



RESIDENTIAL LAND RELEASE STRATEGY



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1.0 INTRODUCTION

The gazettal of the North Coast Regional Environmental Plan in 1988, set in place requirement for Councils to prepare and adopt Urban and Rural Land Release Strategies. This document aims to satisfy the NCREP and also seeks to guide future land use decisions in an integrated manner. As such, this strategy proposes to address Residential (Urban), land needs.

The North Coast Urban Planning Strategy further highlights the need to pre-determine preferred land use options, tailoring them to local wishes and ensuring that they are consistent and compatible with regional goals.

Kempsey Local Environmental Plan 1987 applies to the whole of the Kempsey Local Government Area. It was gazetted on 29th May, 1987 after an arduous process of preparation, exhibition and appraisal. Doubtless there will be need for continual adjustments to the plan as Council strives to keep it relevant to current issues. Throughout these amendments to the plan, it is important that consistent and logical direction be maintained. This Residential Land Release Strategy is a critical part of achieving that goal.

1.1 KEMPSEY SHIRE LAND RELEASE STRATEGY 1990

The first strategy has been in place since mid 1990. There has been one (1) review of the urban and residential components in that time.

There has been two (2) major releases of land under the strategy, being through Amendments No. 19 and 38 to Kempsey L.E.P. 1987. However, these only relate to the rezoning of land for rural residential purposes. A number of smaller individual releases have also occurred.

With the release of the 1996 Census data, it is now appropriate to review and reset where necessary the directions of the strategy.

2.0 AIMS AND OBJECTIVES OF THIS STRATEGY

This strategy aims to:-

- a) guide and direct future land use decisions in an integrated and orderly manner;
- b) ensure that future growth is accommodated within environmentally suitable lands which are able to be economically serviced;
- c) satisfy the requirements of the North Coast Regional Environmental Plan 1988; and
- d) be consistent with the provisions of the North Coast Urban Planning Strategy.

The objectives are to:-

- a) establish a sound foundation for estimating demand for urban residential lands;
- b) determine the existing supply of appropriate lands for urban residential activities;
- c) determine the amount and type of land required for future urban residential demands;
- d) identify the location and amount of suitable land available for expansion, taking into account physical and servicing constraints; and
- e) determine strategic development options for available lands within relevant time frames.

3.0 URBAN RESIDENTIAL LAND

Clause 38(3) of the North Coast Regional Environmental Plan 1988 states that:-

- "(3) *The (urban release) strategy referred to in subclause (1) shall -*
- (a) be based on a land release program and population projections agreed between the council and the Director;*
 - (b) give preference to development resulting in urban growth on land that adjoins other land which is already being used for urban purposes and is the most economic to service;*
 - (b1) not provide for development of land which is suitable for urban growth due to its agricultural capability or which adjoins land that is currently used for agriculture;*
 - (c) not include for development land that is unsuitable due to any environmental hazard unless the council has made an assessment of the risk and considered it to be minor or alternatively has made provision for the control or reduction of that hazard;*
 - (d) not include for development land which has conservation value or which has heritage, environmental or cultural significance;*
 - (e) have regard to the rural character and heritage significance of villages and small coastal settlements and the need to maintain that character and significance; and*
 - (f) provide substantial buffer areas between coastal urban centres to avoid uninterrupted coastal development."*

3.1 RESIDENTIAL ZONES IDENTIFIED IN KEMPSEY LOCAL ENVIRONMENTAL PLAN 1987.

Kempsey L.E.P 1987 provides for the following residential zones:-

- 2(a) Residential 'A'
- 2(b1) Residential 'B1'
- 2(b2) Residential 'B2'
- 2(c) Residential 'C'
- 2(d) Residential (Tourist Facility) 'D'
- 2(v) Village or Township

The essential distinctions between the zones are:-

- 2(a) Residential 'A'. To provide for low density traditional residential development. Subdivision is permitted into allotments of not less than 500m².
- 2(b1) Residential 'B1'. To provide for medium density housing compatible in character with detached housing. Subdivision is permitted into allotments of not less than 500m².
- 2(b2) Residential 'B2'. To provide for higher residential densities and holiday rental accommodation. Subdivision is permitted into allotments of not less than 800m².

- 2(c) Residential 'C'. To provide for centrally located residential and holiday accommodation within South West Rocks. Subdivision is permitted into allotments of not less than 800m².
- 2(d) Residential (Tourist Facility). To provide for tourist developments with ancillary facilities such as retailing, recreational and service facilities. Subdivision of this land is merits based.
- 2(v) Village or Township. This zone provides for a wide range of land uses including low to medium density residential. Subdivision is permitted into allotments of not less than 500m².

3.2 STUDY AREA AND LOCALITIES

The study area for the Urban Residential Strategy embraces the key urban areas of Kempsey, South West Rocks, Crescent Head, Frederickton, Stuarts Point, Hat Head, Smithtown, Gladstone, Bellbrook, Willawarrin, Jerseyville, Kinchela and Kundabung.

3.3 PROTECTION OF VILLAGE CHARACTER

Clause 38(3)(e) of the North Coast Regional Environmental Plan 1988 states that Council's urban land release strategy shall:

have regard to the rural character and heritage significance of villages and small coastal settlements and the need to maintain that character and significance.

Clause 38(3)(f) states that the strategy shall:

provide substantial buffer areas between coastal urban centres to avoid uninterrupted coastal development.

These matters are addressed below.

3.3.1 Coastal Settlements

The coastal settlements of Kempsey Shire, Stuarts Point, South West Rocks, Hat Head and Crescent Head each have unique constraints that will prevent the type of coastal sprawl referred to in 38(3)(f). These constraints operate through landform, tenure, infrastructure and planning controls.

Stuarts Point is the northern-most of the coastal towns. At present it has sufficient residentially zoned land (2(v) Village) to cater for long term urban expansion. This will not proceed, however, until sewerage infrastructure is provided. Under DCP No. 22 - Local Housing Strategy, Stuarts Point is designated as a low density area with single dwellings only permitted. Further, DCP 12 - Stuarts Point, has as one of its objectives "to identify, enhance and protect the key elements which comprise the present character of Stuarts Point without removing the incentive for development".

South West Rocks is the fastest growing urban area in Kempsey Shire. It is constrained to the east by Hat Head National Park, to the south by Spencers Creek, to the west by the Macleay River and to the north by the Pacific. Population growth will be catered for within those barriers. Council is mindful of preserving the village character of South West Rocks and has taken a

number of steps in this direction. The town centre has a three storey height limit, as does the 2(b2) zone. The remainder of the area is limited to 2 storeys. A Town Centre Master Plan presently being prepared will further reinforce the village atmosphere of the town.

Hat Head is a small village of 334 permanent residents which is totally surrounded by the Hat Head National Park. Some land is available for further development, but this is constrained until sewerage infrastructure becomes available. It is also designated as low density area in DCP 22.

Crescent Head lies at the southern end of the Hat Head National Park. It is constrained to the west by the 1:100 year flood level, to the south by 7(d) (Scenic Protection) and 7(f1) (Coastal Lands Protection) zones. DCP 22 has designated certain areas with the town as high, medium and low density, within the existing height limits of Kempsey Shire LEP 1987.

3.3.2 Rural Villages

The villages of Bellbrook, Willawarrin, Fishermans Reach, Jerseyville, Kinchela, Kundabung, Smithtown and Gladstone are all designated as low density areas in DCP 22. Development is further constrained by the absence of sewerage infrastructure in all but Smithtown and Gladstone. Both of these towns are subject to flooding which precludes further residential subdivision. Investigations are presently underway into the provision of small scale sewage treatment plants for Bellbrook, Willawarrin and Kundabung, under the State Government's Small towns Sewerage Funding Program. This may permit further residential development in the future.

4.0 SERVICING STRATEGY

Planning for future urban development and the requisite infrastructure are complementary activities. This strategy has been developed in the interests of the provision of efficient and cost effective physical infrastructure to serve future urban development. As Council principally supplies water, sewer, transport and waste disposal services, these are the main service issues addressed in this strategy.

4.1 WATER SUPPLY

Kempsey Shire Council operates seven (7) separate water supply schemes, Kempsey District Water Supply, South West Rocks Water Supply, Crescent Head Water Supply, Hat Head Water Supply, Stuarts Point Water Supply, Willawarrin Water Supply and Bellbrook Water Supply.

4.1.1 Kempsey

The Kempsey District Water Supply Scheme serves Kempsey and surrounding areas including Frederickton, Gladstone, Smithtown, Belmore River, Kinchela, Clybucca and contingent rural areas (also to South West Rocks if necessary). The majority of the scheme was constructed in the late 1960's.

Water is sourced from a borefield adjacent to the Macleay River at Sherwood (eight bores - two of which provide standby capacity), and an infiltration well at Belgrave Falls, being the limit of tidal influence upon the Macleay. The scheme has headworks capacity of 20 ML/day, with licence capacities of 9900 ML a year at Sherwood and 5,000 ML/year at Belgrave Falls. Greenhill Reservoir (capacity 9.1 ML) and Potters Hill (13.65 ML) act as storage, with further reservoirs at Frederickton (1.15 ML), Clybucca (1.1 ML), Billygoat Hill (2.15 ML) and John Lane Road (2.5 ML).

An additional water supply comprising a borefield (4 bores) and treatment plant on Hat Head Road near Kinchela was commissioned in 1997. This water supply has a capacity of 2.2 ML/day and is currently maintained as a standby supply for drought periods. The water has high iron levels.

The scheme is currently undergoing a major augmentation to meet future demands and to provide greater drought security. This includes the recently completed construction of Stuart McIntyre Dam and associated works.

4.1.2 South West Rocks

Water is sourced from 12 bores, 5 of which are used regularly, located in the Hat Head National Park, and pumped to two (2) reservoirs (acting as terminal storage), Gregory Street (15 ML) and Gregory Street (3.4 ML). A booster pump station at Belle O'Connor Street pumps to the 1 ML New Entrance Reservoir, serving the elevated areas at New Entrance. A variable speed/constant pressure booster pumping station in Cardwell Street, serves the high areas of Arakoon. A 23 KL reservoir at Arakoon provides reserve capacity in the event of a booster pump failure.

The existing scheme, originally constructed in 1966, has barely sufficient capacity to meet peak summer demands. A Department of Land and Water Conservation study (1989) determined the installed capacity of the borefield as being 4.2 ML/day, with 7 ML/day being feasible while satisfying environmental constraints. A further bore was constructed in 1995 as an emergency drought relief measure, and provides capacity for a further 0.75 ML/day. The licence capacity of the borefield is 2500 ML per annum.

Council is aware that the population growth of South West Rocks is such that it is approaching the capacity of the present water supply scheme. Council is presently working with the Department of Public Works in exploring the merits of four (4) proposed alternative water supply augmentation schemes, with a decision likely in the near future.

For the time being, Council is meeting demand through demand management of the district water supply system, moving water from low demand areas to South West Rocks during times of high demand.

4.1.3 Crescent Head Water Supply Scheme

The scheme was initially constructed in 1967, and meets the current demand. The village of Crescent Head (approximate population 1250) is supplied.

Water is sourced from 3 bores at Maguires Crossing in the Hat Head National Park and pumped 11 kilometres to a holding dam at Crescent Head. Two reservoirs supply the village, Big Nobby Reservoir (1.14 ML) serving the elevated regions and Back Beach reservoir (2.5 ML) serving the remainder.

Planned augmentation, work which includes additional water treatment and roofing of the holding dam, will improve water quality.

4.1.4 Hat Head Water Supply Scheme

The scheme was originally constructed in 1968, and recent augmentation involving construction of a further reservoir and aeration "skyrocket" tower will meet immediate demand.

Water is sourced from 3 bores located approximately 1.5 KM south-west of the village within Hat Head National Park. The water is pumped to two (2) terminal storage reservoirs, with a total capacity 1.78 ML.

4.1.5 Stuarts Point Water Supply Scheme

The scheme was constructed in 1984 and supplies the villages of Stuarts Point, Fishermans Reach and Grassy Head and surrounding rural areas.

Water is sourced from three (3) bores, located approximately 2 KM south of Stuarts Point village, and pumped to Stuarts Point Reservoir (3.2 ML).

Augmentation is planned for the water treatment plant and the reticulation system. The augmentation will reduce the levels of arsenic, iron and chlorine in the water to acceptable standards and reduce the frequency of watermain breaks.

4.1.6 Willawarrin Water Supply Scheme

The scheme was constructed in 1974 and meets the demand imposed upon it by the village of Willawarrin.

Water is sourced from two (2) bores located in the shingle bed of the Macleay River south of the village. Both bores are mainly used in summer. The reticulation is gravity fed from a small reservoir (0.14 ML).

4.1.7 Bellbrook Water Supply Scheme

The scheme was originally constructed in 1967, and amplified with the construction of two (2) new in-shingle bores and rising main in 1993.

The village of Bellbrook is gravity fed from a single small reservoir (0.14 ML) and current demand is being met.

4.2 SEWAGE TREATMENT

4.2.1 Overview

The EPA licenses Council's six (6) sewage treatment works. The North Street, West Kempsey plant treats the largest volume of effluent in the Shire. North Street, South Kempsey, Gladstone, Frederickton and South West Rocks are tertiary treatment plants. Crescent Head is currently secondary but augmentation to tertiary treatment is to be considered in the future. Hat Head Reserve is primary with an ocean outfall at The Gap. Crescent Head has an outfall at Little Nobby while South West Rocks uses a dune disposal site.

Proposals to construct a sewage treatment plant at Hat Head are still on-going. Council is still in the process of determining the best effluent disposal option, and the most suitable site for location of the plant. A dune disposal site was favoured, but concerns about impacts on groundwater have cast some doubt over this option. Alternative site evaluations are on-going.

Council's Water and Sewerage Steering Committee is currently evaluating the appropriate sewerage scheme options for Willawarrin, Bellbrook and Kundabung. This has been enabled by recent provision of State Government funding for sewerage schemes for towns of <1000.

4.2.2 South West Rocks

South West Rocks has one Sewage Treatment Plant (STP) located south west of the main town development area. It has nominal a design capacity of 6,000 EP which compares favourably with the town's population (1996 Census) of 3,963. However, South West Rocks is a popular holiday destination and the design capacity is reached each year for brief periods during the Christmas and Easter holidays. Increased flows are also experienced on weekends during this period due to the influx of local residents to the coast. Further, the resident population of South West Rocks is projected to rise to 7,633 by the year 2016. As a result, Council has finalised plans for an augmentation of the plant to a capacity of 12,000 EP. This augmentation also includes the town's sewerage transport system to permit the development of additional serviced residential land to cater for the projected population increase. It will be undertaken 2001-2002.

The Pasveer Channell treatment system used at the plant is designed to cope with brief periods of peak loadings beyond its nominal design capacity. Council's Operations Department considers the system capable of meeting peak demand loads until such time as the augmentation is completed.

Comparison of projected population growth with available land identified in this strategy indicates a shortfall of land occurring around the year 2008. Discussions between Council's planning and engineering staff have identified suitable additional areas for development extending north west from Spencerville to New Entrance. Council is presently considering options to provide a sewage collection system to this

area. The proposed augmentation of the treatment works will provide the capacity for this expansion.

4.2.3 Hat Head

At present Council has resolved not to approve any further residential subdivision of land until a reticulated sewerage scheme is established. Work on this has commenced with an initial round of public consultation undertaken and a Review of Environmental Factors soon to be finalised.

The system proposed will have a capacity of 2,000 EP with the potential for expansion to 3,000. This capacity is necessary to cope with peak holiday loads. The scheme is planned to be completed and operational by January 2001.

The parcel of land identified as HH1 in this strategy has recently been subdivided into 23 x 1 hectare lots (approximately). Upon commissioning of the scheme some owners may wish to subdivide into residential allotments.

4.2.4 Kempsey

The West Kempsey sewerage scheme provides services to customers located in West Kempsey, Central Kempsey and some of East Kempsey. The current system has a capacity of 12,000 equivalent population (EP) and a loading of approximately 7,000 EP.

Council operates a separate scheme to serve residents in South Kempsey and parts of East Kempsey. This scheme also serves a number of the industries located in Kempsey, including the Akubra Factory. The system has a total treatment capacity of 5,400 EP with a current loading of approximately 4,000 EP.

It can be seen that Kempsey has a total treatment capacity of 17,400 EP, and a current loading of approximately 11,000 EP. This capacity is adequate to service the projected growth of Kempsey beyond 2016.

4.2.5 Crescent Head

Crescent Head is located approximately 21 km south east of Kempsey on the coast. The current permanent system loading is approximately 1,600 EP, however this can increase to a peak loading of up to 2,300 EP during holiday periods. The system's capacity has recently been upgraded from 2,000 EP to 4,000 EP.

The scheme was originally commissioned in 1975 and utilises 3 pump stations to transfer effluent to the treatment works located 1.25 km north west of the village. The works consists of two 1,000 EP Pasveer Ditch Units and a 2,000 EP intermittent decanted extended aeration (IDEA) plant which treats the effluent to a secondary standard, including phosphorous removal. The treated effluent is then transported via a rising main to an outfall for discharge to the ocean.

The Environment Protection Authority required Council to develop an effluent management strategy before it would allow the commissioning of the additional 2,000 EP capacity of the treatment works. Council's proposed management strategy has recently been accepted by the EPA and work is in progress to implement it. This will be adequate to service the town's projected growth beyond 2016.

4.2.6 Smithtown/Gladstone

This sewerage scheme serves the towns of Smithtown and Gladstone, which are separated by the Macleay River. The population of Smithtown is approximately 600 and Gladstone is approximately 400. Growth within the two towns has stabilised and Council does not anticipate much growth in the future. The current treatment capacity of the Scheme is 2,000 EP.

The system consists of UPVC pipes and requires 8 pumping stations to transport the sewage, due to the flat terrain of the towns. The sewage is pumped to the sewage treatment works located to the south west of Gladstone. The works consists of one Bathurst Box style plant (with no nutrient removal) and tertiary ponds. The effluent is discharged to the Macleay River under licence from the Environment Protection Authority.

4.2.7 Frederickton

Frederickton serves as a satellite town of Kempsey. The current population is 990 and is expected to continue growing over the next twenty (20) years. The capacity of the scheme is 1,000 EP.

The sewerage scheme serving Frederickton was constructed in 1980. Due to the topography of the town, the system relies mostly on gravity sewers and utilises 3 pumping stations to transfer the sewage to the treatment works. The works consists of a Pasveer Channel Plant for secondary treatment and tertiary ponds for disinfection. After treatment Council is licenced to discharge the effluent to the Macleay River. However, the majority of effluent is drawn off for reuse by a nearby cattle farmer and the local golf course. In dry periods this reuse can amount to 100% of total effluent flows.

The treatment works is currently coping with the sewage loads, despite being close to capacity. Augmentation of the plan will however be required within the near future. Space for the addition of a second Pasveer Channel was allowed in the original design of the works.

4.3 WASTE DISPOSAL

In terms of land availability and landuse, waste disposal is adequately catered for in the Shire. Council currently operates four (4) solid disposal sites (Crescent Head road, Stuarts Point, South West Rocks and Bellbrook). This number has reduced following the closure (in recent years) of several sites that served the smaller urban centres.

The majority of waste is directed to the Central Depot landfill on the Crescent Head Road, (which has operated since 1986), thereby allowing for more economic operations (it is expected to meet waste disposal requirements for approximately 100 years). The isolation of some areas requires that rural rubbish tips continue to operate at South West Rocks, Bellbrook and Stuarts Point. Green waste is sent from South West Rocks to the Central Depot. Green waste is stockpiled at the Central Depot for recycling.

All waste depots (except Bellbrook) are managed by private contractors who are in charge of on-site recycling. This is mainly restricted to the sale of aluminium, glass, some metals and bric-a-brac. Rates cover the cost of kerbside collection service. Other deposits of garbage at depots are charged an access fee depending on the nature of the garbage, e.g. green, domestic or commercial.

Council is currently assessing the potential for expansion of the central depot. The current landfill site is only 4 hectares in area, and on current use rates, has another 10 years life expectancy. However, with increasing population and to meet Council's "Year 2000 Solid Waste Management Target", the central depot will need to be expanded so that a recycling depot can be established to reduce the quantity of wastes going into landfill. It is predicted that recycling will reduce solid waste quantities entering landfill by 60%. Council wishes to develop some of the 150 hectare special reserve set aside, for the rubbish depot.

A Threatened Species Assessment is currently being undertaken although it is expected expansion will cause no significant effect on endangered flora or fauna or their environment, particularly since the area has a history of previous disturbance, especially fire. An EIS is currently being prepared to review other factors. The site is expected to meet the needs of the Macleay for the next century.

4.4 TRANSPORT

The transport network is predominately based on roads. Private vehicle ownership is high (1.3 per household - 1996 Census), and travel distances between urban centres may be over 20 kms. The relatively low number and density of people (average 7.8/km²) in the region limits economical public transport to within Kempsey and between Kempsey and the villages.

The Pacific Highway forms the major north-south route through the Shire, with other regional roads linking the coastal settlements to the highway. The Armidale Road (a low volume, gravel road) is the region's most direct link to the New England Tablelands and upriver settlements. It is also the major transport route for the NSW Forestry operations.

The Sydney-Brisbane Railway passes through the Shire, with a station at Kempsey. There is no light rail in the Shire.

Three (3) operations run daily tourist buses servicing Kempsey on the Sydney-Brisbane route. Local bus services are provided by local operators, servicing residential and commercial areas.

4.5 POWER SUPPLY

Power supplied to Kempsey is sourced from power stations in the Hunter Valley and transmitted through substations at Armidale and Taree. This allows supply to be maintained in the event of an unplanned disconnection of one of these substations from the network. At present, if the line from Armidale to Kempsey were to be automatically disconnected at times of heavy load, the backup supply via Taree may

not be capable of meeting demand. To overcome this, additional capacity is required.

As a result of this situation Transgrid is proposing a new transmission line from Coffs Harbour to Kempsey. This line will improve the reliability of supply and support further development in the area.

At present an Environmental Impact Statement for the project is being exhibited for public comment. The overall project is scheduled for completion in early 2001.

5.0 RESIDENTIAL LAND DEMAND

5.1 POPULATION CHARACTERISTICS

The growth rate for the Kempsey L.G.A., exhibited by the 1991-1996 intercensal period was solid, and there appears to be no reason why an overall steady growth rate will not be maintained for the next decade.

Growth during the next decade is likely to occur mostly in coastal villages such as South West Rocks and in the rural - residential areas surrounding Kempsey Township.

Table 1 Projected Populations to 2016*

Locality	1986 Census	1991 Census	1996 Census	2001	2006	2011	2016
Kempsey	9335	9823	9045	9475	9923	10389	10875
South West Rocks	1947	3287	3963	4948	5944	6841	7597
Crescent Head	1098	1209	1175	1318	1474	1646	1809
Frederickton	762	825	885	976	1072	1170	1274
Stuarts Point	591	687	736	854	981	1120	1272
Smithtown	581	603	570	580	589	598	607
Gladstone	398	361	392	398	404	410	416
Hat Head	355	350	326	329	332	335	338

* Assuming available land supply and infrastructure and based on steady to slightly declining growth rates

5.2 CONVERTING POPULATION PROJECTIONS TO DEMAND

The population projections in Table 1 may be used to indicate future land needs by calculating the approximate demand in allotments the additional population would generate. This relies on assumptions for occupancy rates and development densities.

Additional population to be accommodated in the 5 year periods from 1996 through to 2016 are estimated below:-

Table 2 Projected Population Increases

Locality	1996-2001	2001-2006	2006-2011	2011-2016
Kempsey	430	448	466	486
South West Rocks	985	996	897	756
Crescent Head	143	156	172	163
Frederickton	91	95	98	104
Stuarts Point	118	127	139	152
Smithtown	10	9	9	9
Gladstone	6	6	6	6
Hat Head	3	3	3	3

Using 1996 Census data for Structure of Dwellings, it is possible to determine the average number of persons per dwelling for each urban centre. For the purposes of this section the term "Dwellings" includes single detached houses, semi-detached, row or terrace houses, townhouses, flats or apartments. It does not include caravans, improvised homes, campers, or flats attached to shops or offices.

Occupancy rates are based on the number of persons in occupied dwellings, divided by the total number of dwellings.

Table 3 Occupancy Rates

Locality	No Persons in Occupied Dwellings	Total Dwellings	Occupancy Rate (1996) (p.p.d)
Kempsey	8132	3461	2.4
South West Rocks	3649	2013	1.8
Crescent Head	1098	622	1.8
Frederickton	882	349	2.5
Stuarts Point	681	344	2.0
Smithtown/Gladstone	958	397	2.4
Hat Head	305	261	1.2

Development densities have been estimated using the area of land zoned residential and currently developed for that purpose as determined from Council's Geographical Information System (MAPINFO) and using 1996 Census data of the total number of dwellings.

Table 4 below provides approximations of existing Development Densities within Council's Urban Centres.

Table 4 Existing Development Densities

Locality	Zoned Developed Residential Land (ha)	Total Dwellings	Approximate Density (dph(net))
Kempsey	303	3461	11.4
South West Rocks	163	2013	12.4
Crescent head	32	622	19.4
Frederickton	49	349	7.1
Stuarts Point	29	344	11.9
Smithtown/Gladstone	43	397	9.2
Hat Head	19.4	261	13.5

5.3 FUTURE LAND REQUIREMENTS

Future land requirements will be influenced by densities able to be achieved in developing new areas. Department of Urban Affairs Planning policy seeks to achieve densities of 15 dph (gross/neighbourhood) which is significantly higher than that currently being developed.

Council's planning provisions combined with SEPP 25 and other subdivision mechanisms such as Strata Titles and Community Titles, mean that it is possible to achieve approximately 15 dph (net). Generally developers and the market place appear to prefer the lesser densities summarised in Table 4 above. Council has prepared a Local Housing Strategy, which, seeks to increase densities in towns able to support such development in terms of infrastructure, services and impact on amenity. Densities sought for these areas would be a minimum of 11 dph (net) aiming for 15 dph (net).

Calculation of future demand for Residential Land will be based on no change in exhibited occupancy rates (1996 Census) and on observed development densities.

Table 6 Future Demand for Residential Land (ha)

Locality	1996-2001	2001-2006	2006-2011	2011-2016
Kempsey	15.7	16.4	17	17.8
South West Rocks	44.1	44.6	40.2	33.9
Crescent Head	4.1	4.5	4.9	4.8
Frederickton	5.1	5.4	5.5	5.9
Stuarts Point	5	5.3	5.8	6.4
Smithtown ∅	-	-	-	-
Gladstone ∅	-	-	-	-
Hat Head ◆	-	-	-	-

∅ No further subdivision permitted due to flooding constraints.

◆ Growth rates are so low that corresponding land needs appear negligible.
However, the provision of sewerage infrastructure may change this situation.
Monitoring of actual building approvals necessary.

6.0 RESIDENTIAL LAND SUPPLY

In section 5.0 demand is calculated on the ABS intercensal 5 year periods. Existing data on Residential Lands is based on supply as at end 1996.

6.1 LAND AVAILABILITY AND TYPES

Residential land supply is based on two components - existing subdivided vacant residential and unsubdivided residentially zoned land.

The unsubdivided residentially zoned land has been briefly assessed for its development potential and discounted where appropriate.

The "Residential Land Supply Register" is reproduced at Schedule 1 in the rear of this document and provides information on the location, area (hectares) discounting assumptions and potential lot yield at 11 dph (net). Maps of various "release areas" form part of this Schedule.

Table 7 below summarises existing residential land supplies.

Table 7 Residential Land Supply as at 31st December 1996

Locality	Vacant Subdivided Land		Existing Unsubdivided Land		Total Zoned Land
	ha	lots	ha	lot equivalents	ha
Kempsey	10	114	46.9	430	56.9
South West Rocks	16	176	83.1	918	99.1
Crescent Head	5	57	9.8	95	14.8
Frederickton	13	81	7.5	90	20.5
Stuarts Point	5	39	105	1270	110
Smithtown	1.2	7	◆	◆	1.2
Gladstone	0.6	4	◆	◆	0.6
Hat Head	3	34	23	✱	26

- ∅ "Lot Equivalents" have been based on achieving densities of 11 dph (net). An average of one dwelling per lot has been assumed with wide variation in lot size depending on a combination of lot creation mechanisms, e.g. Strata Title, Community Title, SEPP 25 or larger traditional lot sizes under Cl. 16 of KLEP 1987.
- ◆ Significant amount of land available in Smithtown and Gladstone, however, both villages are flood affected and Clause 12 of Kempsey Local Environmental Plan 1987 precludes further residential subdivision.
- ✱ Both infrastructure (sewerage) and physical (topographical, drainage) constraints of land at Gap Road, Hat Head, make it difficult to estimate lot yield of the large parcel of undeveloped land owned by Ecrotear. A detailed investigation of constraints would be required to identify developable areas.

7.0 RESIDENTIAL LAND BALANCE SHEETS

Balance sheets for the years 2001, 2006, 2011 and 2016 are set out below:-

Table 8 Residential Land Balance Sheet 2001

Location	Supply (ha)	Demand (ha)	Shortfall(-) or Surplus (+) (ha)
Kempsey	56.9	15.7	41.2 (+)
South West Rocks	99.1	44.1	55 (+)
Crescent Head	14.8	4.1	10.7 (+)
Frederickton	20.5	5.1	15.4 (+)
Stuarts Point	110	5	105 (+)
Smithtown	1.2	-	-
Gladstone	0.6	-	-
Hat Head	26		

Table 9 Residential Land Balance Sheet 2006

Location	Supply (ha)	Demand (ha)	Shortfall (-) or Surplus (+) (ha)
Kempsey	56.9	32.1	24.8 (+)
South West Rocks	99.1	88.7	10.4 (+)
Crescent Head	14.8	8.6	6.2 (+)
Frederickton	20.5	10.5	10 (+)
Stuarts Point	110	10.3	99.7 (+)
Smithtown	1.2	-	-
Gladstone	0.6	-	-
Hat Head	26		

Table 10 Residential Land Balance Sheet 2011

Location	Supply (ha)	Demand (ha)	Shortfall (-) or Surplus (+) (ha)
Kempsey	56.9	49.1	7.8 (+)
South West Rocks	99.1	128.9	29.8 (-)
Crescent Head	14.8	13.5	1.3 (+)
Frederickton	20.5	16	4.5 (+)
Stuarts Point	110	16.1	93.9 (+)
Smithtown	1.2	-	-
Gladstone	0.6	-	-
Hat Head	26		

Table 11 Residential Land Balance Sheet 2016

Location	Supply (ha)	Demand (ha)	Shortfall (-) or Surplus (+) (ha)
Kempsey	56.9	66.9	10 (-)
South West Rocks	99.1	162.8	63.7 (-)
Crescent Head	14.8	18.3	3.5 (-)
Frederickton	20.5	21.9	1.4 (-)
Stuarts Point	110	22.5	87.5 (+)
Smithtown	1.2	-	-
Gladstone	0.6	-	-
Hat Head	26		

7.1 Issues

Tables 8, 9, 10 and 11 above illustrate the projected demand and supply for residential land for the main urban areas of Kempsey Shire Council. The Shortfall (-) or Surplus (+) hectare column indicates the projected undeveloped residential land which will be available at five (5) year intervals following the subtraction of the cumulative demand for residential land, in hectares. It therefore indicates at which point in the future more residential land would need to be made available to cater for projected population growth for each of the indicated urban areas.

The tables indicate that all of the towns and villages addressed in this strategy have sufficient residentially zoned land to cater for medium to longer term growth (5 to 10 years or more), with the exception of South West Rocks and Crescent Head. This situation is a result of both extensive areas of vacant residential land and modest growth rates for most of the urban areas of Kempsey Shire Council, with the notable exception of South West Rocks and possibly Crescent Head. Therefore this strategy does not seek to identify "release areas" for the bulk of the urban settlement within the Council area, as suitably zoned land and services are already available.

7.2 South West Rocks

South West Rocks is growing strongly, increasing its population from 3,287 to 3,963 people during the 1991-1996 Census period. At present rates the town is likely to only have approximately 10 hectares of residentially zoned land available for development by 2006. Whilst this precludes the need for further rezonings in the short term (i.e. the next 1-2 years), it will be necessary to rezone land to accommodate growth in the medium and longer terms (i.e. 5 to 10 years). These areas are identified on the map at Schedule 2, and are addressed below.

7.2.1 Medium Term Land

For the purposes of this study medium term land is considered to be land available within a five year time horizon. As illustrated in Table 9 above, by 2006 South West Rocks will only have approximately 10 hectares of residential land available for development, requiring further land to be released around that time or preferably sooner to avoid the possibility of market manipulation.

Five parcels of land have been identified for medium term release. Forming a contiguous development precinct running from Phillip Drive in the north through to Belle O'Connor Street in the south. These parcels are as follows:

- 1) Lot 504 DP 774359 Phillip Drive
- 2) Lot 509 DP 850963 Phillip Drive
- 3) Lot 19 DP 882846 Phillip Drive
- 4) Lot 52 DP 831284 Belle O'Connor Street
- 5) Lot 2 DP 645213 Belle O'Connor Street

This area was first identified in the South West Rocks Structure Plan (1995) as being generally suitable for urban/residential uses in accordance with Council's standard policies and guidelines. As discussed earlier Council's water supply scheme and sewerage treatment plant are almost at capacity, but this is not considered to be a constraint on the future development of this land as work is well in hand to expand the capacities of the respective utilities. By the time this land is rezoned and available for development the service capacity of the water supply scheme and sewerage treatment plant will have been increased to comfortably cater for further urban development.

7.2.2 Medium Term Land Structure Plan

Council has prepared a preliminary structure plan (see Schedule 3) for this area which details the general manner in which development should proceed, subject to the particular constraints which apply. These are identified in Section 8 of this document.

The structure plan reflects the extent of the 400 metre buffer zone to the sewage treatment plan and the location of the 7(a) Wetlands area adjoining Saltwater Lagoon Road access is from Belle O'Connor Street and Phillip Drive but does not link the two due to the location of the 7(a) Wetlands area and the 1:100 year flood area which runs into Saltwater Lagoon. It is not considered appropriate, given the current lack of information on flood levels and catchment hydrology, to contemplate the construction of a road through the area.

7.2.3 Long Term Land

For the purposes of this study the long term is considered to be a 10 year time horizon. The land identified for long term release at South West Rocks is indicated in Schedule 2, and is presently zoned 1(d) Rural (Investigation) and covers 160 hectares.

It was identified in the South West Rocks Structure Plan as being suitable for residential development. The Structure Plan also identified a possible "western distributor" traffic route to link this area with New Entrance to the west and Spencerville to the south.

The recently completed South West Rocks Sewer Strategy has been developed to provide a sewage transport system to this area as part of the South West Rocks Sewer Augmentation. As noted above, work on the augmentation will commence in 2001.

7.3 Crescent Head

Crescent Head lost population in the 1991-1996 Census period, declining from 1209 people to 1175. Further monitoring of the take up rate of residential land will be necessary as it is considered that there is the possibility of increased development activity due to general improvements in the economy since the early nineties. As noted earlier, the Crescent Head Water Supply is planned for augmentation, and the existing sewage treatment plan has a capacity of 4,000 EP, which compares favourably with the projected 2016 population of 1809. Servicing will not pose a constraint to growth.

Table 10 above indicates that Crescent Head has enough residentially zoned land to cater for demand until around 2011. There is presently approximately 26 hectares of land adjoining the eastern boundary of the town zoned 1(d) Rural (Investigation). This land was identified in the "5 Kilometre Radius of Crescent Head Study" of 1994 and will cater for long term demand, subject to the appropriate studies.

8.0 MATTERS FOR FURTHER INVESTIGATION

The land identified in this strategy, whilst having been assessed as being generally suitable for urban/residential development, will require further investigations into certain issues at the rezoning stage. These issues are addressed below.

8.1 MEDIUM TERM LAND

8.1.1 Flooding

The site generally falls away from the north (Phillip Drive) to the south. The southern half is affected by either flooding or to varying degrees of stormwater or water table inundation. It will be necessary for the rezoning to address the actual area affected by 1:100 year flooding as well as addressing the potential impacts of development on flooding in the area, including possible downstream and upstream increases in flood levels. The flood study would also need to establish the overall design, location, size and impact of appropriate flood and drainage control structures.

8.1.2 Drainage

The site drains largely towards Saltwater Lagoon, which is a part of a relatively natural and important coastal and estuarine wetland system. Saltwater Lagoon is also a State Environmental Planning Policy No 14 (SEPP 14) wetland and it is important to retain the natural, recreational and habitat values and overall water quality of the lagoon and adjoining wetland areas. Therefore a prime objective of drainage of any future development of this area will be protection of water quality and avoidance of an increase in localised flooding. It needs to be established whether urban runoff can eventually be discharged into Saltwater Lagoon and whether any works are required in the SEPP 14 wetland area.

Any rezoning will need to give consideration to the identification and implementation of drainage concepts and proposals based on current best practice guidelines.

8.1.3 Acid Sulfate Soils

In low lying coastal situations such as this there is a risk of encountering acid sulfate soils (ASS). Testing and investigation may be necessary at rezoning stage to establish the likelihood of the presence of ASS or potential ASS.

8.1.4 Petrochemical Contamination

The issue of possible petrochemical contamination associated with the former oil terminal sites to the north is well known and documented. It will be necessary for a full contamination assessment to be undertaken as part of the rezoning process for Lot 19 Phillip Drive. However, it should be noted that sampling carried out in respect to the rezoning of adjoining land at Waiabar Avenue by the owner indicated that no surface or sub-surface contamination of the area had occurred. This is consistent with extensive reports provided to Council in respect to decontamination of the ex-oil terminal which indicate that all contamination has occurred in a northerly direction away from Lot 510.

8.1.5 Buffer Zone to Sewage Treatment Plant

A minimum buffer distance of 400 metres is generally required between residential development and a sewage treatment plant the size of the South West Rocks plant, especially given that works are due to commence to double its capacity. The reason for a buffer of this size is odour, the risk of aerosols and related public health concerns.

Experience has shown that treatment plants can be a source of nuisance to local residents (e.g. odour, perception, noise, etc.) Maintaining the prescribed 400m buffer is desirable as it will most likely eliminate nuisance complaints. However, it is possible to provide for a lesser buffer if it can be demonstrated that unique local circumstances (e.g. topography, prevailing wind patterns, etc.) make it possible to reduce the buffer without reducing the amenity of residents.

The rezoning should determine whether the 400m minimum buffer is to remain, and if not, provide a basis or justification for reducing it.

8.1.6 Archaeological Considerations

An assessment of the archaeological sensitivity of the land should be undertaken. This should include an assessment of the sensitivity of the landscape elements and consultation with the local Aboriginal community. Dependent on the outcome of this assessment, there may be a need for an archaeological survey of the area to be undertaken by a suitably qualified person.

As part of a development consent condition for a land clearing application for 30 hectares of Lot 510, the landowner consulted with and engaged the services of the Kempsey Local Aboriginal Land Council to investigate the potential for archaeological material. No artefacts were found within this area. Thus, while the potential for the presence of archaeological materials/artefacts appears low it is suggested that the applicants consult again with the Kempsey Local Aboriginal Land Council to confirm that there are no archaeological artefacts on the site and that no further archaeological survey is required, bearing in mind the kind of development being proposed.

8.1.7 Threatened Species, Populations, Ecological Communities or their Habitats

The rezoning process should include consideration of the potential impact on threatened species, populations or ecological communities, or their habitats as defined under the Threatened Species Conservation Act. Matters which should be specifically addressed include:

- (i) all impacts associated with the proposed development ranging from the direct impacts of the construction of dwellings and infrastructure to indirect, on-going impacts such as potential increased access to the wetland and its buffer;
- (ii) the proximity of the land to Saltwater Lagoon which is within Hat Head National Park and forms part of SEPP No 14. The Wallum Froglet (*Crenia tinnula*) a threatened species, has been recorded near this wetland and the area is likely to provide habitat for a number of additional species;
- (iii) an assessment of the likelihood of the subject land being used by migratory wildlife needs to be undertaken and the need (or otherwise) for site specific surveys needs to be determined;

- (iv) description of the vegetation associations occurring on the subject land and reference to the conservation status of the vegetation types;
- (v) describe and assess the integrity and condition of the vegetation associations occurring on the subject land and assess against similar associations in the region.

Part of the subject area (approximately 30 hectares) has been the subject of an application to clear vegetation for the purposes of tea tree farming.

When being evaluated for an agricultural purpose the SEPP 46 assessment found the following:-

- (i) the specific vegetation to be cleared was not remnant vegetation in a region that has been extensively cleared;
- (ii) the area to be cleared does not have high biological diversity;
- (iii) the vegetation is not consistent with types considered to be riparian vegetation;
- (iv) clearing in the area under SEPP 46 application is not likely to have a significant effect on species movement;
- (v) vegetation within the area to be cleared is adequately represented in the State's conservation reserve system;
- (vi) removal of *Banksia ericifolia* within the area to be cleared is not considered to have a significant impact on the food source of honey eaters;
- (vii) the land to be cleared is not critical habitat nor does it contain any threatened populations or threatened ecological communities;
- (viii) clearing is unlikely to have a significant effect on threatened species, populations or ecological communities or their habitats.

If the above assessment/evaluation of the site's flora, fauna and habitat was made for an agricultural proposal it seems reasonable to question why the same assessment would not apply to another form of development that would involve clearing of vegetation. It would seem, as part of the rezoning, that there is a need to examine the flora, fauna and habitat issues over that part of the site that has not been cleared or disturbed as part of the tea tree plantation proposal.

8.2 LONG TERM LAND

As well as addressing the above issues, with the exception of the site specific issues of petrochemical contamination and sewage treatment plant buffer, the land identified for development in the long term will have to address the following.

8.2.1 Slope Stability

This area includes the western-most ridgeline of South West Rocks which runs from Spencers Creek to New Entrance and as such has varying potential for slope

instability, slope failure and soil erosion. Any future rezoning would have to consider these issues and provide for development densities accordingly.

8.2.2 Scenic Quality

The rezoning process would need to consider the scenic quality of the landscape components of the area and define landscape management zones based on their scenic quality and level of viewing from the surrounding landscape. Whilst the footslopes have a moderate visual quality, it is clear that the heavily forested slopes and ridgelines have a high visual quality and form a significant visual backdrop to the presently developed areas.

8.2.3 Bushfire Risk

Bushfire hazard assessment is based on site location, vegetation type, and slope. It is clear when considering these issues that a bushfire hazard assessment would be an essential part of any rezoning application for the subject land. This is because:-

- (a) The site is in the eastern fire zone of NSW;
- (b) The site contains dense sclerophyll forest; and
- (c) The site contains medium to steep slopes.

An assessment undertaken as part of the South West Rocks Structure Plan determined a bushfire hazard rating of medium to high

9.0 RESIDENTIAL LAND RELEASE STRATEGY

Conclusions may be drawn from Tables 8, 9, 10 & 11 as to whether further land should be made available in a specific locality and approximately when that provision should occur.

If Council aims to provide a 20 year supply of residential land, in each urban centre then the following conclusions are made:-

- | | |
|-------------------------|--|
| Kempsey | - According to calculations there is sufficient residentially zoned land to accommodate urban expansion up to the year 2011. However, Kempsey lost population of the 1991-1996 census period, leading to a decline in demand for residential land. Further monitoring of the Kempsey situation will be necessary before determining a land release program. |
| South West Rocks | - There is sufficient residentially zoned land to accommodate urban expansion beyond the year 2006. A release of some 60-70 hectares would be appropriate to establish a 20 year supply. |
| Crescent Head | - Based on exhibited demand there is sufficient residentially zoned land to accommodate growth until 2011. However, exhibited demand in recent years may also have been depressed through lack of available lots possibly due to the recently resolved Native Title Claim over residentially zoned Crown land at Baker Drive. A release of some 15-20 hectares or more is considered appropriate to provide adequate supply in the village. |
| Frederickton | - There is sufficient residentially zoned land to provide for 20 years supply. No action necessary. |
| Stuarts Point | - There is sufficient residentially zoned land to provide for long term urban expansion. No action necessary. Awaiting sewerage infrastructure. |
| Smithtown and Gladstone | - Both urban communities are subject to flooding which precludes further subdivision of residentially zoned land. Population growth in the villages has been minimal and no action is necessary. |
| Hat Head | - The village is landlocked by National Park but appears to have sufficient supplies of residentially zoned land to meet present population growth rates, however, some demand exists for holiday home and unit development. Development is constrained until sewerage infrastructure becomes available. Council has resolved to not approve any further residential subdivision of land until a reticulated sewerage scheme is established. Future growth is difficult to project and will need to be further monitored. No action necessary at this point. |

9.1 MONITORING THE STRATEGY

There are obvious limitations in a Strategy based on a series of assumptions about the future. Matters such as changing growth rates, occupancy rates and development densities can render a strategy devised in 2000 less and less meaningful with the passing of time. To avoid that situation, development within the various urban centres in the Shire needs to be regularly monitored and adjustments made to the Strategy where necessary.

SCHEDULE 1

RESIDENTIAL LAND SUPPLY REGISTER

Lot Equivalents after Discounts

KEMPSEY

Site Descriptions	Area	Discount	Estimated yield in lots	Comment
K1 West Street/Longworth Street South Kempsey	5.45 ha	-	65	Zoned Residential 2(a)
K2 West Street/Nicholson Street South Kempsey	0.8 ha	-	9	Zoned Residential 2(a)
K3 West Street South Kempsey	0.41 ha	-	4	Zoned Residential 2(a)
K4 West Street South Kempsey	4.17 ha	-	45	Zoned Residential 2(a) Adjacent to South Kempsey Industrial Estate
K5 Middleton Street South Kempsey				
K6 Reginald Ward St South Kempsey	6.4 ha	Land adjoins older housing and industrial area - unlikely to develop 100% discount Dept of Housing owned land	40	Zoned Residential 2(a). Refer to notes under "Discount".

K7	Craig St East Kempsey	1.9 ha	Some access difficulties, 33% discount	15	Zoned Residential 2(a)
K8	Wrights Lane East Kempsey	0.63 ha	Flood free land in good area	7	Zoned Residential 2(a)
K9	Hilton Trotter St West Kempsey	2.24 ha	1/3 flood affected 33% discount	18	Zoned Residential 2(a). Refer also to notes under "Discount".
K10	Cochrane St West Kempsey	0.36 ha	40% flood affected and adjoins removalist	2	Zoned Residential 2(a). Refer to notes under "Discount".
K11	Kemp Street north of Lawrence Cres. West Kempsey	3.05 ha	Adjoins Railway line - larger lots likely at rear. Approximately 25% flood affected, 25% discount	22	Zoned Residential 2(a) Refer also to notes under "Discount".
K11a	Kemp Street south of Lawrence Crescent, West Kempsey	3.08 ha	Adjoins railway line. Larger lots likely at rear. Allow 25% discount.	29	Zoned Residential 2(a)
K12	North St, West Kempsey Skillion Flat Pastoral Co	7.6 ha	Some flooding on fringe of site	90	Zoned Residential 2(a)
K13	Leith St, between Sea and Tozer Sts	1.7 ha	Insufficient depth for two rows of dwellings & access road, 20% discount	16	Zoned Residential 2(a)

K14	Leith St, between Tozer and River Sts	5.2 ha	Former quarry majority unsuitable 70% discount	19	Zoned Residential 2(a)
K15	Greenhill (excluding KLALC land which operates in conjunction with other government authorities)	4.0 ha	Some areas of older housing unlikely to develop, 20% discount	33	Zoned Residential 2(a)

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SOUTH WEST ROCKS

Site Descriptions	Area	Discount	Estimated yield in lots	Comment
SWR1 East of Gregory St and north of Arakoon Road, Spencerville	10 ha	Some sloping land toward the - larger lots needed, 30% discount	110	Zoned Residential 2(a)
SWR2 Walls land, Belle O Connor St	14.6 ha	20% discount slope	161	Zoned Residential 2(a)
SWR3 Saunders land Belle O Connor and Gregory Streets	10 ha	20% discount gully	110	Zoned Residential 2(b1)
SWR4 Multiple ownerships West of Gregory St	21.5 ha	Land for proposed CBD excluded. Some steep rocky ground with visual amenity. 30% discount slope	218	Zoned Residential 2(a). Two parcels on the corner of Gregory Street and Spencers Creek Road identified in the South West Rocks Structure Plan as a future commercial retail area.
SWR5 Frank Cooper St East of Gregory St	2.5 ha	-	28	Zoned Residential 2(b1)
SWR6 Frank Cooper St (sth) West of Gregory St	4.5 ha	Some slopes and rocky ground 10% discount	50	Zoned Residential 2(a)
SWR7 Frank Cooper St (nth) West of Gregory St	1.4 ha	-	16	Zoned Residential 2(a)

SWR8	Oxley Place Endeavour Est	0.4 ha	Filling required	5	Zoned Residential 2(b1)
SWR9	Gordon Young Drive	10 ha	Crown land affected by SEPP 14, 70% discount	110	Zoned 2(b1) Wetland and flora/fauna constraint. Refer to comment under "Discount".
SWR10	Various small parcels Old New Entrance Village	1.6 ha	In separate parcels older area, 20% discount	18	Zoned 2(a)
SWR11	Randale Pty Ltd land New Entrance	6.6 ha	Subdivision design prepared Steep slopes, larger lots needed 60% discount slope	73	Zoned 2(a)
SWR12	Phillip Drive	1 ha	-	12	Subject to rezoning
SWR13	New Entrance	2 ha	-	7	Subject to rezoning
				<hr/> 918 lots <hr/>	

CRESCENT HEAD

Site Descriptions	Area	Discount	Estimated yield in lots	Comment
CH1 Baker Drive (east side) Crown Land	9.8 ha	-	90-100	Zoned 2(a). Crown land the subject of a recently granted Native Title Claim. Land likely to be released in small stages over the next 10 years.
CH2 Point Plomer Road (west side) Crown land	26.43	Unknown	?	Zoned 1(d). Identified as Area E in Council's 1994 "5 Kilometre Radius of Crescent Head Study".
CH3 Killuke Mountain footslopes, off Crescent Head Road and west of Point Plomer Road	16.45	Discount of 20% for environmentally and scenically constrained areas	150	Zoned 1(c) and 7(d)
			<hr/> 250 plus <hr/>	

FREDERICKTON

Site Descriptions	Area	Discount	Estimated yield in lots	
F1 North of Great North Road	7.4 ha	No physical constraints Does adjoin cemetery No discount	90	Zoned 2(v) Village

STUARTS POINT

Site Descriptions	Area	Discount	Estimated yield in lots	Comment
SP1 Jag International land North of Ocean Avenue	56 ha	-	670	} All areas are currently zoned 2(v). } Stuarts Point is not sewered and } further urban subdivision and } development is restricted by this } servicing constraint. }
SP2 Jag International land South of Ocean Avenue	48 ha	-	585	
SP3 Other smaller parcels	1.2 ha	-	15	
			<hr/> 1270 <hr/>	

SMITHTOWN AND GLADSTONE

Both villages flood affected, Clause 12 of Kempsey LEP 1987 precludes Council from consenting to residential subdivisions in these villages.

HAT HEAD

Site Descriptions	Area	Discount	Estimated yield in lots	Comment
HH1 Kinchela St land adjoining Marlin Crescent	23 ha	33% discount for steep slopes at rear of land	187	The land is currently zoned 2(v). Further urban subdivision at Hat Head is limited by the lack of a reticulated sewerage scheme. Council has resolved to not approve any further urban subdivision at Hat Head until such time as a reticulated sewerage scheme is established. The parcel referred to as HH 1 is subject to physical topographical constraints such as steep slopes, low lying land and drainage. Further urban subdivision of the land will be limited by these physical constraints, the sewerage constraint and the recent fragmentation of the 23 ha parcel into approximately 23 x 1 ha lots.