

HUMPTY DOO RURAL ACTIVITY CENTRE AREA PLAN



ACKNOWLEDGEMENT

The Northern Territory Government respectfully acknowledges the Traditional Owners of this country and recognises their continuing connection to the land, water and community on which we work, live and meet.

We pay our respects to the Aboriginal and Torres Strait Islander people and their cultures, their Ancestors and Elders past and present, and all the leaders of today and future generations.

ACRONYMS

NT Northern Territory

NTG Northern Territory Government

NTPC Northern Territory Planning Commission

PEM / Priority Environmental Management

LMR / Low - Medium Density Residential

LR /// Low Density Residential

RR /// Rural Residential

Version	Amendment No.	Date Published	Details
1.0	-	June 2024	Proposed Planning Scheme Amendment - Draft Humpty Doo Rural Activity Centre Area Plan
1.1	-	October 2024	Post-exhibition minor modifications.
2.0	119	February 2025	Introduction of the Humpty Doo Rural Activity Centre Area Plan within Part 2 – Strategic Framework of the NT Planning Scheme 2020

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FOREWORD



The Planning Commission originally began consultation on an Area Plan for Humpty Doo back in 2018. undertaking three rounds of community consultation. Some of the things we heard most strongly at that time were:

- the importance of retaining the rural character of Humpty Doo;
- support for alternative housing options;
- ideas for a range of additional social and community facilities;
- feedback on the pedestrian, cycle and bus networks; and
- the importance to the community of the natural environment and drainage features.

The thing that we heard most about was the need to get the local roads right. This meant understanding the importance of keeping traffic flows low on some roads and making intersections with the Arnhem highway safe.

Our focus on planning in the Activity Centre will help maintain the amenity and lifestyle of the broader rural area, ensure there are reticulated services available to the growing population, and help protect the rural area from ribbon development.

The recent completion of a concept design for the future duplication of the Arnhem Highway by the NT Government has ensured that the Humpty Doo Rural Activity Centre Area Plan presented here reflects the most current information available on a range of matters, including planning for the future configuration of the Arnhem highway and regional transport networks.

The additional guidance from this Area Plan will give certainty and confidence to all stakeholders, including current and future residents, landowners and investors, service providers and government agencies, to help us plan for the future.

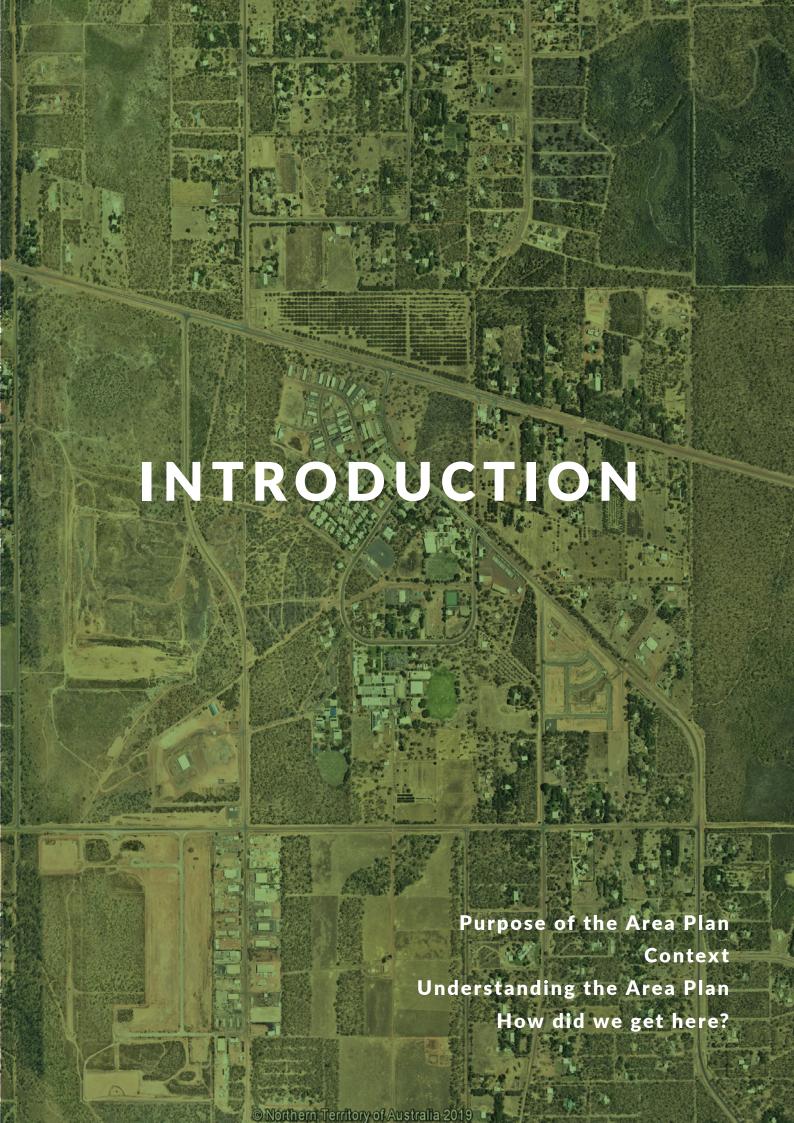
I thank the Humpty Doo community, the Litchfield Council and in particular, the Community Advisory Group, for their involvement, ideas and patience over the extended period needed to develop this draft Area Plan.

Dr David Ritchie, Chairman

Northern Territory Planning Commission

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Purpose of the Area Plan

This Area Plan will guide future land use within the Humpty Doo Rural Activity Centre. The proposed land uses cater for future population growth and support the efficient delivery of infrastructure and the ongoing viability of the commercial centre. This Area Plan enables growth and development to take place while also minimising adverse impacts on the wider rural area.

This Area Plan itself is a long-term strategic planning document, setting the stage for development and a transition of land uses over a thirty year timeframe which is dependent on the provision of reticulated infrastructure, road upgrades and the needs of individual landowners.

This Area Plan serves an important role in the future development of the Humpty Doo locality, providing the foundation for coordinated land use changes in what is an established locality.

Principles of sustainable planning and development are applied throughout this Area Plan. This Area Plan also makes provision for the staged duplication of the Arnhem Highway between the Stuart Highway intersection and Kostka Road intersection.

Context

The Litchfield Subregional Land Use Plan 2016 (LSLUP) identifies the Humpty Doo Rural Activity Centre as supporting a large proportion of commercial, community, industrial and residential development within the Litchfield subregion. The range of activity supported is underpinned by the existing reticulated water and sewer services of the locality.

This Area Plan responds to the key principles of the LSLUP by identifying urban residential land uses close to designated activity centres and providing for rural residential development both within and in proximity to defined activity and transition areas. A key requirement of this Area Plan for any subdivision is that it requires reticulated water, and where within the core area of the Activity Centre both reticulated water and sewerage. The need for an interconnected road network to be provided for rezoning and subdivision is emphasised in both the LSLUP and Area Plan.

The Humpty Doo locality provides opportunities to meet the demand created by the anticipated growth in the wider region. This could include more local community infrastructure, commercial facilities, and a range of housing options on undeveloped portions of Crown and private land in close proximity to the commercial centre.

New urban and peri-urban housing options transitioning to existing larger rural lot sizes has the potential to enhance the viability of community services and facilities as well as the provision and upgrades of essential service infrastructure.



Figure 1: Humpty Doo Rural Activity Centre Area Plan within the Strategic Framework of the NT Planning Scheme 2020

Understanding the Area Plan

The NT Planning Commission has prepared the Humpty Doo Rural Activity Centre Area Plan based on community feedback received during three previous stages of community consultation and utilising information from social, environmental and infrastructure studies undertaken to provide a solid evidence base for this Area Plan. These studies are summarised within the Land Capability and Needs Assessment which accompanies this Plan.

This introduction provides the context and purpose of this Area Plan.

The vision statement captures the aspirations for the Humpty Doo Rural Activity Centre and provides context to the planning principles.

The planning principles throughout this Area Plan provide an overarching statement of policy, including context and background to that statement.

Each planning principle is supported by a set of objectives and acceptable responses that provide more detailed information and direction summarised below:

- Planning Principles provide policy to guide development and are supported by an introduction to set the context of each principle. Planning principles must be addressed when developing land that is subject to an Area Plan or when any application to rezone land is considered by the Minister.
- Objectives are the desired outcomes of a planning principle, often given in relation to a specific place or area identified in the Plan. A developer must demonstrate how the proposal will meet each objective.
- Acceptable Responses identify potential standards which demonstrate how each objective may be met. A departure from the acceptable responses can be considered where an alternate solution that achieves the objective is provided; and the alternative solution demonstrates an equal or better response to that set out by the acceptable response.

Interpreting the strategic framework

Planning Principles 1 to 7 apply generally to development within the Rural Activity Centre though may reference specific locations impacted by the principle.

Planning Principles 8 and 9 apply to two focus areas where a higher level of planning guidance is required for the specific location.

Figures 2 and 3 provide context to the location, environment and constraints of the Humpty Doo Rural Activity Centre including the extent of the NT Government planning for the duplication of the Arnhem Highway.

Figures 4 and 5 provide plans for the transport and movement network and land use structure to guide future development within and in proximity of the Rural Activity Centre.

Figures 6 and 7 demonstrate transition of lot sizes applicable to this Area Plan.

Figures 8 and 9 provide detailed land use plans to guide future development within two focus areas.

The Rezoning of Land

This Area Plan indicates that the land use on specific sites may change in the future, subject to separate rezoning processes. A number of sites will require rezoning before the land use and development potential envisaged by this Area Plan can be realised.

This Area Plan provides a framework to inform consideration of any future rezoning proposal. Decisions regarding rezoning proposals will be informed by this Area Plan and servicing requirements.

Relevant service authorities should be contacted to ascertain any service upgrades required before applying to rezone land, noting that the rezoning of land may require contribution to the upgrade of services.

Existing Zoning and Existing Use Rights

This Area Plan does not prevent the use of land consistent with the current town planning zone that applies to a site. Further, this Area Plan does not prevent the use of land consistent with a planning permit or existing use rights that have not been extinguished.

Supplementary Material

This Area Plan is accompanied by a Land Capability and Needs Assessment document. That document contains a record of investigations that have informed this Area Plan.

It is recommended that the Land Capability and Needs Assessment document be consulted where there are questions about interpretation of the policy positions advocated for by this Area Plan.

How did we get here?

The NT Planning Commission began consultation on a land use plan for Humpty Doo in 2018 and has completed three rounds of community consultation.

One of the things we heard strongly in earlier stages of consultation was feedback around the arterial and local road networks. This was particularly critical in the context of the Arnhem Highway duplication project, which required preparation of this Area Plan to be paused to allow for the completion of a concept design by the NT Government.

Following the completion of concept designs for the Arnhem Highway duplication, the NT Planning Commission revised and updated the Humpty Doo Rural Activity Centre Area Plan, taking into account the findings of the Arnhem Highway Duplication Planning Study, in addition to feedback and submissions on a range of matters through the three stages of consultation.



Stage 1 Consultation

Stage 1 consultation occurred in February and March 2018. We asked the community to tell us what the Humpty Doo Rural Activity Centre should look like in the future – how the commercial centre should grow (or not), how the Activity Centre should be connected to the region, how people wanted to move around the Activity Centre and how the Activity Centre could work to focus development in one area to maintain the rural lifestyle of the broader area.

This stage included a Discussion Paper that outlined what we already knew about land tenure, the natural environment, infrastructure, traffic management options, and details on integrated land uses and land use transitions.

Key things we heard from Stage 1 community consultation included:

- general support for some growth within the activity centre;
- general support for urban lots closer to the commercial centre, along with the provision of green space;
- general support for 4,000 m² lots in a transition area close to the core of the Activity Centre:
- concerns about the capacity of current reticulated and road infrastructure to support growth;
- suggestions for a range of additional community facilities and better pedestrian/ cyclist connectivity;
- suggestions for expansion and improvements to the transport network, including the bus network;
- concerns on the impact of development on ground water resources, stormwater and drainage systems;
- the importance of the natural environment, with suggestions for areas of conservation; and
- the importance of retaining the rural character and amenity of Humpty Doo.



Stage 2 Consultation

Stage 2 consultation presented a draft Area Plan and Planning Principles based on investigations and feedback received during Stage 1. Consultation occurred in October and November 2018.

During Stage 2 we asked for feedback on a draft Area Plan that included potential areas for change and traffic management options, draft Planning Principles, and options to expand or reduce the extent of the Rural Activity Centre boundary.

Through Stage 2 consultation we heard:

- feedback on the Area Plan boundaries:
- suggestions for a range of additional social infrastructure including swimming pool and retirement village;
- general support for alternative housing options to the traditional 1 and 2 ha lots:
- some opposition to lot sizes smaller than 1 ha;
- support for upgrading and expanding pedestrian and cycle networks;
- the importance of the natural environment and drainage features, with suggestions for their protection;
- the importance of retaining the rural character and amenity of Humpty Doo;
- suggested further development of draft Planning Principles; and
- much discussion around the arterial and local road networks, particularly regarding safety along the Arnhem Highway, Power Road connections, and opposition from residents to Metcalfe Road being extend to facilitate a north-south collector road network.

Stage 2B Consultation

Following Stage 2 consultation, the draft Area Plan was put on hold to allow for the undertaking of the Arnhem Highway Duplication project. The draft Area Plan was subject to significant changes resulting from this project, leading to a further stage of consultation being undertaken in mid-2023.

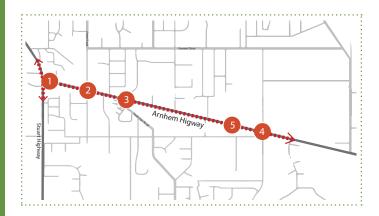
Through Stage 2B consultation we heard:

- some opposition to the Arnhem Highway duplication works and concerns about additional traffic and associated light and noise pollution;
- the importance of key natural drainage systems and wetlands including Edwins Creek and Metcalfe Lagoon, which also support ecologically significant fauna and flora species;
- some concerns regarding clearing of native vegetation and impacts on native fauna and flora to facilitate subdivision;
- concerns over existing and proposed infrastructure and the capability of infrastructure to service the growing population; and
- the need for clarity around proposed transition areas and which lots are specifically identified as being suitable for rural residential transition.

Transport Planning

A final concept design for the future duplication of the Arnhem Highway between the Stuart Highway and Kostka Road intersections was completed by the (then) Department of Infrastructure Planning and Logistics and released to the community in late 2022, followed by the Stage 2B consultation period.

The Humpty Doo Rural Activity Centre Area Plan includes the outcomes of the Arnhem Highway duplication concept design. More information about the Arnhem Highway Duplication Planning Study can be found at: https://dli.nt.gov.au/projects



The Arnhem Highway duplication concept design now features dual lanes in both directions, a hard median, and regular U-turn spots for property access. Community feedback led to significant improvements, including fully signalised intersections, no changes to Spencely Road alignment, extension of Challoner Circuit, and a P-turn for large vehicles.



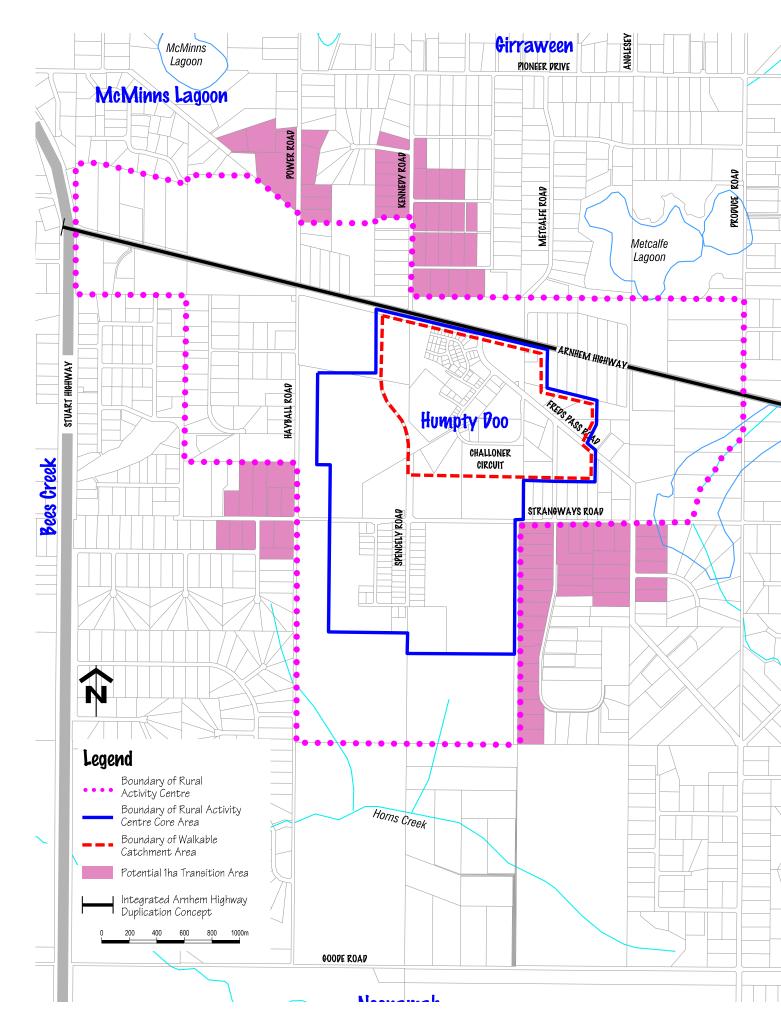
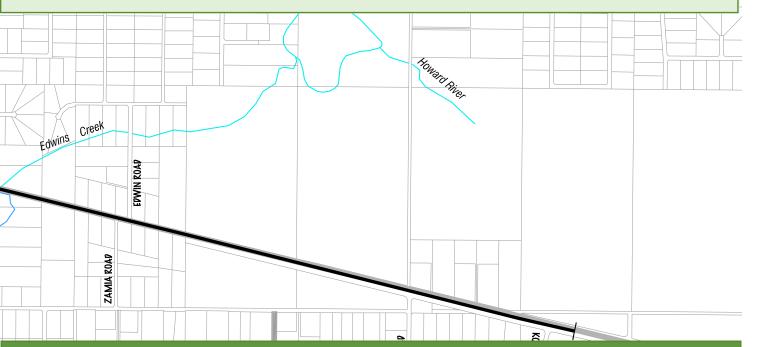


Figure 2: Locality Plan - Humpty Doo Rural Activity Centre & Integrated Arnhem Hwy Duplication Concept

Vision Statement

The Humpty Doo Rural Activity Centre will continue to develop as a fully serviced and diverse rural centre that reflects the rural setting through development of appropriate scale and character.

The activity centre will have the potential to expand its range of community, commercial and residential facilities and options. This will see the Humpty Doo rural centre provide for the many lifestyles, life stages and needs of the local community.



Locality of the Humpty Doo Rural Activity Centre

The Humpty Doo Rural Activity Centre is located around and encompasses approximately 5km of the Arnhem Highway in Humpty Doo. The boundary of the Rural Activity Centre, shown by the pink dotted line in Figure 2 extends from the Stuart Highway intersection in the west to Produce Road in the east. It encompasses the Humpty Doo commercial and village centre and extends to properties north and south of the Arnhem Highway to varying extents.

The blue solid line in Figure 2 identifies the extent of the 'core area' where both reticulated water and sewer connections are required to support proposed future land uses envisaged by this Area Plan.

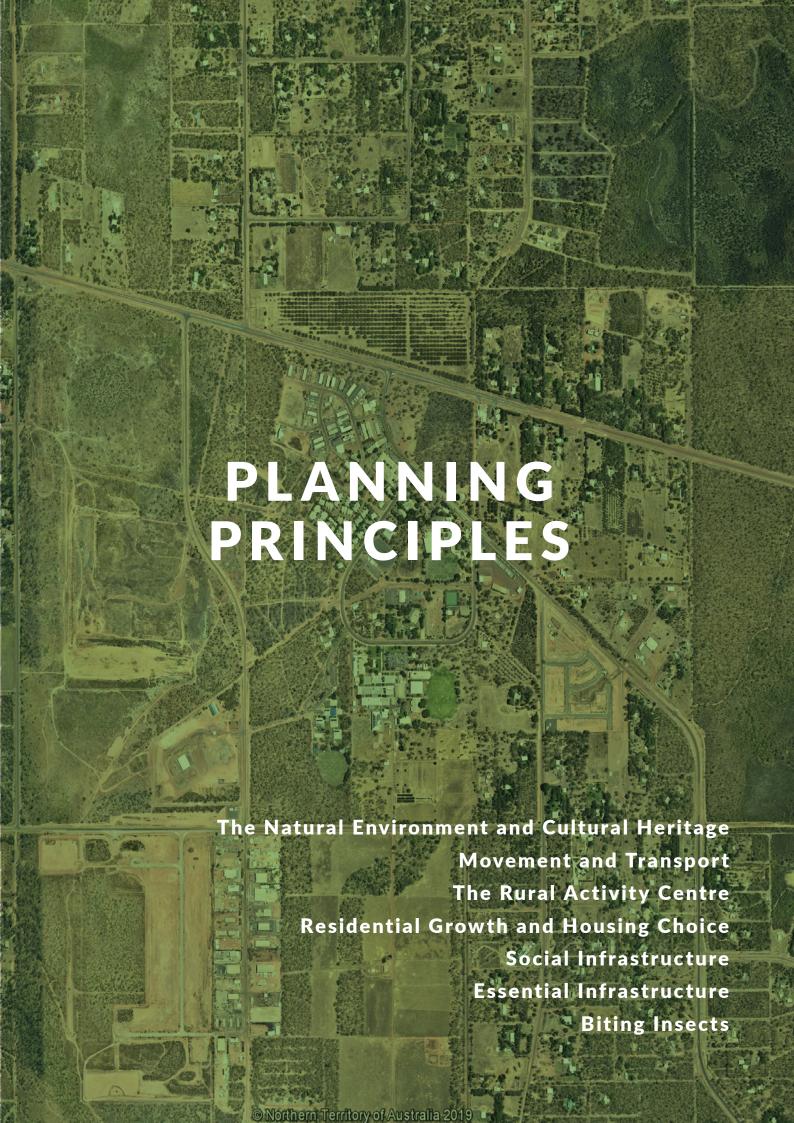
The red dashed line in Figure 2 identifies the extent of the 'walkable catchment' encompassing land considered within walking distance of commercial and community facilities and therefore suitable for higher density or urban residential development.

Land outside of these areas but within the rural activity centre boundary is considered the 'transition area' providing a transition in lot sizes between the smaller urban lots within the core area and the larger rural lots that exist outside of the rural activity centre boundary.

The 'Integrated Arnhem Highway Duplication Concept area' shown by the solid black line in Figure 2 shows the extent of the Arnhem Highway that has been considered outside of this Area Plan for future duplication. This and consideration of the wider integrated road network of Humpty Doo have informed development of this Area Plan.

March March





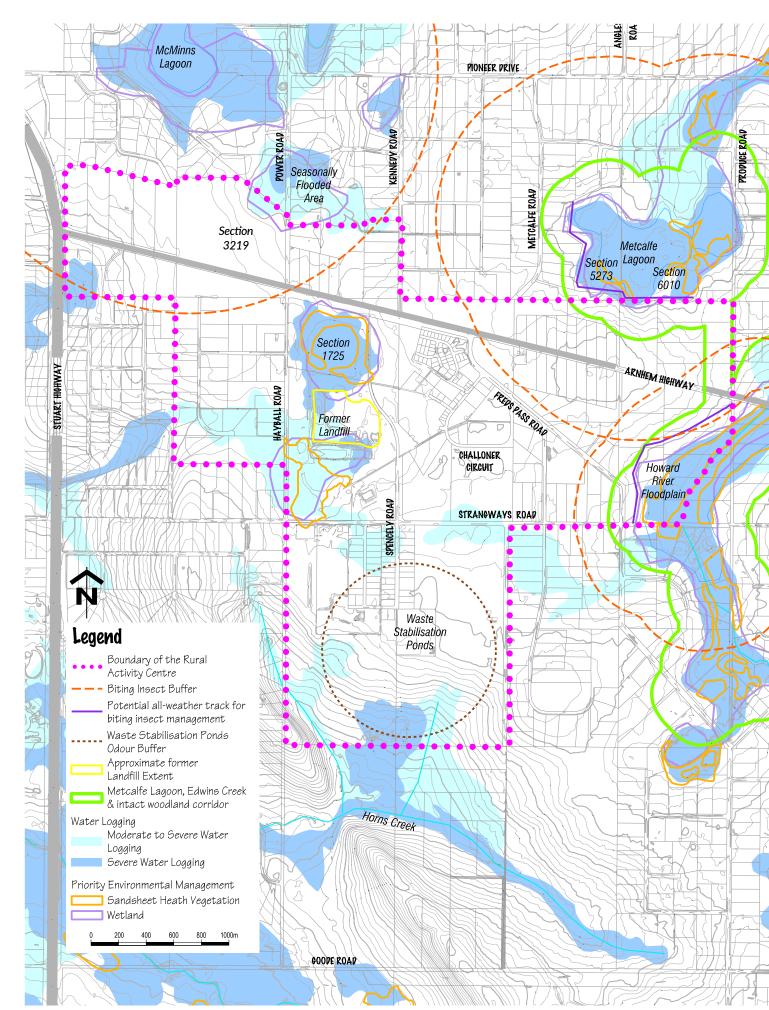
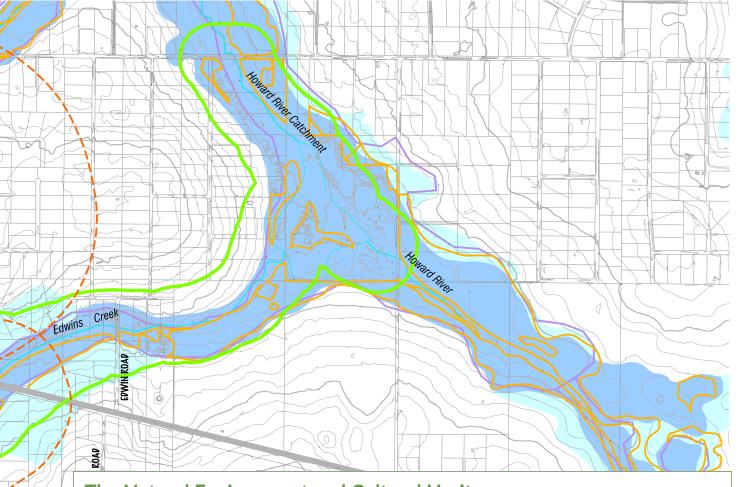


Figure 3: Landscape and Constraints - Humpty Doo Rural Activity Centre



The Natural Environment and Cultural Heritage

1. Minimise detrimental impacts of development on the natural environment and areas of cultural significance

Natural Environment

The landscape and natural environment contribute to the amenity and rural character of the Rural Activity Centre. The Rural Activity Centre contains several areas of environmental significance, which provide habitat for threatened and significant flora and fauna species. This Area Plan seeks to preserve the natural environment by ensuring development retains native vegetation, maintains habitat for native wildlife and protects natural drainage systems.

There are known and potential environmental assets that exist throughout the study area. Section 3219 Hundred of Strangways is identified as an 'Investigation Area' in recognition that there are recorded sightings of ecologically significant species, including but not limited to the Black Footed Tree Rat, and sensitive or significant vegetation types which support these species.

The potential for development of Section 3219 in accordance with the rural residential zone in continuation of the land use pattern of adjacent lots identified by this Area Plan is to be informed by compliance with environmental requirements.

The NT Planning Scheme requires subdivision proposals to respond to environmental constraints and areas of environmental significance by compliance with the NT Land Suitability Guidelines.

There are also statutory requirements requiring development consent for the clearing of land. Detailed design processes may reveal the location of site specific environmental assets that require further consideration.

Cultural Heritage

There are recorded Aboriginal sacred sites within the vicinity of the Rural Activity Centre, and there is a high potential of Aboriginal archaeological material existing in undeveloped areas of the Rural Activity Centre, particularly near to areas adjoining Metcalfe Lagoon and Edwins Creek associated with the Howard River floodplain.

All Sacred Sites in the NT are protected by the Northern Territory Aboriginal Sacred Sites Act 1989 (NT) as well as the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth), both of which create offences and penalties for entering on, remaining on, damaging or desecrating Sacred Sites.

All Aboriginal and Macassan archaeological objects and places are automatically protected under the Heritage Act 2011 (NT), including places and objects not previously recorded.

Rezoning and development proposals within the Rural Activity Centre should consider the presence of Aboriginal sacred sites and areas of cultural significance.

Objective Acceptable Land Use and Development Response 1.1 Minimise impacts i. Zone RR subdivision is in accordance with Clause 6.3.3 of the NT Planning of development Scheme where subject land is identified as a Priority Environmental on Priority Management (PEM) area as shown at Figure 3. Environmental Management areas. ii. Land is developed in accordance with the Land Use Structure Plan at Figure 5 to minimise adverse impacts on PEM areas identified at Figure 3. iii. Native flora and fauna outside of PEM areas shown at Figure 3 is protected as much as is practicable to protect and enhance general amenity and wildlife habitat to provide opportunity for people to experience nature. 1.2 Recognise and i. Ensure that development responds to whole-of government approaches for protect the presence sustainable development and regional conservation. of sensitive flora and fauna populations. ii. Subdivision design supports development and conservation in accordance with the requirements of environmental approval(s) under the: a. Environment Protection and Biodiversity Conservation Act 1999 (Cth) b. Environment Protection Act 2019 (NT); c. Territory Parks and Wildlife Conservation Act 1976 (NT); and d. any updates to this Area Plan. iii. Rezoning and subdivision proposals for all lots located within the Edwins Creek and Metcalfe Lagoon Woodland Intact Corridor identified at Figure 3 shall be supported by a biodiversity assessment in accordance with the NT Planning Scheme 2020 and the NT Land Clearing Guidelines for assessment by the relevant government agency. iv. Rezoning and subdivision proposal(s) for Section 3219 Hundred of Strangways identified at Figure 5 shall be supported by a biodiversity assessment in accordance with the NT Planning Scheme 2020 and the NT Land Clearing Guidelines for assessment by the relevant government agency. 1.3 Recognise and i. Rezoning and subdivision proposal(s) within the Rural Activity Centre, particularly protect potential within the Metcalfe Lagoon and Edwins Creek Intact Woodland Corridor **Aboriginal Sacred** identified at Figure 3, should: Sites and areas of a. demonstrate compliance with the requirements of the Heritage Act 2011 cultural significance. b. be supported by a Section 19B Authority Certificate issued under the Aboriginal Sacred Sites Act 1989 (NT).

1.4 Minimise stormwater impacts on the receiving natural environment (see also Objective 6.4).	 i. Stormwater drainage systems comply with the requirements of the relevant government agencies. ii. Pollutants or nutrients in stormwater and associated weed growth is managed to comply with the requirements of the relevant government agencies. iii. Development of land that drains into Edwins Creek, Horns Creek/Woodside Reserve and the seasonal ponding north and south of the former landfill site adjacent Spencely Road, includes measures to protect the environmental values, natural amenity and drainage function of those waterways.
1.5 Enhance nature strips along the Arnhem Highway.	 i. Native vegetation within the Arnhem Highway road reserve is retained or enhanced where practicable with support of the responsible authority or authorities. ii. Native vegetation is retained or enhanced along the Arnhem Highway road frontage in privately owned Sections 2897 and 4163, and within the Arnhem Highway road reserve as identified as per Objective 8.1.

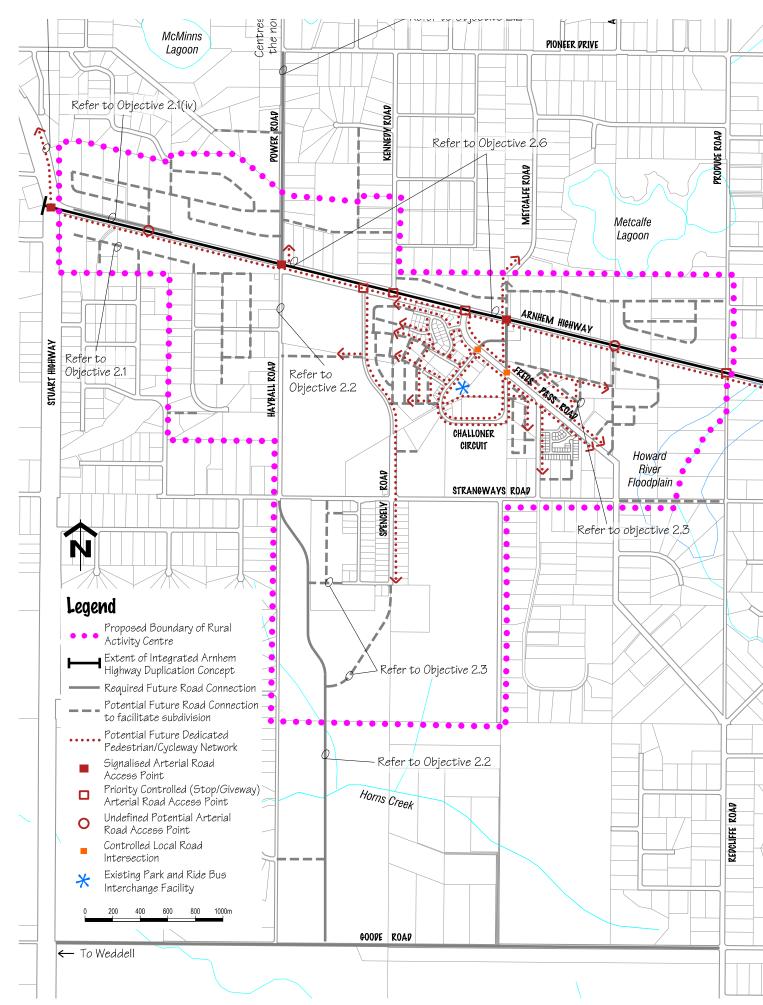


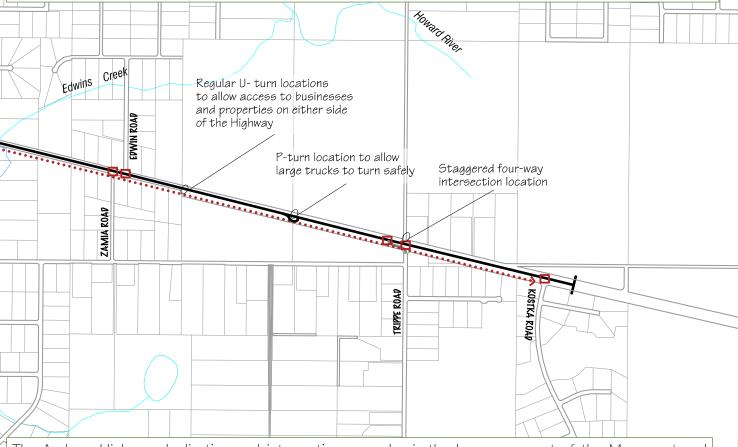
Figure 4: Movement & Transport - Humpty Doo Rural Activity Centre & Integrated Arnhem Hwy Duplication Concept

Movement and Transport

Provide a coordinated, efficient and interconnected subregional, local, and active transport network

This Area Plan seeks to protect and facilitate strategic transport corridors relating to the Rural Activity Centre including the arterial road network, subregional road networks, local road networks, and active transport networks.

A key feature of this Area Plan is to preserve the future opportunity to duplicate the Arnhem Highway between the Stuart Highway intersection and Kostka Road intersection. This Area Plan supports the duplication of the Arnhem Highway by identifying required and potential road connections and associated intersection treatments, whilst limiting the proliferation of individual accesses and impacts on the Arnhem Highway resulting from development.



The Arnhem Highway duplication and intersection upgrades is the key component of the Movement and Transport theme. The extension of Challoner Circuit to create a new signalised intersection with the Arnhem Highway may support existing intersections including the Freds Pass Road and Arnhem Highway intersection.

The construction and upgrade of identified required road connections including Hayball Road, Power Road and the Arnhem Highway will facilitate a north-south collector road route through the rural activity centre to improve connectivity within the subregion that is consistent with the Litchfield Subregional Land Use Plan (2016).

Figure 4 identifies how subdivision and development may provide for an interconnected road network. This road network may minimise the proliferation of crossovers and accessways resulting from subdivision and reduce the potential impacts upon rural amenity resulting from development in accordance with this Area Plan.

Potential road connections identified by this Area Plan are indicative only. The construction of these roads will require further investigation and consultation through rezoning and subdivision processes in order to determine final locations and configurations. Some identified potential connections cannot be realised until required roads are completed, notably the potential Metcalfe Road extension.

The extension of Metcalfe Road has been identified as a potential connection in response to the Arnhem Highway duplication project and a new signalised intersection of the Arnhem Highway and Challoner Circuit.

The existing shared pedestrian and cycle pathway along the southern side of the Arnhem Highway plays an important role in active transport movement through the Rural Activity Centre. This Area Plan recognises the potential for it to be enhanced and expanded for its eventual connection into the regional cycle network

The potential for subdivision identified by this Area Plan requires careful consideration of the number of additional driveway crossovers and/or accessways that may result and what cumulative impacts may result upon the streetscape and/or local road functions.

Subdivision design that minimises the number of crossovers and accessways resulting from subdivision will enable intensification without increasing the level of conflict along roadways, including those between pedestrians and private vehicles.

Objective Acceptable Land Use and Development Response 2.1 Protect the role of the i. Development of lots adjacent to the Arnhem Highway between the Stuart Arnhem Highway as a Highway and Kostka Road intersections do not impact on the future strategic arterial link. duplication of the Arnhem Highway. ii. All new intersections and access points to the Arnhem Highway and its service roads are approved by the responsible Northern Territory Government agency. iii. No development occurs within the Arnhem Highway road reserve (including service roads) unless approved by the responsible Northern Territory Government agency. iv. Development directly adjacent the Arnhem Highway, including subdivision, provides an interconnected local road network and potentially includes the utilisation of 'service roads' as identified by Figure 4 to minimise the number of required intersection points connecting to the Arnhem Highway. v. New direct property access/egress to the Arnhem Highway is discouraged. 2.2 Protect and facilitate a i. Power Road and Hayball Road are upgraded and extended to facilitate a north-south collector north-south collector road route through Humpty Doo. road route through ii. The Power Road and Hayball Road intersection with the Arnhem Highway Humpty Doo. is signalised to meet future transport needs and provide a controlled north-south crossing point of the Arnhem Highway. iii. Development of lots directly adjacent the Power Road and Hayball Road intersection is approved by the responsible Northern Territory Government agency. iv. The extension of Hayball Road south of Strangways Road is offset from the rear of existing residential lot boundaries as indicated at Figure 4 to reduce impacts on existing amenity. v. Road connections are provided between the north-south collector road route and the core area of the rural activity centre. 2.3 Enhance the local road i. Development provides for traffic management to moderate traffic speed network to facilitate and improve pedestrian safety and permeability. safe and convenient ii. A traffic impact assessment is required for subdivision and development movement through the that has potential to contribute significant additional traffic to the local rural activity centre. road network as requested by the relevant authority.

iii. Subdivision and development provides for an interconnected local road and accessway network that: a) prioritises the safety of pedestrians and cyclists; b) supports efficient vehicle access and multiple route choices: c) interconnects with neighbouring lots to facilitate neighbourhood permeability and the future subdivision of adjacent lots; d) provides and/or facilitates required future road connections identified at Figure 4; and e) minimises the proliferation of accessways and crossovers. iv. Where a required future road connection is identified at Figure 4, future road connections are to be provided as per the approximate road alignment shown. v. Potential road connections are identified at Figure 4 and apply to subdivision development only. Potential road connections may vary in location from what is shown, however, subdivision design must provide for efficient neighbourhood permeability and future development opportunities of neighbouring lots and/or surrounding land. vi. Road connections will be subject to approval from the relevant government agency and/or the local authority. 2.4 The provision of local i. Subdivision and development, including potential road connections, shall roads driveways and make provision for collection and diversion of stormwater. accessways manage Design of stormwater infrastructure shall demonstrate that it will not stormwater flow. compromise the development of upstream land due to restriction or impediment of future stormwater flows. 2.5 Provide for convenient Footpaths, wayfinding measures and traffic management at conflict points and accessible public are provided to ensure safe and convenient pedestrian access to the transport. Humpty Doo Park and Ride Bus Interchange Facility. Land for the expansion of the existing Humpty Doo Park and Ride Bus Interchange Facility is preserved to meet future needs or consideration is made for an alternate location for the Facility (see also Objective 9.2) under the guidance of the relevant government agency. 2.6 Provide a safe, Development complies with the applicable requirements of the NT Planning Scheme for the provision of pedestrian and cycle paths, and must consider appealing and convenient active key pedestrian movements and links, protection from the elements, and transport network. landscaping for shade and amenity. Pedestrian and cycle paths are provided on both sides of Freds Pass Road and Challoner Circuit within the core area of the rural activity centre as identified at Figure 4. iii. The existing pedestrian and cycle pathway along the Arnhem Highway is extended to Kostka Road and the Stuart Highway to facilitate connection into the regional cycle network at Coolalinga as identified at Figure 4. iv. The pedestrian and cycle pathway network is extended from the walkable catchment area of the rural activity centre to the industrial area south of Strangways Road as identified at Figure 4. v. Signalised road intersections within the rural activity centre boundary identified at Figure 4 facilitate safe and convenient crossings for pedestrians and cyclists.

The Rural Activity Centre

3. Support a successful and diverse activity centre to meet the needs and aspirations of the community

The Humpty Doo Rural Activity Centre provides a range of commercial, service commercial, industrial, community and recreational opportunities for local residents and visitors to the area.

This Area Plan seeks to support and enhance the viability of the rural activity centre by identifying additional areas for commercial and retail activity, community facilities, and urban residential options within walking distance of one another. Encouraging higher density residential development within the established rural activity centre, where infrastructure and services are already available, will help to alleviate growth pressures on existing rural areas by protecting rural amenity and the needs of rural residents and visitors.

This Area Plan encourages the use of landscaping and built form in new development to contribute to the existing rural amenity and natural environment.

Objective	Acceptable Land Use and Development Response		
3.1 Protect and enhance rural amenity.	i. Development occurs in accordance with the Land Use Structure Plan at Figure 5, the Transition Model for residential lot sizes at Figure 6 and 7, and applicable requirements of the NT Planning Scheme.		
	 ii. Built form, with the exception of utilities and other essential infrastructure, is restricted to two stories or a height generally not exceeding 8.5m within the rural activity centre. 		
	iii. Development along main thoroughfares of the Rural Activity Centre provides a visually appealing environment that is sympathetic to the wetdry tropics climate, natural environment and the rural character of the locality (see also Objective 8.1 and Objective 8.2).		
3.2 Support local business.	 i. Commercial/mixed use, service commercial, commercial/tourism, and light industrial land is located in areas as shown by this Area Plan. ii. New commercial/mixed use and service commercial development is of a scale that is sustainable for the location and does not negatively impact existing businesses. iii. New service commercial development identified for Sections 1725 and 2643 addresses Objective 9.1 regarding impacts from the former Humpty Doo landfill site. 		
3.3 Activate public spaces.	i. Development complies with the Crime Prevention through Environmental Design (CPTED) principles identified within the NT Community Safety Design Guide (2010).		
3.4 Facilitate Humpty Doo as a gateway to Kakadu National Park.	 i. Tourism based activities are facilitated and encouraged within the core area of the rural activity centre and where visible from the Arnhem Highway. ii. Development within the core area of the Rural Activity Centre and where visible from the Arnhem Highway utilises landscaping and built form to provide a high degree of visual amenity to the Arnhem Highway and encourages visitation from passing trade (see also Objective 8.1). 		

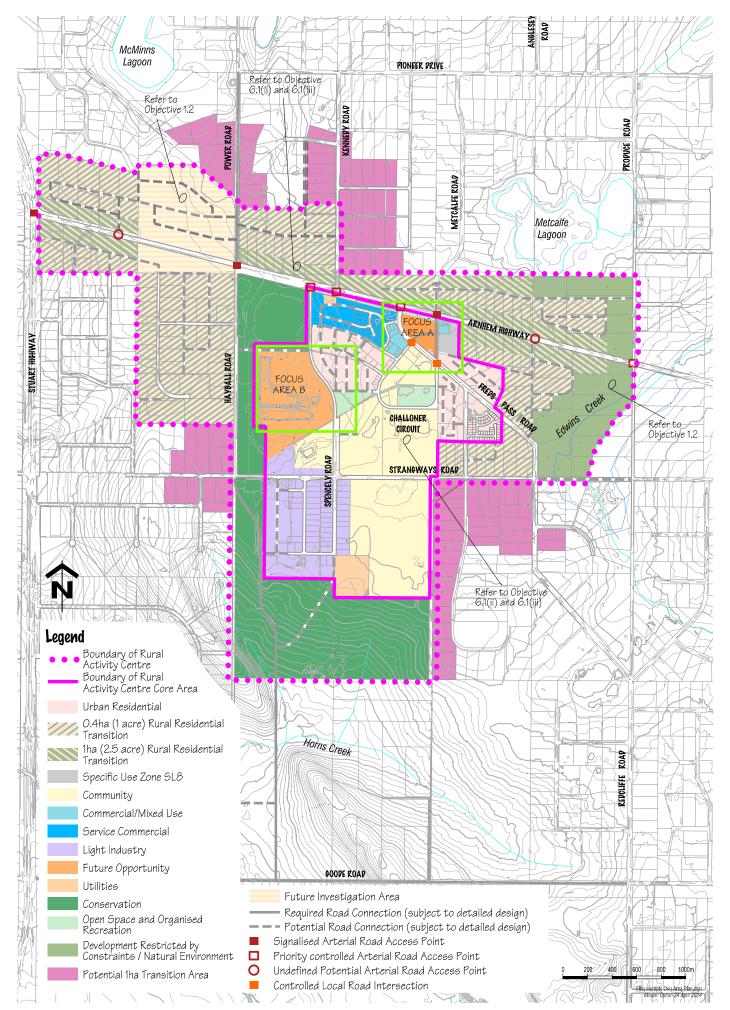


Figure 5: Land Use Structure Plan showing the 'core area', transition areas, and focus areas

Residential Growth and Housing Choice

4. Provide for growth and housing choice compatible with the future character and rural identity of Humpty Doo

This Area Plan seeks to encourage a range of housing choices that cater for different life stages, including smaller lots that are more affordable and/or can provide lower-maintenance living within walking distance of local services.

Additional urban residential development within the activity centre will increase housing choice, underpin the provision of reticulated services and community infrastructure, and will support a greater variety of retail and commercial services. Facilitating higher density residential development within the established Rural Activity Centre, where infrastructure and services are already available, will help to alleviate growth pressures on the rural areas.

The transition model at Figure 6 responds to the principles of the Litchfield Subregional Land Use Plan to protect the rural character of the broader area by transitioning land uses and densities.

The proposed setbacks for residential development from the Arnhem Highway will mitigate against potential impacts from passing vehicular traffic and encourage the retention of native vegetation along the Arnhem Highway.

The development opportunities identified by this Area Plan are contingent upon the cost-effective delivery of supporting infrastructure. Underdevelopment should be avoided as it directly undermines the efficient provision of infrastructure and increases the difficulty in the planning, delivery and connection of infrastructure. This results in additional costs and barriers to development.

Objective

4.1 Provide for a variety of residential lot sizes to support a variety of housing choices and lifestyles.

Acceptable Land Use and Development Response

- Residential development is located in 'Urban Residential' areas as shown in this Area Plan with Zone LMR (Low-Medium Density Residential) being the highest permitted urban residential density. Zone LMR is restricted to within 400m walking distance of Zone C (Commercial) land. Existing Zone LMR land within the Area Plan study area is exempt from this Development Response.
- The number of dwellings for residential development on land identified as 'Urban Residential' within the Rural Activity Centre core area is maximised, with average net residential densities of 10 to 20 dwellings per hectare. This may generally align with dwelling densities expected in LR (Low Density Residential) or Zone LMR (Low-Medium Density Residential).
- Zone RR (Rural Residential) lot sizes in accordance with the NT Planning Scheme, unless adjacent to the Arnhem Highway (refer Objective 4.4) or adjacent to Metcalfe Lagoon (refer Objective 7.1).
- iv. Proposed subdivision and residential development within Sections 1725, 2642, 1818, and 2643 must address Objective 7.1 relating to biting insects and Objective 9.1 relating to impacts from the former Humpty Doo landfill site prior to undertaking any site works.
- v. Existing residential lots fronting Hayball Road address Objective 9.1 relating to potential offsite impacts from the former Humpty Doo landfill site, prior to any subdivision.
- vi. Staged subdivision and development proposals are to be assessed on their merits irrespective of potential intensification or future development consistent with this Area Plan.

- 4.2 Promote a sequence of residential density within the rural activity centre by providing a transition of residential lot sizes.
- A transition of residential density is achieved through subdivision design that:
 - a) locates Zone LR (Low Density Residential) lots of no less than 800m² next to areas of Zone RR (Rural Residential) that minimises the number of Zone LR lots that share a boundary with any one Zone RR lot as is practicable; and
 - b) locates Zone RR (Rural Residential) lots of no less than 4,000m² to transition from the core area to the activity centre boundary that minimises the number of Zone RR lots that share a boundary with any one Zone RL (Rural Living) lot as is practicable.

Figure 6 illustrates the transition of residential lot sizes from the core area to the transition and rural areas.

Rural residential development outside of and in close proximity to the rural ii. activity centre boundary must comply with relevant policy in the Litchfield Subregional Land Use Plan. For the purpose of this Area Plan, "close proximity to community facilities" means within 500m as travelled from within the boundary of the rural activity centre as identified within Figure 2.

Figure 2 and Figure 5 illustrate potential transition areas within 500m as travelled from within the boundary of the rural activity centre.

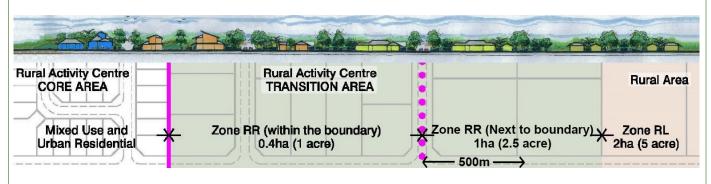


Figure 6: Transition Model for residential lot sizes for rural activity centres.

4.3 Facilitate retirement living.

- Subdivision and development for the purpose of retirement living is encouraged within the 'Urban Residential' and 'Community' areas identified by the Land Use Structure Plan at Figure 5.
- Retirement living is preferably located within 400m walking distance of Zone C (Commercial) and community facilities within the core area of the Rural Activity Centre.
- Subdivision and development for the purpose of a retirement village may have a residential density consistent with Zone LMR (Low-Medium Density Residential).

- 4.4 Mitigate noise and visual impacts of the Arnhem Highway on residential uses.
- Zone RR (Rural Residential) lots adjacent to the Arnhem Highway have a minimum lot size of 1ha and a minimum depth of 100m perpendicular to the Arnhem Highway to facilitate:
 - greater dwelling setback distances from the Arnhem Highway; and
 - opportunities for sufficient buffer treatments including retention of native vegetation from the Arnhem Highway.

Figure 7 illustrates Zone RR lot configuration adjacent the Arnhem Highway.

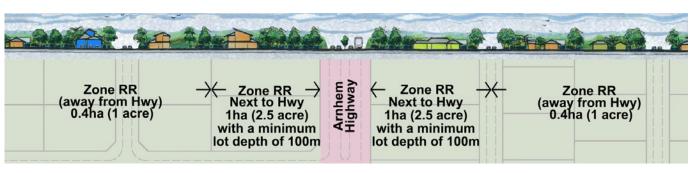


Figure 7: Zone RR (Rural Residential) lot transition and configuration adjacent the Arnhem Highway.



Social Infrastructure

5. Support social infrastructure that meets the needs and aspirations of the community

Effective long-term planning acknowledges that each community has its own specific requirements that shape the type and combination of social infrastructure required, while allowing flexibility and adaptation as community needs evolve.

The Humpty Doo Rural Activity Centre supports provision of a range of community facilities including schools, place(s) of worship, community centre(s) and open spaces, childcare centres, health clinics and a 'village green'.

This Area Plan seeks to maximise the use of existing facilities and community purpose land as well as provide future opportunities to improve and expand social infrastructure to meet the needs of the community.

Long-term collaborative planning and coordination of social infrastructure provides a wide range of benefits such as improved community services, cost sharing to leverage an asset, efficient allocation of land and higher levels of innovation in solving complex community requirements.

Objective	Acceptable Land Use and Development Response		
5.1 Provide and preserve land for social infrastructure.	i. The design and development of community facilities are multipurpose to encourage use by a variety of user groups.		
	ii. Community facilities compatible with sensitive land uses and promote walkability and active transport are preferably located within the identified walkable catchment area and closest to areas identified as commercial/mixed use identified in Figure 5. Such facilities include, but are not limited to:		
	community centre;		
	education establishment;		
	leisure and recreation; and		
	residential care facility.		
	iii. Community facilities less compatible with sensitive land uses such as the landfill site, are located outside of the walkable catchment (see Figure 2).		
5.2 Provide for formal and informal active recreation (i.e. organised sport and non-prescriptive open space).	 Urban residential subdivision is consistent with the requirements of the NT Planning Scheme and NT Subdivision Development Guidelines for the provision of useable public open space, footpaths and bicycle paths. 		
ргезсприче орен space).	ii. Areas identified for open space and organised recreation immediately east of Spencely Road as shown at Figure 5, are reserved to accommodate future organised sporting facilities such as field and court facilities to meet future needs.		

Essential Infrastructure

6. Provide reticulated services to the Humpty Doo Rural Activity Centre to meet demand and facilitate future development

Humpty Doo benefits from an existing reticulated power, sewer and water network. Whilst the network has some existing capacity, its expansion in due course is required to enable growth envisaged by this Area Plan. In particular, reticulated sewer and water are required to support additional urban development and to protect ground water resources which are at capacity. This will also help to preserve and protect the viability of existing rural properties reliant on groundwater.

This Area Plan identifies a core area where both reticulated sewer and water infrastructure is required to support future urban development, and a transition area where just reticulated water infrastructure is required to support rural residential subdivision to a minimum lot size of 4,000m² as envisaged by the Litchfield Subregional Land Use Plan 2016.

Where indicated in this Area Plan, a sequence of prior development and infrastructure provision will be required to enable land use change as identified by this Area Plan. To ensure the sequential and cost-effective provision and expansion of infrastructure, the following objectives require an infrastructure plan for the Humpty Doo locality and a mechanism to coordinate the design, development and funding contribution for infrastructure upgrades to be implemented before higher density development can be realised.

Objective	Acceptable Land Use and Development Response
6.1 Provide utilities to minimise adverse impacts	 Reticulated water infrastructure is provided to all new lots created within the rural activity centre boundary.
on groundwater systems.	ii. Reticulated sewer is provided to all new lots created within the 'core area' of the rural activity centre, and where practicable to lots outside of the 'core area'.
	iii. Dwellings on lots of 4,000m² or greater within the rural activity centre boundary and identified transition areas are connected to either:
	 a) an onsite, secondary wastewater treatment system in accordance with the Code of Practice for Wastewater Management for the onsite treatment and disposal of wastewater; or
	b) the reticulated sewer system network.
	iv. Land is preserved for the expansion of reticulated services infrastructure in areas shown as 'Utilities' at Figure 5 and at Figure 8.
	v. Sensitive land uses do not occur within the identified wastewater stabilisation ponds odour buffer identified at Figure 3.
6.2 Developers contribute to the funding of local road connections, utilities and trunk infrastructure.	i. Infrastructure for the Rural Activity Centre is provided and funded in accordance with an approved infrastructure contribution plan, to fund the construction of road connections, utilities and trunk services required by this Area Plan.

i	Local road connections, utilities and trunk infrastructure are provided sequentially to facilitate development.	i.	Land is developed in accordance with this Area Plan when and where required infrastructure is provided to facilitate subdivision and development.
t		ii.	Where required, consolidation of land occurs to enable the efficient provision of infrastructure for subdivision and development.
		iii.	Infrastructure for roads, utilities and trunk services is incorporated into the engineering design for development and demonstrates consideration for the sequential and successive development of adjoining lots.
i (Manage stormwater in the Rural Activity Centre (see also Objective 1.4)	i.	Development complies with stormwater management requirements of the responsible authority.

Biting Insects

7. Manage stormwater drainage and mitigate mosquito breeding

The Humpty Doo Rural Activity Centre is impacted by seasonally moderate levels of mosquitos. Six potential breeding sites have been identified that may impact the rural activity centre which are:

- Metcalfe Lagoon;
- McMinns Lagoon;
- seasonal waterlogging in Section 1725 Hundred of Strangways;
- seasonally flooded areas at the southern end of Power Road;
- Howard River Floodplain (Edwins Creek); and
- former Humpty Doo Landfill borrow pits adjacent Spencely Road.

Figure 3 identifies the locations of the above potential mosquito breeding sites and associated buffer areas.

The larger lagoons are generally separated from areas identified for future urban development, however smaller seasonally wet areas and remnant excavation pits associated with the landfill site are within closer proximity.

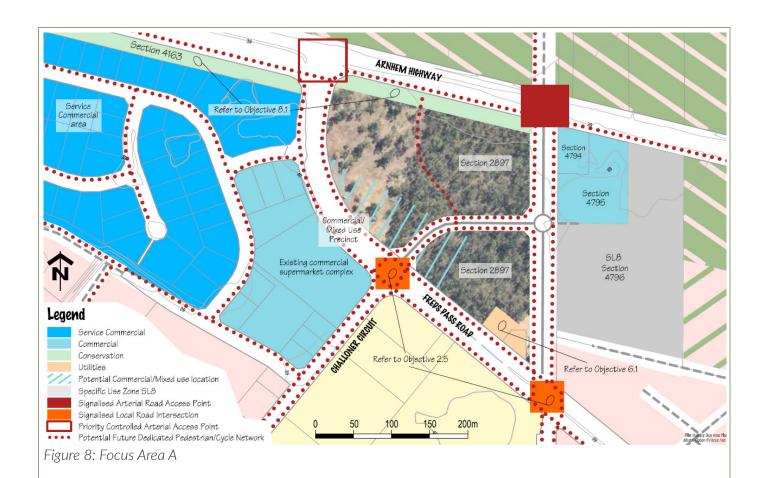
Objective

Acceptable Land Use and Development Response

- 7.1 Mitigate against mosquito breeding to reduce impacts on residential and sensitive land uses.
- A strategy and associated works to manage mosquito breeding in the seasonally water logged areas of Section 1725 and former Humpty Doo Landfill borrow pits adjacent to Spencely Road is established prior to any urban residential development on land directly east of Spencely Road (Sections 1725, 2643, 1818 and 2642). The mosquito management strategy and associated works will:
 - a) accord with advice from the government agency responsible for medical entomology;
 - b) minimise impacts on natural environment and drainage systems; and
 - c) be compatible with recreation uses or future uses of the immediate area.
- Should strategies to minimise mosquito breeding in the seasonally water logged areas of Section 1725 and former Humpty Doo Landfill borrow pits adjacent to Spencely Road not be achievable, a review of land uses proposed by this Area Plan on land directly east of Spencely Road (Sections 1725, 2643, 1818 and 2642) occurs to the satisfaction of the government agency responsible for medical entomology.
- iii. New Zone RR (Rural Residential) lots that share a boundary with Sections 5273 and 6010 (see Figure 3) associated with Metcalfe Lagoon have a minimum lot size of 1ha (approximately 2.5 acres).
- iv. All-weather fogging tracks are established as required in proximity to Metcalfe Lagoon and the Howard River Floodplain as identified at Figure 3 and in accordance with the advice from the government agency responsible for medical entomology.
- v. Subdivision and development addresses existing mosquito breeding sites and does not contribute to further breeding sites to the satisfaction of the government agency responsible for medical entomology.







Focus Area A - Commercial centre and Section 2897 Hundred of Strangways (320 Arnhem Highway).

8. Establish an active and attractive town centre focal point for the community and visitors alike.

The Humpty Doo commercial area is a focal point for the community and provides a local level of commercial retailing and mixed uses.

Mixed use development of Section 2897 Hundred of Strangways presents an opportunity to focus commercial and mixed use activity on Freds Pass Road.

It is imperative that the Humpty Doo commercial centre remains viable and accentuates the 'town centre' role it currently serves in the Humpty Doo locality. This Area Plan limits commercial/retail land uses within the locality to the Humpty Doo centre and discourages fragmentation of commercial activity and/or 'ribbon' highway-based development that would undermine the Humpty Doo commercial centre.

Section 4796 Hundred of Strangways is currently subject to a Specific Use Zone (SL8) under the NTPS 2007 to facilitate a 'Caravan Park' development. This Area Plan recognises the current zoning of Section 4796 as an opportunity to facilitate and foster greater tourism accommodation options in the Litchfield region.

The following objectives seek to encourage further activation of Focus Area A.

Objective		Acceptable Land Use and Development Response
8.1	Development is sympathetic to exposure to the Arnhem Highway.	i. Development is appealing, visible and entices interest from the Arnhem Highway.
		ii. A minimum 20m wide native vegetation strip is retained or enhanced along the Arnhem Highway road frontage in privately owned Sections 2897 and 4163, and within the Arnhem Highway road reserve between Spencely Road and Section 4163 as identified at Figure 8.
8.2	New development provides active street frontages.	i. Land in Zone C (Commercial) and TC (Tourist Commercial) is developed in accordance with Part 5 (5.5.15) of the NT Planning Scheme for Active Street Frontages.
8.3	New commercial / mixed use development complements existing commercial businesses.	i. New commercial/mixed use development is sited adjacent the established commercial/mixed use retail area to create a commercial and retail precinct as identified at Figure 8.
8.4	Section 2897 Hundred of Strangways is developed as a prominent site and focal point for the community and visitors.	i. Development of Section 2897 Hundred of Strangways provides for a range of uses which may include but is not limited to:
		specialty commercial/retail;
		open space/recreational facilities;
		tourism/cultural facilities;
		• dining/café/market areas;
		residential/short-term accommodation; and
		community/civic/library facilities.
		ii. Development of Section 2897 should front Freds Pass Road with buildings with active frontages that support a high amenity, pedestrian-friendly street.



Figure 9: Focus Area B

Focus Area B - Former Humpty Doo landfill site (Section 2642) and adjacent areas

9. Manage the effects of the former Humpty Doo landfill

Located between Spencely and Hayball Road is the former Humpty Doo landfill site which was operational between approximately 1976 and 2006. Landfill gases still remain at the site but continue to dissipate over time as the area settles. Future studies are required to form strategies to manage interim and future land uses in proximity of the former landfill. Consideration should also be made for potential and suitable future uses of the landfill site itself.

Objective Acceptable Land Use and Development Response 9.1 Impacts from the former Humpty Doo i. An Environmental Audit program to the satisfaction landfill site are appropriately considered

- and managed.
- of the responsible Northern Territory Government agency, including landfill gas and leachate monitoring, is implemented to determine the full extent of land contamination and required protection measures on and in proximity of the site prior to any or further development of land at:
 - Section 1725;
 - Section 2074 (areas 500m from landfill extent);
 - Section 2643;

	 Section 3960 (areas 500m from landfill extent); Section 3960 (areas 500m from landfill extent); Section 1818; and
	 Section 2642 (areas 500m from landfill extent). ii. Subdivision of private lots fronting Hayball Road between the Arnhem Highway and Strangways Road does not occur until the completion of an Environmental Audit and Monitoring program to the satisfaction of the responsible Northern Territory Government agency.
9.2 Establish suitable future uses within Section 2642 west of Spencely Road.	 i. Structures susceptible to the impacts of land settling are discouraged within the former landfill extent. ii. Potential future uses respond to the outcomes of the Environmental Audit and Monitoring program, natural constraints of the area, and envisaged adjacent land uses within this Area Plan. Potential future uses may include but are not limited to: open space / sports fields; other recreational or nature based uses; equestrian facilities; transport terminal / bus interchange; golf course / driving range; light industry (consider proximity to urban residential land uses); and 4WD / all-terrain vehicle track.

APPENDIX: GLOSSARY OF PLANNING TERMS

The terminology is provided for explanatory purposes and is intended for flexible interpretation.

Accessway	The portion of a subdivision design that accommodates access/egress to the <i>effective area</i> of a battle-axe lot. May be referred to as access leg, access strip or access handle within other jurisdictions. May be private or common property.
Activity centre	Activity centres are community focal points. They include activities such as commercial, retail, higher-density housing, entertainment, tourism, civic/community, higher education, and/or medical services. Activity centres vary in size and diversity and are designed to be well-serviced by transit.
Active transport	Includes physical activity undertaken as a means of transport and not purely as a form of recreation. Can include walking, cycling, skating, use of personal mobility devices.
	Also includes using any of these forms as incidental activity associated with the use of transit.
Battle-axe lot design	Rear lots with access/egress and provision of services via an accessway.
Biodiversity	The variety of living organisms and the ecological communities in which they occur.
Boundary fencing	Refers to side or rear boundary fencing , which is often solid and impermeable, with reduced opportunities for passive surveillance .
	Concentrations and/or extended lengths of boundary fencing contribute to unsightly streetscapes or main road corridors.
Connectivity	Refers solely to the number of connections to and from a particular place determined by subdivision design of streets and blocks.
Core Area	The defined area within the Area Plan boundaries which requires the provision of both reticulated water and sewer to support new subdivision and development.
Crossover	The vehicular accessway from the road carriageway to the property boundary.
Dwelling Density	Gross Residential Density refers to the ratio of the number of dwellings per hectare within the residential component of a subdivision area, plus local non-residential land uses such as roads, public open space and schools. It excludes regional open space, secondary activity centres, main roads and non-urban land.

Dwelling Density	Net Residential density refers to the ratio of the number of dwellings per hectare within the residential component of a subdivision area, plus local roads.
	Residential site density includes only the residential component of a subdivision area including private access ways.
Driveway	A defined area used by vehicles travelling between a carriageway and a property adjacent or near to the road.
Effective area	The area of a battle-axe subdivision that structures can be built upon minus the accessway.
Existing use rights	This Area Plan does not prevent the development of land consistent with the current town planning zone that applies to the site.
Formed road	A road that has been formed but not constructed with a pavement. Access may be limited at periods of wet weather.
Frontage	The width of a lot at the primary street setback line and, if a lot abuts two or more road reserves, the one to which the building faces.
Land Capability	The ability of land to support different land uses, especially relating to natural constraints to land use such as slope, drainage and soil type.
Mixed use development	Mixed use development includes both vertical and horizontal mixing of land uses including, but not limited to, residential and commercial uses.
Original parent lot	Lot prior to rezoning and subdivision resulting from this Area Plan.
Public realm	Means spaces that are physically accessible to the public, and those aspects of other spaces that are visible from physically accessible spaces. It incorporates features such as streets, parks, shops, community buildings and the street facades of other buildings.
Road	A road reserve that has been registered and published in a Northern Territory Gazette Notice as a road.
Sealed Road	A road that has been sealed within a bituminous surface.
Sensitive or significant vegetation	Sensitive or significant vegetation communities such as rainforest, vine thicket, closed forest or riparian vegetation. The terms are used in these guidelines to also include mangroves, monsoon vine forest, sandsheet heath and vegetation containing large trees with hollows suitable for fauna habitat.

Significant species	This includes: threatened species; animal species that are listed as migratory or marine species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (Cth); those that are range restricted in the Northern Territory; and in some instances those listed as data deficient and near threatened under the Territory Parks and Wildlife Conservation Act 1976 (NT).
Social infrastructure	Schools, community centres, parks, recreation facilities, health, childcare facilities that support the needs of a community.
Streetscape	The total visual appearance gained from any one location within a street, including the natural and manmade elements. It is made up of the appearance of, and relationships between, buildings in terms of design and scale.
	May refer to the capacity of buildings to frame or shape the <i>public realm</i> .
Transition area	Land which is situated outside of the defined core of the Rural Activity Centre boundary and provides for a transition in lot sizes between smaller urban lots and existing larger rural lots.
Underdevelopment	Underdevelopment includes interim development or staged development proposals. This may include rural residential development proposed for a site identified by the Area Plan for urban residential.
Unsealed road	A road that has been formed and pavement constructed, with a gravel surface.
Urban Development	Primarily residential land uses and also includes: commercial/retail; community purpose; local roads; public open space and other residential supportive land uses.
	Does not include industrial, rural, conservation, Commonwealth, horticulture or agriculture.
Walkable / Walkability	Means the ease and attractiveness to walk in an area. Applies to the distance and directness of routes. Also applies to the aesthetics or amenity of an environment.
	The levels of connectivity, legibility, and permeability have a correlation to the attractiveness of the environment and its movement network.
	May extend to cyclists and other shared movement corridor users





For more information

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