Department of **Planning, Lands and Heritage**

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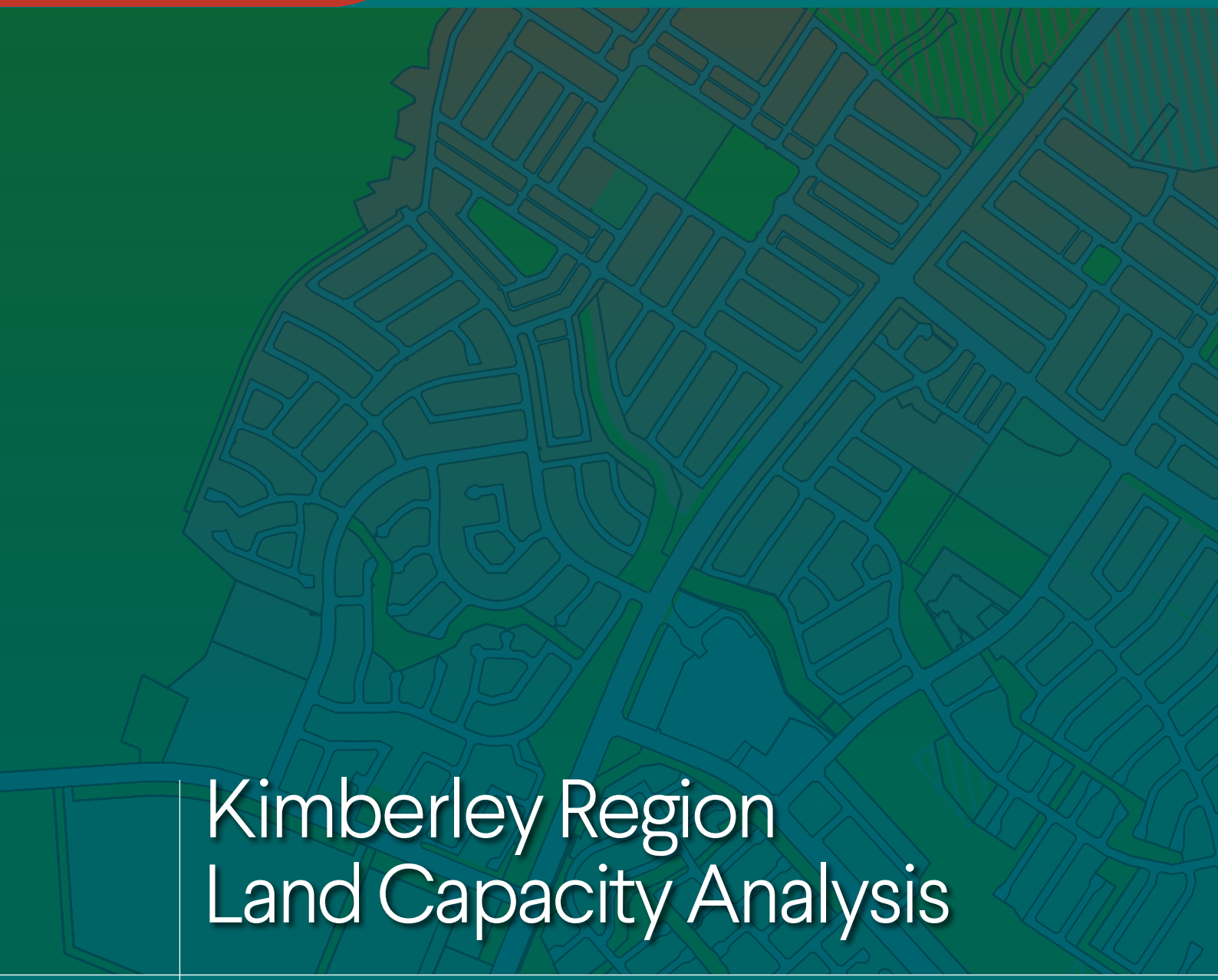

Kimberley Region Land Capacity Analysis

Shire of Halls Creek

November 2020

Executive Summary

The Regional North Land Capacity Analysis provides an overview of existing and future land capacity based on forecast population growth for the settlements in the Shire of Halls Creek. In particular, it examines the land identified for residential, rural residential, commercial and industrial use that is capable of substantial further development.

This study categorises current and future land uses according to broad land-use types. The land use types are effectively a rationalisation of existing zones and reserves of the local planning scheme. The 'future' land use types have been identified through consideration of a number of strategic documents, including local planning strategies and structure plans and growth plans where relevant.

For this report the following planning instruments that have informed the settlement land-use mapping:

- Shire of Halls Creek Local Planning Scheme No. 2 (2019); and
- Shire of Halls Creek Local Planning Strategy 2016.

When these planning instruments are reviewed, it is anticipated that the land capacity analysis will be used to guide and inform their future preparation.

Ultimately this analysis establishes the potential population yield of current and future residential lands for each relevant settlement, and then considers possible implications for the local government area's land supply situation in the context of the *Western Australia Tomorrow 2031* population forecasts.

Based on the current extents of zoned residential land and land identified for future residential purposes, this analysis suggests that there is a sufficient amount of land capable of substantial further development to cater for the population growth anticipated in the *Western Australia Tomorrow 2031* population forecasts for the Shire of Halls Creek.

Contents

The Department of Planning, Lands and Heritage acknowledges the traditional owners and custodians of this land. We pay our respect to Elders past and present, their descendants who are with us today, and those who will follow in their footsteps.

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1. Introduction

The Kimberley Region Land Capacity Analysis provides a broad overview of the existing and future land capacity of settlements in the Kimberley Region with respect to forecast population growth. In particular, it examines land identified for residential, commercial and industrial development.

This document presents the land-use mapping and associated analysis as it relates to the applicable settlements in the Shire of Halls Creek local government area.

Notably, the analysis suggests there is sufficient land capable of substantial further development (based on the current extents of zoned residential land and land identified for future residential purposes) to cater for the population growth anticipated in the *Western Australia Tomorrow 2031* population forecasts for the Shire of Halls Creek.

The information presented in this document may provide a basis for a range of regional and local strategic planning including:

- assisting regional planning and provide direction for strategic infrastructure coordination;
- informing the preparation and/or review of local planning strategies, schemes and structure plans; and
- more detailed land supply analysis, such as further investigation into the infrastructure requirements to service potential development of the future land supply.

Given the dynamic nature of planning and development, it is intended that this paper will be amended periodically to reflect future updates to local planning instruments as relevant.

Notwithstanding this, the information contained in this document has been prepared for guidance purposes only.

2. Settlement land use mapping

The Department of Planning, Lands and Heritage (DPLH) has prepared mapping that captures the spatial extents of current and future land use in applicable settlement. Within the Shire of Halls Creek, this includes:

- Halls Creek Townsite (**Map 1**).

2.1 Current and future land use

For the purpose of this study, the mapping categorises current and future land uses into broad land-use types. It effectively rationalises and consolidates existing zones and reserves in local planning schemes with intended future land uses identified in a number of strategic documents, including local planning strategies and structure plans.

The areas identified on the maps are based on the general consideration of:

- current zonings and reservations within applicable local planning schemes; and
- other strategic planning documents including local planning strategies, structure plans, layout plans and/or growth plans where relevant.

The extent of current land uses generally reflects that of applicable existing zones and reserves in current local planning schemes; and future land uses generally reflect where land has been identified in other documents for a different (typically more intensive) land use than that identified in the current scheme.

Planning instruments that have informed the preparation of the settlement land-use mapping within the Shire of Halls Creek include the:

- Draft Shire of Halls Creek Local Planning Scheme No. 2; and
- Shire of Halls Creek Local Planning Strategy 2016.

As a general guide, a broad description of what each landuse category considers is provided below:

Residential	Areas that are predominantly zoned in relevant local planning schemes for residential land uses
Future residential	Areas that have been identified predominantly for future residential land uses through relevant strategic planning processes
Rural residential	Areas that are predominantly zoned in relevant local planning schemes for rural residential land uses
Rural	Areas that are predominantly zoned in relevant local planning schemes for rural land uses
Commercial	Areas that are predominantly zoned in relevant local planning schemes for commercial land uses
Industrial	Areas that are predominantly zoned in relevant local planning schemes for industrial land uses
Public purposes and utilities	Areas that are predominantly reserved in relevant local planning schemes for public purposes and/or utilities
Recreation and open space	Areas that are predominantly reserved in relevant local planning schemes for recreation purposes
Conservation	Areas that are predominantly reserved in relevant local planning schemes for conservation purposes
Aboriginal settlement	Areas that are predominantly identified as a recommended settlement zone in relevant layout plans, and/or are zoned in relevant local planning schemes for the purposes of Aboriginal settlement
Investigation area	Areas that have been identified through relevant strategic planning processes where alternative future land uses may be considered subject to further investigation. This may include areas from plans in preparation or in draft form

2.2 Development status

To gain a general understanding of the potential capacity of currently zoned and potential future- zoned land within each settlement, a broad assessment has been undertaken of the development status of applicable land identified for **residential**, **commercial**, **industrial** and **rural residential** purposes. Generally, the assessment involved a visual interpretation of aerial photography and cadastral information.

This assessment has been undertaken for those settlements where the applicable land uses occur within the map extents.

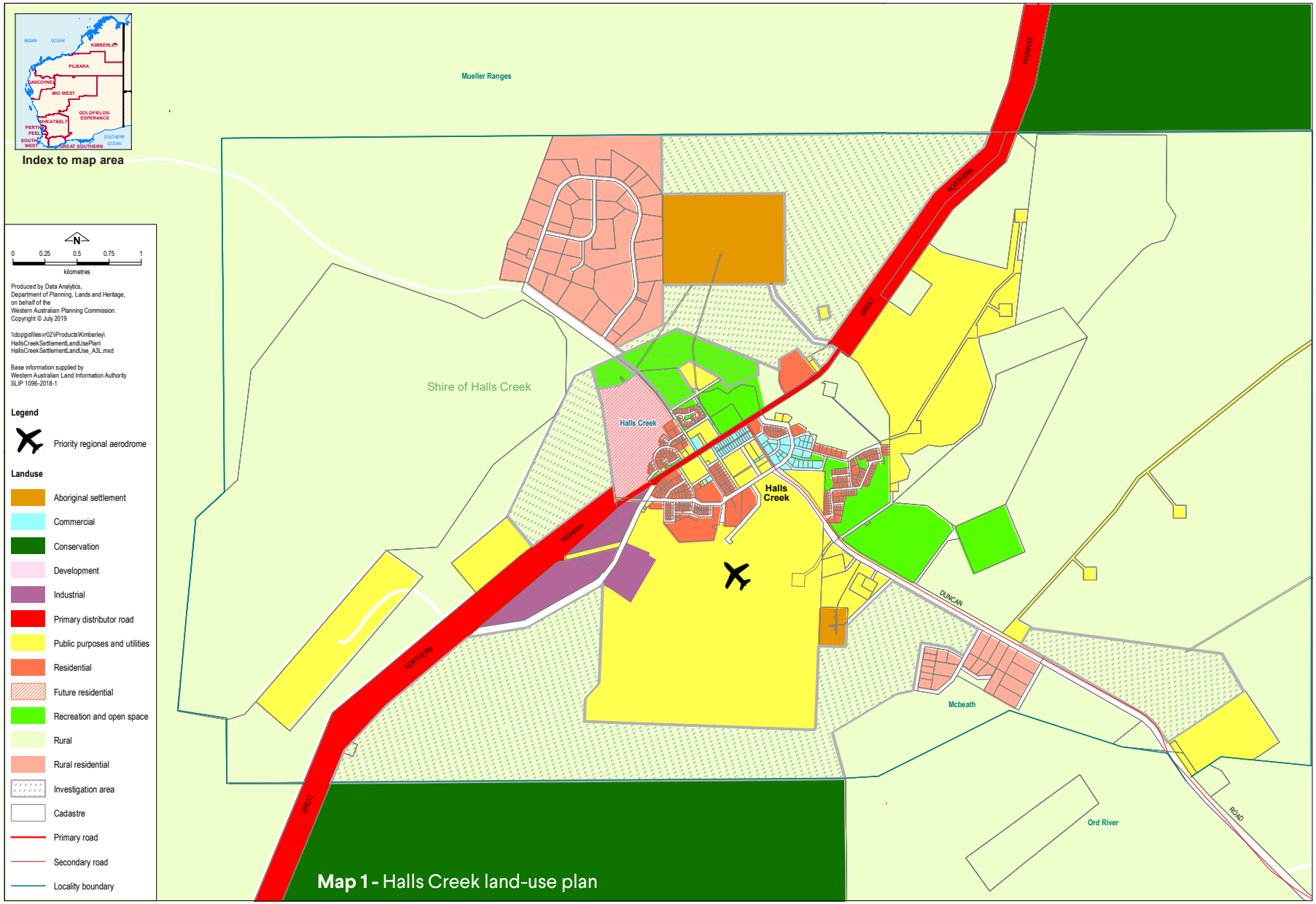
Applicable areas within the Halls Creek map extent have been assessed and considered as being 'developed' or 'capable of substantial further development' as described below.

> ***Developed:*** broadly considered as land where development exists or where the necessary infrastructure and services to accommodate development exist. Subdivision is generally consistent with its zoning, however existing urban areas that could potentially accommodate increases in density through urban infill are considered to be 'developed.'
>
> ***Capable of substantial further development:*** land 'capable of substantial further development' consists of undeveloped or underdeveloped land on greenfield sites, where subdivision reflective of its zoning is yet to exist. In some instances however, land may have conditional subdivision approval or be part of a broader structure planning process that still needs to be finalised. It is important to note that the development of areas that are currently considered to be capable of substantial further development may be subject to a number of constraints; including scheme amendments, structure planning, infrastructure provision, environmental and heritage issues.

Table 1 summarises the development status of each applicable land-use category for all relevant settlements, representing a set of total figures for the entire local government area. It consolidates all data from **tables 2** and **3**, which summarise the development status of each applicable land-use category as it relates to the individual settlements.

Table 1: Shire of Halls Creek – development status of land

	Total (ha)	Developed (ha)	Capable of substantial further development (ha)
Residential	52	37	15
Future Residential	33	0	33
Residential and Future Residential	**85**	**37**	**48**
Rural Residential	171	132	39
Future Rural Residential	0	0	0
Rural Residential and Future Rural Residential	**171**	**132**	**39**
Commercial	11	11	0
Future Commercial	0	0	0
Commercial and Future Commercial	**11**	**11**	**0**
Industrial	38	0	38
Future Industrial	0	0	0
Industrial and Future Industrial	**38**	**0**	**38**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KIMBERLEY
PILBARA
GASCOYNE
MID WEST
WHEATBELT
GOLDFIELDS-ESPERANCE
PERTH
PEEL
SOUTH WEST
GREAT SOUTHERN
SOUTHERN OCEAN
INDIAN OCEAN
N
0 0.25 0.5 0.75 1
kilometres
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Base information supplied by Western Australian Land Information Authority SLIP 1096-2018-1
Legend
Priority regional aerodrome
Landuse
Aboriginal settlement
Commercial
Conservation
Development
Industrial
Primary distributor road
Public purposes and utilities
Residential
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Rural
Rural residential
Investigation area
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Primary road
Secondary road
Locality boundary
Mueller Ranges
Shire of Halls Creek
Halls Creek
Halls Creek
GREAT NORTHERN HIGHWAY
GREAT NORTHERN HIGHWAY
DUNCAN ROAD
Mcbeath
Ord River
Map 1 - Halls Creek land-use plan

3. Capacity analysis

The assessment of the development status of current and future land uses enables a broad-level capacity analysis of the residential development potential of land within the Shire of Halls Creek. The Department of Planning, Lands and Heritage has prepared such an analysis that:

- estimates the potential additional population yield of current and future residential and rural residential lands for each relevant settlement; and
- considers possible implications for the local government area's residential land situation in the context of the *Western Australia Tomorrow 2031* population forecasts.

Table 2 in section 3.1 summarises the estimated additional capacity of each applicable land-use category in Halls Creek. Further analysis is presented in section 3.2 that relates this information to the *Western Australia Tomorrow 2031* population forecasts.

When considering the outputs of the analysis, it is important to note that additional capacity is assumed to be accommodated exclusively in areas that are currently considered as being capable of substantial further development. This means that the estimates generally do not account for possible land capacity increases due to infill and/or redevelopment of existing developed areas, and from this perspective are considered broad in nature and is likely to underestimate the potential overall capacity.

A capacity analysis for commercial and industrial lands necessarily requires assumptions to be made on employment density. There are currently limitations in the available data required in order to make reasonable assumptions in this regard. In particular, relatively small statistical sample sizes – something that is prevalent in regional areas – compromise the reliability of using the available data for such an application. It is considered that further investigation is required to ascertain representative rates of employment density for commercial and industrial lands in regional areas, and accordingly a capacity analysis of commercial and industrial lands is not included in this paper at this stage.

3.1 Potential capacity of residential and rural residential lands

For **residential** and **rural residential** land uses, potential capacity has been calculated according to scenarios that assume different average development densities that are applicable to each of those land uses.

Potential additional lot and population yields have been estimated for each respective current and future land use category and this is presented in **Table 2**.

Table 2: Halls Creek – estimated capacity of residential and rural residential lands deemed capable of substantial further development

Estimated capacity of residential and rural residential lands deemed capable of substantial further development				Estimated potential population yield from additional lots [2]
Relevant land-use category	Area (ha)	Average density / average lot size	Potential lot yield [1]	
Residential	15	R10	100	280
		R20	199	557
		R30	299	837
Future Residential	33	R10	215	602
		R20	429	1,201
		R30	644	1,803
Residential and Future Residential	**48**	**R10**	**315**	**882**
		R20	**628**	**1,758**
		R30	**943**	**2,640**
Rural Residential	39	1 ha	29	81
		2 ha	15	42
		4 ha	7	20
Future Rural Residential	0	1 ha	0	0
		2 ha	0	0
		4 ha	0	0
Rural Residential and Future Rural Residential	**39**	**1 ha**	**29**	**81**
		2 ha	**15**	**42**
		4 ha	**7**	**20**

1 For residential land, the 35 per cent of land necessary to support land requirements for public open space and streets (Liveable Neighbourhoods, 2007) has been factored into these figures. For rural residential land, a 25 per cent allowance from gross land areas has been applied to account for the relevant land requirements to support development for these particular land uses.

2 The population yield per dwelling is calculated at 2.8 people per dwelling unit (average people per household for the Halls Creek (LGA) – Australian Bureau of Statistics (2016 Census).

Based on the potential population yield calculations in **Table 2**, estimated total population figures for the Shire of Halls Creek are provided for low, medium and high density development scenarios, which are presented in **Table 3**.

Two subsets are considered within each scenario:

- **'A'** considers the potential additional population yield of all residential and rural residential land capable of further development at the average density or lot sizes attributable to that particular scenario
- **'B'** considers the potential additional population yield of all residential, future residential, rural residential and future rural residential land capable of further development at the average density or lot sizes attributable to that particular scenario.

These figures assume that all additional population in the local government area is accommodated on residential and rural residential lands deemed capable of substantial further development in Halls Creek.

Table 3: Shire of Halls Creek – estimated potential population capacity

Scenario [1] (average density of residential land / average lot size of rural residential land		Current population [2]	Estimated potential population yield from additional lots [3]	Estimated total population [4]
1. Low-density scenario (R10 / 4 ha / 40 ha)	1A	3,490	300	**3,790**
	1B	3,490	902	**4,392**
2. Medium-density scenario (R20 / 2 ha / 20 ha)	2A	3,490	599	**4,089**
	2B	3,490	1,800	**5,290**
3. High-density scenario (R30 / 1 ha / 8 ha)	3A	3,490	918	**4,408**
	3B	3,490	2,721	**6,211**

[1] Scenarios consider the estimated potential population capacity of the Shire of Halls Creek through estimating the potential additional population capacity of land with a residential land use that has been deemed capable of substantial further development.

[2] Shire of Halls Creek Local Government Area, 2018 Preliminary Estimated Residential Population (Australian Bureau of Statistics, 3218.0 – Regional Population Growth 2017-18).

[3] As per the relevant assumptions as described for **Table 2**.

[4] The 'estimated total population' is the sum of the 'current population' and the 'estimated potential population yield from additional lots' column.

3.2 Comparison of potential capacity estimates with the *Western Australia Tomorrow 2031* population forecasts

Western Australia Tomorrow ***2031*** (Western Australian Planning Commission, 2018) contains population forecasts produced by the State Demographer and are considered to be the State's official population forecasts.

Table 4 presents the *Western Australia Tomorrow 2031* population forecasts for the Shire of Halls Creek.

The figures in the 'additional population' column are the difference between the 2031 forecast population and the Australian Bureau of Statistics 2018 Preliminary Estimated Residential Population for the Shire of Halls Creek (3,490).

Significantly, these forecasts provide a point of comparison for interpreting the potential capacities of residential land as determined through this analysis.

For further information on these forecasts, please refer to www.dplh.wa.gov.au/information- and-services/land-supply-and-demography/ western-australia-tomorrow-population-forecasts

Table 4: Shire of Halls Creek – *Western Australia Tomorrow 2031* population forecasts (WAPC, 2018)

WA Tomorrow forecast bands	2031 forecast population	Additional population
WA Tomorrow – Band A	**2,930**	-560
WA Tomorrow – Band B	**3,460**	-30
WA Tomorrow – Band C	**3,670**	180
WA Tomorrow – Band D	**3,920**	430
WA Tomorrow – Band E	**4,505**	1,015

The additional population figure reflects the difference between the 2031 forecast population and the local government area's current population as per the latest issue of ABS 3218.0 – Regional Population Growth.

3.2.1 Estimated additional residential land requirements to accommodate population forecasts

Table 5 presents estimates for the amount of residential land that would be required to accommodate the additional population for each of the population forecasts. Estimates are presented according to three different average densities of residential development, being R10, R20 and R30.

These estimates are compared to the total of all current residential and future residential land in Halls Creek identified as being capable of substantial further development. The figures under the 'surplus' column indicate the magnitude of the potential

surplus of residential land from the extents currently identified once the additional forecast population has been allowed for. A negative figure in this column indicates a shortfall in the identified areas of residential lands relating to that required to accommodate the additional population from the relevant forecast.

The estimates in **Table 5** assume:

- all population growth occurs on residential and future residential land that has been identified as being capable of substantial future development in this analysis. To keep the calculations relatively straightforward, they do not consider additional population being accommodated on rural residential lands, nor do they take into account potential increases in population occurring due to infill development. They therefore likely overestimate residential land requirements;
- a 35 per cent allowance from gross land areas for various requirements to support development (e.g. public open space, streets, other infrastructure); and
- the number of people per dwelling remains constant.

Based on the current extents of zoned residential land and land identified for future residential purposes, this analysis suggests that there is a sufficient amount of land capable of substantial further development to cater for the population growth anticipated in the *Western Australia Tomorrow 2031* population forecasts for the Shire of Halls Creek.

Please note, this component of the analysis considers the local government as a whole rather than each individual settlement. This is mainly due to the alignment of available data inputs at this geographic scale.

Table 5: Shire of Halls Creek – estimated additional residential land requirements to accommodate population forecasts

	Residential [1]							
WA Tomorrow forecast bands	Additional population	Current and future land capable of substantial further development (ha) [2]	R10 average density		R20 average density		R30 average density	
			Estimated land required to accommodate additional population (ha) [3]	Surplus (ha) [4]	Estimated land required to accommodate additional population (ha) [3]	Surplus (ha) [4]	Estimated land required to accommodate additional population (ha) [3]	Surplus (ha) [4]
WA Tomorrow – Band A	-560	48	**-31**	79	**-15**	64	**-10**	59
WA Tomorrow – Band B	-30	48	**-2**	50	**-1**	49	**-1**	49
WA Tomorrow – Band C	180	48	**10**	38	**5**	43	**3**	45
WA Tomorrow – Band D	430	48	**24**	25	**12**	37	**8**	40
WA Tomorrow – Band E	1,015	48	**56**	-7	**28**	20	**19**	30

[1] These estimates assume that all population growth occurs on residential and future residential land that has been identified as being capable of substantial future development in this analysis. To keep the calculations relatively straightforward, they do not consider additional population being accommodated on rural residential or rural smallholdings lands, nor do they take into account potential increases in population occurring due to infill development. The estimates are therefore likely to overestimate residential land requirements.

[2] Total area of current and future residential lands capable of substantial further development as per relevant figures from **Table 1**.

[3] A 35 per cent allowance from gross land areas to support land requirements for public open space and streets (Liveable Neighbourhoods, 2007) and a population yield per dwelling of 2.8 people per dwelling unit (average people per household for the Broome (LGA) – ABS 2016 Census) have been factored into the estimated areas of residential land required to accommodate forecast additional populations.

[4] A positive figure in this column indicates that the additional population under the relevant population forecast should be able to be accommodated within the areas of residential and future residential land currently identified, without additional residential land being required. A negative figure represents the shortfall in the identified areas of residential lands with respect to that required to accommodate the additional population.