

**Report No. 13.17**      **Brunswick Heads Parking Scheme Performance Review**  
**Directorate:**        Infrastructure Services  
**Report Author:**     Andrew Pearce, Traffic Engineer  
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5 **File No:**             I2019/873

**Summary:**

- 10 At the 23 May 2019 Council meeting, Council resolved to postpone any decision in relation to the Brunswick Heads Parking Scheme Performance Review for one month. The decision was postponed to enable staff time to consult with community groups and analyse infringement data in a more comprehensive manner.
- 15 The purpose of this performance review is to address Council resolution **18-626** and to present the observations and recommendations submitted by consultants and from the Brunswick Heads Chamber of Commerce.
- 20 The observations and recommendations associated with the Bangalow and Mullumbimby parking schemes were presented in separate reports to the 23 May Council meeting.

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**RECOMMENDATION:****That Council:-**

1. **Undertake an expanded Automated Number Plate Recognition (ANPR) survey of the Brunswick Heads parking scheme. The expanded ANPR survey area is to include:-**
  - i) **The existing Brunswick Heads parking scheme area,**
  - ii) **Fawcett Street, Mullumbimbi Street, Fingal Street and Booyun Street from Park Street through to Tweed Street**
  - iii) **East across the South Arm Bridge through to the Surf Life Saving Club**
  - iv) **South along Park Street from Fingal Street, through to Booyun Street.**
2. **Undertake an Economic Assessment of Brunswick Heads to understand the existing economic conditions, where visitors come from and how many of visitors are tourists versus locals**
3. **Investigate options to help increase compliance monitoring within the Brunswick Heads parking scheme through one or a combination of the following options:-**
  - a) **Increased patrolling through increasing the number of enforcement officers and associated patrolling equipment; and**
  - b) **Introduce parking technology, such as:-**
    - i) **In ground parking sensors**
    - ii) **Parking meters.**
4. **Integrate results and recommendations from the above items and report back to Council by May 2020 on recommended options to modify the parking scheme. (Options are to include, but not limited to, recommended modifications to time limits and recommended compliance monitoring options.)**

**Attachments:**

- 1 Report 23/05/2019 Council Brunswick Heads Parking Schemes - Performance Review, I2019/597
- 5 2 Brunswick Heads Parking Scheme Review, E2019/24122
- 3 Brunswick Heads Chamber of Commerce - Community Consultation, E2019/41243
- 4 Infringement data for report appendix, E2019/41244

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REPORT

**Council Resolution 18-626**

Council has undertaken a performance review of the parking schemes at Brunswick Heads in accordance with item 2 of Council resolution 18-626:

1. *That Council note the status and proposed actions relating to the parking schemes in Bangalow, Brunswick Heads and Mullumbimby.*
2. *That Council receive a further report detailing the performance review of the parking schemes at Bangalow, Brunswick Heads and Mullumbimby at the April 2019 Council meeting.*
3. *That within the current inactive zones associated with current parking layouts and existing kerb blisters, Council undertake a 12 month trial to provide free motorcycle and scooter parking spaces in the following:*
  - *Western edge of the beach front car park at the north end of Jonson St.*
  - *On southern edge of Bay St in front of the Beach Hotel.*
  - *The eastern end of Lateen Lane (aka Lawson Lane in Google maps)*
  - *Council car park at the north end of Middleton St.*
4. *That the current parking spaces for motorbike / scooter parking in Wategos be provided free of charge during the trial*

Items 3 and 4 relate to the installation of motorcycle parks within the Byron Bay and Wategos parking scheme and are not considered part of the Brunswick Heads parking schemes. As a result, these items were not considered as part of this review.

**1. Report Structure**

To address item 2 of the above resolution Council undertook a sustained Automated Number Plate Recognition (ANPR) survey of the Brunswick Heads Parking Scheme from April 2018 through to 28 January 2019.

Data collected from this survey and from Council's parking permit system was collated by Staff and provided to our consultant for statistical analysis and recommendations.

Based on the above process the report has, therefore, been structured in the following way:-

Section 2 is an overview of the data collected to undertake an analysis of the parking scheme.

Section 3 is an overview of the surrounding context to better understand the potential impact regionally significant developments may have on parking schemes in the near future.

Section 4 presents the observations and recommendations from:

- i) The TPS analysis,
- ii) The Brunswick Heads Chamber of Commerce (CoC),
- iii) Council's comments in response to the CoC requests,
- iv) Council review of Council's infringement data, and
- v) Council recommendations based on these observations and analysis.

**2. Data Collection**

Attachment 1 relates to the previous Council report submitted as part of the May Council meeting and provides a detailed discussion of the type of data collected as part of this review.

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**3. Surrounding Context**

Attachment 1 relates to the previous Council report submitted as part of the May Council meeting and provides a detailed discussion of the surrounding context.

**10 4. Parking Scheme Review**

This section presents:-

- The observations and recommendations submitted by Traffic and Parking Systems (TPS) who were engaged by Council to undertake an analysis of the parking data discussed in Section 2 above.
- Requests and recommendations submitted by the Brunswick Heads Chamber of Commerce
- Observations and recommendations coming out of Council's analysis of infringement data.

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It is important to note while considering the observations and recommendations that the proper operation and performance of a parking scheme depends on a number of issues, such as:

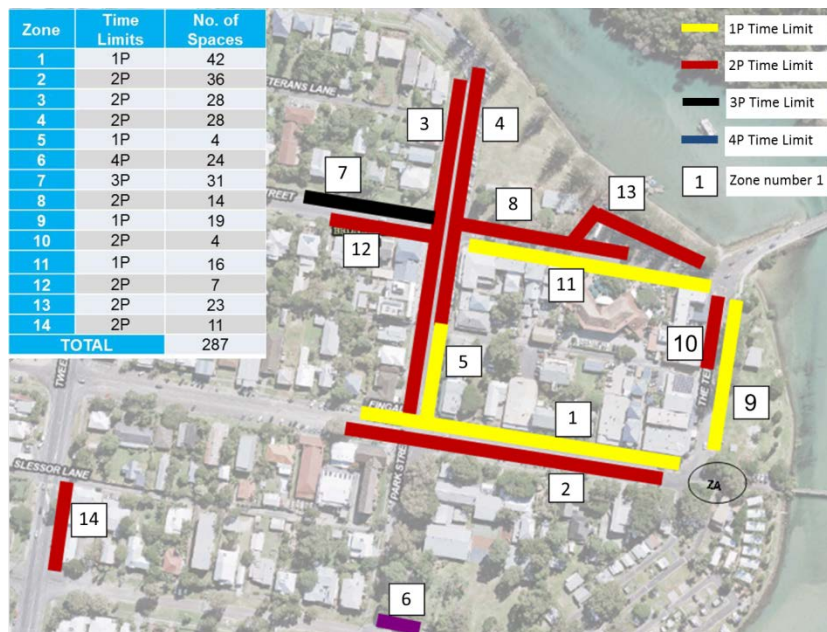
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- i. Adequate supply and distribution of different time zones;
- ii. Supply vs Demand;
- iii. Turnover rates;
- iv. Number and type of infringements;
- v. Adequate number and location of bus zones, loading zones, mobility spaces, EV charging stations, car share spaces and taxi ranks.
- vi. Ability to efficiently monitor and enforce compliance;

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**4.1. Existing Parking Scheme**

The figure below illustrates the location of each time zone and time limits within each zone.



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Figure 1: Existing time limits and parking zones

Below is a summary of the number of car spaces within Brunswick Heads parking scheme.

<b>Zone</b>	<b>Time Limits</b>	<b>Number of Car Spaces</b>
<b>1</b>	1P MON-SUN 9:00AM 5:00PM	42
<b>2</b>	2P MON-SUN 9:00AM 5:00PM	36
<b>3</b>	2P MON-SUN 9:00AM 5:00PM	28
<b>4</b>	2P MON-SUN 9:00AM 5:00PM	28
<b>5</b>	1P MON-SUN 9:00AM 5:00PM	4
<b>6</b>	4P MON-SUN 9:00AM 5:00PM	24
<b>7</b>	3P MON-SUN 9:00AM 5:00PM	31
<b>8</b>	2P MON-SUN 9:00AM 5:00PM	14
<b>9</b>	1P MON-SUN 9:00AM 5:00PM	19
<b>10</b>	2P MON-SUN 9:00AM 5:00PM	4
<b>11</b>	1P MON-SUN 9:00AM 5:00PM	16
<b>12</b>	2P MON-SUN 9:00AM 5:00PM	7
<b>13</b>	2P MON-SUN 9:00AM 5:00PM	23
<b>14</b>	2P MON-SUN 9:00AM 5:00PM	11
<b>TOTAL</b>		<b>287</b>

**5 4.2. TPS Observations**

Traffic and Parking Systems (TPS) were engaged by Council to undertake a Parking Scheme Review of Brunswick Heads. Below is a summary of the Brunswick Heads parking scheme observations and recommendations presented within the TPS report (refer to Attachment 2).

When looked at from a zone by zone basis, the majority of zones are operating at or near capacity for a large part of the year (capacity is defined as 90% of available spaces) – refer to page 4 Conclusions and Recommendations of Attachment 2.

Only zones 7, 8 and 12 have regular parking opportunities to any significant degree. Because these 3 out of 14 zones are not currently operating at or near capacity, parking supply within Brunswick Heads is currently adequate when the parking scheme is considered as a whole.

However, there is evidence that demand across all zones will approach capacity in the next 5 years. Based on the expected population growth discussed in *Surrounding Context* and the observations regarding time infringements (discussed below) this is considered to be an accurate assessment.

Given most zones are currently operating at or near capacity and all zones are expected to be at or near capacity within 5 years TPS recommend substantially more intensive and extensive compliance monitoring.

TPS observed the following time infringement concerns within the following zones:-

- a) Medium to longer time zones 6, 7 and 13 (which have 4hr, 3 hr and 2hr time limits, respectively) had considerable time infringements.
- b) Medium time zone 12 (2 hr on the periphery of the parking scheme) had a high level of time infringement during low demand periods.
- c) Shorter time zone 11 (in the centre of the parking scheme) had a high level of time infringement during high demand periods.

- d) Shorter term zones 1, 3 and 9 (1hr, 2hr and 1 hr, respectively, in the centre of the parking scheme) had a high level of time infringement during both low and high demand periods.

TPS concluded the over stay of time limits within the medium and longer term time zones (located on the periphery of the parking scheme) are probably forcing people to over stay time limits within the central, shorter time zones. This is because people wanting to stay longer may not find available longer term spaces so they resort to parking in short time zones, and over stay the time limits. Given the parking scheme is operating at or near capacity any time infringement has an amplified impact as there is limited to no vacant spots to ensure regular turnover.

In addition to the above TPS observations there are a number of community issues associated with the area east of South Arm Bridge. Of particular consideration is the potential re-categorisation of Crown Land managed by Council, namely: the land on which the Brunswick Heads Surf Club and Tennis Club are located. The categorisation of this land is currently under review with the land potentially becoming classified as Natural Area. If this area is re-categorised as Natural Area the majority of car spaces located adjacent to the surf club and tennis court will be lost

#### **4.3. TPS Recommendations**

Based on the above observations TPS propose the following recommendations.

##### **4.3.1. TPS Recommendation 1: Increase Enforcement**

The parking scheme has sufficient supply, provided time limit enforcement is substantially increased. This will ensure long term parking is pushed out to the periphery and all day parking is pushed to all day areas.

##### **4.3.2. TPS Recommendation 2: Additional ANPR surveys over a wider area**

The need for increased enforcement may cause more cars to push out into the all day parking areas and cause problems in these areas. Anecdotally, Council staff has observed these surrounding all day parking areas adjacent to the parking scheme already have a significant number of cars parked in these areas.

To ensure the increased enforcement does not significantly impact the all-day areas in a negative way, additional ANPR surveys after changes / implementations are introduced is recommended by TPS. These additional surveys should include the following areas:-

- i) Across all of current time limited zones
- ii) West along Fawcett St, Mullumbimbi Street and Fingal Street through to Tweed Street (referred to as the "Town Zone")
- iii) East across the South Arm Bridge through to the Surf Life Saving Club (referred to as the Beach Zone)
- iv) South along Park Street from Fingal Street to Booyun Street (part of the "Town Zone").

Figure 4.3.2 below illustrates the areas where it is recommended to undertake an expanded ANPR survey.

*Figure 4.3.2: Extent of existing and recommended expanded parking scheme*





Council recommends adopting this recommendation for several reasons.

- 5        i) Classification of Crown land along the South Beach Road is currently under review with significant implications in regards to parking layout and parking supply. As presented to the 6 June Strategic Planning Workshop, reclassifying Crown Land as Natural Land or General Community Use land with modifications to parking layout may potentially reduce the existing 360 (approx.) car spaces down to 190 (approx.). Given Council does not have accurate data in relation to parking demand in this area, if the parking supply is reduced in such a significant manner it is unclear what impact this would have on the parking supply within the Brunswick Heads CBD area. There is a realistic possibility that overflow parking may occur within the Brunswick Heads CBD with patrons walking across the bridges to the beaches. As a result, it is recommended Council undertake an additional ANPR survey east of the South Arm Bridge to gain a clear understanding of the parking demand.
- 10
- 15        ii) If Council undertakes a redesign of the parking layout along South Beach Road accurate data in relation to parking demand is essential.
- 20        iii) Council compliance team anecdotally note that *“this is a very highly utilised area for parking, especially in peak season where it is full continuously”* along the full length of South Beach Rd.

**4.3.3.    TPS Recommendation 3: Increase 1P by 20%**

25        Within page 4 of the TPS reports Conclusions and Recommendations it is stated: “There is also some evidence from the survey data and analysis supporting the need to convert some 2 hour parking in the Centre to 1 hour parking. Nominally, a 20% increase in the 1 hour duration sector may be appropriate at the expense of the 2 hour sector.”

While this comment is not stated explicitly as a recommendation the Parking Scheme Performance Review report submitted to the 23 May Council meeting included a recommendation to increase the 1 hour parking by approximately 20%. TPS was asked to review this recommendation prior to submitting it to the 23 May Council meeting and after providing suggested alterations concurred with the recommendation.

The table below summarises the number of existing and proposed new time limit spaces based on the above TPS recommendations.

<b>Time Limit</b>	<b>Existing # of spaces</b>	<b>Proposed # of Spaces</b>
<b>1P</b>	81	97
<b>2P</b>	151	135
<b>3P</b>	31	31
<b>4P</b>	24	24
<b>TOTAL</b>	<b>287</b>	<b>287</b>

**4.4. Brunswick Heads Chamber of Commerce Consultation**

Council staff (Phil Holloway, Tony Nash and Andrew Pearce) met with representatives from the Brunswick Heads Chamber of Commerce (Kim Rosen and Michelle Begg) on Thursday 30 May, 2019. At the meeting the Chamber of Commerce raised a number of concerns and requests arising from the 23 May Council meeting report (refer to Attachment 3).

**4.4.1. Chamber of Commerce Requests**

A summary of their issues is presented below:

*i. E-Permits:*

*Would like to know how many residents within the Brunswick Heads Township own E-permits. Plus separate data for Ocean Shores/South Golden Beach and New Brighton.*

*ii. Modifications to Time Limits:*

*The BH CoC does not want to lose anymore 2 hour spaces to one hour spaces. They would like about 10-12 of the 2P spaces that were changed last year to 1 hour to be returned back to 2 hours because of the negative impact on businesses, especially on retailers. The spaces requested following consultation with BH CoC members are as follows: (see map attached)*

- 6 spaces - East side of Terrace from Soundshell to the bridge*
- 4 spaces - East side of Park St from Yamis to the corner of Mullumbimbi St & Park St*

- a. It was noted that Council does not intend to introduce new 4P spaces or introduce time limits east of South Arm Bridge. The BH CoC offered to help collect data on the number of car spaces used by employees.*
- b. The BH CoC would agree with 2hr timed (not metered) parking at Torakina Beach car park for short-stay swims and one 15 min timed drop off zone for family gear.*



- c. *The BH CoC noted the anomaly with the 15 minute signs not specifying Mon-Fri 9-5 as for other signs and requested this be added.*
- d. *The BH CoC does not want the 3 hour spaces on Mullumbimbi St changed to 2 hours for now as customers need these for hairdressers and longer visits to shops and the park.*
- 5 e. *BH CoC suggests that instead of changing the all-day parking on Park St south of the school to 2 hours, the drop off/pick up issue be addressed in consultation with the school by, eg:*
  - *“Kiss n Drop” with no parking between 8-9.30 & 2.30-4 (as discussed over a year ago)*
  - *Allocation of these spaces as 15 min 8-9.30 and 2.30-4 as per other school signage.*
- 10 *With no limits at other times. (This will stop all-day parking in this section).*

*The BH CoC would prefer the current all-day in Park St opposite the school and next to the Health food Shop to be changed to 4 hours instead of the suggested 2 hours, creating a continuous 4 hour zone from the Park/Fingal St intersection south of the CBD to CWA hall.*

- 15 f. *Re motor bike parking on the Terrace – a strategy or barrier is needed to stop cars parking in the motorbike parking area and sometimes up onto the kerb.*

iii. *Expanded ANPR Survey*

20 *Undertaking additional ANPR survey’s over an expanded area is supported. It recommended the expanded ANPR survey include Tweed St (between Booyun St and Mona Lane), Booyun St between CWA and Tweed St and east of the South Arm Bridge.*

iv. *Economic Assessment*

25 *It is requested that the Economic Assessment be undertaken prior to finalisation of any investigation into compliance monitoring options (i.e. increase of staff or introducing sensor parking technology).*

v. *Data collection*

30 *The BH CoC requested that data be collected to ascertain where business and school employees park - how many spaces are needed and how many all-day spaces are available in Fawcett St, Mullumbimbi St, Fingal St & Booyun St, before any recommendations are made to change any of the current all-day parking to 4 hour parking. The BH CoC offered to assist Council gather this data.*

35 vi. *Tourism Numbers*

*The BH CoC requested updated information on what percentage of tourists who visit the Shire actually visit Brunswick Heads.*

*This request for tourism numbers was discussed at the meeting and subsequent emails.*

40 **4.4.2. Councils response to the above Chamber of Commerce Requests**

The follow sections 4.4.2.1 to 4.4.2.3 present Council’s response to the above CoC requests and comments.

**4.4.2.1. E-Permits Data**

# BYRON SHIRE COUNCIL

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The CoC requested information in relation to the number of permit holders who come from Brunswick Heads and the immediate surrounding areas. As a result, Council undertook a review of all permit holders and identified how many of them came from Brunswick Heads and the immediate surrounding suburbs.

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Table 4.4.2a below presents a summary of every permit holder registered in the Byron shire permit database (whether a residential permit, worker permit, pension permit or disability permit) and what suburb they are registered in.

*Table 4.4.2a - Location of all E-Permit Holders by Suburb*

Suburb	No. of Permit Holders	Suburb	No. of Permit Holders	Suburb	No. of Permit Holders
Alstonville	6	Federal	250	Repentance Creek	2
Austinville	1	Fernleigh	4	Richmond Hill	1
Ballina	23	Fingal Head	1	Rosebank	8
Bangalow	952	Goonellabah	21	Russell Lea	1
Banora Point	1	Goonengerry	110	Skennars Head	4
Belongil	1	Goremans	1	Skidders Shoot	54
Billinudgel	57	Gran Flat	1	South Golden Beach	180
Binna Burra	60	Hayters Hill	11	Suffolk Park	2230
Bogangar	1	Huonbrook	35	Talofa	45
Booyong	6	Knockrow	2	The Channon	1
Bowen Hills	1	Lennox Heads	57	The Pocket	15
Brooklet	16	Lindendale	1	Tintenbar	2
Broken Heads	166	Lismore	30	Tregeagle	3
Brunswick Heads	313	Macleods Shoot	1	Tweed Heads	1
Bryon Bay	3840	Main Arm	60	Tuckombil	2
Burleigh Heads	1	Mcleods Shoot	28	Tyagarah	125
Burringbar	1	Melbourne	2	Uki	1
Casuarina	1	Middle Pocket	7	Upper Burringbar	3
Chinderah	1	Montecollum	42	Upper Coopers Creek	12
Clunes	35	Mooball	1	Upper Main Arm	27
Coopers Shoot	160	Mount Tambourine	1	Upper Wilsons Creek	13
Coorabell	202	Mullumbimby	1050	Varsity Lakes	1
Comdale	1	Mullumbimby Creek	55	Wanganui	1
Crabbes Creek	1	Myocum	320	Wategos Beach	8
Cumbalum	1	Nashua	40	West Ballina	3
Durrumbul	2	New Brighton	76	Whian Whian	2
East Ballina	12	Newrybar	40	Wilsons Creek	80
Eden Creek	1	Ocean Shores	1015	Wollongbar	3
Eltham	2	Palmwoods	5	Wooyung	1
Eureka	69	Possum Creek	107	Yamba	1
Evans Head	2	Pottsville	6	Yelgun	12
Ewingsdale	505	Regents Park	3	<b>TOTAL</b>	<b>12666</b>

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The following Table 4.2.2b compares the E-Permit database against all LPR scans undertaken between 27 April 2018 - 28 January 2019. A total of 2,702 separate individual permit holders were identified as visiting Brunswick Heads in this period.

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For example, in Table 4.2.2a there are 313 permit holders registered as living in Brunswick Heads. Of these 313 permit holders 277 were scanned by the LPR between 27 April 2018 and 28 January 2019.

- 5 All duplicates number plates were deleted so all 277 plates are separate individual permit holders.

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*Table 4.2.2b - Location of all Permit holders scanned in Brunswick Heads between April 2018-January 2019 as part of the LPR surveys.*

Suburb	No. of E-Permit Holders	Suburb	No. of E-Permit Holders
Alstonville	1	Middle Pocket	3
Ballina	1	Montecollum	12
Bangalow	105	Mullumbimby	372
Billinudgel	32	Mullumbimby Creek	15
Binna Burra	13	Myocum	100
Broken Head	13	Nashua	13
Brooklet	1	New Brighton	36
Brunswick Heads	277	Newrybar	7
Byron Bay	327	North Ocean Shores	6
Clunes	4	Ocean Shores	699
Coopers Shoot	11	Palmwoods	2
Coorabell	43	Possum Creek	14
Corndale	1	Pottsville	1
East Ballina	1	Skidders Shoot	16
Eureka	3	South Golden Beach	111
Evans Head	4	Suffolk Park	183
Ewingsdale	66	The Pocket	10
Federal	32	Tyagarah	42
Goonellabah	4	Unknown	4
Goonengerry	17	Upper Coopers Creek	3
Huonbrook	12	Upper Main Arm	6
Lennox Head	6	Upper Wilsons Creek	9
Lismore	7	Whian Whian	1
Main Arm	16	Wilsons Creek	21
Mcleods Shoot	3	Yelgun	16
<b>TOTAL</b>			<b>2702</b>

- 15 The table below (Table 4.2.2c) isolates the towns requested by the CoC in section 4.4.1. Council also included Mullumbimby due to its similar proximity to Brunswick Heads. From this table it can be seen that 56% of all permit holders who visited Brunswick Heads between April 2018 to January 2019 came from the suburbs immediately surrounding Brunswick Heads.

- 20 *Table 4.2.2c - Location of all Permit holders scanned in Brunswick Heads between April 2018-January 2019 as part of the LPR survey requested by BH CoC.*

<b>Suburb</b>	<b>No. of E-Permit Holders</b>
Brunswick Heads	277
Mullumbimby	372
New Brighton	36
North Ocean Shores	6
Ocean Shores	699
South Golden Beach	111
<b>TOTAL</b>	1501
	56%

**4.4.3. Discussion of the time limit modifications requested by the CoC**

5 The CoC has made the following recommendations in regards to time limits which can be summarised as follows

- i. In contrast to the above TPS recommendation, do not convert any 1 hour spaces into 2 hour spaces.
- 10 ii. Convert 10-12 x 1 hour spaces to 2 hour spaces, as it was previously at the start of 2018.
- iii. Make no changes to the 3 hours spaces.
- iv. Potentially install 2 hour parking at Torakina Beach with 1 x 15 minute space.
- v. Potentially install “Kiss n Drop” zone on east side of Park St next to the Public School
- 15 vi. Prefer the installation of 4 hour (and not 2 hour) along west side of Park St, between Fingal St and Booyun St (preliminary Council investigation indicates approximately 17 spaces can fit along this section of Park St)

20 The CoC acknowledge they have included item v above without consultation with the school. A Kiss n Drop zone was raised in 2017 as part of a previous review. While such a zone may have community interest it has not been addressed as part of this review and is not considered an urgent project. Due to the complexity and costs associated with such a project it is recommended to consider this issue separate to the current parking scheme performance review.

25 Taking into consideration items i, ii, iii and vi these CoC recommendations will result in an overall reduction in the number of 1 hour spaces and an increase of 2 hour spaces. The table below summarises the number of existing and proposed new time limit spaces based on the above CoC recommendations.

30 *Table 4.2.3 - Existing and proposed time limited parking spaces based on BH Coc requests and recommendations.*

<b>Time Limit</b>	<b>Existing # of spaces</b>	<b>Proposed # of Spaces</b>
<b>1P</b>	81	69
<b>2P</b>	151	163
<b>3P</b>	31	31
<b>4P</b>	24	41
<b>TOTAL</b>	<b>287</b>	<b>307</b>

It is important to note these recommendations stand in contrast to those recommended by TPS. It is also noted that the 31 x 3-hour spaces are a lot for the few businesses located adjacent to these 3-hour spaces. In turn, all day parking is currently located approximately 50m from these businesses. In addition, 3-hour is anomalous to the rest of the Shire and adds another level of complexity to the parking scheme that is not preferred. However, while it is Council's preference to convert the 3-hour parking to 2-hour it is not explicitly identified by TPS. As a result, it is recommended to leave the 3-hour parking as currently exists.

**4.4.3.1. Ongoing Investigations**

The CoC has requested additional investigations be undertaken following on from this review and prior to Council adopting new compliance monitoring options. The requested investigations align with Council's recommendations as follows:

- i. An expanded ANPR survey to include Tweed St (between Booyun Street and Mona Lane), Booyun Street between CWA and Tweed Street and east of the South Arm Bridge.
- ii. An economic Assessment of Brunswick Heads
- iii. Survey staff parking – where they currently park, where they are able to park and how many spaces they technically require.
- iv. Research Tourism data to identify what percentage of visitors to the Shire visit Brunswick Heads. This may be determined through the economic Assessment.

**4.5. Infringement Analysis**

Both the Sustainable Economic and Environment directorate and Infrastructure Services have undertaken work to analyse Councils infringement data. The data has been analysed in three different ways as follows:

- i. How many fines were issued for all compliance related matters versus how many fines were issued in relation to time limit over stays?
- ii. What period of the day and what days of the year had the most and least time limit overstay?
- iii. What zones and streets within the parking scheme had the most and least time limit overstay?

**4.5.1. All Fines versus Time Limit Overstay Fines**

Refer to Attachment 4 (Sheet 1), for a breakdown of all parking related compliance fines issued in 2017/18 and 2018/19 within Brunswick Heads only, between May to April of each year.

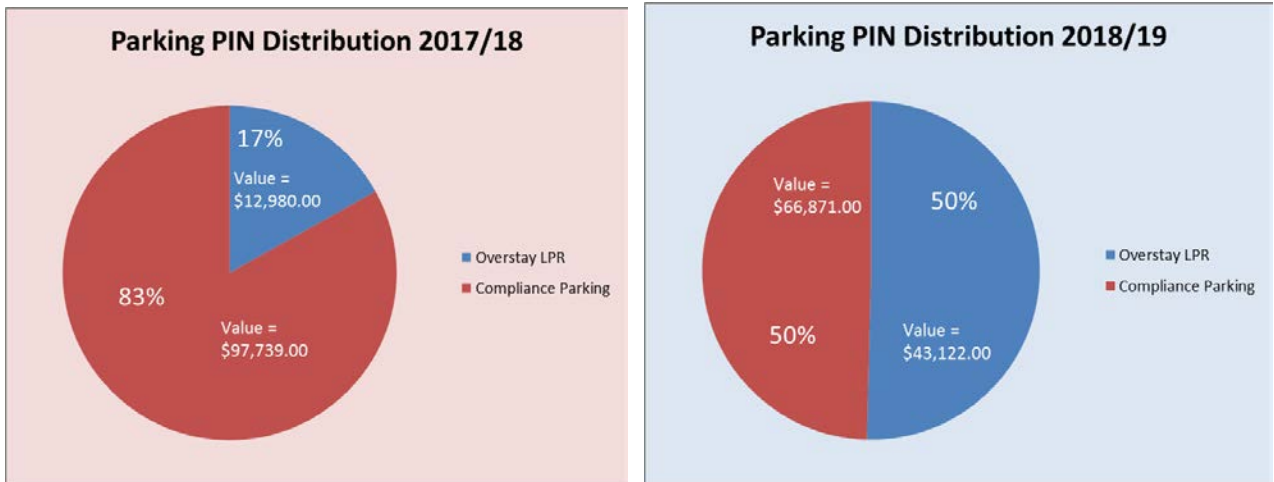
Table 4.5.1 below provides a summary from this attachment.

*Table 4.5.1 – Summary of all fines versus overstay fines for Brunswick Heads.*

	2017/18		2018/19	
	No. of Fines	Value of Fines	No. of Fines	Value of Fines
All parking fines issued	698	\$110,719	766	\$109,993
Only time overstay fines issued	121	\$12,980	386	\$43,122

Note, the number of “All parking fines issued” in 2018/19 increased by 68 fines, from 698 to 766. In comparison the number of overstay fines issued in 2018/19 increased by 265 fines, from 121 to 386. Despite the number of fines issued in 2018/19 increasing noticeably the total value of all the fines decreased. This suggests redeploying staff away from other types of infringements to focus on overstay infringements may not be the most cost effective option to adopt.

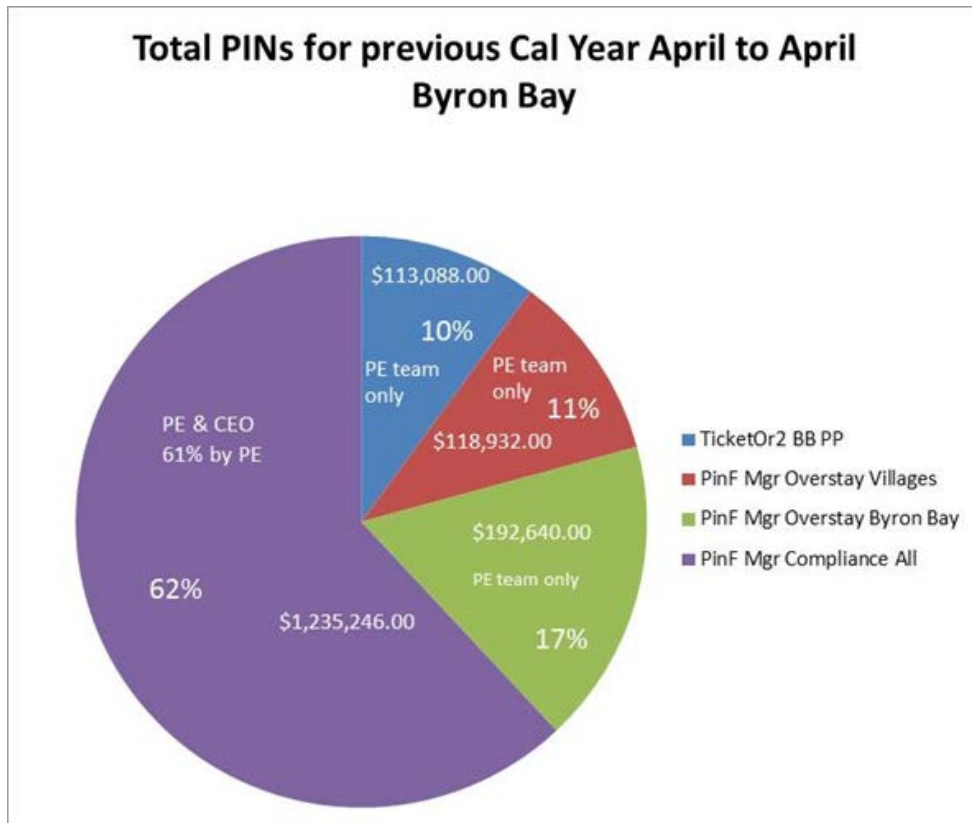
Table 4.5.1 is presented below as pie charts to help visualise the ratio between all parking compliance infringements and overstay infringements.



In regards to the above data it is important to note:-

- In 2017/18 the 121 overstay fines accounted for 17% of all parking related fines. These 121 overstay fines in turn accounted for 11.7% of all parking fine revenue.
- In 2018/19 the 386 overstay fines accounted for 50% of all parking related fines. These 386 overstay fines in turn accounted for 39% of all parking fine revenue.
- The increase in Overstay fines in 2018/19 was due to the introduction of parking technology, namely the use of a second LPR equipped vehicle.
- From this it can be seen that while overstay fines account for 50% of all fines they do not account for 50% of all parking related revenue. In fact, increased staff effort to target overstay fines resulted in a reduced annual parking fine revenue for Brunswick Heads.
- Both PEO and CEO are able to issue “All parking fines issued” listed in Table 4.5.1
- Only CEO’s are able to issue “Only time overstay fines issues” in Table 4.5.1.
- Council is unable to employ a third LPR equipped team without increasing staff numbers as LPR vehicles require a minimum of 2 staff members.

As a way of comparison the pie chart below presents a breakdown of infringements issued across the whole Shire between May 2017 - April 2019. This chart helps demonstrate the competing demands for the PEO’s and CEO’s to monitor compliance across the whole Shire.



5            **4.5.2.      What time of day are most overstay fines issued in Brunswick Heads?**

A series of tables are presented below to help visualise:

- 10            i.    What proportion of fines issued were for time limit overstays - Table 4.5.2a
- ii.    Which month of the year experienced the most number of time overstay fines – Table 4.5.2b,
- iii.    Which street experienced the most time overstay fines – Table 4.5.2c,
- iv.    For each month, how many cars were scanned in each ANPR survey, how many were identified as overstaying time limits and how many were eventually fined – Table 4.5.2d.
- 15            v.    For each time zone, how many cars were scanned in each ANPR survey, how many were identified as overstaying time limits and how many were eventually fined – Table 4.5.2d.

20            *Table 4.5.2a* (Attachment 4, sheet 2) presents the number of fines issued and the time of day when most fines are issued between May 2018 and April 2019. Approximately half of all parking related fines are for time limit overstays while the most common time of day for overstay fines of Mid Day (11.30am to 2.30pm). This is not surprising given Mid Day was the most common period in which Brunswick Heads was visited.



*Table 4.5.2a*

PERIOD OF THE DAY				TOTAL FINES ISSUED	TIME LIMIT FINES ISSUED	TIME LIMIT FINES %	# of Staff Visits
Morning	4:00:00 AM	to	9:00:00 AM	66	-	-	31
Late Morning	9:00:00 AM	to	11:30:00 AM	201	88	44%	68
Mid Day	11:30:00 AM	to	2:30:00 PM	316	219	69%	87
Afternoon	2:30:00 PM	to	5:00:00 PM	173	78	45%	40
Evening	5:00:00 PM	to	12:00:00 AM	10	-	-	4
<b>TOTAL</b>				<b>766</b>	<b>385</b>	<b>50%</b>	<b>199</b>

5 *Table 4.5.2b* presents the total number of parking related fines issued for each month between May 2018 and April 2019. As a way of comparison the table also shows how many of these fines were for time limit overstay.

*Table 4.5.2b*

DATE	TOTAL FINES ISSUED	TIME LIMIT FINES ISSUED			TOTAL TIME LIMIT FINES	TIME LIMIT FINES %
		Late Morning	Mid Day	Afternoon		
May-18	71	17	23	2	42	59%
Jun-18	43	3	9	0	12	28%
Jul-18	56	7	29	2	38	68%
Aug-18	55	9	13	3	25	45%
Sep-18	77	17	30	6	53	69%
Oct-18	46	6	11	0	17	37%
Nov-18	35	3	7	0	10	29%
Dec-18	112	9	8	4	21	19%
Jan-19	172	11	57	47	115	67%
Feb-19	12	3	4	0	7	58%
Mar-19	23	0	2	4	6	26%
Apr-19	64	3	25	10	38	59%

- 10 Unsurprisingly the most number of parking fines (all types) were issued in January and December with September the third highest month. December and January are regarded as the peak season while September is generally known to be the mid peak season.
- 15 More surprisingly, May is only a little lower than September and experiences more infringements than April (known as another peak period). This is surprising as May is commonly regarded as the low season and raises the question, why are there so many time limit fines during a supposedly quite period of the year?
- 20 Attachment 4 breaks the above two tables down into specific days of the year to show how many fines were issued on each day Brunswick Heads was visited by the LPR team. March 2019 had the least number of overstay fines issues (6), followed by February (7) and November (11). The most number of over stay fines were issued in January (115), September (53) and May (42).
- 25 Based on Attachment 4 (Sheet 2) Boxing Day to New Years Eve has the highest number of parking infringements but almost none of these are for time limit overstay. The second busiest day for parking fines is the Australia Day Long weekend where nearly all the fines are for time limit overstay. The third highest overstay fines were issued 9-12 May. The Easter period did not register a significant number parking infringements or overstay fines.

Table 4.5.2c (refer to Attachment 4, Sheet 3) presents a summary of how many parking fines were issued between May 2018 to January 2019 for each time limit zone, for each street and how many of these were for time limit overstays.

5

*Table 4.5.2c*

Time Limit Zone	# OF TIME LIMIT CAR SPACES (TLS)	TOTAL # OF CARS SCANNED BY LPR (LPRS)	LPR Overstays Detected Per Zone (LPRZ)	LPR Overstays Detected Per Street (LPRS)	TOTAL TIME LIMIT FINES ISSUED (TFI)	STREET	LPRZ/LPRS
1	42	2609	137	199	177	FINGAL	5.25%
2	36	1951	62				3.18%
3	28	1094	39	85	58	PARK	3.56%
4	28	1462	40				2.74%
5	4	275	6				2.18%
6	24	661	39	39	0	BOOYUN	5.90%
7	31	1119	96	204	79	MULLUMBIMBI	8.58%
8	14	957	29				3.03%
11	16	742	29				3.91%
12	7	170	4				2.35%
13	23	1212	46				3.80%
9	19	1350	56	59	71	THE TERRACE	4.15%
10	4	141	3				2.13%
14	11	325	4	4	0	TWEED	1.23%
<b>TOTAL</b>	<b>287</b>	<b>14068</b>	<b>590</b>	<b>590</b>	<b>385</b>		<b>3.71%</b>

10 Data presented in Table 5.4.2c indicates which streets experience the most number of fines. This in turn helps indicate the popularity of each location and where most people wish to park and risk overstaying time limits.

15 In particular, between May 2018 - January 2019, most overstay of time limits is detected within zones 1, 6, 7 and 9. It is expected these values will increase in peak periods and reduce in low periods.

20 Table 4.5.2d, overleaf, summarises how many Licence Plate Recognition (LPR) surveys were conducted between May 2018 - April 2019, how many cars were counted by the LPR surveys, how many cars were identified as overstaying time limits and how many of these identified cars were actually fined.

25 It is important to note that not all cars detected as overstaying time limits were fined. For example, where a car had a legitimate reason for overstaying a time limit, or the car was within a “grace period” fines might not be issued.

# BYRON SHIRE COUNCIL

## STAFF REPORTS - INFRASTRUCTURE SERVICES

13.17

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	TOTAL
Total LPR scans (TLPR):	3345	2100	3562	5453	9048	2784	1849	2308	6974	1091	944	6190	45,648
Total LPR Non-compliant detections (NCD):	139	75	98	95	235	41	34	52	339	17	29	164	1,318
Total LPR Infringements Issued (ID):	42	12	39	25	52	17	10	20	115	9	6	38	385
Total Parking Infringements (PI):	71	43	56	55	77	46	35	112	172	12	23	23	725
Non-compliant detections (ID / NCD)	30%	16%	40%	26%	27%	41%	29%	38%	34%	53%	21%	23%	29%
Total Parking Infringements (ID / PI)	59%	28%	70%	45%	68%	37%	29%	18%	67%	75%	26%	165%	53%
<b>Total LPR scans (TLPR):</b>	<b>May-18</b>	<b>Jun-18</b>	<b>Jul-18</b>	<b>Aug-18</b>	<b>Sep-18</b>	<b>Oct-18</b>	<b>Nov-18</b>	<b>Dec-18</b>	<b>Jan-19</b>	<b>Feb-19</b>	<b>Mar-19</b>	<b>Apr-19</b>	<b>TOTAL</b>
	3345	2100	3562	5453	9048	2784	1849	2308	6974	1091	944	6190	45,648
Total Number of Time Limited Car Spaces	287												
LPR Non-Compliant Detections / Total LPR Scans	4.2%	3.6%	2.8%	1.7%	2.6%	1.5%	1.8%	2.3%	4.9%	1.6%	3.1%	2.6%	2.9%
LPR Infringements Issued / Total LPR Scans	1.26%	0.57%	1.09%	0.46%	0.57%	0.61%	0.54%	0.87%	1.65%	0.82%	0.64%	0.61%	0.84%
<b>NOTE:</b>	Not all "LPR Non-compliant detections" result in an "LPR infringement issued." A non-compliant car may have a justifiable reason for overstaying the time limit, car may have left by the time the PEO is able to return to issue fine or PEO may see merit for not issuing an infringement.												
<b>Total LPR Non-compliant detections (NCD):</b>	The total number of cars detected by the LPR as over staying time limits.												
<b>Total LPR Infringements Issued (ID):</b>	The total number of cars fined for over staying time limits.												
<b>Total Parking Infringements (PI):</b>	Total number of fines issued for all parking related infringements, such as parking in No Stopping zone, not paralleled park etc												
<b>Non-compliant detections (ID / NCD)</b>	The number of overstays detected that result in a fine being issued.												
<b>Total Parking Infringements (ID / PI)</b>	The number of overstay fines issued versus the total number of parking fines issued												



#### 4.6. Council Recommendations

The recommendations presented by TPS and the Brunswick Heads Chamber of Commerce do not align in some aspects, namely modifications to time limits. In presenting Councils recommendations below the aim is to provide a balance between those presented by TPS, the Brunswick Heads Chamber of Commerce and Council's ability within our existing resources.

##### 4.6.1. Council Recommendation 1 – Expanded ANPR survey

Council's first recommendation is for IS and SEE directorates to undertake an expanded ANPR survey of Brunswick Heads expanding the footprint over which this survey is conducted, generally as per Figure 4.3.2. The responsibility will need to be equally owned and planned by the IS and SEE directorates as SEE have the resources to undertake the survey and IS to analyse the data.

This survey is recommended for two primary reasons:-

- i. 11 out of 14 parking zones in Brunswick Heads are currently operating at or near capacity for a large part of the year. Given this, and the expected increase in tourist numbers over the near future it is reasonable to expect the parking scheme to exceed capacity in the near future. Therefore, it is prudent for Council to begin planning now for when the parking scheme exceeds capacity. The expanded ANPR survey will provide the relevant data required to plan for these changes.
- ii. Classification of Crown land along the South Beach Road is currently under review. As presented to the 6 June Strategic Planning Workshop, reclassifying Crown Land as Natural Land or General Community Use land with modifications to parking layout may reduce the existing 360 (approx.) car spaces down to 190 (approx.). The impact of this on the Brunswick Heads parking scheme could be immense with substantial overflow parking being re-directed to the Brunswick Heads CBD area. The ANPR survey will enable Council to better understand parking demand east of South Arm Bridge and the potential impact of reducing car park numbers.

##### 4.6.2. Council Recommendation 2 – Economic Assessment

Undertake an Economic Assessment of Brunswick Heads to better understand:

- i. The number of tourists versus locals going to Brunswick Heads
- ii. Why people go to Brunswick Heads, and
- iii. How visitor behaviour may change if parking technology is introduced.

##### 4.6.3. Council Recommendation 3 – No changes to time limits

Once the expanded ANPR data is analysed, the Economic Assessment of Brunswick Heads is complete and changes to Crown Land classification east of South Arm Bridge are clarified Council will have a significantly clearer understanding of the whole Brunswick Heads CBD and connected areas

Until there is clarity with the above issues it is recommended to make no changes to the existing time limits. There is little point making even modest changes to time limits (as per TPS or CoC recommendation), with associated costs, if the above issues identify the need for substantial or different modifications in the near future.

#### 4.6.4. Council Recommendation 4 – Investigate increased compliance monitoring options

As noted by TPS, the parking scheme currently has sufficient supply, provided time limit enforcement is substantially increased. If enforcement is substantially increase Council anticipates the existing parking scheme will have sufficient capacity over the short term. The length of this period is unknown and depends on the rate at which tourist numbers increase.

This increased monitoring will help ensure long term parking is pushed out to the periphery and all-day parking is pushed to all day areas outside of the parking scheme.

However, as demonstrated in Table 4.5.1 and the associated pie charts, adding a second LPR equipped vehicle substantially increased the number of overstay fines but resulted in reduced total infringement revenue. This suggests deploying a third LPR equipped vehicle may not be the most cost effective approach to long term compliance monitoring.

In addition to this, Council staff faces the competing demand of monitoring all parking related issues across the entire Shire.

As a result, it is recommended Council investigate different compliance options commonly adopted by other local governments and report back to Council in May 2020 the recommended option to adopt.

Such an investigation may include recommendations on how to adopt a combination of monitoring options within Brunswick Heads and how to include the area east of South Arm Beach, such as Torakina Beach car park.

### 5. Time Frames

The following section provides estimated timeframes required to implement the above recommendations. Additional time for consultation with stakeholders outside of Council has not been factored into the timeframe below.

1. Council Meeting (June 2019)
2. Expanded ANPR Survey
  - i. Plan the survey (July)
  - ii. Lead time (2 weeks)
  - iii. Survey – 6 months (Aug – Jan 2020)
  - iv. Council staff prepare ANPR data for analysis (Feb 2020)
  - v. Data analysed and report (mid March 2020)
  - vi. Report reviewed by Council staff (late March 2020)
  - vii. This report to be used to support Report on Compliance Options to Council
3. Economic Assessment – Stage 1 (Literature Review & On-line Surveys)
  - i. Purchase order approval process (June)
  - ii. Liaise between Council & SCU over survey questions (June)
  - iii. Undertake & submit Economic Assessment (10 weeks) (July-Sept)
  - iv. Council review report (Sept)
  - v. Possible SCU report refinements (Oct.)
4. Economic Assessment – Stage 2 (Intercept Surveys)
  - i. Purchase order approval process (July)

- ii. Liaise between Council & SCU over survey questions (July)
- iii. Confirm interviewers (Aug-Sept)
- iv. Lead Time
- v. Undertake Intercept Surveys (1 week) (Dec or Jan 2020 peak season)
- 5 vi. SCU analyse data & prepare preliminary report for Council (Feb 2020)
- vii. Supply ANPR analysis to SCU for inclusion in Economic Assessment (late March 2020)
- viii. Council review report (early April 2020)
- ix. Possible Assessment refinements (mid April 2020)
- 10 5. Report on Compliance Options to Council
  - i. Research scope and issues associated with each option (June – Dec 2019)
  - ii. Concept Parking Scheme Design for each option (June – Dec 2019)
  - iii. Cost Estimates of materials & personnel (June – Dec 2019)
  - iv. Compare the ongoing financial cost / benefit sustainability of each option
  - 15 (Feb 2020)
  - v. Write Council report - enforcement option recommendations (March – April 2020)
- 6. Council Meeting (May 2020) – to resolve the adoption of an enforcement option (if required)

**STRATEGIC CONSIDERATIONS**

20

***Community Strategic Plan and Operational Plan***

CSP Objective	L2	CSP Strategy	L3	DP Action	L4	OP Activity
<b>Community Objective 1: We have infrastructure, transport and services which meet our expectations</b>	1.6	Manage traffic and parking in an efficient manner	1.6.2	Ensure future traffic demand and alternative solutions are addressed in major infrastructure plans	1.6.2.2	Review Bangalow parking time limit changes
					1.6.2.3	Review Mullumbimby parking time limit changes
					1.6.2.4	Review Brunswick Heads parking time limit changes

***Legal/Statutory/Policy Considerations***

25 As outlined in the report

***Financial Considerations***

30 As outlined in the report.

***Consultation and Engagement***

- i. Council engaged the services of Traffic and Parking Solutions to undertake an analysis of the ANPR data and infringements
- ii. ANPR surveys were undertaken by Councils Parking Enforcement Officers
- 35 iii. Brunswick Heads Chamber of Commerce were consulted and supplied their recommendations in writing.