile in the proposed irrigation area.

Parameters consistent with the soil profile as it is were used. Based on the model, the leaching fraction is estimated to greater than 200mm/year. The model shows that this will adequately remove deleterious salts (sodium) from the soil profile so that they do not accumulate. The expected soil water concentration of the salts is also very low and no salinity impacts are expected. These outcomes can be attributed to the well-drained nature of the soil, its silt and sand (and low clay content) and the high rainfall.

Given the leaching fraction; ongoing careful management of potential loss of nitrogen and phosphorus is important. This is best achieved by:

- Frequent moderate applications of irrigation;
- Maintaining an active plant growth;
- Maximising organic matter content to maximise nutrient holding capacity; and,
- Maximising nutrient recovery by crop harvest.

5.4.2 Expected Crop Production Capacity

Crop Type

The proposed irrigation area is currently dominated by the summer topical grass, Jarra grass (*Digitaria milanijana cv Jarra*). This grass does not grow over the northern winter. It is critical that a crop is grown that grows through winter and summer and provides year round water demand and maximum dry matter production so that it can be harvested in dry breaks in the wet season (silage), as early as possible after the wet season for silage and hay, and then through the dry season as hay so it provides a dry fodder supply for the operations.

To achieve this it is proposed to use a grass / legume mix common in tropical and subtropical Queensland being a Setaria, Rhodes Grass and Siratro pasture mix. This provides an improved pasture of grass and legume that is extremely competitive, stoloniferous (a prostrate stem, that produces new plants from buds at its tips or nodes, thereby improving soil holding capability) and that takes up appreciable amounts of P, K and S.

Maintenance of the improved pastures by separating out undesirable grass species and resowing or oversowing of land areas with improved pasture seed will be required.

Where appropriate the additional introduction of hybrid forage species will be added to the pasture mix to increase dry matter production (forage sorghum / millets).

Dry Matter Production

The dry matter production from improved pastures in the irrigable area is anticipated to be 10-15T DM/ha/year as hay through multiple cuts.

With a total annual DM harvest of 15T/ha hay production will use about;

- 420 kg/ha of Nitrogen (N),
- 45 kg/ha of phosphorus (P) and
- Over 450 kg/ha of potassium (K) each year.

5.4.3 Crop Water Requirements

The annual average rainfall for Berry Springs is 1807.5mm. The annual average evaporation for Darwin is 2460mm. Thus the average moisture deficit at the site is in excess of 600 mm/year. This is equivalent to an annual average water deficit of 6ML/ha.

However this is misleading with regard to actual deficits applicable to the crop. While moisture surpluses occur over summer, every dry season has a significant deficit. The deficit over the dry season is the key variable in sustainable re-use of wastewater. The dry season moisture deficit is about 1375 mm (on average) (April to November).

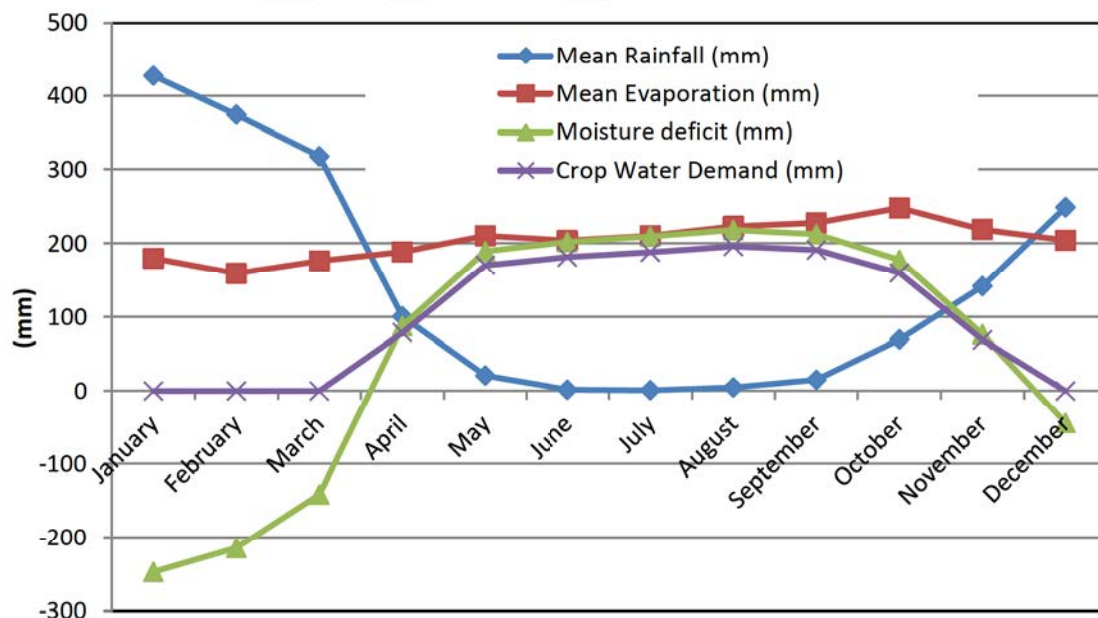


Figure 14 Crop Water Demand: Improved Pasture (Mixed)

Crop water use is proportionate to the evaporation and consequent transpiration of the environment. A Crop Factor is applied to the evaporation to determine a transpiration rate. The Crop Factor considers soil and climatic factors to accurately determine the transpiration rates in different conditions.

Given the soil type, selected cropping regime, and considering the climatic data, a crop factor of 0.9 has been applied for all months.

Given crop factors for improved pasture, the expected irrigation demand is in the order of 10-12 ML/ha/ year; through the dry season.

Effective rainfall must also be taken into consideration when determining irrigation demand. While the wet season shows a moisture surplus, most of this surplus runs off. Between monsoonal rainfall events dry conditions do occur; these do create short term moisture deficits an analysis of daily rainfall through each month (wet days and likely runoff versus, dry days and crop evapotranspiration) shows that between 50-100mm of irrigation (on average) can be undertaken on an opportunity basis each month. Over the wet season it is expect that about 1-3 ML/ha on an opportunistic basis. Thus, a total water demand of some 11-15ML/ha can be expected.

The 190ML/yr of available waste when applied across 40ha with an efficiency of 90% will supply only 4.27ML of water per ha per year. This is not sufficient to meet the irrigation demand for an improved pasture. There is a critical moisture deficit in spring. It is proposed to use clean waters captured on site to supplement the irrigation in this period.

5.5 Nutrient Management

5.5.1 Nutrient budget

A nutrient budget is provided in Table 8 below. It shows the input and outputs for the proposed irrigation area, given the proposed wastewater application rate and the crop production from the area.

Expected wastewater constituents are expressed in Table 9 (per the Hydrological Assessment report provided in Appendix O of the Environmental Impact Statement). It is from these data that application rates can be calculated.

With the P sorption, evapotranspiration rates and the removal of nutrients through harvesting of the improved pasture for silage and hay, removal rates can be determined.

At the current rates of application and concentrations of wastewater, deficits are observed for water, Nitrogen and Phosphorous. For the pasture to be viable, additional water will need to be applied in conjunction with a fertiliser as the Phosphorous will be insufficient to supply the pasture.

Table 9 Nutrient Budget (kg/ha/year)

	Total Solids kg/ha	N kg/ha	P kg/ha	K kg/ha	Na Kg/ha
Inputs					
Fertiliser (Urea N@46%N)	0	100	0	0	0
Wastewater	5,938	356	54	1283	713
Manure (compost) ^(a)	20,000	200	60	500	60
Outputs					
Runoff ^(b)	5,000	100	5	>2000	>1000
Loss from Field	10,000	300			
LF ^(c) (allowable)	0	5	0.1	~100	~200
Harvest	15,000	420	45	450	1.5
Phosphorus Sorption			100		
Change	-4,062	-169	-36	-767	-428.50

(a) 20T DM/ha yearly;

- (b) Annual average runoff will be >300mm/ha or 3ML/ha in wet season. Runoff will carry some organics containing some nutrient, and, will preferentially dissolve and carry dissolvable ions especially potassium and sodium (that dissolve readily);
- (c) LF = Leaching Fraction. Quantities based on concentrations in ANZECC guideline values for waters.

The following assumptions were made in the preparation of Table 9:

- Runoff from the wastewater utilisation areas is to be captured in the tail water system; some of this will be returned to sustain the crop if insufficient wastewater is captured and available for irrigation; only the anticipated loss is included which mainly includes monovalent ions of K and Na that dissolve and are readily lost;
- Nitrogen fertiliser is applied to the wastewater utilisation areas to promote and sustain dry matter production; it is applied in spring when wastewater irrigation is expected to stop, and fresh water irrigation is to commence;
- Composted manure is applied based on agronomic advices and if a nutrient deficit exists;
- Harvest of pasture crops removes 15,000kg of dry matter per ha per year; and,
- The design life is 50 years (for exhaustion of P sorption in surface soils).

From Table 9 above it is concluded that:

- The application of wastewater to the wastewater utilisation areas will not result in excess nutrient availability;
- A water supply will be required to support crop growth in spring; and,
- The health of the soil will be directly related to management of organic matter (to prevent a decline) and use of lime and gypsum to manage the cation exchange balance.

Annual soil monitoring will be undertaken check nutrient levels in the soil. The crop type and application rates can be adjusted accordingly.

5.5.2 Nutrient Management

This nutrient demand is expected to exceed the nutrient application from wastewaters and as such the irrigable area will require supplementing with composted manure or inorganic fertilisers. Degradation of land and the soils within the irrigable areas is not expected.

5.6 Land Management

5.6.1 Land and Soil Management

The irrigable area must be managed to ensure that soil health is maintained. Equally it must be managed so that it is as productive as possible. To achieve these outcomes the land area and its soils will be managed to:

- Minimise weed infestations by spraying out dense infestations and careful use of residual chemicals for ongoing control to allow pastures to establish and outcompete weed species;
- Minimise soil compaction by limiting traffic across the irrigation area when the soil is wet; and if necessary alleviation of compaction by deep ripping with appropriate implements (tines that do not disrupt the surface soil appreciably); and,
- Remove obstacles for production including termite nests and holes and wheel ruts. Land planes will be used to “surface” the land areas to present a smooth fully productive area.

5.6.2 Soil Amelioration

The soils are only slightly acidic to neutral which will be beneficial in nutrient solubility and availability. The addition of agricultural lime and gypsum will assist in improving soil structure.

These soils will benefit from the application of wastewater irrigation and should provide a suitable soil base for the intended cropping regime.

Over time and in regard to agronomics the soils often need “corrective calcium” additions (gypsum/lime) to rebalance the cation exchange percentages between CA:Mg:K and Na and typically some boron and potentially zinc to realise the soil potential for plant growth.

Application of amendments in the form of agricultural lime will be required to allow for utilisation of the wastewater application for fodder crops under irrigation.

The application of composted manure would also assist in increasing the structure of the soils and carbon content.

5.6.3 *Cultural practices*

The improved pasture will be maintained by separating out undesirable grass species and resowing or oversowing the land areas with improved pasture seed. Where appropriate hybrid forage species will be added to the pasture mix to increase dry matter production (forage sorghum / millets).

Fertilisers will be applied to address expected nutrient deficiencies. The fertilisers will be applied prior to irrigation. Irrigation will be limited and managed so that sufficient water is applied to prevent fertiliser burn but low enough to prevent significant leaching that would carry any excess nutrient below the root zone. Generally in this circumstance irrigation would be limited to 25-50mm per irrigation event.

6 Conclusions and Recommendations

6.1 Conclusions

The soil survey shows that the selection of the eastern area of the property for the irrigation is well justified as it presents the most productive soils for utilisation of wastewater by irrigation.

The dry matter production from improved pastures in the irrigable area is anticipated to be 15T DM/ha/year as hay. This hay production will use, per hectare, more than 400 kg of Nitrogen (N), 50 kg of phosphorus (P) and over 500 kg of potassium (K) each year. This nutrient demand is expected to exceed the nutrient application from wastewaters and as such the irrigable area will require supplementing with composted manure or inorganic fertilisers (urea form nitrogen). Degradation of land and the soils within the irrigable areas is not expected.

The critical potential pollutant expected is excess nitrogen. This may accumulate in the deeper soil with potential for loss by leaching. Full agronomic soils sampling will be undertaken at the start of the dry season so that nutrient budgeting can be undertaken in advance of nutrient applications. If concern exists regarding a build-up of excess nutrient then supplementary soil sampling of deep soils (70-100 cm) will be undertaken midway through the dry season so that action can be taken to recover excess nutrient.

The irrigation system must be designed to meet the significant pasture crop water demand over the dry season, and to also deliver opportunistic irrigation during the wet season when moisture deficits occur.

6.2 Recommendations

The soil survey and land capability assessment makes the following recommendations:

6.2.1 Design

- Some land areas will be assigned to a controlled drainage area for a feedlot and pre-export quarantine (PEQ). These lands will be substantially modified with topsoils and subsoils being stripped from them and the areas made impervious to water.
- Wastewater should be irrigated on elevated area selected for the proposed irrigable areas; and
- Grass embankments to hold the structure firm and alleviate erosion issues.

6.2.2 Management Practices

- Apply composted manure or inorganic fertilisers (urea form nitrogen) to the irrigable area to promote good soil structure;
- The soil will benefit from the application of lime and or gypsum to rebalance the cation exchange percentages between CA:Mg:K and Na and typically some boron and potentially zinc to realise the soil potential for plant growth.
- Undertake full agronomic soil sampling at the start of the dry season.
- Complete the nutrient budgeting prior to application of nutrient applications to determine appropriate concentrations of supplementary nutrients.
- Conduct supplementary soil sampling of deep soils mid dry season should concern arise regarding a potential build-up of excess nutrients.
- Careful management of potential loss of nitrogen and phosphorus is important. This is best achieved by:
 - Frequent moderate applications of irrigation;
 - Maintaining an active plant growth;
 - Maximising organic matter content to maximise nutrient holding capacity; and,
 - Maximising nutrient recovery by pasture crop harvest.

- To combat moisture deficits, between 50-100mm of irrigation (on average) can be undertaken on an opportunity basis each month. Over the wet season it is expected that about 1-3 ML/ha on an opportunistic basis.
- The health of the soil will be directly related to management of organic matter (to prevent a decline) and use of lime and gypsum to manage the cation exchange balance.
- Manage the irrigable areas using the following:
 - Minimise weed infestations by spraying out dense infestations and careful use of residual chemicals for ongoing control to allow pastures to establish and outcompete weed species;
 - Minimise soil compaction by limiting traffic across the irrigation area when the soil is wet; and if necessary alleviation of compaction by deep ripping with appropriate implements (tines that do not disrupt the surface soil appreciably); and,
 - Remove obstacles for production including termite nests and holes and wheel ruts. Land planes will be used to “surface” the land areas to present a smooth fully productive area.
- Maintain the improved pastures by separating out undesirable grass species and resowing or oversowing of land areas with improved pasture seed. Where appropriate hybrid forage species will be added to the pasture mix to increase dry matter production (forage sorghum / millets).

7 References

- ABRAHAM, S. M., & ABRAHAM, N. A. (EDS.). (1992).** *Soil Data System: Site and Profile Information Handbook*. Department of Conservation and Land Management.
- BURK, L., & DALGLIESH, N. (2008).** *Estimating plant available water capacity - a methodology*. Canberra: CSIRO Publishing.
- CHARMAN, P.E.V. & MURPHY B.W. (1993).** *Soils - Their Properties and Management*. Sydney: Sydney University Press.
- CSIRO (2002).** The Australian Soil Classification. Available from: http://www.clw.csiro.au/aclep/asc_re_on_line/soiusing.htm (Accessed 31 August 2015).
- DEPARTMENT OF INFRASTRUCTURE, PLANNING AND ENVIRONMENT (DIPE) (2009)** *Litchfield Shire Land Units Map*. Northern Territory Government. Darwin, Australia
- GARDNER, E., VIERITZ, A., ATZENI, M. (2002)** Model for Effluent Disposal by Land Irrigation (MEDLI), Version 2.0. Queensland Department of Primary Industries and the Queensland Department of Natural Resources, Brisbane.
- HAIG AND TOWNSEND (2003).** *An understanding of the groundwater and surface water hydrology of the Darwin Harbour Plan of Management area*. Department of Infrastructure, Planning and Environment, NT.
- HARDIE, A. AND HIRD, C. (1998).** *Landform and Soil Requirements for Biosolids and Wastewater Reuse*. NSW Advisory Bulletin No 14, NSW Agriculture.
- HAZLETON, P., AND MURPHY, BRIAN. (2007).** *Interpreting soil test results: what do all the numbers mean?* Victoria, Australia: CSIRO publishing.
- ISELL, RAYMOND F. (2002).** *The Australian Soil Classification* (2nd ed.). Collingwood, Victoria: CSIRO Publishing.
- MEAT AND LIVESTOCK AUSTRALIA (MLA) (2012).** *National Guidelines for Beef Cattle Feedlots in Australia* (3rd ed.). Sydney, MLA.
- NORTHCOTE, K.H. (1979).** *A Factual Key for the Recognition of Australian Soils*, 4th Ed., Rellim Tech. Publications, Glenside, S.A.
- SA EPA. (2009)** Wastewater Irrigation Management Plan (WIMP) guidelines, South Australian Government.
- SWEETEN, J. M. (1990).** Cattle feedlot waste management practices for water and air pollution control. Texas Agricultural Extension Service.
- ZINGA, D.E. (1992)** Soils and Site Assessment for Utilisation of Animal Wastewater. Recycled Water Seminar. Wagga Wagga.
- ZINGA & ASSOCIATES (2011).** Site and Soils Investigation Report. Available from: http://www.ntepa.nt.gov.au/_data/assets/pdf_file/0019/116353/abattoir_annexure1.pdf. (Accessed 01/08/2015)

8 Appendices

- Appendix A. Soil Test data from AA Co. 5
- Appendix B. Livingston Valley Soil Test I
- Appendix C. Livingstone Valley Soil Test

Appendix A. Soil Test data from AA Co. Soil Survey



DRAFT

anic tfer 6	Total P (mg/kg)	N ppm	P ppm	K ppm	S ppm
8	242	2.7	30.2	27.3	0.9
9	88	0.4	4.3	15.6	1.2
7	103	2	14.5	23.4	0.5
2	35	1.3	2.1	19.5	1
6	129	1	13.3	31.2	0.5
	43	0.041	2.7	4.2	15.6
	224	0.123	3.7	24.7	31.2
	65	0.046	1.1	2.5	19.5
	65	0.078	3.6	9.3	23.4
	37	0.052	2	2.5	15.6

ERROR: ioerror
OFFENDING COMMAND: image

STACK:

13 November 2025

Our Ref: NT25110-SWMP-001_0.docx

Bilba Group Pty Ltd
2658 Stuart Highway, Livingstone NT 0822

To whom it may concern,

RE: TECHNICAL MEMO – SUBDIVISION SECTION 5544 (2658) STUART HIGHWAY, HUNDRED OF STRANGWAYS – STORMWATER MANAGEMENT PLAN

1. INTRODUCTION

Byrne Consultants (Byrne) has been commissioned by Bilba Group Pty Ltd to provide a Stormwater Management Plan (SWMP) that meets the requirements of Litchfield Council and the Northern Territory Planning Scheme (NTPS). The purpose of this Technical Memorandum is to:

- Describe the Stormwater Management Plan;
- Clarify the drainage intent for the site;
- Provide engineering assessment of the nominated drainage paths; and
- Assess the implications of the Site's hydrology to a level suitable for the submission of the Development Application.

It should be noted that the outcomes of this SWMP are preliminary (for information only) and subject to detailed design, which requires additional survey information.

2. ABOUT THE SITE

The Site (refer to Figure 1) is Section 5544, 2658 Stuart highway, Livingstone, Hundred of Strangways and is zoned as SL23 (Specific Use Zone). The Site is currently largely grassed paddocks and trees, with two detached dwellings and Bilba Group's retail office, manufacturing warehouse and laydown area.

The site is flat, with natural grades generally varying between 1% to 2% and generally falling west/south west toward the Alice Springs Darwin Railway.

The Site is located near the top of the stormwater catchment, bounded by Stuart highway to the east and an open unlined drain to the north that diverts external flows around the Site. Onsite stormwater currently drains via natural drainage paths comprising overland flow through the paddocks, concentrating in natural gully lines and ultimately discharging flows through a series of culverts along the Alice Springs Darwin Railway.

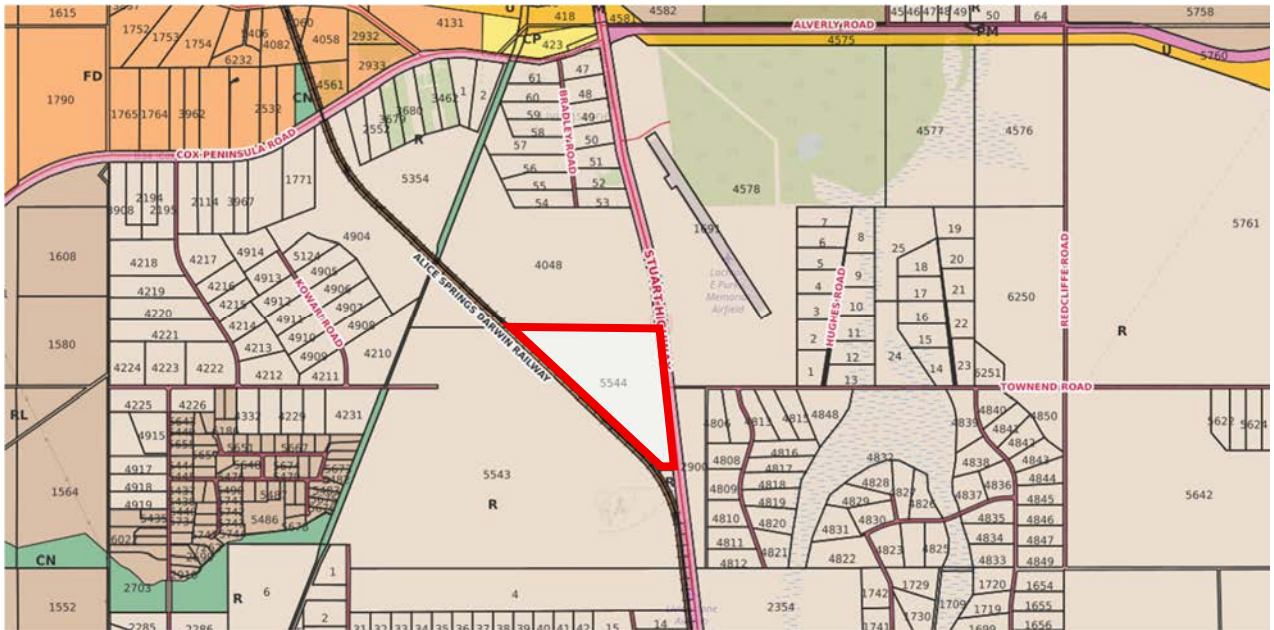


Figure 1 – Site Locality Plan (Source: NR Maps)

3. ABOUT THE SUBDIVISION

The latest revision of the Subdivision Plan for the Site is provided as Figure 2. The proposed development involves the subdivision of Sec 5544 as a general industry subdivision to create an industrial zone outside of the Darwin main city centre. The Lot is currently zoned as a Specific Use Zone (SL23), which splits the Lot into industrial/rural use.

A Land Suitability Assessment is being prepared by Byrne separate to this report. This assessment will confirm if there are any areas of constrained land. It is expected that any identified areas can be managed through standard building practices.

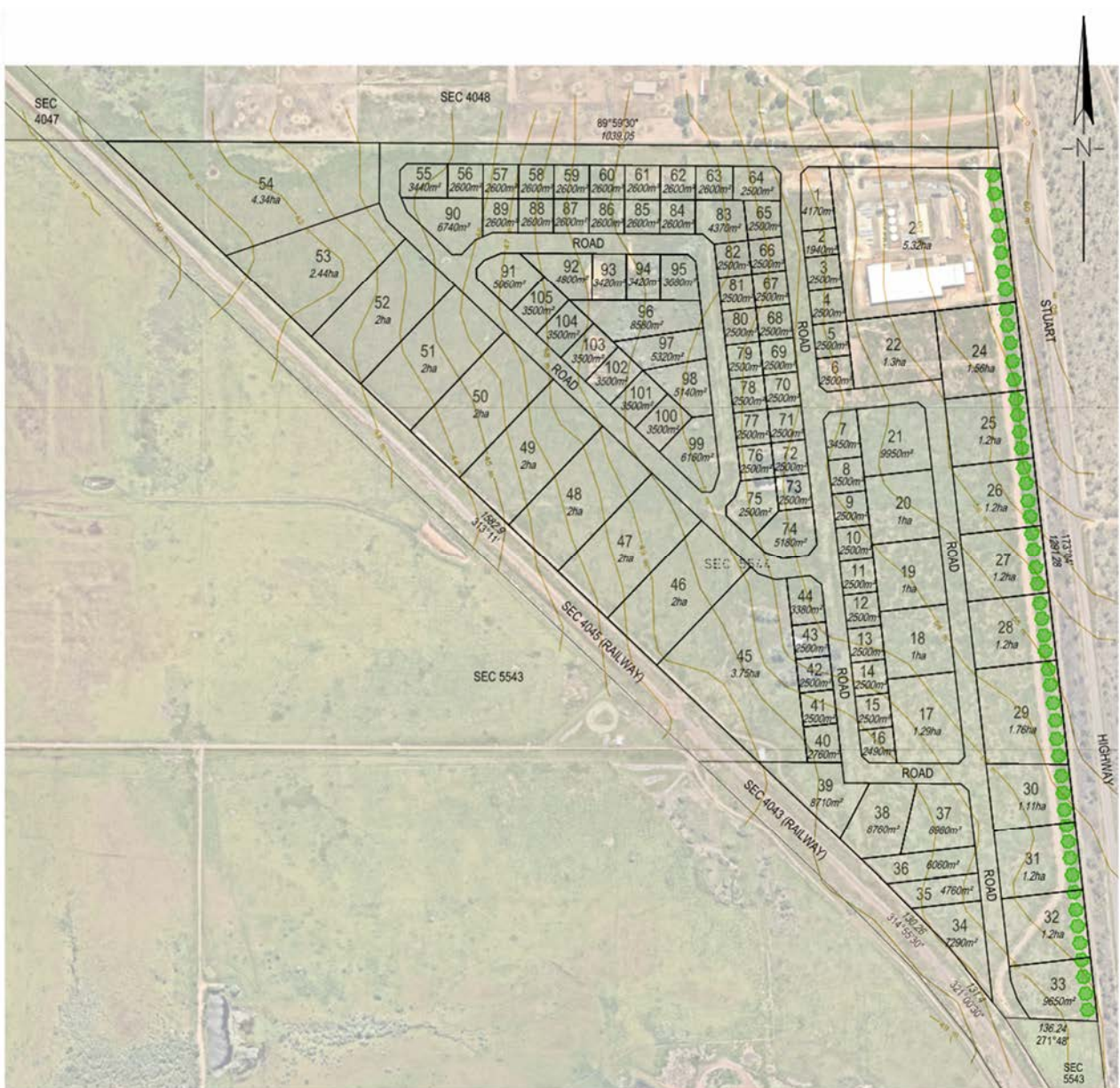


Figure 2: Proposed Subdivision Plan

4. STORMWATER MANAGEMENT

A concept Stormwater Management Plan (SWMP) has been prepared for the Subdivision, as presented in Attachment A. This is broadly described as follows.

Internal roads will generally fall with the natural grade of the existing topography. Natural sheet flow will be maintained throughout lots as much as reasonably practicable, with collection along proposed road reserves, in accordance with subdivision zoning requirements.

Although the site infrastructure category is a Category D in accordance with the NT Subdivision Guidelines (NTSDG), Bilba has expressed their preference in utilising a road cross section with kerb and channel to mitigate parking within the verges. Litchfield Council has tacitly confirmed no objections to this arrangement. Preliminary review of site hydrology (discussed further in Section 5) indicates that the Litchfield Council 30m standard road reserve allocation and proposed road cross section will generally be sufficient to convey stormwater.

The intent for site drainage is to avoid where possible any concentrated or formalised inter-allotment drainage, with broad overland flow being the primary mechanism by which drainage occurs across the Site. Where stormwater enters the proposed road reserves, it will be fully contained via a combination of kerb and channel, open drains, pits and pipes to convey stormwater to the cross-rail culverts to the southwest.

There are some areas where inter-allotment drainage in the form of open channels will be required due to lot size and gradient. This will typically occur in Lots 45-54.

The SWMP indicates the direction of fall across the site, based on existing topographical information, and the direction in which flow will occur through proposed road reserves and open drains.

There are three existing cross-rail culverts which had type and sizes confirmed during a site visit. They are as follows:

- Adjacent proposed lot 34: 8 x 600 CSP
- Adjacent proposed lot 45: 10 x 600 CSP
- Adjacent proposed lot 49: 4 x 1200 RCP

Another culvert exists approximately 900m downstream of the northwest corner of the subdivision. This culvert was not accessible during the site visit and will be confirmed in the detailed design.

Detention basins are incorporated into the development to attenuate post-development peak flow rates to match pre-development flow rates discharging from the Development Site, as required by the NT Subdivision Guidelines (NTSDG).

The existing site topography is unlikely to require use of drop structures within table drains, as natural grades along the proposed road reserve is generally 1.5% or less. It is expected that grading of table drains will remove isolated steep sections. This is to be confirmed during detailed design.

5. HYDROLOGIC CALCULATIONS

The following parameters were used in the generation of flow rates for the Site:

- Approach: Rational Method
- Fraction Impervious (FI) and Coefficient of Runoff – As per Litchfield Council Standards
 - Proposed Road Reserve: FI = 0.85
 - Industrial Areas: FI = 0.9
- Time of Concentration
 - Overland flow via Friend's equation, up to maximum length of 200m
 - Remainder as concentrated channel flow
- Rainfall Intensities: Sourced via Bureau of Meteorology 2016 IFD Data
- Catchment areas based on the following assumptions:
 - Two-way road cross-fall
 - All flow caught within the Stuart Highway road reserve and external catchments will bypass the Site and therefore not contribute to catchments influencing the Site.

In accordance with Litchfield Council subdivision standards, flow rates for the 50% AEP, 5% AEP and 1% AEP storm events were calculated to determine peak flows at table drains and each detention basin location. A detailed breakdown of post-development and pre-development flows is presented in Section 6 (refer to SWMP for labelled catchments).

6. POST-DEVELOPMENT VS PRE-DEVELOPMENT FLOWS

An assessment of Site hydrology has been undertaken to determine any impacts the Subdivision will have on peak flow rates discharging from the Site into the cross-rail culverts to the southwest.

Table 1 – Pre-Development Peak Flow Rates generated by catchments

Catchment	Area (Ha)	Peak Flow Rate		
		Q5 (m ³ /s)	Q20 (m ³ /s)	Q100 (m ³ /s)
A1	46.28	6.73	9.11	12.20
A2	15.12	4.15	5.61	7.58
A3	22.89	3.32	4.51	6.10
A4	6.31	1.78	2.42	3.31

Table 2 – Post-Development Peak Flow Rates generated by catchments

Catchment	Area (Ha)	Peak Flow Rate		
		Q5 (m ³ /s)	Q20 (m ³ /s)	Q100 (m ³ /s)
A1	46.28	11.76	16.04	20.05
A2	15.12	7.28	9.85	12.40
A3	22.89	4.81	6.51	8.19
A4	6.31	2.01	2.72	3.42

It was found that the addition of impervious areas, due to construction of the proposed road reserves within the Site, increased the peak flows. In accordance with NT Subdivision Guidelines (NTSDG), detention basins are implemented to attenuate post-development peak flow rates to match pre-development flow rates discharging from the Development Site.

A preliminary sizing of the basins has been undertaken using the Boyd method which is considered a conservative method and suitable for a high-level purpose. Basin volumes required for each catchment are presented below:

- Catchment A1 – 16,060m³
- Catchment A2 – 2,677m³
- Catchment A3 – 5,777m³
- Catchment A4 – 571m³

Assuming a depth of 1m, the following basin areas will need to be allowed for:

- Catchment A1 – 16,060m²
- Catchment A2 – 2,677m²
- Catchment A3 – 5,777m²
- Catchment A4 – 571m²

Table drains have been designed to cater for the 5% AEP in accordance with Litchfield Council Subdivision standards and will serve the purpose of cutting off flows and directing stormwater runoff into the proposed detention basins. It is assumed that the catchment will consist of lot areas adjacent to the drains only.

The design assumes the following from Litchfield Council Subdivision standards:

- Batter slopes – 1:6
- Freeboard – 200mm
- $D \times V < 0.32\text{m}^2/\text{s}$
- Longitudinal slope – 0.6% to 1.0%

Table 3 – Table Drain Sizing

Location	Catchment Areas (ha)	Base Width (m)	Minimum Depth (m)
A1: Lots 49 to 53	10.44	6	0.537
A2: Lots 45 to 48	7.80	6	0.525
A3: Lots 39 to 45	2.44	2	0.476
A4: Lot 34	0.75	2	0.375

7. DETAILED DESIGN CONSIDERATIONS

The following stormwater management works will be undertaken during the detailed design stage:

- Detailed hydrologic and hydraulic calculations;
- Design and documentation of stormwater infrastructure features, including:
 - Table drains
 - OUD's
 - Culverts
 - Pit and pipe network
 - Detention Basins
- Confirmation of lawful points of discharge;
- Depiction of flood level lines (1% AEP) defining the areas of inundation.

8. DISCUSSION

The stormwater assessment undertaken for the proposed subdivision of Section 5544 has demonstrated that the development can be effectively drained in accordance with Litchfield Council and NT Subdivision Guidelines. The existing site grades provide adequate fall toward the southwest, allowing stormwater runoff to be conveyed through a combination of kerb and channel, table drains, pits and pipes to the existing cross-rail culverts.

Hydrologic analysis confirms that post-development peak flows will increase as a result of the introduction of impervious areas associated with the proposed road network and future industrial lots. To mitigate these increases and ensure compliance with Council's requirements, a system of detention basins has been incorporated to attenuate post-development flows to match pre-development conditions at the site's discharge points. The preliminary sizing of these basins, based on the Boyd method, indicates that sufficient space is available within the subdivision layout to accommodate the required storage volumes.

9. CLOSING

Please contact me should you wish to discuss this Technical Memorandum further.

Yours sincerely,



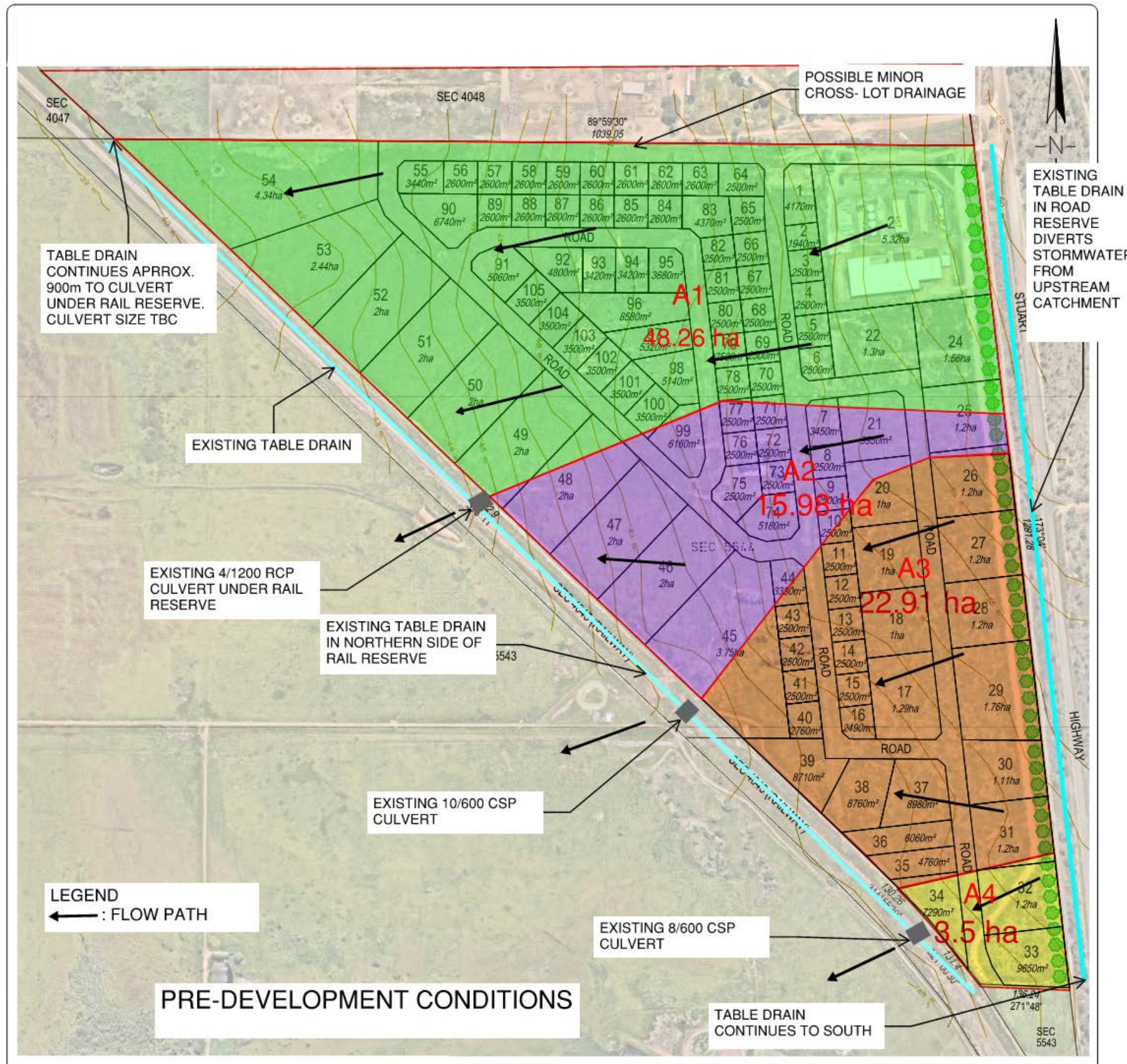
Ben McGregor
Civil Engineer
BEng (Hons)

	Name	Position	Signature	Date
Prepared by	Ben McGregor	Civil Engineer	BM	11/11/2025
Checked by	Lucy Dahl	Principal Engineer	LD	11/11/2025
Approved by	Lucy Dahl	Principal Engineer	LD	11/11/2025

ATTACHMENTS:

- A. Stormwater Management Plan

PRELIMINARY
NOT FOR CONSTRUCTION



LEGEND
← : FLOW PATH

PRE-DEVELOPMENT CONDITIONS

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site
No guarantee is given that all existing services are shown

PRINT IN COLOUR

PLOTTED ON: 9/10/2025 3:39 PM
USER: SHEM LEE
FILE LOCATION: C:\12\dwg\data\BYRNE-TMS\NT25110 - Bilba_Subdivision Sec 5544 Strangways_185304 CADD\4.2 DWG\S\Sketches\NT25110-SK2000.dwg

No	DATE	INITIAL	AMENDMENT
A	09/10/25	DJ	ISSUED FOR REVIEW

COPYRIGHT
The concepts and information contained in this document are the copyright of BYRNE CONSULTANTS. Use or copying of the document in whole or in part without the written permission of BYRNE CONSULTANTS constitutes an infringement of copyright.

CLIENT

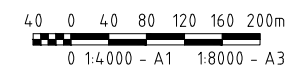
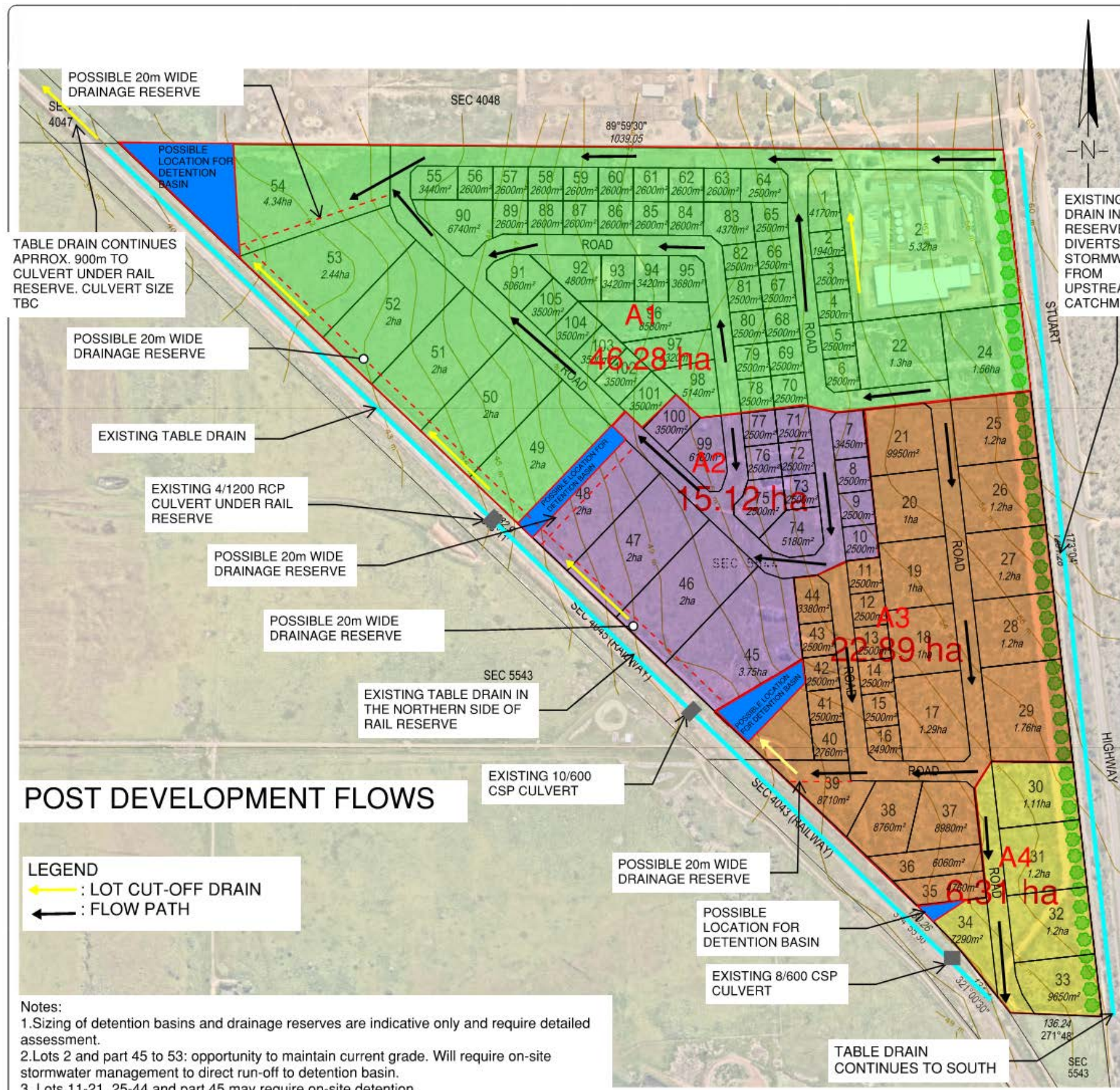
BILBA GROUP

byrne.
ABN 78 124 388 192
P.O.Box 36789, WINNELLIE, NT 0821
Ph. 08 894 72476 Fax: 08 894 75098

APPROVED	-
DRAWN	DJ
DESIGNED	-
CHECKED	LD
CHECKED	-

SECTION 5544			
HUNDRED OF STRANGWAYS			
STORMWATER MANAGEMENT PLAN			
PRE-DEVELOPED CONDITIONS			
SCALE	PROJECT No	DRAWING No	AMDT
AS SHOWN	NT25110	SK2000	A

PRINT IN COLOUR



WARNING

BWARE OF UNDERGROUND SERVICES

The locations of underground services are approximate only and their exact position should be proven on site
No guarantee is given that all existing services are shown

PLOTTED ON: 9/10/2025 3:39 PM
 USER: SHEM LEE
 FILE LOCATION: C:\12\dwg\data\BYRNE-TMS\NT25110 - Bilba_Subdivision Sec 5544 Strangways_185304 CADD\4.2 DWG\Sketches\NT25110-SK2000.dwg

No	DATE	INITIAL	AMENDMENT
A	09/10/25	DJ	ISSUED FOR REVIEW

COPYRIGHT
 The concepts and information contained in this document are the copyright of BYRNE CONSULTANTS. Use or copying of the document in whole or in part without the written permission of BYRNE CONSULTANTS constitutes an infringement of copyright.

CLIENT

BILBA GROUP

byrne.
 ABN 78 124 388 192
 P.O.Box 36789, WINNELLIE, NT 0821
 Ph. 08 894 724 76 Fax: 08 894 750 98

APPROVED	CHECKED
-	LD
DJ	LD
DESIGNED	CHECKED
-	-

TITLE			
SECTION 5544			
HUNDRED OF STRANGWAYS			
STORMWATER MANAGEMENT PLAN			
PRE-DEVELOPED CONDITIONS			
SCALE	PROJECT No	DRAWING No	AMDT
AS SHOWN	NT25110	SK2000	A

Technical Assessment PA2026/0049

TECHNICAL ASSESSMENT OF PROPOSED DEVELOPMENT AGAINST RELEVANT PROVISIONS OF THE NORTHERN TERRITORY PLANNING SCHEME 2020

Application No:	PA2026/0049
Lot number:	Lot 5544 (2658) Stuart Highway, Livingstone
Town/Hundred:	Hundred of Cavenagh
Zone:	Zone GI (General Industry)
Site Area:	90.51 ha (905,100 m ²)
Proposal:	Subdivision to create 105 lots
Plans used for assessment:	EJA 10555 Development Proposal.pdf (statement of effect); 10555-14-(2025-12-15).pdf, 10555-13-(2025-12-15).pdf and 10555-12-(2025-08-13).pdf (dimension plans); EJA 10555 Amendment Proposal.pdf (proposed rezoning statement of effect); NT25110-SSR-001_0.pdf (land capability assessment); NT25110-LSA-001_0.pdf (land suitability assessment)

Date assessment finalised: 4 June 2026

This review has been completed pursuant to the Northern Territory Planning Scheme 2020 (NTPS2020). The proposal has been assessed as being for a subdivision within Zone GI (General Industry).

In general, this application proposes the subdivision of the site to create a total of 105 lots serviced by 5 internal roads, with 1 external connection (to the Stuart Highway). It is noted that Stage 1 will create an interim freehold lot, which will then be subsequently subdivided as part of Stage 2.

The application requires consent under the NTPS2020 as described in the tables and sections below:

Assessment Table – Zone GI (General Industry)			
Defined Use	Assessment Category	Overlays	Subdivision requirements
Subdivision	<i>Impact Assessable</i>	3.4 CR – Coastal Reclamation 3.6 LSF – Land Subject to Flooding 3.7 LSSS – Land Subject to Storm Surge 3.8 LADR – Land Adjacent to a Designated Road 3.9 DHD – Dredging in Darwin Harbour 3.14 HHLSI – Land in proximity to Helicopter Landing Sites of Strategic Importance	6.4.1 Lot Size and Configuration for Subdivision in Zones LI, GI and DV 6.4.2 Site Characteristics for Subdivision in Zones LI, GI and DV 6.4.3 Infrastructure for Subdivision in Zones LI, GI and DV

The application is *Impact Assessable* under clause 1.8(1)(c)(ii) of the NTPS2020 where the application is for the subdivision of land.

An assessment of the relevant clauses is summarised in the table below.

Overlays	Compliance		
	Yes	No	N/A
3.4 (Coastal Reclamation)			
3.6 (Land Subject to Flooding)			
3.7 (Land Subject to Storm Surge)			
3.8 (Land Adjacent to a Designated Road)			
3.9 (Darwin Harbour Dredging)			
3.14 (Land in proximity to Helicopter Landing Sites of Strategic Importance)			
Industrial Specific Development Requirements*	Compliance		
	Yes	No	N/A
5.6.1 (Setbacks and Building Design Requirements in Zones LI GI and DV)			
Part 6 - Subdivision and Consolidation Requirements	Compliance		
	Yes	No	N/A
6.4.1 (Lot Size and Configuration for Subdivision in Zones LI GI and DV)			
6.4.2 (Site Characteristics for Subdivision in Zones LI GI and DV)			
6.4.3 (Infrastructure for Subdivision in Zones LI GI and DV)			

*Clause 5.6.1 has been included here to reflect that a manufacturing facility exists on the site.

1.8 When development consent is required

1. The need for **consent** and the level of assessment that applies to the use and development of land is set out in the framework below:

- (a) *Permitted* – use and development that is compatible with the purpose of the zone provided it is established and operated to comply with all relevant development requirements.

Use and development of land is *Permitted* without **consent** when the following apply:

- i. it is shown as *Permitted* on the relevant assessment table in Part 4; and
- ii. it does not require **consent** by virtue of an overlay in Part 3; and
- iii. it complies with all relevant development requirements set out in Part 5; or
- iv. a provision of the Planning Scheme expressly sets out that it is *Permitted*.

- (b) *Merit Assessable* – use and development that requires the exercise of discretion by the consent authority to ensure it can be established and operated in a way that does not impact on the **amenity** of the area and accords with the relevant zone purposes and outcomes.

Use and development of land requires **consent** and is *Merit Assessable* when any of the following apply:

- i. it is shown as *Merit Assessable* on the relevant assessment table in Part 4;
- ii. it is shown as *Permitted* on the relevant assessment table in Part 4 but:
 - (1) requires **consent** by virtue of an Overlay as set out in Part 3; or
 - (2) does not comply with the relevant development requirements set out in Part 5;
- iii. it is for the consolidation of land; or
- iv. it is for the subdivision of land for the purpose of a Unit Title Scheme, where:
 - (1) development consent has been granted; or
 - (2) the development is permitted in the relevant assessment table; or

- (3) the Unit Title Scheme does not include vacant land.
- v. a provision of the Planning Scheme expressly requires assessment as *Merit Assessable*.

Editor’s note: the Planning Act and Regulations exempt some types of consolidation and subdivision from requiring consent.

- (c) ***Impact Assessable*** – use and development that requires the exercise of discretion by the consent authority to determine if it is appropriate given the location of the **site** and the potential impacts on surrounding uses, and if it accords with the Strategic Framework.

Use and development of land requires **consent** and is *Impact Assessable* when any of the following apply:

- i. it is shown as *Impact Assessable* on the relevant assessment table in Part 4;
 - ii. it is for the subdivision of land other than that included at Clause 1.8(1)(b)(iii); or
 - iii. it is identified as *Impact Assessable* in Clause 1.9; or
 - iv. it is a *Prohibited* development which relates to a **heritage place** as set out in Clause 1.10(7)(b); or
 - v. a provision of this Planning Scheme expressly requires assessment as *Impact Assessable*.
- (d) ***Prohibited*** – use and development to which the consent authority must not grant **consent**.

Use and development of land is *Prohibited* if:

- i. it is shown as *Prohibited* on the relevant assessment table in Part 4, unless it is **ancillary** as allowed by Clause 1.9; or
- ii. a provision of this Planning Scheme expressly prohibits **consent**.

1.9 Ancillary use and development

1. Unless expressly provided for in this Planning Scheme:
 - (a) where the definition of a development in Schedule 2 includes use or development that may be established if **ancillary**, the **ancillary** use or development included in the definition are *Permitted* provided they comply with any relevant development requirements in Parts 3 and 5;
 - (b) if an **ancillary** use or development described in (a) does not comply with Parts 3 and 5, the **ancillary** use or development requires **consent** and the level of assessment that applies is *Merit Assessable*;
 - (c) an **ancillary** use or development not specified in the definition of the **primary use** in Schedule 2 requires **consent** and the level of assessment that applies to the **ancillary** use or development is either:
 - i. the assessment category specified in the assessment table for the zone in Part 4; or
 - ii. if Undefined or Prohibited it is *Impact Assessable*.

1.10 Exercise of Discretion by the Consent Authority

1. In considering an application for **consent** for a use or development, the consent authority must consider the use or development in its entirety except in relation to:
 - (a) an application to alter, change or vary a development permit under sections 43A, 46 or 57 of the Act;
 - (b) **access** to a **main road**; or
 - (c) a *Merit Assessable* application under Clause 1.8(1)(b)(ii)(2).

2. In considering an application for **consent** for a use or development that has become *Merit Assessable* under Clause 1.8(1)(b)(ii)(2), the consent authority must consider the requirements in Part 5 that are not complied with and whether the proposal meets the purpose of the requirements.
3. In considering an application for **consent** for a use or development identified as *Merit Assessable* the consent authority must take into account all of the following:
 - (a) the relevant requirements, including the purpose of the requirements, as set out in Parts 5 or 6;
 - (b) any Overlays and associated requirements in Part 3 that apply to the land; and
 - (c) the guidance provided by the relevant zone purpose and outcomes in Part 4 relevant to a variation of requirements in Parts 5 or 6.
4. In considering an application for a use or development identified as *Impact Assessable* the consent authority must take into account all of the following:
 - (a) any relevant requirements, including the purpose of the requirements, as set out in Parts 5 or 6;
 - (b) any Overlays and associated requirements in Part 3 that apply to the land;
 - (c) the guidance provided by the relevant zone purpose and outcomes in Part 4, or Schedule 4.1 Specific Use Zones; and
 - (d) any component of the Strategic Framework relevant to the land as set out in Part 2.
5. The consent authority may **consent** to a proposed use or development that is not in accordance with a requirement set out in Parts 3, 5 or 6 only if it is satisfied that the variation is appropriate having regard to:
 - (a) the purpose and administration clauses of the requirement; and
 - (b) the considerations listed under Clause 1.10(3) or 1.10(4).
6. When consenting to the use or development of land, the consent authority may impose a condition requiring a higher standard of development than is set out in a requirement of Parts 3, 5 or 6 if it considers it necessary to the achievement of the Strategic Framework, the purpose of the overlay or the zone, or it considers it is otherwise necessary to do so.
7. The consent authority must not grant **consent** for a use or development identified as *Prohibited* unless:
 - (a) the *Prohibited* use or development is **ancillary** as set out in Clause 1.9; or
 - (b) the *Prohibited* use or development relates to a **heritage place** and it has the approval of the Minister responsible for the administration of the *Heritage Act 2011*.

This is a technical assessment of the proposal against the requirements of the Northern Territory Planning Scheme 2020 (NTPS2020) and is no indication of whether or not approval will be given by the consent authority.

Strategic Framework

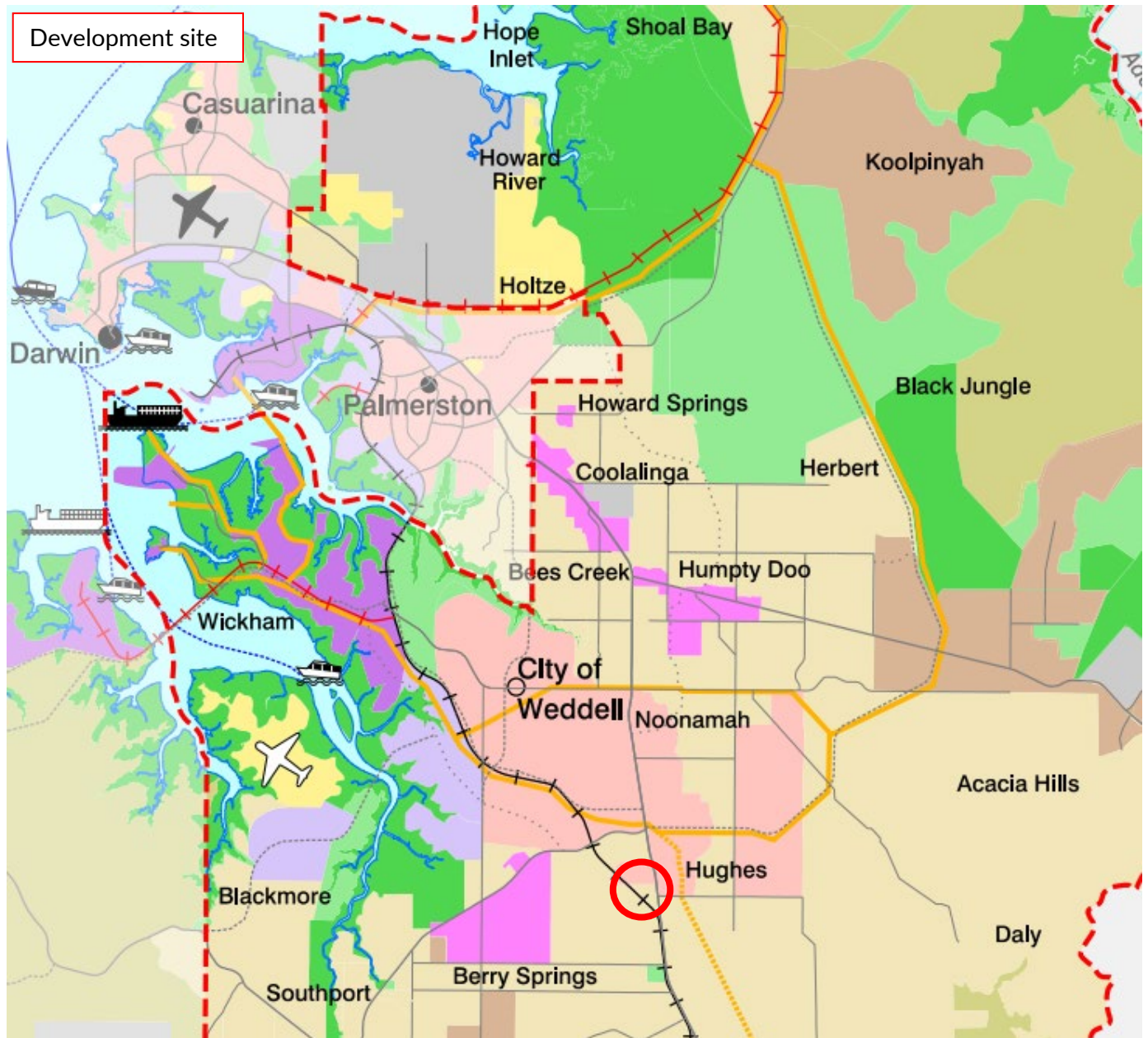
Clause 1.6 (Structure of the Planning Scheme) states *The structure of the Planning Scheme includes:*

- (a) [Strategic Framework \(Part 2\)](#)

The Strategic Framework establishes guidance to facilitate development and decision making in a coordinated manner while recognising the differences between various regions and local areas across the Planning Scheme area.

As such, a review of the strategic framework has been completed, which considers whether this application supports, is neutral towards, contrary to, or not relevant to, any guidance or documents within the framework.

Litchfield subregional land use plan



Excerpt of the LSUP

The LSLUP identifies the locality as a rural area, the purpose of which is to *preserve the existing amenity of the rural area*.

An assessment of the rural area statements of policy, and associated principles is provided below:

Rural Area 13. Maintain rural amenity and lifestyle choice	
Principal	Assessment
<i>Continue to support the subdivision of suitable land outside rural activity centres into 2 ha lots in Zone RL (Rural Living) and into 8 ha lots in Zone R (Rural)</i>	Does not support – The subdivision of the site into lots ranging from 1940 m ² to 5.03 ha general industry purposes is considered to be contrary to this principal. Notwithstanding, it is noted that the application does not propose to use the land in accordance Zone RL or Zone R.
<i>Require reliable water supply adequate for residential use</i>	Not relevant – The application does not propose the subdivision of land for residential purposes.
<i>Require stormwater drainage for new residential development to not adversely impact on the receiving environment</i>	
<i>Require residential subdivision to provide roads and infrastructure to the requirements of the responsible authorities</i>	

Notwithstanding the above, the development of the site which for industrial purposes is considered to be contrary to the purpose of this policy statement.

As the application is to facilitate the development of the site for general industrial purposes, an assessment of the industrial statement of policy was also completed.

Industrial 19. Facilitate industrial land uses within urban / peri-urban areas and rural activity centres to meet market demand	
Principal	Assessment
<i>Co-locate compatible industrial activities to support industry and associated services</i>	Acceptable – While there are limited instances of industrial development in the locality, the application is considered acceptable against this principal due to its proximity to established transport networks, and the horticultural, agricultural and other rural activity nature of Zone R, which generally surrounds the site.
<i>Require appropriate road connections to facilitate efficient traffic movement and convenient access to arterial roads</i>	Acceptable – The application is considered to propose an acceptable layout which will support the safe development and usage of the proposed lots for industrial purposes.
<i>Provide adequate buffers to mitigate adverse impacts on sensitive land uses</i>	Acceptable – While the majority of lots are separated from adjacent land in Zone R (Rural), there is an instance of a 140 m interface in the south, and 400 m interface in the north-west. However, as these properties are used variously as accessways and a live export facility,

Industrial	
19. Facilitate industrial land uses within urban / peri-urban areas and rural activity centres to meet market demand	
Principal	Assessment
	they're not considered to be sensitive land uses for the purpose of this assessment.

As discussed above, overall, the application is considered to be contrary to the relevant objectives of the Litchfield subregional land use plan.

DOES NOT SUPPORT

3.4 CR – Coastal Reclamation

Purpose

Ensure that landfill of coastal areas does not adversely affect adjacent land or waters, or the quality of adjacent waters, and is suited to its intended purpose.

Assessment

Not relevant – This application does not propose any land reclamation. As such, this overlay is not relevant to this application.

3.6 LSF – Land Subject to Flooding

Purpose

Identify areas with a known risk of inundation from riverine flooding and ensure that development in these areas demonstrates adequate measure to minimise the associated risk to people, damage to property and costs to the general community.

Assessment

Not relevant – The subject lot is not located within land identified as subject to flooding. As such, this overlay is not relevant to this application.

3.7 LSSS – Land Subject to Storm Surge

Purpose

Identify areas with a known risk of inundation from primary or secondary storm surges and ensure that development in these areas demonstrates adequate measures to minimise the associated the risk to people, damage to property and costs to the general community caused by storm surge.

Assessment

Not relevant – The development site is not located within the mapped primary or secondary storm surge extent (2100) on NT Atlas. As such, this overlay is not relevant to this application.

3.8 LADR – Land Adjacent to a Designated Road

Purpose

Ensure that **access** to a designated road from adjacent land does not prejudice traffic safety or the integrity and operation of the infrastructure.

Assessment

Not relevant – The subject lot is not located adjacent to a designated road. As such, this overlay is not relevant to this application.

It is noted that this overlay normally applies to properties adjacent to major roads managed by the NT Government (i.e. the Stuart Highway), however, doesn't normally apply to zoned land.

3.9 DHD – Darwin Harbour Dredging

Purpose

Ensure dredging within Darwin Harbour does not degrade the environmental value of the harbour waters.

Assessment

Not relevant – The application does not include any dredging activities. As such, this overlay is not relevant to this application.

3.14 HLSSI – Land in proximity to Helicopter Landing Sites of Strategic Importance

Purpose

Ensure that development does not compromise the ability of helicopters using landing sites of strategic importance.

Assessment

Not relevant – The subject lot is not located within or near helicopter landing site of strategic importance, nor a flight path to one. As such, this overlay is not relevant to this application.

4.15 Zone GI – General Industry

Zone Purpose

Provide for industrial developments that require separation from more sensitive uses as the nature of activities may detrimentally impact on the **amenity** of the locality, in locations with **access** to services and transport networks capable of supporting heavy **industry**.

Zone Outcomes

1. Predominantly industrial activities that require separation from sensitive uses due to the nature of operations and the scale of activities, including **fuel depot, industry-general, industry-light, industry-primary, motor body works, recycling depot, transport terminal** and **warehouse**.

2. Non-industrial activities, including **bar-public**, **food premises-cafe/takeaway**, primarily servicing local employees, and **office**, **shop**, and **showroom sales**, may be established where they serve the needs of the industrial uses on the **site** and are compatible with the ongoing industrial use of the zone.
3. Other non-industrial activities such as **education establishments**, indoor **leisure and recreation**, and **hotel/motel**, may also be established where they do not jeopardise the ongoing operation and viability of industrial activities.
4. Any other non-industrial activities may only be established where they do not compromise or conflict with the ongoing **primary use** of the locality for **industry** purposes.

Not relevant (outcomes 1 to 4) – These zone outcomes are considered to be relevant to land uses.

5. Subdivision primarily provides for a range of lot sizes, including an appropriate proportion of larger lots to cater for larger format **industry** uses.

Supports – The proposed layout and lot sizes are reasonably considered capable of supporting larger format industry uses by virtue that this application complies with the relevant Part 6 subdivision requirements for land in Zone GI.

6. Industrial activities have **access** to the appropriate level of transport infrastructure and do not interfere with the safe and efficient operation of the surrounding road network.

Supports – It is considered that the road layout being proposed will be the standards and requirements of the Litchfield Council for internal roads, and the Department of Logistics and Infrastructure for the proposed intersection with the Stuart Highway.

7. Development does not impose unsustainable demands on surface water and groundwater.

Conditionally acceptable – The application states ‘investigations have determined there are various options available for the provision of water to service the proposed industrial precinct. Utilising groundwater is one option and if this option is pursued during the detailed engineering design it may involve an application for a water extraction licence’.

Adequate provision of water to the development is expected to be addressed by comments from Water Services. This can be addressed by standard permit conditions.

8. Appropriate urban services including, roads, reticulated electricity, water, sewerage, stormwater drainage and telecommunication infrastructure are available. If lots are unsewered, provision for the disposal of effluent must be made on-site so that the effluent does not pollute ground or surface waters.

Conditionally acceptable – The provision of suitable roads, reticulated electricity, water, sewerage (noting that on-site septs are proposed), stormwater drainage and telecommunication infrastructure will be to the requirements of the relevant service authority. This can be addressed by standard permit conditions.

- 9. Development that is not defined in Schedule 2 (Definitions) may occur only when assessment has determined that the development is appropriate in the zone, having regard to the purpose and outcomes of this zone and such matters as the location, nature, scale and intensity of the development.

Not relevant – The application is considered to meet the definitions of defined uses.

Assessment

Conditionally acceptable – As discussed above, the application supports with the relevant zone outcomes, with outstanding information in relation to servicing able to be addressed through standard permit conditions.

5.6.1 Setbacks and Building Design Requirements in Zones LI, GI and DV

Purpose

Ensure that buildings are sited and designed to facilitate the development of safe, attractive and legible industrial zones.

Administration

- 1. The consent authority may **consent** to a use or development that is not in accordance with sub-clauses 2-6 only if it is satisfied it is consistent with the purpose of this clause and the zone purpose and outcomes, and it is appropriate to the **site** having regard to such matters as its location, scale and impact on the safety and **amenity** of the locality and adjoining property.

Requirements

- 2. Buildings, including **residential buildings**, in Zones LI, GI and DV are to be sited in accordance with the table to this clause.

Noted – A review of the plans found that the existing industry-light (manufacturing plant) will be continue to be greater than 5 m from any side or rear property boundaries, and greater than 3 m to the proposed internal street boundary.

Table to Clause 5.6.1: Industrial Setbacks and Building Design Requirements	
Location/ Boundary	Minimum Building Setback
Municipality of Alice Springs: Buildings with frontage to Stuart Highway, Smith Street or Larapinta Drive	9m
Municipality of Darwin: Buildings with frontage to Stuart Highway, Bagot Road or Dick Ward Drive	9m
Buildings having frontage to all other streets	3m
Minimum setback to at least one side boundary and to the rear boundary	5m

3. A clearly identifiable, dedicated pedestrian **access** is to be provided to the main entrance of the building from the street and customer **car parking areas**.
4. Front facades should be articulated to break up long lengths of blank walls and provide visual interest to the street. Facade treatment should include a combination of the following:
 - (a) setbacks or projections;
 - (b) changes in height to provide focal features and identify key locations (such as entrances);
 - (c) the use of a varied palette of materials, finishes and colours within the building design; and
 - (d) projecting features such as awnings or sun shades.

Not relevant – No changes to the existing built form/layout are required in response to the subdivision.

5. Buildings situated on corner lots in Zone LI should be designed to accentuate the corner location with architectural features that create a visual presence at the corner.

Noted – While the application will result in the site of the industry-light becoming a corner block, as it was lawfully established, this subdivision is not considered to create a non-compliance with this clause.

6. Bin storage areas are to be screened by landscaping and/or fencing to avoid visual impact to the **primary street**.

Not relevant – No changes are proposed or considered to be necessary to the existing waste disposal arrangements.

Editor's Note: Clause 5.2.7 provides specific setback requirements for Development Adjacent to Land in Zones LR, LMR, MR or HR.

Assessment

Noted – This proposed subdivision is not considered likely to create any non-compliances in relation to the existing industry-light (manufacturing plant) at the site.

6.4.1 Lot Size and Configuration for Subdivision in Zones LI, GI and DV

Purpose

Ensure that industrial lots are of an appropriate size and configuration to support industrial activities.

Administration

1. The consent authority may **consent** to a subdivision that is not in accordance with sub-clauses 2-4, only if it is satisfied that the subdivision design is consistent with the purpose of this clause.

Requirements

2. The minimum lot size is 1225m².

Complies – All lots will range between 1940 m² and 50,320 m² in size.

It is noted that Stage 1 will result in an interim 449,000 m² lot, before this is subsequently subdivided in Stage 2.

3. Provide for a variety of lot sizes to accommodate a range of activities.

Complies - It is reasonably considered that the lots will be capable of accommodating future industrial land uses by virtue all lots comply with the minimum lots sizes, and range between 1940 m² and 5.032 ha.

4. Ensure the utility of each lot in terms of:
- (a) building space and accessibility;
 - (b) compatibility with adjacent commercial and residential areas with appropriate buffers (for example roads, landscaping or parks);
 - (c) sufficient space to accommodate the industrial operations and buildings envisaged and make allowance for possible future expansion; and
 - (d) safe vehicle entry and exit.

Complies - It is reasonably considered that the proposed subdivision layout will not preclude the future development of the site for industrial purposes.

Assessment

Complies - As discussed above, the application is reasonably considered to comply with the relevant requirements of this clause

6.4.2 Site Characteristics for Subdivision in Zones LI, GI and DV

Purpose

Ensure that subdivision for industrial lots respond appropriately to the physical characteristics of the land.

Administration

1. The consent authority may **consent** to a subdivision that is not in accordance with sub-clauses 2-4, only if it is satisfied the subdivision is consistent with the purpose of this clause.

Requirements

2. Avoid the development of land of excessive slope, unstable or otherwise unsuitable soils (e.g. seasonally waterlogged) and natural drainage lines.

Acceptable – A review of the application considers that:

Slope: The application states that the site is not subject to excessive slopes (which is stated as ranging between 1% to 2%). A review of NR Maps found that the site is subject to minor instances of slopes greater than 2%. This limited and non-contiguous extent is not considered to prejudice the future development of the land for industrial purposes.



Soils: The applicant's land suitability assessment states that the land is generally flat to gently undulating, and comprised of well-draining, moderately deep gravelly yellow massive earths, and minor red massive earths.

Natural drainage lines: No clear natural drainage lines were identified as existing on the site.

3. Retain and protect significant natural and cultural features.

Complies – This assessment did not identify any significant natural and cultural features at the site.

4. Avoid development of land affected by a 1% AEP flood or storm surge event.

Complies – The site is not located within an area subject to the 1% AEP flood or storm surge event.

Assessment

Complies - As discussed above, the application is reasonably considered to comply with the relevant requirements of this clause

6.4.3 Infrastructure for Subdivision in Zones LI, GI and DVPurpose

Ensure that lots within industrial subdivisions are appropriately provided, connected and integrated with the required infrastructure.

Administration

1. The consent authority may **consent** to a subdivision that is not in accordance with sub-clauses 2-8, only if it is satisfied the subdivision is consistent with the purpose of this clause.

Requirements

2. Incorporate safe connection to the existing road network with particular consideration given to the needs of heavy vehicles.

Conditionally acceptable – It is reasonably considered that a compliant connection between the proposed internal roads and the Stuart Highway can be constructed to the standards and requirements of the Department of Logistics and Infrastructure. This can be addressed through standard permit conditions.

3. Provide a simple layout with a clear hierarchy of roads, avoiding culs-de-sac, battle-axe lots and sharp curves, and discouraging unrelated through traffic.

Does not comply – While the proposed layout is simple in nature, with a clear hierarchy of roads, a single instance of a cul-de-sac exists in the south of the site in both Stage 1 and Stage 2, and 2 additional interim cul-de-sacs in Stage 1.

The permanent cul-de-sac is located in the south of the site. As the site is triangular in nature, there is considered to be limited opportunity where then abuts the adjacent property (Section 5543 Hundred of Cavenagh).

The 2 interim cul-de-sacs present in Stage 1 will become roads into Stage 2. This is considered acceptable against the requirements of this clause.

4. Minimise **access** from individual lots to major roads by using minor roads for such **access**.

Complies – Each lot is shown as having access to a newly proposed internal road.

5. Provide for road reserve and carriageway widths appropriate to the circumstances.

Complies – All internal roads are shown as being 30 m wide. This is considered acceptable.

6. Provide for connection to reticulated services.

Complies – It is reasonably considered that any upgrades to reticulated power and telecommunications can be done to the requirements of the relevant service authority.

The application notes that water may be sourced through either bore or connection to nearby pipelines. It is considered that access to water can be achieved through the requirements of Water Resources and Water Services, through either bores and extraction licences, or a connection to a nearby pipeline. Including a permit condition requiring in-principal support from these authorities for a proposed water source is considered acceptable.

Acceptable - The application states that on-site septic systems will be used for wastewater management. Comments from DLPE and Water Services will be needed to confirm this element.

7. Where no reticulated sewerage is available, a site and soil evaluation report must be completed by an appropriately qualified site-and-soil evaluator, demonstrating that onsite wastewater management systems can be installed on each lot in accordance with the Code of Practice for Wastewater Management.

Conditionally acceptable – The application included a site and soil evaluation report completed by EnviroAg Australia dated 2015. This report was associated with a previously proposed live export facility and surficial deposition of wastewater. While this report undertook an investigation into the soil properties, it is not considered to be applicable at demonstrating the suitability of the site to cater for independent wastewater management systems for each lot. However, as no adverse findings were reported, this element can be addressed through a permit condition requiring a bespoke site and soil evaluation report that demonstrates/confirms the suitability of the site for the proposed wastewater management systems.

8. Protect service infrastructure by providing/ preserving easements.

Complies – It is reasonably considered that the easements can be established to the requirements of the relevant service authorities. This can be addressed via standard permit conditions.

Editor's Note: The Code of Practice for Wastewater Management provides further guidance on the requirements of a site-and-soil evaluator.

Assessment

Complies - As discussed above, the application is reasonably considered to comply with the relevant requirements of this clause



01 May 2026

Development Assessment Services and Lands Planning
Department of Lands, Planning and Environment
GPO Box 1680
Darwin NT 0801

RE: Letter of Comment Concurrent Application

PA2026/0049

**Hun: 695 P: 05544 2658 Stuart Highway LIVINGSTONE, Hundred of Strangways
Concurrent Application to rezone Section 5544, Hundred of Strangways from SL23 (Special Use Zone
Litchfield) to Zone GI (General Industry) and subdivide to create 105 lots.**

Thank you for the Concurrent Application referred to this office on 02/04/2026, concerning the above. This letter may be tabled at Litchfield Council's next Council Meeting. Should this letter be varied or not endorsed by Council, you will be advised accordingly.

The following issues are raised for consideration by the Authority under Section 30M(4) of the *NT Planning Act*:

Council supports the granting of a Planning Scheme Amendment and Development Permit for the following reasons:

- a) The proposal to establish a General Industry zoned area generally aligns with the statements of policy within the Litchfield Subregional Land Use Plan, providing an industrial area with good connectivity to the arterial road network which relieves the burden of heavy vehicles on other areas of the Litchfield Municipality. This aligns with both the Infrastructure and Industrial statements.
- b) The subdivision provides an array of lot sizes which would accommodate many of the 'permitted' uses of General Industry.

The noted support is only given provided the following issues are adequately addressed:

- a) It is noted that supporting documents in the application refers to Category D infrastructure, which is associated with Rural Zones. As the development is proposed within an Industrial Zone (General Industry), the NT Subdivision and Development Guidelines requirement is for Category A (Set 1) infrastructure. Litchfield Council refers to the NT Subdivision and Development Guidelines for all references and standards unless expressly advised otherwise.
- b) The preliminary stormwater design provides for four detention basins, which are understood to become the responsibility of Litchfield Council following practical completion and the

defect liability period. Council requires all basins to be designed with 1:6 batters and unimpeded access must be provided for maintenance purposes.

- c) Appendix A_SMWP identifies several 'Drainage Reserves'; however, these appear to overlap proposed parcels. Clarification is required as to whether these are intended to be drainage reserves or drainage easements.

Council also notes that the proposed outflow from the northern detention basin is located outside of Council's jurisdiction. Accordingly, any agreements relating to stormwater discharge will need to be negotiated by the developer. Furthermore, the developer must undertake appropriate consultation and obtain approvals from the Rail Corridor authority for any drainage works and ongoing arrangements.

- d) The road running north–south along the eastern side of the development provides access to Parcel 5543. Council does not support this arrangement. Consideration should be given to shortening the road to avoid unintentionally providing access through the parcel. If a future road connection to the existing AACO Stuart Highway access is intended, this should be addressed in the Traffic Impact Assessment and designed accordingly.
- e) All roads should incorporate adequate turnaround facilities (cul-de-sacs), supported by turning path diagrams. The Traffic Impact Assessment should consider future land uses and potential traffic impacts, particularly given the proposed service station. Council also has concerns regarding the layout of parcels on the northern side adjoining the entry road, and the design should account for heavy vehicle movements, including appropriate turning paths for vehicles entering and exiting the site.
- f) The parcel located north of the development is identified in the Litchfield Subregional Land Use Plan for future urban/peri-urban development. Accordingly, consideration should be given to appropriate buffering between industrial and future residential uses. Access from the Stuart Highway should also be designed to accommodate potential future connectivity.
- g) The development proposal for Section 5544, Hundred of Strangways, does not request a departure from the standard development permit duration, which defaults to a two-year validity period. While the application outlines a two-stage subdivision, the preliminary design provides limited clarity regarding the specific servicing strategy for Stage 1, particularly concerning the mechanics of the proposed stormwater detention basins.

Furthermore, there are significant timing dependencies regarding infrastructure that may complicate the development schedule. The applicant notes that reticulated water servicing from Power and Water Corporation (PWC) is currently projected to be five years away, and Stage 2 power supply remains contingent upon suggested network augmentations.

Consequently, given these long-term infrastructure constraints and the potential for project delays, the applicant may wish to consider requesting an extended development permit duration to ensure the feasibility of both stages.

Council can provide the following additional comments in relation to the application;

- a) Previous discussions have occurred regarding the Greater Weddell Subregional Land Use Plan. While the current mapping does not include the subject parcel proposed for rezoning and subdivision, finalisation of the plan would provide greater oversight of future road

networks and key infrastructure to support the development. Council has particular concerns regarding waste processing, noting that any commercial waste generated by the development would currently need to be transported to Shoal Bay, approximately 43 km north. The Litchfield Subregional Land Use Plan identifies a future waste processing facility within the municipality; however, no further planning or discussions have occurred with NTG.

- b) Adequate environmental controls should be incorporated into the design and permit conditions, considering;
- General Industry lots drainage design, particularly in relation to the management of hazardous waste and sediment-laden runoff.
 - A permanent erosion and sediment control plan is suggested to be put in place and approved by a suitably qualified person to ensure the ongoing site stability especially through staged development, and particularly in respect to the Detention basins.
 - Consideration of a Weed Management plan for the duration of the development permit.

Should the application be approved, the Council requests the following condition(s) be included as Condition(s) Precedent in any Development Permit issued by the consent authority:

- a) Prior to the endorsement of plans and prior to the commencement of works, a schematic plan demonstrating the on-site collection of stormwater, and its discharge into Litchfield Council's stormwater drainage system, shall be submitted to and approved by Litchfield Council.
- b) Prior to the commencement of works, engineering design and specifications for the proposed and affected roads, street lighting, stormwater drainage, site earthworks, vehicular access, pedestrian/ cycle corridors and streetscaping are to be submitted to and approved by Litchfield Council.
- c) A Traffic Management Plan for the construction phase of the development shall be submitted to and approved by Litchfield Council. The plan must address traffic control and haulage routes proposed for the development.
- d) A Traffic Impact Assessment Report, prepared by a suitably qualified traffic engineer in accordance with the AustRoads Document Guide to Traffic Management Part 12: Traffic Impacts of Developments, in the report structure provided as Appendix C of that document, with particular attention to vehicular, pedestrian, cyclist and public transport issues and opportunities shall be submitted to and approved by Litchfield Council. The Traffic Impact Assessment report is to also include swept paths for any vehicles Class TB2 or larger (as defined in AustRoads 94) entering and exiting the site.

The report should identify any necessary upgrades to the surrounding street network as a result of the implications of the development to the requirements of Litchfield Council. The developer will be required to institute all required upgrade measures at no cost to Litchfield Council.

Should the application be approved, the following condition(s) pursuant to the *Planning Act* and Council's responsibility under the *Local Government Act* are also recommended for inclusion in any Development Permit issued by the consent authority:

- a) A monetary contribution is required to be paid to Litchfield Council in accordance with its development contribution plan.
- b) Engineering design and specifications for the proposed and affected roads, street lighting, stormwater drainage, vehicular access, pedestrian/cycle corridors, and streetscaping shall be to the technical requirements and approval of Litchfield Council, with all approved works constructed at the developer's expense.

Note: Design drawings shall be approved by Litchfield Council prior to construction of the works.

- c) Prior to finalisation of engineering design and specifications for the proposed and affected roads, a Road Safety Audit, shall be prepared by a suitability certified traffic auditor to the satisfaction of Litchfield Council.
- d) All existing or proposed easements or reserves required for the purposes of stormwater drainage, roads, access or for any other purpose, shall be made available free of cost to, and in favour of, Litchfield Council and/or neighbouring property owners.

Should the application be approved, the following notes are recommended for inclusion in any Development Permit issued by the consent authority:

- a) Litchfield Council's current Fees and Charges may apply to the above conditions. Additional information can be found at www.litchfield.nt.gov.au.
- b) A Works Permit is required from Litchfield Council before commencement of any work within the road reserve, which would include creation of any driveway crossover connecting to Litchfield Council's road network.

If you require any further discussion in relation to this application, please contact Litchfield Council on 08 8983 0600.

Kind Regards,



Jaimie O'Connor
Planning and Development Program Leader



Phone 1800 245 092
Web powerwater.com.au

Record No: D2026/101114
Container No: NE695/5544
Your Ref: PA2026/0049

Eve-Marie Davie
Development Assessment Services
GPO Box 1680
Darwin NT 0810

Dear Eve-Marie

Re: Section 5544 (2658) Stuart Highway Livingstone Hundred of Strangways

In response to your letter of the above concurrent proposal for the purpose of:

- Rezoning of Section 5544, Hundred of Strangways from SL23 (Special Use Zone Litchfield) to Zone GI (General Industry) and
- Subdivision to create 105 lots.

Power and Water Corporation (PWC) advises the following with reference to electricity enquiries:

1. PWC has no objection to the above concurrent proposal.
2. PWC has received the Negotiated Connection application for a proposed two staged subdivision of 105 lots and completed the required high voltage connection assessment of 5.1MVA total load.
3. The Developer (Bilba Group) shall be responsible for the design and installation of required 22kV headworks and adequate electricity reticulation to each of the newly created lots in accordance with PWC's NP020 - Guidelines for Developers of Subdivision and Electricity Infrastructure.
4. Bilba Group's engaged electrical consultant (AGA Consulting Engineers) shall:
 - Provide a High Voltage Master Plan submission for approval prior to proceed to detailed design.
 - Carry out detailed design drawings for appropriate high voltage back-boned cable extension, overhead high voltage distribution network extensions and low voltage reticulations for each proposed stage, suitable street light design in accordance with current NP027 - Construction and Connection of Streetlight Assets if required by Litchfield Shire Council.
5. PWC shall check and approved AGA's detailed design drawings for construction and carry out final connection works at applicable cost as stated in the Negotiated Connection Agreement (NCA) for each stage.

If you have any further queries, please contact Nabiha Nusrat, Manager Negotiated Connections and Transmission on 8924 5065.

Yours sincerely

A blue ink handwritten signature, appearing to read "Thanh Tang", written over a light blue horizontal line.

Thanh Tang
Manager Distribution Development
08 April 2026



Container No: LD695/5544

DLPE - Development Assessment Services
GPO Box 1680
Darwin NT 0801

Dear Kaleb Thomas

RE: PA2026/0049 - 05544 Hundred of Strangways - 2658 Stuart Highway, Livingstone - Rezoning of Section 5544, Hundred of Strangways from SL23 (Special Use Zone Litchfield) to Zone GI (General Industry) - Subdivision to create 105 lots

In response to the above proposal for development application purposes, Power and Water Corporation (Water Services) advise the following with reference to water and sewer enquiries:

1. As previously advised, the present the Power and Water network does not have sufficient capacity to support the development and a private groundwater supply should be developed.

Power and Water have no objections to the proposed development, **provided that no additional water service connection is required.**

2. Reticulated sewer services are currently unavailable in the area. The developer must contact relevant authorities to discuss servicing requirements for the proposed development.
3. The existing water easement within the subject lot is still required. Structures must not be located on or over a water supply or sewerage easement, or where no easement exists (such as within a road) within 1.5 metres of the centreline of water and/or sewer main infrastructure.
4. Power and Water advises that the Water and Sewer Services Development Section (developer.concierge@powerwater.com.au) and Power Network Engineering Section (powerdevelopment@powerwater.com.au) must be contacted via email a minimum of 1 month prior to construction works commencing.

If you have any further queries, please contact the undersigned on 08 9463 2089, or email waterdevelopment@powerwater.com.au

Yours sincerely

Craig Thomas

Craig Thomas
Services Development

05 May 2026

cc: Kevin Dodd
email: kdodd@eja.com.au

12 May 2026

Mr Kaleb Thomas
Development Assessment Services
Department of Lands, Planning and Environment
GPO Box 1680
DARWIN NT 0801

E DevelopmentAssessment.DLPE@nt.gov.au

T 08 8999 4446

Our Ref: DLPE2026/0111
Your Ref: PA2026/0049

Dear Mr Thomas

Re: PA2026/0049 - Concurrent – Rezoning of Section 5544, Hundred of Strangways from SL23 (Special Use Zone Litchfield) to Zone GI (General Industry) and Subdivision to create 105 lots

The information provided for the above application has been assessed by the relevant divisions within the department, and the following comments are provided:

Land Resources Division

Land Assessment Branch

The Land Assessment Branch has reviewed the application and advises that the comments previously provided on 6 June 2018 remain unchanged.

'Land resource information indicates that the majority of Section 5544 Hundred of Strangways is on a gently undulating plain with moderately well drained gravelly shallow soils or lateritic Red and Yellow Earths. An area in the south of Section 5544 is immediately adjacent to a drainage depression so would likely contain imperfectly and poorly drained constrained land.'

Land Management Unit

Based on a desktop assessment the Land Management Unit provides the following advice.

Due to slope, area of disturbance, and duration of works, it is recommended that preparation and implementation of an Erosion and Sediment Control Plan (ESCP) be included as a condition on the Development Permit, in accordance with the wording below.

Condition Precedent:

1. Prior to the commencement of works, a Type 2 Erosion and Sediment Control Plan (ESCP) must be developed in accordance with the Department of Lands, Planning and Environment (DLPE) Erosion and Sediment Control Plan (ESCP) Procedures (Note 1).

The ESCP must be certified by a suitably qualified and experienced professional (Note 2) and must be submitted to Development Assessment Services (via email: das.ntg@nt.gov.au).

General Conditions:

1. Should the certified Type 2 ESCP require amendment, the revised ESCP must be certified by a suitably qualified and experienced professional and submitted to Development Assessment Services (via email: das.ntg@nt.gov.au).
2. All works relating to this permit must be undertaken in accordance with the certified Type 2 ESCP.
3. At completion of works, certification must be provided by a suitably qualified and experienced professional regarding satisfactory implementation of permanent erosion and sediment control measures and site stabilisation. This certification must be submitted to Development Assessment Services via email: das.ntg@nt.gov.au.

Permit Notes:

1. The DLPE Erosion and Sediment Control Plan (ESCP) Procedures factsheet is available at: <https://environment.nt.gov.au/rangelands/technical-notes-and-fact-sheets/land-management-technical-notes-and-fact-sheets>.
2. A suitably qualified and experienced professional in erosion and sediment control as defined by the International Erosion Control Association (IECA) Australasia – <https://austieca.com.au/esc-certification/suitably-qualified-professional>
3. Information regarding erosion and sediment control can be obtained from the IECA Best Practice Erosion and Sediment Control 2008 books available at <https://austieca.com.au/home> and Land Management Factsheets available at <https://nt.gov.au/environment/soil-land-vegetation>. For further advice, contact the Development Coordination Branch: (08) 8999 4446.

Weed Management Branch

A desktop assessment of the Northern Territory (NT) Weeds Database for the application area, surrounding parcels and roads has revealed current and or previous data records of the following:

Common Name	Botanical Name	Declared
Gamba grass	<i>Andropogon gayanus</i>	Class B
Bellyache bush	<i>Jatropha gossypifolia</i>	Class A
Perennial mission grass	<i>Cenchrus polystachios</i>	Class B
Grader grass	<i>Themeda quadrivalvis</i>	Class B
Lantana	<i>Lantana camara</i>	Class B
Sicklepod	<i>Senna obtusifolia</i>	Class B
Flannelweed	<i>Sida cordifolia</i>	Class B
Spinyhead sida	<i>Sida acuta</i>	Class B
Hyptis	<i>Mesosphaerum suaveolens</i>	Class B
Snake weeds	<i>Stachytarpheta spp.</i>	Class B

All land in the NT is subject to the *Weeds Management Act 2001* (WM Act). The WM Act describes the legal requirements and responsibilities that apply to all persons, owners and occupiers of land regarding declared and potential weeds. General duties described in Division 1 of the WM Act include the requirement for owners or occupiers of land to take all reasonable

measures to prevent land being infested with a declared weed and to prevent a declared weed from spreading.

Gamba grass, grader grass and bellyache bush are subject to statutory weed management plans. Management obligations outlined in these plans are legally binding on all owners and occupiers. Management requirements and copies of the statutory weed management plans are available online¹.

Gamba grass, grader grass and perennial mission grass are declared weeds, Class B and are listed in the Darwin Regional Weeds Strategy 2021-2026 as a Category 2 – priority weed for strategic control.

Guidelines for the prevention of weed spread are outlined in '*Preventing Weed Spread is Everybody's Business*²', which highlights the areas of risk for all activities associated with weed spread. The document details the pathways through which weeds are spread and provides actions to reduce weed spread. Proponents seeking to develop land for any purpose should address these actions.

Further information regarding weed management requirements is available online³, or alternatively contact the Weed Management Branch for further advice on (08) 8999 4567.

Should this application be approved, the Weed Management Branch recommend the following note to be included on the development permit:

Permit note:

All land in the NT is subject to the *Weeds Management Act 2001* (WM Act). The WM Act describes the legal requirements and responsibilities that apply to owners and occupiers of land regarding declared weeds. Division 1 general duties include the requirement to take all reasonable measures to prevent land being infested with a declared weed and to prevent a declared weed from spreading. There are additional duties including a prohibition on buying, selling, cultivating, moving or propagating any declared weed and the requirement to notify the Weed Management Branch of a declared weed not previously present on the land within 14 days of detection.

Gamba grass, grader grass and bellyache bush are subject to statutory weed management plans. Management obligations outlined in these plans are legally binding on all owners and occupiers. Management requirements and copies of the statutory weed management plans are available online <https://nt.gov.au/environment/weeds/weed-management-planning>.

Information regarding weed management is available on the Department of Lands, Planning and Environment (DLPE) website: <https://nt.gov.au/environment/weeds>, or alternatively contact the Weed Management Branch for further advice on (08) 8999 4567.

Environment and Heritage Division

Heritage Branch

The Heritage Branch administers the *Heritage Act 2011* which protects all Aboriginal and Macassan archaeological places, and all declared and provisionally declared heritage places.

¹ <https://nt.gov.au/environment/weeds/weed-management-planning>

² https://denr.nt.gov.au/_data/assets/pdf_file/0011/257987/preventing-weed-spread.pdf

³ <http://www.nt.gov.au/environment/weeds>

For requests related to sacred sites, contact the Aboriginal Areas Protection Authority⁴.

Advice for Aboriginal or Macassan archaeological places and objects

A search has found that there are no recorded Aboriginal or Macassan archaeological places and objects within the subject site. The likelihood of possible unrecorded Aboriginal or Macassan archaeological places has been assessed as possible. The extent of pre-existing disturbance and the nature of the work itself has also been considered. No physical survey work is required for this proposed impact.

To best meet the obligations under the *Heritage Act 2011*, an unexpected finds protocol and suitable induction materials should be developed for the project. This includes the requirement that if archaeological places are discovered over the course of the work, establish an exclusion zone around the site and contact the Heritage Branch immediately. The Heritage Branch can provide a template on request.

The project site is located within close proximity of the former Livingstone Military Airfield, which was in use during the Second World War. There is a risk that unexploded ordnance (UXO) may still be present within the subdivision footprint. Please find further details at the following link: <https://uxo-map.defence.gov.au/>

Advice for declared or Provisionally Declared heritage places and objects

A search has found that there are nominated, provisionally declared or declared heritage places or objects within the subject site. However, archaeological materials from the use of nearby Livingstone Airfield may still be present within the subdivision area. If historical materials are identified during works within the subdivision footprint, please contact the Heritage Branch for further advice.

Context of Heritage Branch Advice

The NT Government's Heritage Branch administers the *Heritage Act 2011* and provides authoritative advice about obligations under the *Heritage Act 2011*, including steps to take to manage the impact of proposed work on Aboriginal and Macassan archaeological places and objects.

It is important that advice given by the Heritage Branch is followed. A failure to follow advice received from the Heritage Branch may be considered as evidence in an investigation if damage occurs to a declared heritage place, an Aboriginal or Macassan archaeological place or object.

Relevant parts of the NT *Heritage Act 2011*

1. All provisionally declared and declared heritage places and objects are protected under the *Heritage Act 2011*;
2. All Aboriginal or Macassan archaeological places and objects are automatically protected - this includes places and objects not previously recorded;
3. Places and objects include an artefact or thing given shape by a person - examples include stone tools, stone arrangements, fish traps, rock art, modified trees, and shell middens;
4. Ancestral remains are also protected;
5. Underwater Cultural Heritage is protected, up to three nautical miles from the coast;

⁴ <https://www.aapant.org.au>.

6. There is an obligation to notify of the discovery of Aboriginal or Macassan archaeological places or objects; and
7. Work carried out to a heritage place or object must follow the *Heritage Act 2011*.

Conditions of advice

This advice is based on the description of the works provided to the Heritage Branch. If the work expands or changes significantly seek further advice.

In preparing this advice, the Heritage Branch has referred to the Northern Territory Heritage Register and the Heritage Branch archaeological database which includes information about Aboriginal and Macassan archaeological places and objects in the Northern Territory. However, the database only includes information about known archaeological places. The fact that there are no known archaeological places recorded may be because no archaeological surveys have been conducted in that particular area and is not necessarily an indication, they do not exist.

Actions

The following actions have been taken in relation to the enquiry:

- A search of the NT Heritage Register;
- A search of the archaeological database for recorded archaeological places within the subject site;
- A search of the archaeological database for recorded archaeological places located within the proximity of the subject site;
- The extent of pre-existing ground disturbance;
- The scale and nature of the work proposed (major, moderate or minor);
- Areas identified as being excluded from the work footprint e.g. riparian buffers; and
- An assessment of the likelihood of unrecorded archaeological places existing within the subject site, based on landscape features, recorded archaeological places in the vicinity, and other predictive tools.

Further information can be found online^{5,6}.

Environmental Regulation Division

Based on the information provided, the proposal does not appear to trigger the licensing requirements of an Environment Protection Approval (EPA) under the *Waste Management and Pollution Control Act 1998* (WMPC Act). Activities requiring authorisation are listed in Schedule 2 of the WMPC Act.

Under the WMPC Act, all persons have statutory obligations to take all reasonable and practicable measures to prevent or minimise pollution and environmental harm, and to reduce the amount of waste generated. This is known as the General Environmental Duty, set out in section 12 of the WMPC Act. The proponent is responsible for ensuring that their activities comply with these obligations.

⁵ <https://nt.gov.au/property/building/heritage-properties/heritage-properties-building-works-and-development>

⁶ <https://nt.gov.au/leisure/arts-culture-heritage/visit-a-cultural-or-heritage-site/aboriginal-heritage-information>

Guidelines to assist proponents to avoid environmental impacts are available on the Northern Territory Environment Protection Authority (NT EPA) website.⁷

The proponent is advised to take notice of this non-exhaustive list of environmental issues that should be considered to help satisfy General Environmental Duty:

1. **Dust:** The proponent must ensure that nuisance dust and/or nuisance airborne particles are not discharged or emitted beyond the boundaries of the premises.
2. **Noise:** The proponent must ensure that noise levels from the premises comply with the latest version of the NT EPA Northern Territory Noise Management Framework Guideline⁸.

If the proposal is situated where there are existing activities nearby that may already generate noise, please see the NT EPA advice on Recommended Land Use Separation Distances⁹.

3. **Erosion and Sediment Control (ESC):** The proponent must ensure that pollution and/or environmental harm do not result from soil erosion.

ESC measures must be employed prior to and throughout the construction stage of the development. Larger projects should plan, install and maintain ESC measures in accordance with the current International Erosion Control Association (IECA) Australasia guidelines¹⁰.

Where sediment basins are required by the development, the NT EPA recommends the use of at least Type B basins, unless prevented by site specific topography or other physical constraints.

Basic advice for small development projects is provided by the NT EPA document: Guidelines to Prevent Pollution from Building Sites¹¹ and Keeping Our Stormwater Clean¹².

4. **Storage:** Where an Environmental Protection Approval or Environmental Protection Licence is required, the proponent must act in accordance with that authorisation.

If an Environment Protection Approval or Environment Protection Licence is not required, the proponent must store liquids only in secure bunded areas in accordance with VIC EPA Publication 1698: Liquid storage and handling guidelines¹³. Where these guidelines are not relevant, the storage must be at least 110% of the total capacity of the largest vessel in the area.

5. **Site Contamination:** If the proposal relates to a change of land use or if the site is known to be contaminated, a contaminated land assessment may be required in accordance with the National Environment Protection (Assessment for Site Contamination) Measure (ASC NEPM). The proponent is encouraged to refer to the information provided on the NT EPA website¹⁴ and the NT Contaminated Land Guidelines¹⁵.

6. **Waste Management - Import and Export of Fill:** The proponent must ensure all fill imported or exported as part of the activity must be certified virgin excavated natural material (VENM) in accordance with the NSW EPA guidelines¹⁶.

⁷ <https://ntepa.nt.gov.au/publications-and-advice/environmental-management>

⁸ https://ntepa.nt.gov.au/_data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf

⁹ https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/453192/guideline_recommended_land_separation_distances_oct.pdf

¹⁰ <https://www.austieca.com.au/publications/best-practice-erosion-and-sediment-control-bpesc-document>

¹¹ https://ntepa.nt.gov.au/_data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf

¹² https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/284676/guideline_keeping_stormwater_clean_builders_guide.pdf

¹³ <https://www.epa.vic.gov.au/about-epa/publications/1698>

¹⁴ <https://ntepa.nt.gov.au/your-environment/contaminated-land>

¹⁵ https://ntepa.nt.gov.au/_data/assets/pdf_file/0020/434540/guideline_contaminated_land.pdf

¹⁶ <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/virgin-excavated-natural-material>

All imported fill material must be accompanied by details of its nature, origin, volume, testing and transportation details. All records must be retained and made available to authorised officers upon request. The proponent should also consider the following NT EPA fact sheet: Illegal Dumping - What You Need to Know.¹⁷

7. **Odour or Smoke:** The proponent must ensure that nuisance odours or smoke are not emitted beyond the boundaries of the premises.

If the proposal is situated where there are existing activities nearby that may already generate odour or smoke, please see the NT EPA advice on Recommended Land Use Separation Distances.¹⁸

8. **Water:** The proponent must ensure stormwater is not polluted, refer to water management in the NT EPA guidelines to Prevent Pollution from Building Sites.¹⁹

If this activity requires the discharge of waste to water or could cause water to be polluted, then a waste discharge licence under the *Water Act 1992* (NT) may be required. Please refer to the Guidelines.²⁰

Water Resources Division

There are 10 registered bores on Section 5544, Hundred of Strangways (2658 Stuart Highway, Livingstone) which sits within the Darwin Rural Adelaide River Water Control District and overlies the Noonamah Groundwater System. The Noonamah Groundwater System is currently classified at medium use and has an estimated annual recharge of 211,023ML, and therefore a consumptive pool of 42,205ML (equal to 20% of recharge in line with the NT Water Allocation Planning Framework, indicating there is sufficient use to support subdivision).

The applicant has indicated connection to reticulated water supply, with the development to be supplemented by a proposed 40,000kL of groundwater take. There are currently no Ground or Surface Water Extraction Licences that relate to Section 5544. The applicant must confirm proposed water use and submit an application for a Ground Water Extraction Licence. Any bore work will require a bore work permit.

Crown Land Estate

There should be no discharge of stormwater into adjoining land held under Crown Lease Term by the Australasia Railway Corporation without its approval.

Should you have any further queries regarding these comments, please contact the Development Coordination Branch by email DevelopmentAssessment.DLPE@nt.gov.au or phone (08) 8999 4446.

Yours sincerely



Maria Wauchope
Executive Director Land Resources

¹⁷ https://ntepa.nt.gov.au/_data/assets/pdf_file/0008/285740/factsheet_illegal_dumping_what_you_need_to_know.pdf

¹⁸ https://ntepa.nt.gov.au/_data/assets/pdf_file/0006/453192/guideline_recommended_land_separation_distances_oct.pdf

¹⁹ https://ntepa.nt.gov.au/_media/waste-and-pollution/pdf/guidelines/guideline_prevent_pollution_building_sites.pdf

²⁰ https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/950603/guidelines-waste-discharge-licensing.pdf

Eve-Marie Davie
Development Assessment Services
GPO Box 1680
Darwin NT 0801

T 08 8999 4556

File reference
DDL2011/2618-05-0279~0017
TCI Project No: 2025-0070

Dear Eve-Marie

Re: DARWIN - SECTION 5544 HUNDRED OF STRANGWAYS - 2658 STUART HIGHWAY, LIVINGSTONE - REZONING FROM SL23 (SPECIAL USE ZONE LITCHFIELD) TO ZONE GI (GENERAL INDUSTRY) AND SUBDIVISION TO CREATE 105 LOTS - BILBA CAPITAL PTY LTD - EARL JAMES AND ASSOCIATES

I refer to your correspondence of 15 April 2026, regarding Planning Application PA2026/0049 on rezoning from SL23 (Special use zone Litchfield) to zone GI (General Industry) and subdivision to create 105 lots.

I am pleased to advise that Transport and Civil Infrastructure (TCI), Department of Logistics and Infrastructure (DLI) has no objections in principle to the above mentioned rezoning and subdivision, subject to the following comments and requirements:

1. Prior to the endorsement of plans, a 25 metre three chord truncation shall be provided to the property boundaries at each corner of the intersection of the proposed subdivision road with the Stuart Highway.
2. A Traffic Impact Report in accordance with the *Austrroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments* is required for the proposed subdivision. The report must detail the subdivision's traffic generation, trip distribution, traffic operation impact, the nature and timing of impacts, and recommended measures required to accommodate and/or mitigate the traffic impacts of the subdivision, including construction traffic. All road sections and/or intersections where traffic generated by the subdivision increases the existing traffic, existing proportion of heavy vehicle traffic or equivalent standard axles (ESAs) by 5% or more must be assessed. The impacts of the subdivision on public transport facilities, pedestrian and cycle facilities shall also be assessed.

The construction of the proposed new intersection with Stuart Highway and the relocation of the impacted property accesses, in consultation with the affected parties, shall be carried out by the developer at the developer's cost.

3. Prior to the commencement of any works, the developer is required to complete the consultation process with evidence of support from the affected landowners/ occupants for the following:
 - The existing access to Section 4048 Hundred of Strangways (Santavan Export Facility) off Stuart Highway shall be relocated to the proposed subdivision access road, and a 25 metre three chord truncation shall be provided to the property boundary at the corner of the intersection of the proposed subdivision road with the Stuart Highway.
 - The existing accesses to Hughes Airfield and PWC Booster Station off Stuart Highway shall be relocated to suitable locations.
4. The proposed new intersection with Stuart Highway shall be designed and constructed to include protected turn lanes to meet current standards in accordance with the *Austrroads "Guide to Traffic Management", "Guide to Road Design"*, relevant Australian Standards and the requirements of TCI, DLI. The geometry of the intersection shall be suitable for the expected levels of traffic impact and accommodate the turning paths of all vehicles utilising the intersection.

Street lighting shall be provided at the intersection in accordance with the current version of AS/NZS 1158 Lighting for roads and public spaces (all parts) and the Department's technical specifications.

5. Swept path diagrams for the design vehicle shall be provided with the detail design drawings submitted for road agency approval to demonstrate the suitability of the intersection design geometry.
6. The proposed intersection is subject to Road Safety Audits in accordance with the Department's policy "Road Safety Audits".
7. All proposed work (including the provision or connection of services) within, or impacting upon the Stuart Highway road reserve shall be designed, supervised and certified on completion by a practising and registered civil engineer, and shall be in accordance with the standards and specifications of TCI, DLI.

Design documents must be submitted to TCI for road agency approval, irrespective of approvals granted by other authorities, e.g. Power & Water Corporation (PWC). No works within, or impacting upon the NTG road reserves are to commence prior to gaining road agency approval.

Note that a development permit issued under the Planning Act is not an approval for access onto a Territory Road. Approval for access to be taken from, or constructed within the NTG controlled road reserve rests solely with TCI, DLI as the approving road authority.

8. The developer, its contractor or service provider is required to obtain a "Permit to Work within the NTG Road Reserves" prior to the commencement of any works within the Stuart Highway road reserve.
9. Stormwater drainage shall be wholly contained within the subdivisional area and appropriately discharged into a local underground stormwater system to the standards and approval of TCI (where it impacts on the NTG controlled road reserves), Litchfield Council (where it impacts on the council controlled road reserves or a drainage reserve/easement) and/or AustralAsia Railway Corporation (where it impacts on the rail corridor). All proposed Lots fronting Stuart Highway shall be graded such that the stormwater run-off from the properties is away from Stuart Highway and is able to be collected within the subdivision area and local stormwater system. The local underground stormwater drainage system shall provide adequate connection points for individual lot drainage along the downstream sides of each property catchment.

The stormwater drainage design submitted for road agency approval shall include an assessment of the potential increased stormwater run-off based on the full development potential of the proposed subdivisional area, and impact on the existing downstream stormwater drainage system. The developer must demonstrate that the proposed subdivision development will not increase flooding of existing properties and will meet Departmental standards for flooding of arterial public roads in a major storm event. The assessment report must also identify upgrades and/or retention facilities required to accommodate the increased flow.

10. All works within the proposed new subdivision road reserves shall be to the standards and requirements of the Litchfield Council.
11. All new road reserves (distributor, collector or local roads) created via this subdivision shall be vested with the Litchfield Council and shall be noted on the survey plan as such. The NTG will not accept new distributor, collector or local roads in existing local government areas.
12. A Construction Traffic Management Plan (detailing all appropriate site management measures, including construction access, proposed haulage routes, vehicle types, protection of existing assets, protection of public access and a risk assessment) shall be submitted to TCI, DLI for consideration prior to commencement of any works.

13. The loads of all trucks entering and leaving the site of works are to be constrained in such a manner as to prevent the dropping or tracking of materials onto streets. This includes ensuring that all wheels, tracks and body surfaces are free of mud and other contaminants before entering onto the sealed road network.

The use of shaker screens/ rubble pads to remove loose material from trucks prior to entering the road network is a requirement. Where tracked material on the road pavement becomes a potential safety issue, the developer will be obliged to sweep and clean material off the road.

14. The installation of any services or service connections within the Stuart Highway road reserve is subject to TCI, DLI approval. All service-related works are to be contained within the appropriate nominal service corridor (refer standard drawing CS-3001).
15. All landscaping and setback requirements under the Northern Territory Planning Scheme shall be contained within the Lot boundaries. Any landscaping proposed by the developer additional to planning requirements and within the Stuart Highway road reserve shall be to the standards and approval of TCI, DLI.
16. Where unfenced, the Stuart Highway frontage is to be appropriately fenced in accordance with the Department's standards and requirements to deter unauthorised vehicular and/or pedestrian movement. Gates are not to be provided in the Stuart Highway fencing.
17. The finish of any Prime Identification sign, if erected, shall be such that, if illuminated, day and night readability is the same and is of constant display (i.e. not flashing or of variable message). The sign shall be positioned:
 - so as not to create sun or headlight reflection to motorists; and
 - be located entirely (including foundations and aerially) within the subject Lot.

Advertising signage including temporary or permanent, e.g. 'A' frame, vehicle or trailer mounted, etc. shall not be erected or located within the Stuart Highway road reserve.

18. Any floodlighting or security lighting provided on site is to be shielded in a manner to prevent the lighting being noticeable or causing nuisance to Stuart Highway traffic.
19. The existing accesses, where made redundant, shall be scarified, and the verge and fencing reinstated in accordance with the standards and requirements of TCI, DLI.
20. Upon completion of any works within or impacting upon the Stuart Highway road reserve, the road reserve shall be rehabilitated to the standards and requirements of DLI.

Should you wish to discuss the above mentioned further, please contact TCI on telephone 8999 4556.

Please quote TCI Project No 2025-0070 in all correspondence.

Yours sincerely



Claire Brown
General Manager, Transport and Civil Infrastructure

27 / 04 / 2026