REPORT

Hot Water Beach to Ferry Landing
Peak Summer Traffic and Parking Assessment

Prepared for Thames Coromandel District Council
29 April 2016
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REVISION SCHEDULE

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Executive Summary

Introduction

MWH New Zealand Ltd (MWH) have been commissioned by Thames Coromandel District Council (TCDC) to undertake a traffic impact, parking and road maintenance assessment for the communities of Hot Water Beach, Hahei, Cooks Beach and Ferry Landing.

The purpose of the study is to provide an assessment of the following key concerns of Council:

- The ability to accommodate an increasing number of visitors with a limited supply of parking
- The impact of peak season traffic in regard to safety, efficiency and road maintenance
- The potential traffic and parking impact of the proposed Great Walks Project.

The purpose of this report is to provide an update of the ‘Hot Water Beach to Ferry Landing: Traffic, Parking and Maintenance Assessment Report (Oct 2015)’ based upon analysis of new data collected by MWH and TCDC during the 2015/2016 summer holiday season. This report considers the impacts associated with the management of peak summer time demand and identifies suitable mitigation measures.

Coromandel Great Walks Project

TCDC are committed to the implementation and on-going development of the Great Walks Project for the Mercury Bay region. The approximate route between the Ferry Landing, Hahei and Hot Water Beach is illustrated below.

Proposed Cathedral Coast Walkway

The Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report estimated that, ambitiously, within five years of completion of the entire route an additional 35,500 people will be attracted to the area purely as a result of the introduction of the new walkway.

Stakeholder Consultation

As part of the preparation of this report consultation has been undertaken with TCDC, Ngati Hei and the Hahei Beach Rate Payers Association (HBRPA). Each of these parties are considered to be the key stakeholders for the Project. Minutes of the meetings held with each of these stakeholders are provided within Appendix B.
All stakeholders were in agreement that the following measures would help to address the existing parking and traffic congestion issues:

- A new car park constructed along Lees Road to accommodate visitors to Cathedral Cove.
- A new car park constructed at the entrance to Hahei Village.
- The Cathedral Cove ‘Park and Ride’ service should be continued.
- The existing shuttle service should be expanded to link Ferry Landing, Purangi Road, Lees Road, Hahei and Hot Water Beach.

In regard to these proposals, TCDC have indicated that the proposed Pa Road Car Park (now known as “Hahei Village Entrance Car Park”) will provide up to 200 spaces. The proposed Lees Road car park will initially provide 150 spaces with potential expansion up to 500 spaces.

**Road Network Safety and Efficiency**

**Crash History**

Analysis of the CAS database identified that between 2011 and 2015 a total of 24 crashes were recorded within the study area, of which six resulted in minor injury, four in serious injury and two in fatal injury. The crashes which resulted in fatalities occurred on SH25 and Purangi Road in 2014 and 2015 respectively. The accident on SH25 was a result of a vehicle cutting the corner of the bend and hitting an SUV head on. The accident on Purangi Road was due to loss of control when travelling around the corner.

**Road Network Assessment**

On the 10th June 2015, MWH conducted a drive-over inspection of the existing network with the intention of determining the road maintenance deficiencies and safety issues. The following common maintenance issues were identified across the network:

- Road surface chip polishing and pavement flushing in heavy breaking areas.
- Seal edge-breaks between the carriageways and unsealed private entranceways, along narrow sections of road (especially those without edge lines) and on the inside of corners. Edge breaks are common at private entranceways as a result of high acceleration of vehicles entering onto the carriageway.
- A lack of advisory signage for out-of-context curves.

In terms of road maintenance, the following key recommendations are made:

- Hot Water Beach One-Lane Bridge – Resurface pavement and reinstate white edge lines.
- Taiwaiwe Car Park – Widen the carriageway to allow for right-hand turning vehicles and reseal section to remove surface flushing.
- Purangi Road and Hot Water Beach Road Intersection – Increase intersection and ‘Stop’ sign visibility.

*Lees Road*

Recommendations for Lees Road are outlined later in this executive summary.

**Great Walks Project Impact**

Given the rise in traffic, particularly following the introduction of the Great Walks Project, it is recommended that racked-in surface treatments are avoided, particularly along Hot Water Beach Road and Purangi Road where the peak summer time ADT is likely to exceed 6,000 vehicles per day by 2021. The effect of the additional traffic will be in an acceleration of chip loss and pavement flushing.
Existing Conditions

All stakeholders recognise that the parking and congestion issues experienced during the summer need to be addressed, particularly given the rising popularity of Cathedral Cove and Hot Water Beach. New developments within Hahei and Cooks Beach are also likely to put further pressure upon existing transport infrastructure.

In response to the increasing number of visitors to Hahei, a seasonal Park and Ride service was trialled in 2009. The service has since been continued and utilisation has risen year-on-year. A shuttle service, run jointly by TCDC and the Waikato Regional Council, integrates with the Park and Ride service and provides connections with Ferry Landing, Cooks Beach and Hot Water Beach.

The following parking issues exist during the peak summer period as a result of a limited supply of parking spaces:

- Vehicles circulate the Grange Road (Cathedral Cove) car park until a space becomes available – this accentuates congestion within the car park and back along Grange Road.
- Despite restrictions along Grange Road, illegal parking still occurs.
- A large number of people destined for Hahei beach park informally on grass verges of local residential streets; predominantly Hahei Beach Road, Harsant Avenue and Dawn Avenue.
- The parking supply is limited at Ferry Landing.

Lees Road

During the off-peak season, the average daily traffic up to the proposed car park is currently around 80-110 vehicles per day. The TCDC Code of Practice for Subdivision and Development (Section 3 Roading) suggest that, based upon the existing traffic volumes, Lees Road would be categorised as a Group 2 road. In accordance with these standards, the current metal surfacing is suitable.

Analysis of the automatic tube count data suggests that around 30% of trips along Lees Road during the peak summer period are vehicles heading to the Stella Evered Memorial Park. In absolute terms this equates to a maximum of only around 38 daily vehicles (76 trips).

Future Conditions

Traffic

Estimations for future (2021) peak summer traffic have been determined based upon analysis of data collected during the 2015/16 peak summer season. Assessments, based upon the 2021 peak summer day estimations, have then been undertaken to establish the traffic impact of introducing the Hahei Village Entrance car park, the Lees Road car park and the Great Walks Project.

The analysis has identified the following key results:

- Assuming access to the Hahei Village Entrance Car Park is provided from Hahei Beach Road, the volume of traffic using Pa Road is expected to remain consistent with existing levels. Furthermore, the 2021 volumes (for any scenario) along Hot Water Beach Road (Link Road to Radar Road), Purangi Road (Rees Avenue to End) and Rees Avenue are expected to be similar to the 2016 ADTs.
- By 2021, the Park and Ride service would be expected to remove around 1,140 combined two-way trips from Grange Road. The introduction of the Lees Road car park would be expected to remove a further 2,210 two-way trips that would see volumes along Grange Road reduce to levels similar to those for the 2015 off-peak period.
- The road section with the highest volume is expected to be Hot Water Beach Road between SH25 and Purangi Road. On the basis that the Great Walks Project goes ahead, traffic along this section is expected to increase by up to 8,880 vehicles (two-way) per day between 2016 and 2021 for a peak summer day.

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1 As per the TCDC code of practice, a Group 2 road has an AADT below 100 vpd and can be a metal surface, Group 3 roads have an AADT between 100 and 250 vpd and should be sealed

2 Estimation inclusive of the assumption that the Hahei Holiday Resort becomes subdivided.
Lees Road

Forecasts\(^3\) suggest that following the introduction of the Great Walks project, by 2021 the anticipated annual average daily traffic (AADT) along the entire length of Lees Road would exceed 100 vehicles per day. In accordance with the TCDC Code of Practice for Subdivision and Development, the Hahei Road to Car Park section would be categorised as a Group 3 road, with an AADT of approximately 250 vehicles per day (vpd), although it is close to the criteria for Group 4. Whilst the Car Park to Stella Evered section would be categorised as a Group 2 road. In each case, as per the standards, sealing is recommended.

However, there is currently insufficient evidence to be 100% confident that without the introduction of the Great Walks project that the AADT between the proposed car park and the Stella Evered Memorial Park would exceed 100 vehicles per day (TCDC standard for sealing).

On the basis that the Lees Road car park is introduced in 2016/17 we recommend the following:

- Lees Road is sealed up to the proposed car park prior to the car park opening. Furthermore, pavement widening may be required up to the Stella Evered Memorial Park car park to allow for safe passage of large vehicles in opposing directions; however, as a minimum, "Road Narrows" warning signs should be installed, visible from the car park entrance, to warn and deter larger vehicles such as campers from continuing past the car park.
- Monitor traffic volumes along Lees Road between the car park and the Stella Evered Memorial Park during the first year of operation. Traffic volumes may meet the threshold for road sealing for this section even without the introduction of the Great Walks Project. TCDC to evaluate the roading requirements between the car park and the Stella Evered Memorial Park.
- Once the Great Walks Project is introduced it is more likely that the AADT along the upper section of Lees Road will exceed 100 vehicles per day – the volume for which sealing is standard (as per the TCDC Code of Practice for Subdivision and Development). Therefore, once the Great Walks Project is introduced, complete the sealing for the entire length of Lees Road should be considered.

In regard to traffic management, we recommend that parking along the entire length of Lees Road is restricted and a clear signage strategy is introduced which directs people heading to Cathedral Cove to the Lees Road car park. Further signage treatment may also be required to indicate that no access to Cathedral Cove is available past the Lees Road car park (towards the Stella Evered Memorial Park).

It is noted that TCDC have fast-tracked the dust seal programme for Lees Road to the 2016/17 financial year. The works will dust-seal the road as an interim measure\(^4\), plus some minor widening on corners.

Parking

In regard to future parking demand the following conditions are expected:

- Car parks at Hahei Beach and Hahei Village Entrance are already operating close to capacity.
- The increasing popularity of Cathedral Cove is expected to see a peak summer day increase of 2,150 two-way trips by 2021. This corresponds to an associated need to accommodate an additional 1,075 vehicles per day on a peak summer day.
- The current average turnover per space in the Hahei Village Entrance Car Park was identified to be 2.84 vehicles per day. On this basis, to accommodate a further 1,075 vehicles per day an additional 380 parking spaces are required. The existing supply of parking within the Hahei Beach and Hahei Village Entrance car parks will therefore not be sufficient to meet 2021 demand.
- A 200 space capacity for the Hahei Village Entrance Car Park will not meet the 2021 parking demand deficit.

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3 The forecast volumes are highly susceptible to assumptions regarding the number of people who would continue past the Lees Road car park. Peak traffic volumes are expected to be 2,000 vpd during peak season (Christmas and other public holidays), this increases the AADT to between 250 and 280 vpd.

4 Introduction of a formal Cathedral Cove car park would significantly increase traffic volumes which would increase pavement stress, causing premature wear to dust seal, a tar seal would be more appropriate.
The introduction of the Lees Road car park would be expected to see volumes along Grange Road reduce to levels similar to those for the 2015 off-peak period. In this scenario, demand for Cathedral Cove could be satisfied with the existing parking provisions. Parking analysis has identified that, on its own, the expansion of the Hahei Village Car Park will not be sufficient to meet future demand for Cathedral Cove. The figure below identifies the locations of the existing and proposed parking areas.

Existing and Proposed Parking Facilities

Recommendations

The introduction of car parks along Lees Road and at the Hahei Village Entrance, together with the continuation of the summer time Park and Ride service, are key facilities which should be introduced as soon as possible. To meet demand by 2021, both the proposed 200 space car park at the Hahei Village Entrance and 500 space car park at Lees Road are required regardless of whether or not the Great Walks Project is progressed.

The table below provides a summary of the complete recommended mitigation measures together with an indicative timeframes for implementation.
### Recommended Mitigation Strategy

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<td>Annual</td>
<td>Monitoring of traffic and parking within Hahei, Cooks Beach, Ferry Landing and Hot Water Beach</td>
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<td>2016</td>
<td>Expand the Hahei Park and Ride to include a stop at Hahei shops.</td>
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<td></td>
<td>Promotion and expansion of the existing Ferry Landing-Hot Water Beach shuttle bus service. Introduce 24/48 hour unlimited ride tickets.</td>
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<td>Finalise a parking strategy for Hahei and Hot Water Beach.</td>
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<td>Remove casual parking from the Grange Road car park during the peak season. Drop-off/coach parking only.</td>
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<tr>
<td></td>
<td>Introduce a 200 space car park at the Hahei Village Entrance, together with appropriate roads, access and signage.</td>
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<tr>
<td></td>
<td>Undertake the detailed design for the Lees Road upgrade and Lees Road car park.</td>
</tr>
<tr>
<td>2017</td>
<td>Introduce a 150 space car park at Lees Road, together with appropriate road works and signage.</td>
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<tr>
<td></td>
<td>Amend local road signage to direct Cathedral Cove visitors to Lees Road.</td>
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<td></td>
<td>Introduction of a specific Hot Water Beach ‘Low Tide’ shuttle bus service.</td>
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<tr>
<td>2018</td>
<td>Expand the Hahei Village Entrance Car Park to the proposed 200 spaces.</td>
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<td></td>
<td>Consult with the private land owner in regard to the potential use of land adjacent to Hahei Beach Road as a temporary overflow car park.</td>
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<tr>
<td>2019</td>
<td>Introduction, if demand dictates, of an overflow facility within Kotare Reserve and land adjacent to Hahei Beach Road (if available).</td>
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<tr>
<td></td>
<td>Expand the Lees Road car park to the proposed 500 spaces (should demand dictate).</td>
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<tr>
<td>2021+</td>
<td>Introduce a car park at the old Purangi Estuary tip site, to serve a high-tide route for the Great Walks Project.</td>
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The introduction of the Lees Road car park was noted as part of the Hahei Coastal Reserves Integrated Management Plan and the ‘Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report’. We agree that this is an appropriate location for a ‘Cathedral Cove’ car park, as it is located just out of Hahei and provides a starting point for a walk which is approximately equidistant to the existing walk from Grange Road.

Regardless of whether or not the Great Walks Project is introduced, the majority of the recommendations of this report are required as a means of addressing the existing and likely future traffic and parking issues related to the growth in regional tourism.

### Next Steps

We recommended that, in line with the 2015/16 peak summer surveys, that traffic and parking is monitored on an annual basis for at least the next five years. Once the Great Walks project is introduced, permanent track counters should be appropriately placed as a means of monitoring utilisation and to develop an understanding of which car parks act as the most popular start/finish locations.

We also recommend that the following strategies, informed by this study, are developed:

1. **Parking Strategy.** This study should inform a parking strategy for Hahei and Hot Water Beach. The strategy should identify appropriate short term and long term measures which are informed by stakeholder consultation and peak summer time traffic and parking surveys. The strategy should also consider scenarios with and without the impact of the Great Walks Project.

2. **Signage Strategy.** An appropriate signage strategy should be developed for the area, as a means of informing any future traffic and parking strategy.
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1 Introduction

MWH have been commissioned by Thames Coromandel District Council (TCDC) to undertake a traffic impact, parking and road maintenance assessment for the communities of Hot Water Beach, Hahei, Cooks Beach and Ferry Landing.

The purpose of the study is to provide an assessment of the following key concerns of Council:

- The ability to accommodate an increasing number of visitors with a limited supply of parking;
- The impact of peak season traffic in regards to safety, efficiency and road maintenance; and
- The potential traffic and parking impact of the proposed Great Walks Project.

Study Area

The study area covers the communities of Hot Water Beach, Hahei, Cooks Beach, Ferry Landing and the local roads linking them. The extent of the study area is highlighted within Figure 1-1.

![Figure 1-1: Study Area](image)

Coromandel Great Walks Project

The proposed Coromandel Great Walks Walkway is 14.2km long and extends between Whitianga and the blowhole at the Hereheretaura Peninsula (south of Hot Water Beach). There are a number of sites of interest along the walkway including the Purangi Estuary, Te Whanganui-A-Hei (Cathedral Cove) Marine Reserve and the Te Pare Historic Reserve.

TCDC is committed to the implementation and on-going development of the Great Walks Project. However, for the purpose of this report two scenarios have been considered; namely, with and without the Great Walks Project.
Previous Report

In October 2015, MWH on behalf of TCDC delivered the ‘Hot Water Beach to Ferry Landing: Traffic, Parking and Maintenance Assessment Report’. The report outlined a number of key recommendations for mitigating the existing parking and traffic issues across the area. These included the construction of new car parks along Lees Road and at the Hahei Village Entrance, the retention of the existing summer time Park and Ride service on a continuous annual basis and the introduction a new Hot Water Beach shuttle service.

The recommendations outlined within the previous report were however based upon a limited supply of parking and traffic data, particularly for the peak summer period and for the communities of Ferry Landing and Hot Water Beach. A peak summer study was therefore essential for quantifying the existing congestion and parking issues, reducing the number of assumptions and providing a basis for future monitoring.

The purpose of this report, referred to as ‘Hot Water Beach to Ferry Landing: Peak Summer Traffic and Parking Assessment’, is to provide an update of the previous assessments based upon analysis of new data collected during the 2015/2016 summer holiday season. This report supersedes the previous report.

2015/16 Peak Summer Traffic Surveys

To inform the study MWH undertook intersection turning count, parking and pedestrian count surveys on the 4th January 2016. Furthermore, to allow for identification of peak summer conditions, TCDC commissioned automatic traffic counts for key sections of the local road network across the two week period between the 24th December 2015 and 6th January 2016. The locations of the surveys are identified within Appendix A.

MWH also carried out a questionnaire based survey on the 4th January 2016 to understand visitor behaviour and to gauge opinion in regard to the potential mitigation solutions identified within the previous report.

Report Structure

This report considers the impacts associated with the management of peak summer time demand and identifies suitable mitigation measures. To adhere to this objective, the following information is presented within this report:

- A review of relevant studies
- A review of TCDC policy documents and local community plans
- A summary of the key issues and opportunities identified by the key stakeholders
- An assessment of the existing road network
- An overview of the existing traffic and parking conditions
- An overview of the forecast future traffic and parking conditions
- Identification of potential options for mitigating traffic and parking issues
- An outline of the key recommendations and programme of works.
2 Stakeholder Engagement

2.1 Initial Consultation

At the inception of the study MWH undertook consultation with the key stakeholders; namely TCDC, Ngati Hei and the Hahei Beach Rate Payers Association (HBRPA). Separate workshops were held on the 9th June 2015 with each stakeholder as a means of understanding the existing issues, the impact of future development and the potential solutions for addressing existing issues and accommodating the Great Walks Project.

Minutes of the meetings held with each of the aforementioned stakeholders are provided within Appendix B.

Thames Coromandel District Council (TCDC)

TCDC outlined the following key issues in regard to traffic and parking across the study area:

- There is limited parking available at the Cathedral Cove (Grange Road) car park and as a result heavy congestion occurs during the peak summer season.
- There are observed parking issues at Hot Water Beach, Hahei Beach and Ferry Landing.
- Visitor numbers have increased significantly over the last five years and traffic growth, as a result of new developments, is likely to worsen the parking and traffic issues.

Figure 2-1 identifies the proposed sections of the Great Walk, as provided by TCDC. It should be noted that the low-tide route around the Purangi Estuary has as yet not been confirmed and has been included for illustrative purposes only. Indeed to date, only the Ferry Landing to Hahei section of the walkway has been confirmed.

Figure 2-1: Proposed Cathedral Coast Walkway

To address the existing traffic and parking issues, and to support the Great Walks Project, TCDC have identified the following potential mitigation measures:

- A Park and Ride service to the Cathedral Cove car park currently operates during the peak summer period from a location adjacent to Hahei Beach Road and Pa Road, Hahei. This service should be expanded and a permanent car park be provided at the entrance to Hahei Village.
- A new car park, located along Lees Road, to be introduced that will provide an alternative starting point for walks to Cathedral Cove. The car park will initially provide 150 spaces, with

5 As per the November 2015 TCDC consultation leaflet.
potential future expansion of up to 500 spaces. The distance from Lees Road car park to Cathedral Cove will be approximately equivalent to the existing walking distance from the Grange Road car park.

- Lees Road to be sealed up to the proposed Lees Road car park as a means of supporting growth in traffic to both the new Cathedral Cove car park and the walkway.

Ngati Hei

Ngati Hei, the local iwi represented by Peter Johnson, expressed their view for the region in terms of the long term development. Notably they have commented that they are opposed to any car parks located near or on beach reserves (such as at Hahei Beach and Hot Water Beach) and that these areas can be better utilised as either green space or for commercial/retail use. Ngati Hei also commented that the existing car park at Cathedral Cove should be used for pick-ups and drop offs only, with view to providing a future Visitor Centre at this location.

Ngati Hei expressed no opposition to the TCDC commitment to develop new car parking sites at Lees Road and at the entrance to Hahei Village. Furthermore, a potential car park located at the old Purangi Estuary tip site was noted as a possible suitable location for accommodating high-tide walkers between the Stella Evered Memorial Park and Cooks Beach.

Hahei Beach Rate Payers Association (HBRPA)

The HBRPA outlined a number of issues in regard to parking within Hahei, in particular within the vicinity of the Hahei Beach car park, where a large number of vehicles are observed to park informally along grass verges on both sides of adjacent residential streets during the peak season.

The Park and Ride service, which has been operating since 2009 from a location adjacent to Hahei Beach Road, has been regarded as a success and is seen to have significantly reduced congestion at the Cathedral Cove car park during the peak summer time. The HBRPA are opposed to introducing parking charges for the Park and Ride service 6.

2.2 Stakeholder Agreement and Tension

Consultation with the key stakeholders and a review of the local area plans has enabled the following key areas of consistency and tension to be identified, as summarised in Table 2-1 and Table 2-2 respectively.

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</tr>
<tr>
<td>A shuttle service is provided linking Ferry Landing, Purangi Road, Lees Road, Hahei and Hot Water Beach.</td>
<td>TCDC, HBRPA, Ngati Hei</td>
</tr>
<tr>
<td>A car park should be introduced at the entrance to Hahei Village.</td>
<td>TCDC, HBRPA, Ngati Hei</td>
</tr>
<tr>
<td>Car park to be introduced at Lees Road to accommodate visitors to Cathedral Cove and Lees Road to be sealed.</td>
<td>TCDC, HBRPA, Ngati Hei</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TCDC Measure</th>
<th>Stakeholder Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentially introducing parking charges at the proposed Lees Road and Hahei Village Entrance car parks.</td>
<td>HBPRA – car parks should be free of charge.</td>
</tr>
<tr>
<td>Hot Water Beach Parking should remain, but be more limited (Miles and TRC Tourism report)</td>
<td>Ngati Hei – Car park on beach front should be removed.</td>
</tr>
</tbody>
</table>

6 http://docs.tcdc.govt.nz/store/default/3788039.pdf
<table>
<thead>
<tr>
<th>TCDC Measure</th>
<th>Stakeholder Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Hahei Village Entrance car park is to be located at the site of the sewage treatment works.</td>
<td>HBRPA - Develop a car park at the entrance to Hahei.</td>
</tr>
</tbody>
</table>

Figure 2-2 identifies the locations of the areas of agreement and tension amongst stakeholders.

Figure 2-2: Location of Points of Agreement and Tension

2.3 Presentation of the Initial Report

In October 2016 MWH presented the findings of the *Traffic, Parking and Maintenance Assessment Report (2015)* to TCDC, the HBRPA and Lees Road Residents Association. The minutes of the Hahei Stakeholders Meeting are provided within Appendix B.

Since the presentation, TCDC have provided an update in regard to the Great Walks Project:

- The Purangi Estuary crossing has been investigated and preliminary surveys have been undertaken.
- TCDC have budgeted $438,000 (2015/16) for the new car park at the entrance to Hahei Village and $1,500,000 for a new car park and sealing of Lees Road up to the car park (2016/17).
- A “No Exit” sign has recently been installed along Lees Road. TCDC acknowledge the desire of Lees’ Road residents to seal and widen the road all the way to the Stella Evered Reserve.
- TCDC will undertake dust seal subject to resource consent being granted prior to June 2017, or in the 18/19 year if consenting takes longer.

The Mercury Bay Community Board is to decide whether to discontinue subsidising the current shuttle bus service, which has run for the past three years.

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7 By means of a consultation leaflet distributed during a public meeting held in November 2015.
3 Previous Studies and Local Area Plans

As a means of informing the project, the following studies and local area plans have been reviewed:

- Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report, 2013
- Commercial Accommodation Monitor, April 2015
- Thames-Coromandel Proposed District Plan
- Mercury Bay Community Board Plan: 2014 to 2015
- Hahei Coastal Reserves Integrated Management Plan
- Hahei Community Plan 2005-2015
- Hahei Community Plan Update 2010

Relevant details from each of these documents are summarised within this section of the report.

3.1 Previous Studies

3.1.1 Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report

The ‘Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report’, produced by Miles and TRC Tourism, examines the tourism potential of a Great Walk from Whitianga to Cathedral Cove and on to Hot Water Beach.

The report strongly recommends the Cathedral Cove Coast Walkway opportunity to TCDC, noting that there are significant potential economic benefits to be gained from introducing the walkway. The report estimates that 50,000 to 100,000 visitors per year will walk the Cathedral Cove Walkway within 5 years of construction; of these visitors, between 17,500 and 35,000 will be new visitors attracted to the region by the new walkway.

The report recommends the construction of a new and scalable car park off Lees Road, which would be located approximately the same distance from Cathedral Cove as the current Grange Road car park. The report also recommends the introduction of car parking fees and a free shuttle service that would return walkers to their cars upon completion of the walk. The report assumes the retention of the existing Grange Road car park.

In regard to the Hot Water Beach car parks, the report recommends that extensions to the existing car parking supply should be more limited.

3.1.2 Coromandel Peak Population Study

TCDC undertook peak population studies for the 2003/2004, 2007/2008 and 2009/2010 summer periods. The purpose of the studies was to provide an understanding of the rise in the population of the district over the peak holiday period.

Each study captured traffic data for key roads across the study area. A review of the data has identified that, consistently across the study area and for each of the surveyed years, the peak day was the 2nd January. The data also identified that the usual residential population of Cooks Beach and Hahei increases by up to 20 times during the peak summer time, whilst the population of Whitianga increases by up four times.
3.1.3 Commercial Accommodation Monitor

To provide a greater understanding of the recent rise in tourist numbers within the district, additional reference has been made to the ‘Commercial Accommodation Monitor: April 2015 – Coromandel’, produced by Statistics New Zealand. The report identifies the following statistics for the entire Coromandel district which are relevant to this study:

- Guest nights rose 8.7% between 2014 and 2015;
- International guest nights rose 7.5% between 2014 and 2015; and
- The average length of stay rose from 1.95 nights to 2.05 nights.

These statistics support anecdotal evidence from TCDC and the HBRPA that visitor numbers have increased rapidly over recent years.

3.1.4 TCDC 2015-2025 Long Term Plan – Detailed Growth Projections

TCDC have published projections, summarised in Table 3-1 below, for residential growth up until 2045 for each of the community boards.

Table 3-1: Resident Population Growth by Community Board

<table>
<thead>
<tr>
<th>Community Board</th>
<th>Usual Resident Population</th>
<th>Average Annual Growth (2015-2045)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
<td>2025</td>
</tr>
<tr>
<td>Coromandel-Colville</td>
<td>2,912</td>
<td>2,995</td>
</tr>
<tr>
<td>Mercury Bay</td>
<td>7,500</td>
<td>8,123</td>
</tr>
<tr>
<td>Tairua-Pauanui</td>
<td>2,289</td>
<td>2,170</td>
</tr>
<tr>
<td>Thames</td>
<td>10,249</td>
<td>10,100</td>
</tr>
<tr>
<td>Whangamata</td>
<td>3,937</td>
<td>3,801</td>
</tr>
<tr>
<td>Total District</td>
<td>26,887</td>
<td>27,189</td>
</tr>
</tbody>
</table>

The projections identify that the Mercury Bay area is expected to experience the highest rise (0.7% per annum) in usual residential population across the district. For the whole district residential population is expected to grow by only 0.1% per year. A review of census data has identified that usual residential growth with the study area rose by 1.0% per annum between 2001 and 2013; a percentage which correlates closely with the future projection for the Mercury Bay area.

The future growth of the Mercury Bay area will be facilitated by new sub-divisions such as the Longreach residential development in Cooks Beach.

3.2 Local Area Plans

3.2.1 Thames-Coromandel Proposed District Plan

The District Plan sets the framework for managing land use and development within the District. The Plan contains objectives, policies, rules and some non-regulatory methods to address resource management issues such as the effect of subdivision and traffic.

The Proposed District Plan was notified in December 2013 and is still at a relatively early stage of development. No decisions have yet been made and currently the Plan largely does not have any legal effect. Its applicability to any proposed works will depend upon the timing of the works. It should also be noted that provisions as notified may be changed through the hearing and appeals process. The Operative District Plan remains the primary planning document at present.

3.2.2 Mercury Bay Community Board Plan: 2014 to 2015

The Mercury Bay Community Board Plan outlines the areas of focus for the community as a means of informing the 10 year plan. The report outlines the following projects relevant to this study:

- Ferry Landing Upgrade ($221,315). This project, earmarked for the 2014/2015 financial year, seeks to improve the road layout and landscaping at Ferry Landing.
• Dalmeny Corner Flood Protection ($950,000). The Board acknowledges that Dalmeny Corner provides a critical link to the Hahei and Cooks Beach communities and is a priority issue that should be addressed.

3.2.3 Hahei Coastal Reserves Integrated Management Plan (DOC)

The purpose of the Hahei Coastal Reserves Integrated Management Plan, produced for the Department of Conservation (DoC), is to protect the values of the Hahei Coastal Reserves by providing strategic guidance and direction for the management of these lands over the next 10 years.

In regard to the development of the Cathedral Cove and other coastal walkway tracks, the report notes the following:

• The walking distance from the Cathedral Cove beach to a staging post (car park / bus stop) shall be a minimum of 1.8km (as per the existing distance)
• DoC support the provision of Park and Ride options to track start and drop-off locations during the peak season, in partnership with Council and local operators
• Within 3 years (2017) to have developed the TCDC led coastal walkway linking the Te Pupuha blowhole to the Purangi estuary
• Within 6 years (2021) to have developed the TCDC led coastal walkway linking Te Pare to Hot Water Beach and Cooks Beach to Ferry Landing via Whitianga Rock.

In regard to the vehicle access and parking strategy, the report notes the following:

• The limited vehicle parking at the Cathedral Cove car park will be managed ensuring that there is access for emergency services and to facilitate disabled access to lookout points where necessary.
• Within 3 years to have developed a TCDC led “Park and Ride” service on the outskirts of Hahei. The park and ride should be undertaken across a 6 month (summer) period.
• Within 3 years to acquire suitable land for future car park / “Park and Ride” options.
• Within 6 years to have developed a TCDC led “Park and Ride” car park on the outskirts of Hahei.
• Within 6 years to have a partial decrease in the parking at Grange Road.
• Within 6 years to investigate Lees Road car parking options and Park and Ride integration.

3.2.4 Hahei Traffic Management Plan

The Hahei Traffic Management Plan was commissioned in 2008 by TCDC. The report assesses the current traffic and parking patterns in Hahei during the peak holiday periods, identifies specific problem areas to be addressed and outlines a traffic management plan to provide an improved arrangement for vehicle circulation and parking. The specific areas of concern, which are considered to be still relevant, were identified to be:

• A lack of car parking within the Cathedral Cove (Grange Road) car park during peak times.
• A need for a bus drop-off facility at the Hahei Beach car park.
• A need for formal design and layout of the Hahei Beach car park.
• Vehicle conflicts at the Hahei Beach Road/Grange Road intersection.
• Pedestrian safety issues in and around the commercial area.
• A need for additional footpaths on key roads within Hahei, including Hahei Beach Road and Pa Road.

Since the production of this report a number of issues, particularly along Grange Road, have been addressed with the introduction of footpaths and parking enforcements.

The report notes that in regard to the Hahei Beach car park, the relatively wide parking aisle used to accommodate turning vehicles results in an inefficient parking layout. However the report notes that the
dimensions of the current sealed area are such that an alternative formalised parking layout would not be possible without extending the sealed area.

One possible solution was identified to be the promotion of a second, unsealed parking area, located to the south east of the Hahei Beach car park and accessed via an unsealed driveway from Harsant Avenue. A new access across the reserve from the existing car park was identified to be a suitable solution. The merits of each of the options identified to address parking issues have been assessed as part of this study.

3.2.5 Hahei Community Plan 2005-2015

The draft Hahei Community Plan was produced by the HBRPA as a means of outlining the identity of Hahei and the desires of the community in terms of the management of growth and development. In terms of road infrastructure the plan notes the following:

- The existing roads cannot suitably accommodate the influx of traffic during peak times.
- The desire for upgrading Link Road in order to accommodate the growth in traffic.
- The desire for upgrading the Beach Road village entry.

A review of the 2010 Hahei Community Plan update identified no additional comments in regard to the transportation related issues.

3.2.6 Hahei Community Position Paper

The Hahei Stakeholders Group was formed following the 29th November 2014 public consultation regarding the Cathedral Cove Walkway Project. The community’s position regarding the proposed coastal walk was summarised in a note dated the 19th May 2015. It is understood that these viewpoints also reflect the opinions of the HBRPA.

The overriding position of the group is that the current traffic congestion issues should be addressed before the walk, or any other tourist attractions, are constructed. To address the traffic issues, the following recommendations are made:

- Visitors entering the area at Dalmeny Corner are clearly informed as to the parking options.
- Innovative solutions such as the use of GPS traffic management systems, or making Hahei a pedestrian only area during the summer time, should be considered.
- Introducing pay and display parking at the Grange Road car park.
- Rather than build a car park at the entrance to Hahei Village, alongside the sewage treatment plant, develop a car park/commercial area at the entrance to Hahei within the property adjacent to the proposed car park.

In regard to the proposed coast walkway, the group have expressed the following opinions:

- The group support the development of a walk north of Whitianga.
- The group are opposed to a walk from Hahei Beach/end of Pa Road to the Te Pupuha blowhole only (without connections to a wider walkway). Walks south from Hahei should only be constructed if they are a fully funded walk from Hahei to Hot Water Beach. Prior to the commencement of construction, there must be locally agreed mitigation strategies in place to manage, as a minimum, Pa Road parking congestion and walker safety.
- The group are opposed to a walk alongside Lees Road from the Purangi Estuary down through Carter’s farm to Cathedral Cove. It is considered that since there is no reliable way of crossing the Purangi Estuary, it is likely that most vehicles will drive up and down Lees Road.
- The group supports a walk around the coast from the Purangi Estuary to Cathedral Cove.
4 Road Network

This section of the report provides a summary of the existing road network conditions, inclusive of a review of the historical crash records. This section also outlines the findings of a drive-over inspection that was undertaken in order to determine the existing road maintenance deficiencies and safety issues.

4.1 Overview

The communities of Cooks Beach, Hahei and Hot Water Beach are connected to the wider highway network via a single link; namely the Hot Water Beach Road connection to SH25 at Dalmeny Corner. Generally outside of the urban areas the posted speed limit is 100kph, whilst within the urban areas the speed limit is set at 50kph. One exception is along Purangi Road (Cooks Beach), east of Resolution Drive, where for 100m the speed is reduced from 100kph to 70kph.

Hahei Beach Road (Link Road to Jackson Road), Hot Water Beach Road, Link Road and Purangi Road are all considered to be rural collector roads. The key intersections, which would be expected to carry the highest volumes, are therefore considered to be:

- Hahei Beach Road/Link Road
- Hot Water Beach Road/Link Road
- Hot Water Beach Road/Purangi Road
- SH25/Hot Water Beach Road.

Figure 4-1 below provides of site visit photographs for some of the key intersections.

Figure 4-1: Existing Road Conditions

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8 Thames-Coromandel Proposed District Plan, Section 18
4.2 Crash History

Crash data for all the roads within the study area has been obtained for the most recent five year period (2011-2015) using NZTA’s Crash Analysis System (CAS). Although located just outside of the project area, Dalmeny Corner (SH25/Hot Water Beach Road intersection) has also been included as part of the accident analysis. A summary of the accident data is presented within Table 4-1 below, whilst a diagram indicating the location and type of each crash is provided as Figure 4-2.

Table 4-1: Historical Crash Data

<table>
<thead>
<tr>
<th>Severity</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Serious</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Minor</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Non-Injury</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 4-2: Historical Crash Locations
The data has identified that between 2011 and 2015 a total of 24 crashes were recorded within the study area, of which six resulted in minor injury, four in serious injury and two in fatal injury.

The crashes which resulted in fatalities (as highlighted Figure 4-2) occurred on SH25 and Purangi Road in 2014 and 2015 respectively. The accident on SH25 was a result of a tourist failing to adjust to the New Zealand road rules causing the vehicle to cut the corner of the bend and hit an SUV head on. The accident on Purangi Road was due to loss of control when travelling around the corner.

Two of the serious injury crashes occurred along Hahei Road – one as the result of a vehicle hitting a fallen tree and the other as a result of a tourist driving on the incorrect side of the road. The other two serious injury crashes occurred on Pa Road and Link Road as a result of vehicle hitting a parked car and an oncoming vehicle respectively.

Dalmeny Corner may be considered to be an accident black spot, with a total of five accidents occurring within a 500m radius of the intersection since 2011. The majority of the accidents occurred as a result of drivers traveling too fast around the corner or failing to observe vehicles turning. Of all crashes, six (25%) occurred during the peak summer period of the 24th December to 8th January. Given that traffic volumes during the peak summer period are approximately three to four times the average, this result would be expected.

### 4.3 Network Assessment

On the 10th June 2015, MWH conducted a drive-over inspection of the existing network with the intention of determining the road maintenance deficiencies and safety issues. The inspection covered the following roads:

- Hot Water Beach Road / Pye Place (8.6km)
- Purangi Road (12.0km)
- Hahei Beach Road (2.1km)
- Link Road (3.3km)
- Lees Road (4.1km).

The purpose of the drive-over was to obtain a general understanding of the maintenance issues, network efficiency, and safety risks unique to the study area. The observations and recommendations in this section are generalised and it is recommended that more focused studies be completed in the future. These further studies should focus around the key areas of risk; namely, intersections and network pinch-points (such as one-lane bridges and urban thresholds).

#### 4.3.1 Commonly Identified Maintenance Deficiencies

The common maintenance deficiencies across the study area were noted to be:

- Road surface chip polishing and pavement flushing in heavy breaking areas. These issues are typically found on and before corners, on the approach to speed limit thresholds and on the approach to one lane bridges.

- Seal edge-breaks were observed between the carriageways and unsealed private entranceways, along narrow sections of road (especially those without edge lines) and on the inside of corners.

- Unsealed entranceways represent a high risk to the on-going maintenance and safety of the road network. It was observed that the majority of the entranceways are lower than the carriageway surface, and are often poorly constructed with clay or loose gravel surfaces. Given that these entranceways are located within high speed environments (i.e. 100km/h posted speed limits), it is reasonable to expect that loose debris will be tracked onto the carriageway surface. This results in a loss in skid resistance.

- Edge breaks are common at private entranceways as a result of high acceleration of vehicles entering onto the carriageway. Good practice is to seal the entranceways to at least the property gate (boundary) to allow for a suitable transition for vehicles onto the sealed carriageways. This would have the added benefit of solving the tracking of debris issue from the last point.

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*Refer to Section 5.*
- Out-of-context curves were observed on Hahei Beach Road (S-bend between the Hahei-Link Road intersection and Hahei) and close to the intersection of Hot Water Beach Road and Link Road. The advisory signage at these locations is considered to be lacking.

- Generally there appeared to be relative consistency in regard to road markings, signage and marker posts. However it would be beneficial, to reduce the tendency for edge breaks, if edge lines are provided along all roads (where possible).

It is recognised that all proposed improvements should be considered in light of NZTA’s One Network Road Classification (ONRC) Level of Service which is being implemented across New Zealand.

4.3.2 Maintenance Issues and Safety Risks

Hot Water Beach Road

Pye Place Car Park

The existing pay and display car park at Pye Place has 50 marked parking spaces, whilst on the opposite side of the carriageway there is a sealed parking area which allows a further ten vehicles to park. This design promotes reversing movements onto the carriageway, which potentially could increase the likeliness of rear end type crashes. It is likely that these types of crashes are not reported due to the low speed environment (50 km/h). We consider that providing 75mm high by 4m long speed tables on Pye Place at either end of the car park would promote lower speeds within the area. It was noted that there is an existing speed hump located 65m west of the car park site with a 25km/h speed advisory sign.

One-Lane Bridge (Village)

The existing pool fence over the one-lane bridge on approach to Hot Water Beach is unlikely to provide the 1.5kN/m resistance for pedestrian safety against falling. It was observed that safety barriers are absent on either side of the bridge; however it appears that works are currently being undertaken to introduce a pedestrian bridge immediately adjacent to the existing one-lane bridge. It is recommended that the provision of safety barriers either side of this bridge, together with a more robust handrail to mitigate against the fall hazards, are considered.

There is heavy flushing on each approach to the bridge, which significantly affects the skid resistance of the pavement. It is recommended that the pavement over the bridge is resurfaced and that the worn white edge lines are reinstated. Consideration should be given to providing an asphalt surface in advance and over the bridge. Given the expected future rise in vehicle movements, TCDC may need to consider either the construction of a new two lane bridge or providing traffic lights to control the high peak summer traffic volumes.

Taiwaiwe (Bull Paddock) Car Park

There is significant pavement flushing on Hot Water Beach Road at the entrance to Taiwaiwe car park and edge-break on the carriageway immediately adjacent to the car park entrance. Edge-break at this location is likely due to either vehicles passing around vehicles that have stopped to make a right turn manoeuvre into the car park or vehicles tracking wide to turn in and out of the car park.

It is suggested that the existing 6m carriageway width is increased to allow for right-hand turning vehicles and that this section of the road is resealed to remove surface flushing. In the long term, TCDC may need to consider the introduction of a dedicated right-hand turn-bay and left hand slip lane at the entrance to the Taiwaiwe (Bull Paddock) car park.

Domain Road / Hot Water Beach Intersection

Domain Road primarily services the Surfers car park and is an alternative access to Hot Water Beach. Site observations identified that this intersection appears to be poorly defined and would benefit from minor improvements such as formalised controls (such as give-way or stop) and lighting. Furthermore, it

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10 Pool fencing is designed as a barrier for protecting against young children entering a swimming pool environment when unsupervised and as such has been developed in accordance with the Fencing of Swimming Pools Act 1987, the Building Act 2004 and the Building Code. It is not designed as protection against falls or for redirecting errant vehicles which should be considered over a bridge structure. A suitable alternative would be installing Thriebeam Bridge Barrier with a handrail over the bridge similar to that detailed on the CSP website (http://www.csppacific.co.nz/Technical/FX492.pdf).
is recommended that the roadside drainage around the intersection (particularly the southern corner) is cleared to allow for water to drain freely from the carriageway.

MWH consider that many approaching motorists may not be aware that Domain Road provides an alternative parking area for Hot Water Beach. It is recognised that although a directional sign is present at the southern corner of the intersection, the location of the sign means that motorists do not have sufficient time to observe the sign, make a decision and react accordingly. Consideration should therefore be given to relocating the existing sign approximately 200-250m further north, in addition to providing a second sign which directs motorists who are travelling northbound.

The current sight distance for a vehicle turning right from Domain Road onto Hot Water Beach is approximately 120m. TCDC may need to consider cutting and benching into an existing bank on the western side of Hot Water Beach as a means of increasing observation distances.

**Link Road / Hot Water Beach Road Intersection**

No lighting is provided either at the intersection or at the right-hand turn bay in advance of the intersection. This means that the intersection is not clearly visible when traveling west along Hot Water Beach Road. Indeed, the ‘Stop’ sign on approach to the intersection from Hot Water Beach is not viable until about 10-15m south of the intersection as the ‘Stop’ is obstructed by a destination sign. Figure 4-3 provides photographic evidence of the obstruction.

![Figure 4-3: Hot Water Beach Road (50m South of the Link Road Intersection)](image)

MWH consider that the right-hand turn bay and double line “no–overtaking” road marking would benefit from providing reflective raised pavement markers (RRPM’s).

**Purangi Road / Hot Water Beach Road Intersection**

At the intersection of Purangi Road and Hot Water Beach it was observed that there was significant pavement flushing. This results in poor skid resistance at the intersection which can contribute to ‘loss of control’ accidents. Furthermore, there is rutting immediately south of the intersection which could indicate wet subgrade and is a general indicator of poor roadside drainage. TCDC have however confirmed that there are no recorded skid resistance issues or incidents at this intersection and that pavement surface deficiencies will be managed within the renewal budgets.

The existing carriageway width at the intersection is approximately 7.6m. Given this width, it is considered that if a vehicle is waiting to complete a right-hand turning movement into Purangi Road then there is no room for vehicles travelling straight ahead to manoeuvre around the right turning vehicle.

**One-Lane Bridge (Rural)**

There is significant rutting on the southern side of the one lane bridge on Hot Water Beach Road (approximately 600m north of the Dalmeny Corner). Once again this is an indicator of a wet subgrade as a result of poor roadside drainage.

**Accident Black Spots**

Analysis of the CAS database identified that one accident black spot appears to be around 500m-1000m north of Dalmeny Corner (SH25 intersection) where a total of three accidents occurred within five years. The cause of these accidents related to vehicles travelling too fast and failing to notice the vehicle in
front breaking. Breaking vehicles are likely to be those turning into either Newton Road or private property entrances. A drive-over survey observed no significant geometric issues at this location.

As noted previously Dalmeny Corner has also been identified to be an accident black spot location. TCDC have confirmed that they are aware of this issue and that mitigation measures are planned for the 2016/17 financial year.

**Link Road**

Along Link Road there are a number of areas where there are deep roadside drains are not sufficiently protected against by an existing safety barrier. This seems to be common north of the intersection with Hot Water Beach Road. Furthermore, significant flushing was observed in advance of the left-hand corner close to 279 Link Road.

It was observed that there are a number of pavement patch repairs along Link Road. This is potentially as a result of rutting or potholing in the area.

**Purangi Road**

During the drive-over inspection no significant maintenance issues were encountered along Purangi Road. However, Purangi Road transitions from an urban (Ferry Landing and Cooks Beach) to a rural environment. The road alignment includes a sizable number of corners, and a review of the CAS crash data has identified that there have historically been a number of loss of control and corner cutting type crashes.

One potential issue is the damage to the seal at a location between Hahei Road and Cooks Beach as a result of frequent stock (cattle) crossing between farm lands. This is a short-term maintenance risk and, given the location just after a fast corner, it may be suitable to identify an alternative stock crossing location.

**Lees Road**

Lees Road is a rural road and is generally unsealed with sections of sealed pavement. The sealed section appears to be defect free; however this is currently a low volume road. It is considered that the road is narrow, with varying widths between 3m to 5m, which is insufficient to allow for the safe passage of two camper vans passing side by side.

The unsealed sections appear to lack a sufficient depth of aggregate and loss of traction, particularly in wet conditions, is likely. Along the unsealed corners there is evidence of pavement corrugations. Furthermore, the drainage either side of the pavement does not appear to be well defined, which can lead to ponding, wet areas and potholes forming on the unsealed pavement.

To accommodate the Lees Road car park and to support the Great Walks project, investment will be required to bring Lees Road to an acceptable level – not only for road sealing, but potentially for pavement widening.

Recommendations for Lees Road, which have been further refined based upon an analysis of existing and estimated traffic volumes, are provided within Section 8.3.

It is noted that the proposed TCDC “dust seal” will generally be 5.5m wide, the minimum for two large vehicles to be able to pass in opposite directions, with a relatively short section of approximately 100m where only 5m width may be achieved as a result of site constraints. TCDC have stated that this narrower road section generally has good approach visibility from both directions, enabling larger vehicles to give way if required. Further warning of the narrowing should be introduced using appropriate advance warning signage and road markings consistent with other sections of State Highway and TCDC roads in the Coromandel Peninsula.

**Intersection Visibility**

There is an existing issue at the intersection of Lees Road and Hahei Road in terms of sight distance. Vehicles turning right out of Lees Road have impaired visibility due to the presence of a cut slope and fence. It is recommended that this issue is addressed, particularly in light of the fact that the volume of traffic along Lees Road would be expected to significantly rise in the event that the Lees Road car park is introduced.

Figure 4-4 on the next page provides photographs which identify the key existing road maintenance issues.
4.3.3 RAMM Data and Analysis

Evaluation of RAMM data, supplied by TCDC, has been undertaken as a means of comparing the recent and scheduled surface treatments against the pavement deficiencies identified by MWH during the drive-over inspections. Appendix C presents a summary of the RAMM data.

The RAMM data appears to confirm that the maintenance schedule for this part of the network is up to date, with the majority of the pavement re-surfacing not required until 2019-2027. However, there seems to be a trend where a racked in seal is used as a surface treatment when the pavement experiences premature failures such as chip loss and pavement flushing.

Traffic is likely to steadily rise in the future as a result of new developments and the increasing popularity of the area as a tourist destination. The rise in vehicle numbers will have a direct impact upon the road maintenance schedule. Given the rise in traffic, particularly following the introduction of the Great Walks Project, it is recommended that racked-in surface treatments are avoided, particularly along Hot Water Beach Road and Purangi Road. The effect of the additional traffic will be in an acceleration of chip loss and pavement flushing.
5 Existing Conditions

This section of the report provides an overview of the existing conditions in terms of land use, visitor trends, traffic and parking. This section is informed by the survey data obtained during the 2015/16 peak summer season.

5.1 Land Use

The study area is inclusive of three urbanised areas, notably Hahei, Cooks Beach and Hot Water Beach. Each settlement is predominantly residential with a small number of commercial facilities and hotels. As per the Proposed District Plan, the majority of land outside of these centres is zoned as either rural or conservation land. A copy of the relevant planning zone maps are provided within Appendix D.

5.2 Visitors

To gain an understanding of the number of visitors to the area and their general tendencies the following datasets have been analysed:

- Department of Conservation (DoC) Cathedral Cove Track Counter Data
- 2016 Summer Time Pedestrian Counts (MWH)
- 2016 Mercury Bay Visitor Questionnaire (MWH).

Cathedral Cove

The Coromandel Peak Population Studies identified that traffic during the summer period steadily rose by an average of 2.8% per year between 2004 and 2010. To understand the trend since 2010, DoC track counter data for Cathedral Cove has been analysed. Figure 5-1 identifies the total number of visitors per month to Cathedral Cove alongside a breakdown of those who used the main track (from Grange Road) and the Hahei Beach track.

![Figure 5-1: Cathedral Cove Visitor Growth](image)

The data has identified that in 2015 a total of 192,600 people visited Cathedral Cove, which represents a rise of almost 21% from 2014 (158,600 visitors). Indeed, the 2014 total represented a 14% rise from the 2013 total. As such, over the last three years the number of visitors to Cathedral Cove has risen by an average of 26,600 visitors per year. The data also suggests a trend in the proportional increase of people using the Hahei Beach track as opposed to the main track from Grange Road.

Given the rapid rise in popularity and promotion of Cathedral Cove, this rate of growth is unlikely to abate in the near future.
As noted within the ‘Cathedral Coast Walkway Feasibility Study & Report’ within five years of construction of the proposed Great Walk, around 35% of the coastal walkway users will be new tourists who have been attracted to the region. Ambitiously, this will equate to additional 35,000 people per year once the walkway is completed. Given the limited public transport options, the increase in visitor numbers will correlate directly with an increase in the demand for parking.

Hot Water Beach

To gain an understanding of the current visitor numbers to Hot Water Beach, MWH undertook pedestrian survey counts on the 4th January 2016 at the two main access points to the beach; namely, Pye Place and Domain Road (surfer’s car park). This information coupled with the tube count data collected along Hot Water Beach Road, turning count data for the Hot Water Beach/Link Road intersection and parking data has allowed us to develop a profile for visits to Hot Water Beach.

Visitor Numbers

Pedestrian counts identified that on the 4th January 2016 around 1,950 people accessed Hot Water Beach between 08:30 and 16:00. Of these, around 30% visited during the recommended low-tide visiting period. We consider that on a peak summer day, with good weather and favourable low-tide times, up to 3,000 people may visit Hot Water Beach during a single day (approximately one-third higher than recorded on the 4th January 2016).

Based upon the available data we estimate that between 150,000 and 180,000 people visited Hot Water Beach during 2015. This estimate seems intuitively correct given that 192,600 people visited Cathedral Cove which as identified by the visitor surveys (details provided on the next page) is a more popular destination than Hot Water Beach.

Peak Visiting Periods

As noted on the Coromandel Tourism website, “within two hours either side of low tide visitor’s flock to the usually deserted Hot Water Beach to find hot water bubbling through the golden sand”. Traffic data for the 4th January 2016 at the Hot Water Beach/Link Road intersection, graphically represented within Figure 5-2 below, supports this statement.

Figure 5-2: Hot Water Beach Visitor Trends (15 Minute Intervals)

Figure 5-2 identifies a clear trend that on the 4th January 2016 visitors arrived at Hot Water Beach shortly before low tide and left once the tide had come in. This trend in regard to the peak visiting period is also supported by tube count data obtained between the 26th December 2015 and 6th January 2016, as shown by the following graph (Figure 5-3) which identifies the correlation between the daily peak hour and the low-tide time.

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11 Including trend data for Cathedral Cove (DoC) and car occupancy data obtained from the parking surveys.
12 http://www.thecoromandel.com/new-zealand/Hot-Water-Beach/
13 The graph provides a representation of the total inbound/outbound volume along Hot Water Beach Road (between Link Road and Orua Lane) around low-tide.
Figure 5-3: Hot Water Beach Visitor Trends (2015/16 Peak Summer Profile)

Figure 5-3 shows that there is a strong correlation between low-tide time and the peak hour for traffic. The anomalies (highlighted), were as a result of both poor weather and unsociable low-tide periods.

Hahei Beach

Pedestrian counts undertaken at Hahei Beach on the 4th January 2016 suggest that around half the number of people visit Hahei Beach when compared to Hot Water Beach. However, it is acknowledged that the 4th January 2016 may not be truly representative of a peak summer day as the weather was cloudy during the morning and only sunny after 14:00.

Visitor Behaviour

MWH collected a total of 98 responses from the visitor satisfaction survey which was undertaken at Cathedral Cove and Hot Water Beach on the 4th January 2016. A copy of the questionnaire sheet is provided within Appendix E, whilst a summary of the responses to questions relating to visitor behaviour is provided within Table 5-1.

Table 5-1: Visitor Questionnaire Results (Behaviour)

<table>
<thead>
<tr>
<th>Question</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which places have you either visited or plan to visit (percentage of all visitors)?</td>
<td>Cathedral Cove (81%), Hahei (72%), Hot Water Beach (65%), Whitianga (55%), Cooks Beach (41%).</td>
</tr>
<tr>
<td>How long did you stay at each attraction?</td>
<td>Visitors spending 0-2 nights in the area spent around 2 hours at each attraction.</td>
</tr>
<tr>
<td></td>
<td>Visitors staying for more than 2 nights spent around 3 hours at each attraction.</td>
</tr>
<tr>
<td>If you have visited Hahei, where did you go (percentage of all visitors)?</td>
<td>Tour operators (10%), Shops/Café/Brewery (83%), Beach (92%).</td>
</tr>
<tr>
<td></td>
<td>39% of people visiting Cathedral Cove did stop in Hahei for any other purpose.</td>
</tr>
<tr>
<td>Council plan on implementing a high quality day walk track which links Whitianga to Hot Water Beach, including Cathedral Cove. Would you use this walk?</td>
<td>Yes (93%), No (7%)</td>
</tr>
<tr>
<td></td>
<td>41 out of 42 surveyed International visitors said they would use the walk.</td>
</tr>
</tbody>
</table>

The visitor questionnaire has identified that there is strong support for the Great Walks project and that Cathedral Cove is the most popular attraction, followed by Hot Water Beach and Cooks Beach.
5.3 Traffic

A high-level static traffic model, informed by the peak summer surveys, has been developed as a means providing a representation of the existing traffic volumes across the study area. The 2016 model provides a basis for estimating future year traffic volumes and identifying the impact of mitigation measures such as the continuation of the Park and Ride service and a new car park at Lees Road.

Peak Day

24 hour classified traffic count data was collected at a total of eight different locations across the study area for a two week period between the 26\textsuperscript{th} December 2015 and 6\textsuperscript{th} January 2016. The data identified that during the 2015/16 summer holiday period the peak day was the 30\textsuperscript{th} December. A profile of the traffic\textsuperscript{14}, using an index against the peak day (i.e. 30\textsuperscript{th} December = 100), is presented within Figure 5-4.

![Figure 5-4: Traffic Profile](image)

The data has identified that the total volume of traffic on the 4\textsuperscript{th} January was around 7% lower than on the 30\textsuperscript{th} January. Furthermore, the traffic volumes dropped significantly on days when the weather was poor. As noted earlier, historically the peak day for traffic has consistently been the 2\textsuperscript{nd} January. However, because of poor weather between the 1\textsuperscript{st} and 3\textsuperscript{rd} January 2016, the parking and traffic surveys were undertaken on the 4\textsuperscript{th} January 2016\textsuperscript{15}.

It is acknowledged that volumes during the 2015/16 peak season may have been lower than previous years when the weather was consistently good. Therefore for robustness, the following uplift factors have been applied to the 4\textsuperscript{th} January 2016 data:

- Uplift from 4\textsuperscript{th} January to 2015/16 peak day (30\textsuperscript{th} December): +7%.
- Uplift from 2015/16 peak day (30\textsuperscript{th} December) to typical year peak day (2\textsuperscript{nd} January): +10%\textsuperscript{16}.

Forecasting Methodology

An overview of the methodology used for establishing the 2016 base model volumes is provided below:

- Total daily traffic volumes were established for each of the road links where 24 hour automatic tube count data was available.
- Total daily traffic volumes using the intersection count data were obtained by summing eight hour (09:00-17:00) count data and then applying an uplift factor derived from the tube count data.

\textsuperscript{14} Derived from the sum of all data collection points.
\textsuperscript{15} On this day the weather remained either cloudy or sunny.
\textsuperscript{16} Conservative estimate derived from data provided within the Coromandel Peak Population Studies.
• Tube count data was validated using the manual intersection count data at three separate locations; namely, Hot Water Beach Road (3,050m), Hot Water Beach Road (5,115m) and Hahei Beach Road (110m). The validation exercise identified that tube count data was on average only 1% lower than the intersection count data. An uplift factor of 1% was therefore applied to all automatic tube count data to account for this minor discrepancy.

• Data for all remaining road links was derived using adjacent counts.

• To determine the typical (off-peak season) average daily traffic (ADT) a like-for-like comparison of counts was made with data sourced from the RAMM database. The comparison identified that the peak summer daily volume of traffic is 3.28 times the off-season ADT.

• Further uplift factors (noted previously) were applied as a means of representing the typical peak summer day (2nd January).

Traffic Estimates

A summary of the 2016 average and peak summer ADTs (two-way) for key road links are presented within Table 5-2, whilst a diagrammatic representation of the traffic volumes across the study area is presented within Appendix F, the traffic volumes have been determined from actual count data between 24 December 2015 and 6 January 2016.

Table 5-2: Estimated 2015 (Two-Way ADT) Traffic Volumes

<table>
<thead>
<tr>
<th>Road</th>
<th>Section</th>
<th>2016 Average Daily Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Typical Day</td>
</tr>
<tr>
<td>Hot Water Beach Road</td>
<td>SH25 to Purangi Road</td>
<td>2,610</td>
</tr>
<tr>
<td></td>
<td>Purangi Road to Link Road</td>
<td>1,450</td>
</tr>
<tr>
<td></td>
<td>Link Road to Radar Road</td>
<td>1,210</td>
</tr>
<tr>
<td>Link Road</td>
<td>Hot Water Beach Road to Hahei Beach Road</td>
<td>1,260</td>
</tr>
<tr>
<td></td>
<td>Pa Road to Link Road</td>
<td>1,760</td>
</tr>
<tr>
<td>Hahei Beach Road</td>
<td>Pa Road to Grange Road</td>
<td>1,740</td>
</tr>
<tr>
<td></td>
<td>Grange Road to End</td>
<td>650</td>
</tr>
<tr>
<td>Grange Road</td>
<td>Full</td>
<td>540</td>
</tr>
<tr>
<td>Pa Road</td>
<td>Hahei Beach Road to Wigmore Crescent</td>
<td>440</td>
</tr>
<tr>
<td>Hahei Road</td>
<td>Lees Road to Link Road</td>
<td>710</td>
</tr>
<tr>
<td></td>
<td>Purangi Road to Lees Road</td>
<td>610</td>
</tr>
<tr>
<td>Lees Road</td>
<td>Hahei Road to Proposed Car Park</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Proposed Car Park to End</td>
<td>40</td>
</tr>
<tr>
<td>Purangi Road</td>
<td>Hot Water Beach Road to Hahei Road</td>
<td>1,160</td>
</tr>
<tr>
<td></td>
<td>Hahei Road to Rees Ave</td>
<td>1,740</td>
</tr>
<tr>
<td></td>
<td>Rees Avenue to End</td>
<td>1,540</td>
</tr>
<tr>
<td>Rees Avenue</td>
<td>Full</td>
<td>1,320</td>
</tr>
</tbody>
</table>

The table identifies that the off-peak traffic volumes across the study area are relatively low, with the highest volume estimated to be around 2,600 vehicles (two-way) per day along Hot Water Beach Road between SH25 and Purangi Road. This would be expected given that this link provides the only road connection to the wider highway network.

During the peak summer period the ADT within both the Cooks Beach and Hahei settlements rises to around 5,700 two-way vehicles per day respectively.
With reference to the NZTA ‘Applying the One Network Road Classification Guidelines’, a local road that accommodates a population of less than 250 people (such as Grange Road) typically has a two-way ADT of 200 to 1,000 vehicles per day. A peak summer ADT of almost 1,780 vehicles per day along Grange Road is therefore likely to be considered undesirable. In regard to traffic composition, the manual intersection counts identified that approximately 94% of vehicles are cars, 4% are campervans and 2% are bus/trucks.

Lees Road

TCDC have acknowledged the concern of Lees Road residents in regard to the potential increase in traffic volumes and a desire to have Lees Road sealed up to the Stella Evered Reserve. During the off-peak season, the average daily traffic up to the proposed car park is currently around 80-110 vehicles per day. Approximately 97% of vehicles travelling along Lees Road are light vehicles.

The TCDC Code of Practice for Subdivision and Development (Section 3 Roading) sets out the engineering requirements for the construction of new roads and infrastructure associated with land development projects, including performance standards and methods for design. Table 3.1 of the guidelines provide the geometric standards for rural roads. The standards, provided within Appendix G of this report, suggest that, based upon the existing traffic volumes, Lees Road would be categorised as a Group 2 road\(^{16}\). In accordance with these standards, the current metal surfacing is suitable.

Analysis of the automatic tube count data suggests that around 30% of trips along Lees Road during the peak summer period are vehicles heading to the Stella Evered Memorial Park. In absolute terms this equates to a maximum of only around 38 additional daily vehicles (equating to 76 trips). The balance of the seasonal increase is attributed to an increase in trip frequency to existing properties.

5.4 Public Transport

Park and Ride

The Hahei Community Plan (2005) identified concerns in regard to the increasing number of visitors to Cathedral Cove and the subsequent impact to traffic within Hahei. In response to these concerns, a seasonal Park and Ride service, run by volunteers and jointly funded by TCDC and Environment Waikato, was trialled in 2009.

Following the successful trial, the service has been continued and the number of days of operation has been extended. The seasonal park and ride service currently operates using a 55 person (inc. 5 standing) capacity bus and a frequency of every 20 minutes between the hours of 10:00 and 18:00\(^{17}\). The HBRPA have noted that, anecdotally, the popularity of the service has steadily risen year-on-year.

Figure 5-5 provides photographs\(^ {19} \) which illustrate the operation of the existing Park and Ride service. Observations from the HBRPA identified that a number of people used the car park and walked to Hahei Beach.

\(^{16}\) As per the TCDC code of practice, a Group 2 road has AADT below 100 vpd and a Group 3 road has AADT 100-250 vpd


\(^{19}\) Provided by the HBRPA.
Statistics relating to the 2014/2015 summer season are presented in Figure 5-6. The data identifies that the busiest days of service were the 30\textsuperscript{th} December, 2\textsuperscript{nd} January and the 3\textsuperscript{rd} January with over 800 people travelling up to Cathedral Cove. The drop in patronage on the 8\textsuperscript{th} January during that season was attributed to rainy weather.

Figure 5-6: Park and Ride– 2014/2015 Patronage

Shuttle Service

TCDC and the Waikato Regional Council currently operate a summer shuttle service that links Ferry Landing, Cooks Beach, Hahei and Hot Water Beach. The service, which runs between the hours of 10:00 and 18:00, coincides with ferries to and from Whitianga.

During the 2013/2014 summer season around 3,000 people travelled on the bus during the period of operation, with 83% of people crossing from Whitianga and using the shuttle to go to the beaches\textsuperscript{20}. Data provided by TCDC identified that during the 2014/15 season the maximum number of daily patrons of the shuttle service was 200 people per day.

Tour Buses

It is understood that the following major tour bus companies operate within the study area: Haka Tours, Stray Buses, Oceania Buses, Coromandel Adventures, and Pacific Buses. It is considered that each of the operators will visit both Cathedral Cove and Hot Water Beach on a daily basis throughout the summer period.

5.5 Parking

Along with traffic congestion, the management and availability of parking within the settlements of Cooks Beach, Hahei and Hot Water Beach is considered to be one key area of concern for stakeholders. As such, one of the key objectives of the 2015/16 summer surveys was to verify and quantify empirical evidence that significant parking issues currently exist.

Parking Charges

Parking across the study area is available free of charge, aside from at the Hot Water Beach (Pye Place) car park where hourly rates of $2 per hour and daily rates of $15 are in effect. As part of the 2015-2025 Long Term Plan, TCDC are proposing a number of changes to the way that activities are funded and who pays for them. One of these proposals\(^{21}\) is to introduce parking rates\(^{22}\) for the Hahei Park and Ride in line with the existing Hot Water Beach rates as well as charging for parking at Lees Road car park.

Parking Supply

Table 5-3 provides a summary of the existing parking supply at key locations across the study area. Note that the values within the table were verified by on-site counts taken during the 2015/16 peak summer surveys.

### Table 5-3: Existing Parking Supply

<table>
<thead>
<tr>
<th>Location</th>
<th>Car Park</th>
<th>Approximate Area (sqm)</th>
<th>Parking Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regular</td>
</tr>
<tr>
<td>Hot Water Beach</td>
<td>Main (Pye Place)</td>
<td>1,500</td>
<td>60(^{23})</td>
</tr>
<tr>
<td></td>
<td>Overflow (Pye Place)</td>
<td>750</td>
<td>25(^{24})</td>
</tr>
<tr>
<td></td>
<td>Taiwaiwe (Bull Paddock)</td>
<td>2,300</td>
<td>65(^{25})</td>
</tr>
<tr>
<td></td>
<td>Surfers</td>
<td>1,700</td>
<td>57</td>
</tr>
<tr>
<td>Hahei</td>
<td>Grange Road</td>
<td>2,800</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Beach</td>
<td>2,000</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Commercial Area</td>
<td>1,000</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Hahei Village Entrance Park and Ride(^{26})</td>
<td>4,542</td>
<td>129</td>
</tr>
<tr>
<td>Ferry Landing</td>
<td>Ferry Landing Point</td>
<td>950</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>On-Street</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Cemetery</td>
<td>1,550</td>
<td>58</td>
</tr>
<tr>
<td>Other</td>
<td>Stella Evered Park</td>
<td>550</td>
<td>20</td>
</tr>
</tbody>
</table>

Appendix H provides aerial photographs\(^{27}\) of the main car parks across the project area.

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\(^{21}\) [http://www.creativemercercurybay.co.nz/TCDC%20LTP%20submission%20form.pdf](http://www.creativemercercurybay.co.nz/TCDC%20LTP%20submission%20form.pdf)


\(^{23}\) Capacity confirmed by TCDC during a meeting held with MWH on the 13th August 2015.

\(^{24}\) Based upon a ratio of 1 space per 30sqm area.

\(^{25}\) Capacity based upon proposed size, noting that ultimately the Pa Road Park and Ride will be expanded to accommodate 200 vehicles and 2 buses.

\(^{26}\) Google Earth/TCDC GIS.
Overview of Issues

There are existing issues across the study area as a result of a limited supply of parking spaces. The parking issues include:

- Vehicles circulate the Grange Road (Cathedral Cove) car park until a space becomes available – this accentuates congestion within the car park and back along Grange Road.
- Despite restrictions along Grange Road, illegal parking still occurs.
- A large number of people destined for Hahei beach park informally on grass verges of local residential streets; predominantly Hahei Beach Road, Harsant Avenue and Dawn Avenue.
- A number of visitors to Hot Water Beach during the low-tide period park along the grass verges of the road.
- Parking supply is limited at Ferry Landing and a number of vehicles are parked along residential streets once the Cemetery car park has filled up.
- Campervans reversing have to perform three-point turns which block the Hahei beach car park access and holds up traffic.

Figure 5-7 provides photographs that illustrate the peak summer parking issues within Hahei.

![Congestion at Grange Road (Cathedral Cove) Car Park](image1)

![Parking on the Verge near to Hahei Beach](image2)

**Figure 5-7: Existing Parking Issues Within Hahei**

Parking Occupancy

Occupancy of each car park was derived using the inbound and outbound vehicle counts or a parking beat count. A summary of the findings of the parking occupancy surveys undertaken on the 4th January 2016 are provided below whilst accumulation graphs are provided within Appendix I.

- The Grange Road car park is fully occupied throughout the day (observations).
- The Hahei Beach front car park was busy throughout the day. During sunny weather in the middle of the day the car park was predominantly fully occupied.
- The Hahei Village Entrance Car Park was around 80% occupied between the hours of 12:00 to 15:00. Prior to this time, the weather was cloudy, which may partly account for the reduced demand.
- On-street parking demand within Hahei was concentrated towards the beach front. However, a large proportion of the total on-street supply (>80%) remained available throughout the day.
- Parking spaces at the Ferry Landing pier and on-street (near the pier) were fully occupied from the hours of 11:00 to 17:00. Spaces however remained available throughout the day at the Library.
- Parking spaces remained available at Hot Water Beach throughout the day.

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28 Provided by the HBRPA.
Although on the 4th January 2016 parking was available at Hot Water Beach, as noted previously, demand on this day was potentially one third lower than would have been observed on a peak summer day with favourable tide times. Therefore, during peak periods parking demand for the Pye Place/Taiwaiwe/Overflow car parks at Hot Water Beach is likely to be at least 80% occupied. Furthermore we can conclude that the Hahei Beach and Hahei Village Entrance car parks are stretched to, or potentially beyond, capacity during peak summer days when the weather is good.

**Duration of Stay**

To understand the typical duration of stay for visitors to each of the main attractions, a parking duration survey was undertaken at the Hahei Beach, Pa Road (Cathedral Cove) and Hot Water Beach car parks. A summary of the results is presented graphically within Figure 5-8 below.

![Figure 5-8: Parking Duration Survey Results](image)

The results of the duration survey identified the following:

- The majority of people stayed within the Hahei Beach car park for less than 1 hour. However, as confirmed by the surveyor, this result is attributed to the fact that the vast majority of these vehicles entered the car park and left immediately as there were no available parking spaces.
- The average duration of stay at Cathedral Cove was 2 hours and 25 minutes. This result is validated by the results of visitor questionnaire surveys which identified an average duration of stay of 2 hours and 45 minutes.
- Discounting stays less than 1 hour (which may be weighted by those entering and leaving the car park immediately), the majority of people stayed at both Hot Water Beach and Hahei Beach for less than two hours. However, it is acknowledged that during the morning of the survey the weather was cloudy.

**Vehicle Occupancy**

A sample of vehicle occupancy was undertaken as part of the parking surveys and identified that on average each vehicle carried 2.43 persons.

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29 Duration of stay was determined by recording the time and number plate for each vehicle entering and exiting the car park.
30 Taking consideration of average duration of stay at the Hahei Village Entrance Car Park and travel/waiting time for the shuttle.
31 Total sample size = 788 vehicles.
6 Future Conditions

6.1 Land Use

Specific details for major subdivision developments within Cooks Beach and Hahei are included as part of the Thames-Coromandel Proposed District Plan. Relevant details of which are provided below.

Longreach, Cooks Beach

It is the desire of TCDC that the Longreach residential subdivision at Cooks Beach (currently under construction) will maintain and enhance the community atmosphere of the Cooks Beach settlement, integrate infrastructure with existing and proposed development and complement the coastal setting and natural values of the Purangi Estuary.

The Site Development Plan, as per the Proposed District Plan, notes that the number of road intersections from the subdivision to Purangi Road will be limited to two and no direct access onto Purangi Road will be available from residential lots. TCDC have confirmed that the subdivision will include 300 lots, with an estimated sale rate of 20 sections per year. Further details regarding the subdivision are provided within Appendix J.

Hahei Holiday Resort

The Hahei Holiday Resort occupies a 6.79ha area and is located adjacent to Hahei Beach. However, during the October 2015 consultation, MWH were made aware that the new owners have indicated that they have no plans to subdivide the land.

‘Hundred Acres’, Hahei

It is understood that as part of the TCDC District Plan review process, consideration is being given to developing the area known as the ‘Hundred Acres’, located at the entrance to Hahei. This area may be rezoned and up to 100 residential sections with supporting commercial units may be made available. A development of this scale could be expected to generate up to 1,040 trips per day. Notwithstanding this, given the uncertainty regarding the nature of this possible development, consideration of the traffic impacts of the Hundred Acres development have been excluded from the traffic assessment.

6.2 Visitors

As suggested by the Cathedral Cove track counter data (see Section 5.2), in the short term (next 5 years) the number of visitors to the area is likely to continue to increase purely as a result of demand related to the existing attractions. Based upon current trends (without the Great Walks Project) the annual number of visitors to Cathedral Cove would be expected to exceed 250,000 visitors by 2021.

The Great Walks project will attract additional people to the Mercury Bay area. Indeed, the Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report (Miles, 2013) outlines that, conservatively, for the Great Walks project an additional 17,500 people per year will be attracted to the area. The ambitious scenario considers that an additional 35,000 people will be attracted annually.

It should be noted that these estimations are based upon the introduction of both stages of the walk – i.e. from Ferry Landing through to Hot Water Beach. However, TCDC and the HBRPA have requested that the assessment consider the implications of only the introduction of Stage 1 (Ferry Landing to Hahei) of the walk. The ‘conservative’ estimates may therefore be considered to be more realistic in lieu of the uncertainty regarding the future patronage of the Great Walks Project over the next five years; particularly as the section between Hahei and Hot Water Beach will be introduced after the Ferry Landing and Hahei section has been completed. Notwithstanding this, for robustness of assessment the ‘ambitious’ estimates have been used.

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6.3 Traffic

As a means of informing the road maintenance assessment and to understand the impact of parking mitigation measures, a forecast for the future year (2021) traffic volumes has been established. 2021 has been used as the horizon year for the following reasons:

- It is uncertain whether visitor numbers to the area will continue to rise at the existing levels. Forecasts beyond five years may therefore be considered to be misleading.
- Assuming suitable funding and approvals are received, it is proposed that the Great Walks Project and Lees Road car park would be constructed prior to 2021.
- Background traffic growth as a result of new sub-division development is likely to be minimal.

2021 Scenarios

The continuation of the Park and Ride, expansion of the Hahei Village Entrance Car Park and the introduction of a new car park at Lees Road were initiatives both TCDC and the HBRPA agreed should be considered as a means of mitigating existing and future parking supply issues. The introduction of the Lees Road car park was also noted as part of the Hahei Coastal Reserves Integrated Management Plan and the ‘Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report’.

The following future year forecasts have therefore been developed based upon a scenario whereby the Great Walks Project is not introduced:

- 2021 Average Day
- 2021 Peak Summer Day
- 2021 Peak Summer Day inc. Hahei Village Entrance P&R
- 2021 Peak Summer Day inc. Hahei Village Entrance P&R and Lees Road Car Park

Great Walks Scenario

TCDC have confirmed that the Great Walks project includes safe crossing for the Purangi Estuary. Indeed, as per the November 2015 project update leaflet, TCDC have indicated the following in regard to the crossing:

“A walking route is definitely feasible to include boardwalks and bridges or platforms/boardwalks, which would provide a stunning addition to this part of the walk through to Cooks Beach. Initial work is also underway for other options, including commercial water crossing over the Estuary from Cooks Beach to the Stella Evered Reserve at the existing stone jetty”.

An additional forecast has therefore been developed based upon the notion that the Great Walks project is introduced once the Lees Road car park and Hahei Village Entrance Car Park are introduced\(^{33}\). This assessment only considers a scenario where the Purangi Estuary crossing is provided.

Forecasting Methodology

A breakdown of the methodology for establishing the 2021 future year forecasts is provided within Appendix K. Note that the distribution of new future trips was based upon the notion that visitors will follow signposts or take the shortest routes.

Traffic Estimates

A summary of the 2016 and 2021 peak summer forecasts (two-way ADT) is provided within Table 6-1, whilst an illustration of the traffic volumes across the study area is presented within Appendix I.

\(^{33}\) The ‘2021 Peak Summer Day inc. P&R and Lees Road Car Park’ scenario forecast includes consideration of the potential that some visitors (10%) to the Lees Road car park may, out of curiosity, continue further up Lees Road.

\(^{34}\) This scenario assumes that 20% of additional Great Walks demand to Lees Road will also continue further up Lees Road (potentially to start the walk from an alternative location or for pick-up/drop-offs).
Table 6-1: Estimated 2021 Peak Summer (Two-Way ADT) Traffic Volumes

<table>
<thead>
<tr>
<th>Road</th>
<th>Section</th>
<th>2016 Peak Summer</th>
<th>2021 Peak Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Mitigation</td>
<td>Mitigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P&amp;R</td>
<td>P&amp;R + Lees Road</td>
</tr>
<tr>
<td>Hot Water Beach Road</td>
<td>SH25 to Purangi Road</td>
<td>8,550</td>
<td>17,140</td>
</tr>
<tr>
<td></td>
<td>Purangi Road to Link Road</td>
<td>4,740</td>
<td>10,210</td>
</tr>
<tr>
<td></td>
<td>Link Road to Radar Road</td>
<td>3,980</td>
<td>3,980</td>
</tr>
<tr>
<td>Link Road</td>
<td>Hot Water Beach Road to Hahei Beach Road</td>
<td>4,140</td>
<td>9,610</td>
</tr>
<tr>
<td>Hahei Beach Road</td>
<td>Pa Road to Link Road</td>
<td>5,790</td>
<td>11,250</td>
</tr>
<tr>
<td></td>
<td>Pa Road to Grange Road</td>
<td>5,710</td>
<td>11,170</td>
</tr>
<tr>
<td></td>
<td>Grange Road to End</td>
<td>2,150</td>
<td>5,470</td>
</tr>
<tr>
<td>Grange Road</td>
<td>Full</td>
<td>1,780</td>
<td>3,930</td>
</tr>
<tr>
<td>Pa Road</td>
<td>Hahei Beach Road to Wigmore Crescent</td>
<td>1,460</td>
<td>1,460</td>
</tr>
<tr>
<td>Hahei Road</td>
<td>Lees Road to Link Road</td>
<td>2,340</td>
<td>2,340</td>
</tr>
<tr>
<td></td>
<td>Purangi Road to Lees Road</td>
<td>1,990</td>
<td>1,990</td>
</tr>
<tr>
<td>Lees Road</td>
<td>Hahei Road to Proposed Car Park</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>Proposed Car Park to End</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Purangi Road</td>
<td>Hot Water Beach Road to Hahei Road</td>
<td>3,810</td>
<td>6,930</td>
</tr>
<tr>
<td></td>
<td>Hahei Road to Rees Ave</td>
<td>5,700</td>
<td>8,820</td>
</tr>
<tr>
<td></td>
<td>Rees Avenue to End</td>
<td>5,050</td>
<td>5,050</td>
</tr>
<tr>
<td>Rees Avenue</td>
<td>Full</td>
<td>4,310</td>
<td>4,310</td>
</tr>
</tbody>
</table>

The traffic model has identified the following:

- Assuming access to the Hahei Village Entrance Car Park is provided from Hahei Beach Road, the volume of traffic using Pa Road is expected to remain consistent with existing levels. Furthermore, the 2021 volumes (for any scenario) along Hot Water Beach Road (Link Road to Radar Road), Purangi Road (Rees Avenue to End) and Rees Avenue are expected to be similar to the 2016 ADTs.

- By 2021, the Park and Ride service would be expected to remove around 1,140 combined two-way trips from Grange Road. The introduction of the Lees Road car park would be expected to remove a further 2,210 two-way trips that would see volumes along Grange Road reduce to levels similar to those for the 2015 off-peak period.

- The road section with the highest volume is expected to be Hot Water Beach Road between SH25 and Purangi Road. On the basis that the Great Walks Project goes ahead, traffic along this section is expected to increase by up to 8,880 vehicles (two-way) per day between 2016 and 2021 for a peak summer day.\(^{35}\)

\(^{35}\) Estimation inclusive of the assumption that the Hahei Holiday Resort becomes subdivided.
Lees Road

Table 6-2 provides a summary of the forecast traffic volumes along Lees Road following the introduction of the Lees Road car park and then subsequently following the introduction of the Great Walks. It should be noted that the forecast volumes within the table are highly susceptible to assumptions regarding the number of people who would continue past the Lees Road car park.

Table 6-2: Estimated Lees Road Volumes

<table>
<thead>
<tr>
<th>Year</th>
<th>Scenario</th>
<th>Period</th>
<th>Hahei Road to Car Park</th>
<th>Car Park to Stella Evered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Existing</td>
<td>Off-Season</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peak-Season</td>
<td>250</td>
<td>130</td>
</tr>
<tr>
<td>2021</td>
<td>Inc. P&amp;R and Lees Road car park</td>
<td>Off-Season</td>
<td>750</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peak-Season</td>
<td>2,460</td>
<td>360</td>
</tr>
<tr>
<td>2021</td>
<td>Inc. P&amp;R, Lees Road car park and Great Walks demand</td>
<td>Off-Season</td>
<td>820</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peak-Season</td>
<td>2,700</td>
<td>620</td>
</tr>
</tbody>
</table>

The forecasts suggest that by 2021, and following the introduction of the Great Walks project, typical off-season traffic volumes along the entire length of Lees Road would exceed 100 vehicles per day. In accordance with the TCDC Code of Practice for Subdivision and Development (see Appendix G) the Hahei Road to Car Park section would be categorised as a Group 3 road, with an AADT of approximately 250vpd, although it is close to the criteria for Group 4. Whilst the Car Park to Stella Evered section would be categorised as a Group 2 road. In each case, as per the standards, sealing is recommended.

6.4 Parking

Identification of the future peak season parking demand has been based upon a review of the existing parking data, consultation with the relevant stakeholders and the 2021 forecast traffic volumes. In regard to future parking demand the following conditions are expected:

- Car parks at Hahei Beach and the village entrance are already operating close to capacity.
- The increasing popularity of Cathedral Cove is expected to see a peak summer day increase of 2,150 two-way trips by 2021. This corresponds to an associated need to accommodate an additional 1,075 vehicles per day on a peak summer day.
- The current average turnover per space in the Hahei Village Entrance Car Park was identified to be 2.84 vehicles per day. On this basis, to accommodate a further 1,075 vehicles per day an additional 380 parking spaces are required. The existing supply of parking within the Hahei Beach and Hahei Village Entrance car parks will therefore not be sufficient to meet 2021 demand.
- Expansion of the Hahei Village Entrance Car Park from the current 129 spaces to 200 spaces (an additional 71 spaces) will not meet the 2021 parking demand deficit.
- The introduction of the Lees Road car park would be expected to see volumes along Grange Road reduce to levels similar to those for the 2015 off-peak period. In this scenario, demand for Cathedral Cove could be satisfied with the existing parking provisions.

Parking analysis has identified that, on its own, the expansion of the Hahei Village Entrance Car Park will not be sufficient to meet future demand for Cathedral Cove.

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36 Those people continuing further up Lees Road (beyond the car park) are likely to be those who are either curious, dropping off people or looking to park and access the walk/avoid paying for the Purangi Estuary crossing or visiting WWI memorial Forest.
7  Optioneering

This section of the report brings together the findings of the study and outlines a variety of potential solutions for addressing parking issues for Cathedral Cove, Hahei Beach, and Hot Water Beach.

7.1  Grange Road

7.1.1  Physical Infrastructure

The primary objective of introducing mitigation measures is to reduce the level of traffic within Hahei and ease pressure upon the existing supply of parking spaces during the peak summer period. However, expanding the Grange Road car park would act to encourage more people to use Grange Road and consequently exacerbate existing issues. Furthermore, for geotechnical reasons there is little available scope to expand the Grange Road car park. Therefore we do not recommend any measures to increase the capacity of the Grange Road car park.

7.1.2  Parking Management

The most effective way to alleviate parking issues at the Grange Road (Cathedral Cove) car park during the peak summer period is to allow parking for only tour buses, the Park and Ride shuttle, and drop-offs. During the off-peak season the car park could made available to all visitors.

Despite the potential financial benefits, introducing parking charges at Grange Road during the peak summer period is not considered to be the optimal solution for the following reasons:

- Assuming a consistent pricing strategy with the existing Hot Water Beach (Pye Place) car park, it is likely that the majority of tourists are unlikely to be dissuaded by a rate of $2 per hour. Traffic volumes along Grange Road following the introduction of parking charges are considered to be unlikely to significantly change.

- It is recognised that providing a high parking cost (such as $10 per hour) may act to reduce parking demand at the Cathedral Cove car park. However, given a parking supply of only 40 spaces, it remains likely that the demand for spaces will far outweigh the supply during the peak-summer season. The retention of the pricing scheme throughout the year may also be seen to be undesirable during the off-season.

- People will be less encouraged to utilise the Park and Ride service if parking remains available at the Cathedral Cove car park.

- TCDC have noted that the use of signage to inform of a lack of available parking at Cathedral Cove (Grange Road) was previously trialled, but ignored by the majority of drivers. This provides evidence that if car parking is provided, people will look to use it.

We believe that it is possible to mitigate the existing and short term future parking and traffic issues without the need for the DoC to introduce a cap to restrict the daily number of visitors to Cathedral Cove.

7.2  Hahei Village Entrance / Lees Road

7.2.1  Physical Infrastructure

A lack of available parking to meet the visitor demand for Cathedral Cove is considered to be the key issue within Hahei. To address this issue, TCDC proposes to introduce new parking areas along Lees Road and Pat the entrance to Hahei Village (to facilitate the Park and Ride service). It is understood that The Hahei Village Entrance Car Park will be expanded to provide a total of 200 spaces.

To identify the suitability of these proposals a high level assessment of daily parking demand versus parking supply has been undertaken for each of the following supply scenarios:

- Grange Road Car Park
- Grange Road Car Park + Park & Ride (129 spaces)
- Grange Road Car Park + Park & Ride (200 spaces)
- Park and Ride (200 spaces) + Lees Road Car Park (150 spaces)
- Park and Ride (200 spaces) + Lees Road Car Park (500 spaces).
The assessment takes into consideration the average duration of stay (as determined from the 2015/16 parking surveys) and demand derived from the 2021 forecast traffic counts. The calculations also take into consideration the following assumptions:

- Should the Lees Road car park be introduced, the Grange Road car park would be used only for pick-up/drop-off and buses during the peak summer period.
- Parking demand is concentrated between the hours of 08:00 and 18:00.
- The maximum number of visitors to Cathedral Cove by 2026 = 400,000 per annum, with the increase in demand dropping off proportionally post 2021.

Figure 7-1 presents the total car parking capacity against the forecast Cathedral Cove demand.

![Figure 7-1: Cathedral Cove Parking Capacity Assessment](image)

The existing Cathedral Cove parking supply during the peak summer period consists of a car park at the end of Grange Road and a Park and Ride car park located at the entrance to Hahei. The high-level parking analysis for Cathedral Cove has identified that this existing total parking supply is lower than the peak demand.

The analysis also identifies that, without the Lees Road car park, the existing Hahei Village Entrance Car Park (129 spaces) will not be sufficient to meet either the existing or future demand. With a 150 space car park at Lees Road, a 129 space car park at the Hahei Village entrance would provide sufficient capacity up until 2017. From a capacity perspective, a 500 space car park at Lees Road is required alongside a Park and Ride service to support visitors to Cathedral Cove by 2019, with or without the Great Walks Project.

The following timeframes for suitable works can be inferred from the analysis, noting that appropriate adjustments have been made to account for the time required to achieve the necessary resource consents. Further suitable adjustments may also be required dependent upon when the Great Walks Project is introduced.

- 2016: Expand the Hahei Village Entrance Car Park to provide 200 spaces.
- 2017: Introduce a 150 space car park at Lees Road.
- 2018: Expand the Hahei Village Entrance Car Park to the proposed 200 spaces.
- 2019: Expand the Lees Road car park to the proposed 500 spaces (if demand dictates).

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37 Conclusion based upon an allowance for some on-street parking to occur and relative error of the estimations.
Note that the information presented should be taken to be indicative as the calculations are based upon the theoretical maximum parking supply and demand. It should be considered that in reality the profile of arrivals to the car parks will not be flat, but rather is likely to peak around midday (as identified by the parking surveys). Thus short term supply issues may exist even during days when the accumulated daily capacity exceeds the daily demand.

Trip Diversion to Lees Road

The previous analysis has been based upon a theoretical total maximum supply of car parking. For this to be achieved a significant proportion of Cathedral Cove visitors need to divert to the new Lees Road car park. A sensitivity analysis has been undertaken which has established that 200 spaces at the Hahei Village entrance is sufficient up until 2021 if there is a diversion of 70% of Cathedral Cove trips to the Lees Road car park.

The 2016 visitor survey has suggested that 68% of people would divert to the Lees Road car park as opposed to the Hahei Village Entrance Car Park. The aforementioned 70% diversion is therefore an achievable goal, particularly if the following measures are implemented:

- Cathedral Cove signage from Dalmeny Corner should direct drivers to the Lees Road car park
- Leaflets provided to accommodation providers across the region to inform tourists about the alternative options for visiting Cathedral Cove
- Information on tourist websites should promote the Lees Road car park
- The Lees Road to Cathedral Cove route should be promoted as a new walk, as a means of attracting domestic visitors who may have already visited Cathedral Cove before.

Great Walks Impact

The demand for the Hahei Village Entrance Car Park would not be expected to rise significantly following the introduction of the Great Walks Project as patrons of the new walk would be expected to use alternative car parks at Lees Road or Hot Water Beach.

Expansion beyond the initially proposed 150 space car park is required by 2019 without the impact of the Great Walks Project and by 2017 with the introduction of the project. To meet the 2025 demand (inclusive of the Great Walks Project), an expansion to a 500 space car park at Lees Road is required.

7.2.2 Parking Management

Hahei Village Entrance Car Park

Across the study area, parking charges are currently only applied to the Pye Place car park in Hot Water Beach. This strategy encourages people to park within the free car parks (overflow/Taiwaiwe) outside of the village centre and is a workable solution in large part due to the limited alternative parking options.

Hahei, however, presents a number of potential alternative on-street parking options. There is therefore a risk that people will park for free on-street and walk to the Park and Ride shuttle bus. It is likely to be more effective to provide a free car park at the Hahei Village Entrance Car Park and to introduce suitable charging for the Park and Ride shuttle service.

Notwithstanding this, parking charging will generate additional revenue and a tiered parking scheme may act to increase the turnaround of spaces, which in effect will increase the effective daily capacity of the car park. TCDC will assess the benefits and disadvantages of introducing parking fees, and will make the final decision in regard to future charging strategy.

Lees Road

As per the Hahei Village Entrance Car Park, the introduction of parking fees would generate additional revenue and potentially will act to increase the turnaround of spaces. However, conditions along Lees Road are different to roads with Hahei, in that it is a rural environment and the current road width (3-5m) does not allow for suitable on-street parking.

It is considered that if parking fees were introduced it is likely that a number of people may park (potentially unsafely) along Lees Road or on privately owned land. Therefore to mitigate this, traffic management, in the form of on-street parking restrictions, would need to be introduced. As per the Hahei Village Entrance Car Park, TCDC have informed MWH that they will assess the benefits and disadvantages of introducing parking fees and will make the final decision in regard to future
implementation. Should charging be introduced, TCDC should identify further suitable measures to encourage the use of the Lees Road car park.

7.3 Hahei Village

To address the observed parking issues within Hahei the following potential solutions have been identified:

1. Expansion of the Park and Ride service to include a stop at the Hahei Shops;
2. Provision of temporary overflow car parks to support demand for the Hahei Village Entrance Car Park during the peak summer period;
3. Develop the existing unsealed parking area (located off Harsant Avenue);
4. Formalise on-street parking along Harsant Avenue, John Spear Avenue and Dawn Avenue;
5. Introduce parking time limitations; and
6. Create a ‘walking village’ and restrict vehicular access into Hahei for residents only.

The feasibility of each of these potential measures is discussed within the remainder of this sub-section.

1. Expand the Park and Ride Service

It is likely that a significant proportion of visitors to Hahei will visit both Cathedral Cove and Hahei Beach. Over the course of the day, those visitors who travelled by private car are likely to have occupied space within two different car parks.

The expansion of the Park and Ride service to include a stop at the Hahei shops (approximate three minute walk to the beach) would mean that demand for parking at Hahei Beach could potentially be reduced as vehicles would occupy space in only one car park. A stop at the Hahei shops rather than the Hahei beach is considered to be the most appropriate location as it has a minimal impact to travel time delay, meaning that buses are able to operate with more frequent and reliable timings.

2. Identify Overflow Car Parks

TCDC have confirmed that the proposed Hahei Village Entrance Car Park will provide a maximum of 200 spaces, inclusive of 29 spaces for camper vans and 2 buses. TCDC have also stated a preference that commercial operators who are currently situated within an unsealed parking area adjacent to Hahei Beach, be relocated to the Hahei Village Entrance Car Park.

Ultimately the availability of parking at the Hahei Village Entrance Car Park is heavily dependent upon how many Cathedral Cove trips are reallocated to the new Lees Road car park. Furthermore, a consequence of the expansion of the Park and Ride services would be to reduce the turnover of parking spaces and, in effect, capacity.

Consideration should therefore be given to using other areas as temporary overflow facilities. Potential suitable locations are the Kotare Reserve (located to the north of Pa Road) or privately owned land adjacent to Hahei Beach Road. It is recognised that any use of the Kotare Reserve would need to consider the requirement to accommodate the existing emergency helicopter landing site. Use of the Hahei Beach Road site, which could potentially provide 250 spaces, would require an agreement between the land owners and TCDC to be sought.

3. Develop the Existing Unsealed Car Park

This existing area is located to the south east of the main beach car park and is accessed via an unsealed driveway from Harsant Avenue. The area is currently utilised by commercial operators.

The development of this area was recommended as part of the Hahei Traffic Management. However in respect to the opinions of Ngati Hei regarding beach front parking development, MWH recommended that this area is not further developed and that the commercial operators use the new Hahei Village Entrance Car Park rather than this unsealed area.

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38 Approximate area = 8,250m². Given the triangular shape, a ratio of 1 parking space per 33m² area has been applied.
4. Formalisation of On-Street Parking

Given the likely lack of available capacity and the approximate 1.0km distance to the beach, it is likely that most visitors to Hahei beach will not use the Hahei Village Entrance Car Park. A potential solution could be to formalise on-street parking along local streets (Hahei Beach Road, Harsant Avenue and Dawn Avenue) and to introduce an appropriate signage and route strategy.

The formalisation of on-street parking along Harsant Avenue, John Spear Avenue and Dawn Avenue would approximately provide an additional 200 spaces. Formalising parking within the Robyn Crescent road median would potentially provide an additional 100 spaces (diagonal orientation). The formalisation of car parks will require kerb and channel to be introduced alongside marked parking bays. However, it is acknowledged that the Hahei Stakeholders Group have stated a clear objection to any proposal to introduce formal on-street parking within Hahei.

The 2015/16 parking accumulation surveys identified that the majority of available parking spaces along the aforementioned local streets remained available through the peak summer days. The primary reason for this is considered to be due to the availability of parking at the beach front.

5. Parking Time Limitations

A short-term measure could be to introduce parking limitations at Hahei Beach – potentially with a four hour maximum. This measure may help to increase the turnover of parked vehicles, and hence increase the effective daily capacity of the car park.

A differential pricing strategy may be considered to be suitable. However, this measure would require the presence of a parking warden and may be an unpopular measure for tourists and residents alike. Although without charging, visitors may simply just move their vehicle to another space once they are about to exceed the time limitation. TCDC will assess the benefits and disadvantages of introducing parking fees and will make the final decision in regard to future implementation.

6. ‘Walking Village’

The HBRPA have requested that consideration be given to implementing measures to turn Hahei into a ‘Walking Village’, whereby vehicle access is restricted to residents only. Whilst traffic within the village would significantly reduce, the plan would have the following negative effects:

- For the 2015/16 summer season a maximum total of 2,900 vehicles entered and exited Hahei on the peak day, the majority of which are assumed to be visitors. To accommodate these visitors a large car park (potentially with up to 1,000 spaces) on the outskirts of Hahei would be required. Given the potential aesthetics, it is likely that such a facility could be seen as an eye-sore that would have a negative impact to the perceived ambiance of Hahei.

- The cost of land purchase for the car park on the outskirts of Hahei Village is likely to be in excess of a similar scale land purchase along Lees Road. Furthermore, outside of the two-week peak summer period the car park is likely to become redundant.

- Typically car free areas are serviced by an excellent public transport provision. To reduce the reliance on private vehicles, it is considered that the public transport provision to Hahei from other local centres would have to be significantly improved.

- Typically car free areas can be accessed via a number of locations with a variety of car parking options provided. As Hahei Beach Road provides the only access to the village, it is likely that significant congestion issues would arise during summer periods without substantial mitigation.

- The management of residents only access would be difficult to enforce. For example, overnight visitors may not carry evidence of their hotel reservations and therefore may be denied access. Conversely, non-residents could access the village by claiming they have hotel bookings. Parking enforcement officers would have to be employed during the peak summer period.

- The proposal is likely to be seen by many visitors as unwelcoming.

- The discouragement of vehicles and visitors to the village may have localised economic disbenefits, particularly for the owners of the petrol station and retail outlets.

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39 Approximate road space length = 1,600m. Average parking space (inclusive of access requirements) = 8m.
Given the above, the creation of a ‘Walking Village’ for Hahei is considered to be undesirable.

### 7.4 Hot Water Beach

The 2015/16 peak summer surveys identified that whilst parking areas were busy, there remained available parking spaces throughout the day. Notwithstanding this, the likely increase in visitor numbers to the area over the next five years is likely to increase pressure upon the existing infrastructure.

Parking and traffic monitoring for Hot Water Beach should be undertaken on an annual basis as a means of understanding any future requirement for new physical infrastructure. However, should future demand dictate, consideration could be given to introducing new parking areas at the potential locations highlighted in Figure 7-2. The provision of these new car parks may generate an additional 200-300 spaces noting that the potential car park south west of the village would require the purchase or lease of private land.

As with the Hahei Beach car parking, the existing Pye Place car park is a key facility, without which, the existing parking issues would be further exacerbated. Given a lack of available detail regarding existing peak summer issues, it is recommended that the Pye Place car park is retained in the short-term.

**Great Walks Impact**

Demand for parking at Hot Water Beach would be expected to rise once both stages of the Great Walks project are completed. The timeframes for Stage 2 – from Hahei to Hot Water Beach, are however not yet confirmed. Any need for new parking areas at Hot Water Beach is likely stem from accelerated demand caused by the introduction of the Great Walks Project Stage 2.

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**Figure 7-2: Hot Water Beach – Potential New Car Parks**

### 7.5 Cooks Beach / Ferry Landing

**Cooks Beach**

Following the stakeholder consultation, it was considered that there are currently no significant parking issues within Cooks Beach itself.

TCDC have confirmed that, to serve the Great Walks Project, a crossing would need to be provided across the Purangi Estuary between Cooks Beach and the Stella Evered Memorial Park. At the time of writing Expressions of Interest were being sought for crossing options, which could include a commercial crossing. A boardwalk option has been investigated initially, and funding is being sought for this. There
currently exists a low tide route around Purangi Estuary, which would have to be marketed and have appropriate signage and information for walkers installed.

**Ferry Landing**

Parking demand at Ferry Landing relates primarily to residents of Cooks Beach (temporary or otherwise) travelling to Whitianga. Although some new development is planned for Cooks Beach it is unclear whether the demand for parking at Cooks Beach and crossing to Whitianga will significantly increase in the future.

The utilisation of the ferry service is likely to continue to increase, particularly once the Great Walks Project is introduced. However the vast majority of additional passengers (in either direction) will not have a desire to park at Ferry Landing as the demand for parking is related to travel to (rather than from) Whitianga.

The 2015/16 peak summer parking surveys identified that the parking supply at the ferry pier and on-street close to the pier is typically fully occupied during a peak summer day. However, parking at the Library was observed to be available throughout the day. Given this evidence, there is currently considered to be a significant supply of parking spaces within a comfortable walking radius (250m or 3 minutes) of the Ferry Landing pier.

Given the limited opportunities to develop any new parking areas within the vicinity of Ferry Landing, should demand for parking rise significantly above existing levels, a possible solution could be to introduce a summer time shuttle service between Cooks Beach shops and Ferry Landing.

### 7.6 Public Transport

The use of public transport acts as a key opportunity for reducing the reliance upon private car travel and easing pressure upon the already stretched parking supply within Hahei and Hot Water Beach. To this end, the following public transport initiatives have been considered:

1. Introduction of specific Hot Water Beach ‘Low Tide’ Shuttle Bus Services.
2. Promote the Ferry Landing to Hot Water Beach Shuttle Service.
3. Extend the Park and Ride to include a stop at Hot Water Beach.

#### 1. Low-Tide Shuttle Bus Service

The majority of visitors to Hot Water Beach arrive during the four hour period around low tide. Outside of that time, the visitor numbers are considered to be manageable with the existing infrastructure.

There is therefore scope to introduce a specific shuttle bus service from Whitianga and/or Hahei to Hot Water Beach around the low tide period. The trial of a shuttle bus, scheduled against the low-tide time with a frequency of every 30 minutes for a four hour peak period, is recommended for consideration.

#### 2. Ferry Landing to Hot Water Beach Shuttle Service

The current summer time shuttle service between Ferry Landing, Cooks Beach, Hahei Beach and Hot Water Beach is a service which can help to significantly reduce the existing dependence of the private car for travel around the region. It is considered that the introduction of the Lees Road car park would go hand-in-hand with an extension of the current service, with a stop at Lees Road that would be marketed as “Cathedral Cove”. Furthermore, with the introduction of the Great Walks Project, it may be suitable to introduce an additional shuttle bus stop close to the potential future Purangi Estuary jetty.

Consideration should be given to introducing a 24 and 48 hour pass ticket, which would allow unlimited travel on the service. This would provide visitors with additional flexibility and is an initiative that is likely to increase shuttle patronage as more visitors will use the service to visit all of the main attractions. The pricing structure should be carefully considered, as small variations in cost can have a large effect upon patronage. It is however acknowledged that the Mercury Bay Community Board is currently deciding upon whether or not to discontinue subsidising the current service. Should the shuttle service be further promoted, particularly within Whitianga, the available connection via the frequent ferry service should be made clear along with the time saving benefits.

A potential route map for the expanded service is provided within Figure 7-3.
3. Park and Ride Expansion to Hot Water Beach

A further potential initiative, identified by the Hahei Stakeholder Group, is the expansion of the existing Cathedral Cove Park and Ride to include a stop at Hot Water Beach. Although this service would be beneficial to those wishing to visit both attractions back-to-back, the scheme is not considered to be suitable for the following reasons:

- The success of the Park and Ride service is dependent upon whether or not it provides a more convenient and cost-effective alternative. However, the extension of the Hahei Park and Ride route to Hot Water Beach would have a significant impact to overall journey time. To offset this, a three to four fold increase in the number of shuttle buses running may be required.

- Demand for the Park and Ride is likely to be limited to the two-hour period either side of low tide. For the 2015/16 season the low-tide times were predominantly outside of the operating hours (10:00-18:00) of the Park and Ride service.

- A specific Park and Ride service from a location closer to Hot Water Beach (and outside of Hahei) may be more appropriate and convenient for those only visiting Hot Water Beach.

7.7 Greats Walks Infrastructure

TCDC have confirmed that consideration has been given to providing a high-tide route around the Purangi Estuary. To support the users of this high-tide route, TCDC have identified that the old tip site along Purangi Road (approximately 900m south of the new Cooks Beach subdivision) could be used as a potential car park. The location of this car park is considered to be suitable in terms of location and reuse of land. This car park could act as the start and finish point of a ‘Purangi Estuary circuit’ route, which if suitably promoted, could be well utilised. Ngati Hei have expressed no objections in regard to a potential car park at this location.
8 Recommendations

The recommendations outlined within this section have been developed from the analysis and feedback received from the Council, Hahei Stakeholders Group and visitors to the Mercury Bay area. The specific stakeholder feedback is provided within Appendix M, whilst details in regard to planning considerations are provided within Appendix N.

8.1 Parking

Hahei Village Entrance / Lees Road

The introduction of car parks along Lees Road and at the entrance to Hahei Village, together with the continuation of the Park and Ride service on an annual basis, are considered to be the key measures for mitigating the traffic impact of summer time visitors to the Mercury Bay area.

The location of the Hahei Village Entrance Car Park, on the outskirts of Hahei, is considered to be a suitable location which will limit the traffic impact within the village itself whilst retaining a high level of footfall in and around the commercial centre. We recommend that access to the car park is provided from Hahei Beach Road, rather than Pa Road.

The introduction of the Lees Road car park was noted as part of the Hahei Coastal Reserves Integrated Management Plan and the ‘Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report’. We agree that this is an appropriate location for a ‘Cathedral Cove’ car park, as it is located just out of Hahei and provides a starting point for a walk which is approximately equidistant to the existing walk from Grange Road.

Grange Road

We recommend that casual parking at the Cathedral Cove car park is not available during the peak summer period and the area is used only as a drop-off location for tour buses and the Park and Ride shuttles. During the off-peak season it is recommended that the car park remains available for visitors. Changes to the management of parking at Cathedral Cove (Grange Road) should however only be made following the introduction of the Lees Road and Hahei Village Entrance car parks.

As some mobility impaired visitors make use of Grange Road car park to use the viewing point, provision should be made for disabled parking at the Grange Road car park. Appropriate signage should be provided that indicates that parking is only available for mobility impaired visitors during the peak summer period.

TCDC may consider it appropriate to introduce small parking charges at the Grange Road car park during the off-peak season as a means of offsetting some of the cost of constructing new car parks at the entrance to Hahei Village and Lees Road.

Hahei Village

We recommend that a parking strategy for Hahei Village includes the following:

- Expansion of the Park and Ride service to include a stop at the Hahei shops;
- Provision of temporary overflow car parks to support demand for the Hahei Village Entrance Car Park during the peak summer period;
- Commercial operators and customers to utilise the new Hahei Village Entrance Car Park rather than the unsealed beach front car park;
- Promotion and expansion of the existing Ferry Landing-Hot Water Beach shuttle bus service.

The existing beach front car park is a key facility, without which, the existing parking issues would be further exacerbated. Therefore it is recommended that, in the short-term, the existing beach front car park is retained. Notwithstanding this, dependent upon the success of the parking strategy there may be scope for Council to decide to reuse the land occupied by the existing car park.

Great Walks Impact

Given the existing parking issues across the area, the overarching parking strategy is not significantly dependent upon the implementation of the Great Walks Project. Notwithstanding this, the key impact of the Project will be to bring forward the timeframe for which expansion of the Lees Road car park is
required and for when new car parks at Hot Water Beach may need to be considered. Figure 8-1 identifies the locations of the existing and proposed parking areas.

Figure 8-1: Existing and Proposed Parking Facilities

Parking Charges

The pricing strategy for parking will have a significant impact to the utilisation and ultimate success of the proposed new car parks at the entrance to Hahei Village and along Lees Road. We recommend that TCDC consider the following factors when assessing the benefits and disadvantages of introducing parking fees:

- The availability and proximity of alternative free of charge parking (i.e. on-street).
- The supplementary measures required to ensure people do not park in undesirable locations (such as along Lees Road itself) in order to avoid paying a parking fee.
- The potential for introducing a differential pricing strategy as a means of encouraging a greater turnover of parking spaces.
- The cost of enforcing parking.

8.2 Public Transport

We recommend that TCDC consider the implementation of the following public transport initiatives:

- A dedicated shuttle service from Whitianga and/or Hahei to Hot Water Beach around the low tide period. The trial of a shuttle bus, scheduled against the low-tide time with a frequency of every 30 minutes for a four hour peak period, is recommended for consideration.

- Expansion of the existing Cathedral Cove Park and Ride service to include a stop at the Hahei shops. Expansion should occur once a permanent car park at the entrance to Hahei Village is operational. We recommend that either the Park and Ride shuttle bus or Hahei Village Entrance Car Park is free of charge.

- Should the Lees Road car park be introduced, the shuttle service should stop at the car park and be marketed as the “Cathedral Cove” stop.
### 8.3 Road Maintenance

Table 8-1 below provides a summary of the key network maintenance issues and the recommendations for improvements. Issues coded in green are considered to be "easy wins" which could potentially be solved relatively quickly and cost effectively. Where pavement and surfacing failures have been identified, these will be completed in line with TCDC’s intervention criteria and levels of service.

**Table 8-1: Network Issues and Recommendations**

<table>
<thead>
<tr>
<th>Identified Issue</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement flushing and chip loss in areas of heavy breaking and high vehicle movement (i.e. at intersections).</td>
<td>Consider resurfacing within these areas with Mix10 asphalt or a suitable pavement with good skid resistance properties.</td>
</tr>
<tr>
<td>Pavement rutting and deformation in a number of areas.</td>
<td>Consider pavement rehabilitation in these areas and deepening/widening roadside drains to effectively remove water for the underlying pavement.</td>
</tr>
<tr>
<td>Frequent edge-breaking, especially within rural areas.</td>
<td>Consider pavement widening in areas where edge-break has occurred and sealing of private entranceway up to the boundaries. In addition, white edge-line road marking should be provided across the network.</td>
</tr>
<tr>
<td>The widths of the rural carriageways (generally 7.5m) provide no opportunities for passing. Furthermore, white edge-line road markings are not provided.</td>
<td>Consider providing pull-over bays or shoulder widening to allow for vehicle overtaking.</td>
</tr>
<tr>
<td>Out-of-context curves on rural roads.</td>
<td>Consider providing chevron and advisory speed limit signage.</td>
</tr>
<tr>
<td>Existing car park entrances promote unsafe turning movements and delays for through traffic.</td>
<td>Consider pavement widening to allow for left-hand slip lanes and right-hand turning bays.</td>
</tr>
<tr>
<td>Poor visibility at some of the rural intersections.</td>
<td>Consider providing street lighting in accordance with AS/NZ 1158 at the Hot Water Beach Road/Link Road intersection along with right turn bays. Review and upgrade (as necessary) all signage, road marking and safety barriers. Consider resurfacing intersections with a Mix10 Asphalt or suitable pavement surface with good skid resistant properties.</td>
</tr>
<tr>
<td>Lees Road is unsealed and has a narrow pavement surface that is unlikely to accommodate to campervans passing side-by-side.</td>
<td>Consider widening and surfacing of the currently unsealed pavement. Where appropriate, consideration should be given to curve easing.</td>
</tr>
<tr>
<td>Existing one lane bridges are poorly surfaced and act as network pinch-points.</td>
<td>Consider providing new two-lane bridges, additional signage or traffic lights to mitigate against the rise in peak summer time traffic. Traffic counts during peak periods should be completed at the one-lane bridge locations to confirm viability of upgrading. In the short term consideration should be given to resurfacing bridges and the approaches with Mix10 asphalt or a suitable pavement with good skid resistance properties.</td>
</tr>
<tr>
<td>There are areas which have steep drop-offs from the carriageway and are not recoverable for an errant vehicle.</td>
<td>Consider installing safety barriers to deflect vehicles away from the hazard. Notably the deep roadside drains on Link Road and the steep drop-offs along Hot Water Beach Road.</td>
</tr>
<tr>
<td>Stock crossing the carriageway resulting in pavement deterioration along Purangi Road.</td>
<td>Consideration should be given to providing stock underpass or provide farmers with a crossing mat which would minimise the damage caused by cattle.</td>
</tr>
</tbody>
</table>
Inappropriately located signpost directing drivers to the Surfers car park at Hot Water Beach.
Consideration should be given to relocating the existing sign approximately 200-250m further north, in addition to providing a second sign which to direct motorists who are travelling northbound.

Limited sight distance for vehicles turning right out of Domain Road onto Hot Water Beach.
Consider cutting and benching into an existing bank on the western side of Hot Water Beach as a means of increasing observation distances. The intersection would also benefit from the introduction of formalised controls and lighting.

**Lees Road**

On the basis that the Lees Road car park is introduced in 2016/17 we recommend the following:

- Lees Road is sealed up to the proposed car park. Furthermore, pavement widening may be required up to the Stella Evered Memorial Park car park to allow for safe passage of large vehicles in opposing directions; however, as a minimum, “Road Narrows” warning signs should be installed, visible from the car park entrance, to warn and deter larger vehicles such as campers from continuing past the car park.

- Monitor traffic volumes along Lees Road between the car park and the Stella Evered Memorial Park during the first year of operation. Traffic volumes may meet the threshold for road sealing for this section even without the introduction of the Great Walks Project. TCDC to evaluate the roading requirements between the car park and the Stella Evered Memorial Park.

- Once the Great Walks Project is introduced it is more likely that the AADT along the upper section of Lees Road will exceed 100 vehicles per day – the volume for which sealing is standard (as per the TCDC Code of Practice for Subdivision and Development). Therefore, once the Great Walks Project is introduced, complete the sealing for the entire length of Lees Road.

In regard to traffic management, we recommend that parking along the entire length of Lees Road is restricted and a clear signage strategy is introduced which directs people heading to Cathedral Cove to the Lees Road car park. Further signage treatment may also be required to indicate that no access to Cathedral Cove is available past the Lees Road car park (towards the Stella Evered Memorial Park).

It is recommended that further assessment of Lees Road is undertaken as a means of determining suitable pavement widths, pavement thickness and drainage along the alignment of the sealed pavement. We also recommend that TCDC undertake a scheme design for the upgrade of Lees Road and identify the appropriateness of implementing other safety options such as the introduction of passing lanes between the car park and the Stella Evered Memorial Park.

8.4 **Signage**

An appropriate way-finding and signage strategy goes hand-in-hand with the implementation of the aforementioned parking mitigation measures. The following measures should be included as part of a future signage strategy:

- Cathedral Cove signage from Dalmeny Corner should direct drivers to the Lees Road car park
- Consideration should be given to signposting a ‘parking space finder’ route as a means of minimising potential vehicle conflicts and enhancing traffic progression within Hahei
- Clear signage should identify that parking at Grange Road during the peak summer period is available to disabled visitors only
- The Hahei Village Entrance Car Park should be identified as a “Cathedral Cove” car park upon approach to Hahei
- Possible signage treatment between the Lees Road car park and the Stella Evered Memorial Park may be required to indicate that there is no Cathedral Cove related parking once past the Lees Road car park.
9 Summary

Table 9-1 below provides a summary of the complete recommended mitigation measures together with an indicative timeframes for implementation.

Table 9-1: Recommended Mitigation Strategy

<table>
<thead>
<tr>
<th>Year</th>
<th>Recommendation</th>
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</table>
| 2016 | Expand the Hahei Park and Ride to include a stop at Hahei shops.  
Promotion and expansion of the existing Ferry Landing-Hot Water Beach shuttle bus service. Introduce 24/48 hour unlimited ride tickets.  
Finalise a parking strategy for Hahei and Hot Water Beach.  
Remove casual parking from the Grange Road car park during the peak season. Drop-off/coach parking only.  
Introduce a 200 space car park at the entrance to Hahei Village, together with appropriate roads, access and signage.  
Undertake the detailed design for the Lees Road upgrade and Lees Road car park. |
| 2017 | Introduce a 150 space car park at Lees Road, together with appropriate road works and signage.  
Amend local road signage to direct Cathedral Cove visitors to Lees Road.  
Introduce of a specific Hot Water Beach ‘Low Tide’ shuttle bus service. |
| 2018 | Expand the Hahei Village Entrance Car Park to the proposed 200 spaces.  
Consult with the private land owner in regard to the potential use of land adjacent to Hahei Beach Road as a temporary overflow car park. |
| 2019 | Introduction, if demand dictates, for an overflow facility within Kotare Reserve and land adjacent to Hahei Beach Road (if available).  
Expand the Lees Road car park to the proposed 500 spaces (should demand dictate). |
| 2021+ | Introduce a car park at the old Purangi Estuary tip site, to serve a high-tide route for the Great Walks Project. |
| Annual | Monitoring of traffic and parking within Hahei, Cooks Beach, Ferry Landing and Hot Water Beach |

Next Steps

We recommended that, in line with the 2015/16 peak summer surveys, that traffic and parking is monitored on an annual basis for at least the next five years. Once the Great Walks project is introduced, permanent track counters should be appropriately placed as a means of monitoring utilisation and to develop an understanding of which car parks act as the most popular start/finish locations.

We also recommend that the following strategies, informed by this study, are developed:

1. **Parking Strategy.** This study should inform a parking strategy for Hahei and Hot Water Beach. The strategy should identify appropriate short term and long term measures which are informed by stakeholder consultation and peak summer time traffic and parking surveys. The strategy should also consider scenarios with and without the impact of the Great Walks Project.

2. **Signage Strategy.** An appropriate signage strategy should be developed for the area, as a means of informing any future traffic and parking strategy.
Appendix A Survey Locations
Appendix B  Minutes of Meetings
Meeting Minutes

Subject: Ferry Landing to Hot Water Beach Traffic Assessment – Hahei Beach Rate Payers Association Consultation

Meeting Venue: On-site

Date Of Meeting: 09 June 2015

Time Of Meeting: 15:00 – 16:00

Chairperson: Len Whittaker

Recorder: Matt Soper

Project Details

Client Name: Thames Coromandel District Council

Project Name: Ferry Landing to Hot Water Beach Traffic Assessment

Attendees

Len Whittaker (LW), Senior Development/Project Engineer, TCDC

Bill Stead (BS), Chairman, Hahei Beach Rate Payers Association

John North (JN), Deputy Chairman, Hahei Beach Rate Payers Association

Matt Soper (MS), Senior Transport Planner, MWH

<table>
<thead>
<tr>
<th>Item</th>
<th>Comments</th>
<th>Action by</th>
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<tbody>
<tr>
<td>1</td>
<td>LW outlined that the purpose of the meeting was to understand the views of the Hahei Beach Rate Payers Association in regard to transport issues within Hahei. All parties met at 91 Hahei Beach Road and proceeded to visit the following sites:</td>
<td></td>
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<tr>
<td></td>
<td>• Park and ride site;</td>
<td></td>
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<tr>
<td></td>
<td>• Cathedral Cove Car Park;</td>
<td></td>
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<td></td>
<td>• Hahei Beach Car Park;</td>
<td></td>
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<td></td>
<td>• Proposed Lees Road Car Park; and</td>
<td></td>
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<td></td>
<td>• Stella Evered Memorial Park.</td>
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<tr>
<td>2</td>
<td>Hahei Issues</td>
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<tr>
<td></td>
<td>BS and JN provided the following comments in regard to issues within Hahei:</td>
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<tr>
<td></td>
<td>• The park and ride service provided during the peak summer season was heavily utilised and regarded as a success.</td>
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<tr>
<td></td>
<td>• The park and ride service is rising in popularity year-on-year and the service has been expanded to accommodate the Easter holiday traffic.</td>
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<td></td>
<td>• A number of people head up to the Cathedral Cove car park and circulate until a space becomes available – causing congestion.</td>
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<td></td>
<td>• The recent restriction of parking along Grange Road has generally been regarded as a success with only limited amounts of illegal parking now observed. However, within the car park itself, a number of vehicles continue to park outside of designated spaces during peak periods.</td>
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<td></td>
<td>• A large number of people destined for the beach parked informally on grass verges along both sides of nearby local residential streets; predominantly Hahei Beach Road, Harsant Avenue and Dawn Avenue.</td>
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<td></td>
<td>• Up to 100 boats per day are launched at Hahei Beach during the summer.</td>
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</table>
3 Information Received

Following the meeting BS and JN provided the following information (via email):

- Photographs identifying the peak summer time traffic issues;
- Photographs identifying the operation of the park and ride service; and
- Patronage data for the park and ride service.
Meeting Minutes

Subject: Ferry Landing to Hot Water Beach Traffic Assessment – Project Initiation
Meeting Venue: TCDC District Office, 10 Monk Street, Whitianga
Date Of Meeting: 09 June 2015
Time Of Meeting: 10:00 – 11:30
Chairperson: Len Whittaker
Recorder: Matt Soper

Project Details

Client Name: Thames Coromandel District Council
Project Name: Ferry Landing to Hot Water Beach Traffic Assessment

Attendees

Mayor Glenn Leach (GL), TCDC
Len Whittaker (LW), Senior Development/Project Engineer, TCDC
Garry Towler (GT), Whangamata Area Manager and Project Manager for the Great Walks, TCDC
Sam Marshall (SM), Mercury Bay Area Manager, TCDC
Paul Kelly (PK), Mercury Bay Community Board Chairperson, TCDC
Matt Soper (MS), Senior Transport Planner, MWH
Glenn Osborne (GO), Senior Engineer, MWH

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LW provided a brief introduction and explained that the purpose of the meeting was to outline the key issues in regard to traffic and parking during peak summer periods. LW noted that the study should look at two scenarios; namely with and without the introduction of the Great Walks Project.</td>
<td></td>
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<tr>
<td>2</td>
<td><strong>Great Walks</strong>&lt;br&gt;GT outlined the proposals for a new Great Walk that would extend between Ferry Landing to Hot Water Beach and noted the following:&lt;br&gt;- Lees Road car park is proposed to provide the main starting point for walks to Cathedral Cove. The car park will initially provide 150 space with scope to expand up to 500 spaces.&lt;br&gt;- Car park also proposed at Pa Road (Hahei).&lt;br&gt;- It is considered that Cathedral Cove related demand will be split 50:50 between the two car parks.&lt;br&gt;- The pricing structure is proposed to align with the existing pay and display strategy at Hot Water Beach car park.&lt;br&gt;- A new surf lifesaving centre is proposed at Hot Water Beach.&lt;br&gt;- The Top 10 Holiday Park at Hot Water Beach is a considerable size and</td>
<td></td>
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</tbody>
</table>
there may be scope to utilise the facility for long term secure parking (aimed at those who are undertaking the Great Walk).

- There is a heavy demand for parking at Hot Water Beach and four car parking areas are currently provided - Pye Place (main car park), overflow car park, Bull Paddock car park and surfers car park.

GT concluded by stating that the community input should be managed appropriately and a variety of options should be evaluated.

3 **Political View**

Mayor Glenn Leach outlined the priorities for the Project and noted the following:

- Whitianga acts as the central urban area within the region.
- The vision for the Great Walk is for branch loop tracks to be eventually extend from it.
- The distance from the Lees Road Car Park to Cathedral Cove will be approximately equivalent to the existing walking distance from the Cathedral Cove car park at Grange Road.
- The priorities for TCDC are:
  1. Lees Road Car Park.
  2. Pa Road Car Park.
  3. Provide a shuttle running from Whitianga-Purangi-Lees Road-Hahei-Hot Water Beach.
  4. Provide a park and ride at Pa Road.
- Car parks could be run using a public-private partnership model.
- The walk could potentially be extended north to Kuaotunu / Matarangi.
- MWH should identify a preferred option with suitable substantiation.

4 **Cooks Beach/Ferry Landing Issues**

SM outlined the existing and future situation for Cooks Beach and noted the following:

- A shuttle service is currently in operation during the summer between Ferry Landing, Cooks Beach, Hahei (Shops) and Hot Water Beach. This service currently runs on a tight schedule and is subject to delays as a result of congestion within the towns.
- Cooks Beach currently has only one access, and a number of branching roads which end with cul-de-sacs have been developed.
- A new 300 lot subdivision is to be developed within Cooks Beach. The development, with an estimated sale rate of 20 sections per year, will include an additional access onto Purangi Road.
- A new 62 seat ferry is planned between Whitianga and Ferry Landing.
- Parking at Ferry Landing is heavily utilised.

TCDC requested that MWH identify the potential impact of introducing a loop road adjacent to Purangi Road in Cooks Beach. TCDC also noted that a holistic assessment of the overall network and its suitability for coping with development would be highly beneficial.

5 **Hahei/Hot Water Beach Issues**

SM and PK outlined the following existing and future considerations for Hahei:

- An existing park and ride service was provided during the summer, and was considered to be a success. The site, accessed from Hahei Beach Road (adjacent to The Church Accommodation), provided up to 200 parking spaces.
• The treatment works are likely to be expanded to accommodate future development.
• Hahei Holiday Resort (motor camp) could potentially be developed into housing with a maximum population of 1,275 people.
• It is considered that infrastructure upgrades are required prior to any re-zoning of Hahei.
• A new pizza restaurant is proposed at 15 Cathedral Court, Hahei (subject to a hearing).
• A 20 lot rural subdivision within Hot Water Beach has received consent.

TCDC noted that it would be beneficial to understand the implications if the commercial area within Hahei were to be expanded through re-zoning of land.

7 Additional Comments
TCDC noted that a key issue relates to the use of existing beach front car parks. TCDC commented that it is the view of Ngati Hei to develop these areas into either green space or as a suitable commercial area. Council believe that measures to improve the operation of these areas should be identified.

TCDC noted the following issues in regard to the wider road network:
• Flooding at Dalmeny Corner (SH25/Hot Water Beach Road) occurs approximately five times a year;
• Dalmeny Corner also has issues in regard to signage as, typically tourists, do not expect the turn off to appear so suddenly around the bend (heading northbound).

TCDC provided MWH with the following information during the meeting:
• Park and ride statistics;
• Track counter data;
• Hahei Community Plan; and
• Hahei Community Plan Update;

6 Requests for information
MWH requested that TCDC provide the following information:
• A map highlighting the route of the Great Walk and any potential loop track is provided.
• Ferry passenger numbers.
• Photographs showing congestion and existing issues.
• Planning and zoning maps.
• Relevant Council reports/previous studies/development plans.
• Car parking occupancy data (if available)
Meeting Minutes

Subject: Ferry Landing to Hot Water Beach Traffic Assessment – Ngati Hei Consultation

Meeting Venue: TCDC District Office, 10 Monk Street, Whitianga

Date Of Meeting: 09 June 2015

Time Of Meeting: 13:00 – 14:30

Chairperson: Len Whittaker

Recorder: Matt Soper

Project Details

Client Name: Thames Coromandel District Council

Project Name: Ferry Landing to Hot Water Beach Traffic Assessment

Attendees

Len Whittaker (LW), Senior Development/Project Engineer, TCDC
Peter Johnson (PJ), Ngati Hei
Matt Soper (MS), Senior Transport Planner, MWH
Glenn Osborne (GO), Network Engineer, MWH

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>1</td>
<td>LW provided a brief introduction and explained that the purpose of the meeting was to gather an understanding of the views of Ngati Hei in regard to the proposed Great Walk and transport issues within Hahei and Hot Water Beach.</td>
</tr>
</tbody>
</table>
| 2    | **Hahei**  

PJ provided the following comments in regards to transport issues within Hahei:
- Ngati Hei are opposed to any beach facing car parks.
- Space taken by existing car parks, particularly at Hahei and Hot Water Beach, could be better used for commercial/retail/restaurant use.
- Ngati Hei are opposed to pay and display parking at Cathedral Cove and prefer the area be utilised as pick-up and drop-off only.
- A car park at Pa Road is a suitable option that acts to remove traffic and parking from Hahei Town.
- Changing the mentality of locals is a key challenge, as people are accustomed to parking at the beach front.
- There are existing issues in regard to parking of vehicles/tractors on Hahei Beach, where people launch private boats.
- Although challenging to implement, consideration could be given to allowing residents only access to Hahei. |
| 3    | **Hot Water Beach**  

PJ outlined the following issues at Hot Water Beach:
- Ngati Hei are opposed to the existing beach facing car park.
- Alternative parking could be sourced from a site behind the proposed surf lifesaving club. This presents an additional opportunity to educate visitors about safe surfing. |
Great Walks

PJ noted that the old Purangi tip site could be used as a suitable car park to accommodate the high-tide walk between the Stella Evered Memorial Park and Cooks Beach.
**Minutes**

Coromandel Great Walks

Hahei Stakeholders Meeting - Traffic Management Report

**Time & Date:** 1:05pm: 8 October 2015

**Venue:** Hahei - Community Hall

---

**Present:**

Ross Ashby (TCDC)  
Kirstin Richmond (TCDC)  
Matt Busch (TCDC)  
Allan Tiplady (TCDC)  
Len Whitaker (TCDC)  
Sophie Hayward (TCDC)  
Deli Connell (Mercury Bay Community Board)  
Bill McLean (Mercury Bay Community Board)

John Gaukrodger (TCDC)  
John North (Hahei Stakeholder Deputy Chairperson)  
Allan Gregory (MWH)  
Matt Soper (MWH)  
Brett Harries (Traffic Design Group)

Karen Blair  
Brian Keucke  
Tina North  
John Dallimore  
Mike Wilkinson  
Brian Ross  
Charlie Adams  
Ron Egan  
Russ Cochrane  
Shane Harnett  
Mark Cedeaman  
Greg Dickie  
Richard Agnew

Dianna Belle  
Rosie Beck  
John Beck  
Ray Lloyd  
Phil Costello  
Peter Harrison  
Anne Donovan  
Alistair Sims  
Graham Harsant  
Stephan Bosman  
Ian Carter  
Cathy Bologney

**Apologies:**

Sam Marshall (TCDC)  
Garry Towler (TCDC)  
Glenn Leach (TDCD - Mayor)  
Peter Hawley  
Bill Stead  
Gemma White (Doc)  
John Rich (Doc)  
Penne Clayton  
Jeremy Lomas  
Ian Chalmers
Welcome and introduction by Hahei Stakeholders Deputy Chair John North.

**The purpose of today's meeting**

1. To go through the Traffic Assessment Report.

- Introductions of core people present.
- MWH presentation.

**MWH Presentation - 20mins:** Allan G and Matt S from MWH

* Presentation attached.

Key points in addition to the presentation PowerPoint (PowerPoint is critical in terms of key recommendations.

1. Key Finding of the report were based on a number of reports outlined and data provided through the consultation process. Noted that a key recommendation of the report was that more data should be collected over the summer period.
2. Enough detail for a good start point/base.
3. No one option on its own will fix the issues, but a range of measures are proposed.
4. Hahei beach car park at the moment is an essential car park, but in the future has the potential to be removed if other options are followed through with.
5. There is already Demand for more parking in the area to accommodate the number of visitors.
6. Numbers of visitors are increasing every year and we don't know when this increase will drop off.

**Brett - Traffic Design Group:** Review points of the MWH report:

1. Overall MHW has done a good job.
2. Critical of the report not being robust as there is limited data available.
3. Concerns that given the lack of data, the starting point for the report may not be correct.
4. Agrees with the MWH’s recommendation for further peak summer data collection.- Pa Road carpark survey is critical to understanding duration of parking and therefore supply of parking that is needed.
5. Questioned that the use of an average 2 hour parking duration in Hahei maybe actually 4 hours.
6. Regular monitoring of traffic & parking in the future is critical.
7. Need to minimise traffic intrusion into Hahei village and therefore Pa Road car park critical/essential. Pa Road Car Park has to be accessible to Hahei Beach Road and not Pa Road.
8. Pa Road car park should be free and then charge of shuttle.
- Potential for hierarchy of parking charges.
- Costing of parking is key.
9. Overflow parking - We do not want to encourage parking in the village atmosphere.
10. Importance of signage.
11. Lee’s Road not ideal for visitors that want to come into Hahei.
12. Not everyone is going to do the whole walk and the likely hood is the majority will do portions, with Hahei being the main point.
13. Hot Water Beach:
- Low tide affects parking demand, which is different to Hahei.
- Needs more data/survey work
- Limited parking.
- One road in and out.

Key notes:
1. More data needed.
2. Report should be looking at 25 - 30 years out, not 10 years.

**Resident Question:**

Greg Dickie - Grange Road property owner:
- Grange Road parking issues have been shifted to the Hahei village.
  1. Why are we only allowing for 200 car parks at Pa Road, when we could expand to 1000 car parks?
  2. Why are we focusing on Lee's Road as a favourite?
- Pa Road as the main exist is not favourable.

Len:
- The paper road is where the new car park will be.
- Park & Ride service will continue - Existing car park has the capacity to accommodate up to 200 car parks and it is proposed that the new Pa Road car park will be built a capacity of 200 cars.

Mark Cedeaman: Is Lees Road a go?
Ross: The concept was part of the business plan for the Great Walks project. It is about spreading the load and creating another option. It's not signed, sealed and delivered, about 85% there, before any go ahead. A lot of work will need to go into signage, gps data and media (marketing) around the car parks and continuous monitoring.

Notes:
- The MWH report also emphasises that Lee's Road is essential to provide additional car parking in conjunction with Pa Road car park in order to alleviate current traffic issues.
- We are hearing it load and clear from the community, the importance of the Pa Road car park.

Alistair Sims: What is a high level report?
Answer:
- It's a big picture document / Brief overview.
- Need more substantial data.

Alistair Sims:
- More detail is needed before the group can make any decisions. As Council is spending rate payers' money.
- Create the Pa Road car park first and then make the decisions after that.

Len W:
- The Pa Road car park will be going ahead regardless of the Great Walks project and should be completed by next Christmas.
- The Pa Road - the existing 200 car park plus a new 200 car park area, so total 400 car parks.

Charlie Adams: How difficult is it to undertake a report without data and the Purangi crossing not having been assessed?
MWH: We have gone through many different reports done over a number of years.
Ross:
- We have a number of commercial interests to get over the Purangi, at this stage the Purangi crossing is under initial investigation.
  Note:
  - Critical to get over the Purangi and to Hotwater Beach.

John North: The Great Walks impact has been glossed over and the concept deviates from the original proposal. The short term plan of a return walk to the Blowhole will add to traffic issues in Hahei? What's happening with the Blow Hole to Hot Water Beach?

John G: I have been employed to investigate options from the Blow Hole to the Purangi so far and haven't been involved in looking at options past the Blow Hole and the Purangi crossing at this stage. Although, there are existing informal routes past the Purangi crossing and there are a number of interested commercial operators.

Ross:
- The walks from the Blowhole to Hot Water Beach are on hold until Hahei issues have been sorted.
- It's clear from the report we need to do more data gathering.

Graham Harsant: Have you put the 100 Acres in the too hard basket? You need to look at other opportunities.

Allan G: The 100 Acres was not brought up in any of the consultation process, therefore it wasn't a significant part of the report.

Cathy Bologney:
1. When you did the traffic managements plan would you have considered Lee's Road as a traffic alternative, if it had not been provided?
   Matt S: Yes we would have considered Lee’s Road as a variable option. It helps in conjunction with the Pa Road Car park to reduce traffic congestion and equidistance to Cathedral Cove.
2. Has Council put in the Resource Consent for Lee's Road and Pa Road Carparks?
   Ross: Lee’s Road Carpark - Not yet, it's a non-complying activity and a planner as well as an independent commissioner will examine the Resource Consent.
   Ross: We are keen for Pa Road car park - It will need Resource Consent and should be constructed in time for next summer.

Note - Cathy - Can I say for myself and the community that we want and are positive about the Pa Road car park.

Len W: Pa Road will happen even if the Great Walks doesn't.

Unknown: Would it not make sense to leave Lee's Road until the Great Walks goes ahead?

MWH: A 150 car park at Lee's Road would still make sense, even if the Great Walks didn't happen.

Ross: The report clearly says Lee's Road would be needed for the existing issues as well as servicing the Great Walks.

Mike Wilkinson:
- Difficult to see how Lees Road it services the Great Walks.
  1. Query the independence of the report when political ideas/views are included.
     MWH: We worked on the information given through the consultation process with a number of groups - Iwi, TCDC, DOC and Hahei Stakeholders Group.
  2. Existing Road (Lee’s Road) is not fit for purpose.
  3. Lee’s Road car park 150-500 will need signage as well as other facilities.
     Ross: Lee’s Road will be made fit for purpose and signage etc, will be sorted.
4. Is signage going to give parking options and will the park & ride go from Lee's Road as well?
Ross: The option of the park & ride being at Lee's Road can be addressed.

Note (general public discussion points as follows):
- Signage on Lee's Road a major concern for the group.
- Park & ride and a shuttle service needs to be provided for at Lee's Road.
- Pa Road car park needs to be free and the access can't be off the current main access.
- Pa Road needs to be huge.
- The park & ride service period and places needs to be extended.

Dianna Belle: Why can't DOC expand the Grange Road car park?
MWH: Geotechnical issues.
Public: Doesn't make sense to do this anyways.

Charlie Adams:
- Lee's Road - Cars get lost up Lee's Road all the time, so the signage needs to be addressed.
- Lee's Road, road is narrow and truck & trailer ban not satisfactory.
- Have a good look at Stella Evered Trust deed.

John North: Road safety & road design from Dalmeny Corner was it considered as part of the report? e.g. Hot Water Beach estimate 240,000p.a. plus during a 4 hour window. Should we consider a Park and Ride concept for the area as a whole.

Graham Harsant: Are we going to have infrastructure out at Lee's Road car park? Toilets, shops etc, will be required and will therefore have an impact on the local businesses.

Ian Carter:
1) The vision for the Hahei Holiday Resort - Remove this from the report as he has spoken to the new owners and they have no plans to subdivide. As well as the structure plan put onto the property makes subdivision quite difficult.
2) A while ago I had an open table top conversation with Council and the below three points were bought up:
   1. Hahei
   2. Hot Water
   3. Lee's Road
3) The point of the Lee's Road car park is to spread the load, environmental effects, visual impacts and create another access to the walkways.
4) The Lee's Road access to the car park is being looked into and will be up to safety standards.
5) Purangi crossing is a red hearing and a few options can be investigated and Shane has existing concession.
6) Pa Road car park should be free.
7) Beach parking restrictions is a good idea.
Alistair Sims: What are you doing at Lee's Road?
Ian: I am having conversations with Council & at this point the public doesn't need to be involved. Confidential until finalised.
8) Who here doesn't think walking is a good idea? - (General consensus from all that attended that there was overall support for walkways).

Ron: Changes to the Report:
1. Assumptions are wrong, regarding the 2 hour parking turnarounds.
2. Page 1 - South of Hahei not south of Hot Water Beach. 
MWH: The 2 hour is robust and the report is a good start point/bases.

John Dallimore:
1. You say there is support for the Lee's Road car park, there isn't. Stakeholders are not in support of Lee's Road.
- Worried about the top of Lee's Road.
- The whole road needs to be upgraded.
- Campervans not stopping at the car park and going to the top of the road.
- Passing bays
2. Theme - Support the Great walks around the district but not the traffic that comes with it.
3. Purangi crossing not simple and more time needs to be put into investigating it.

Cathy Bologney: Question to Matt Busch
- What are Council going to do about the issues with the Kopu-Hikuai Road and the passing bays?
Matt: We only deal with Council roads and state highways are not Council roads. These issues need to be passed onto NZTA.

Brian Ross: Assumptions regarding turn around 2hrs. If changed to 4 hours, the report is wrong.

MWH - Allan Gregory: Question to the Meeting; How do we get people out of the village to stop congestion?
- Gated community?
- Resident only parking?
- Council is looking at huge investment to help with congestion regardless of the Great Walks.
Public: All could be options that could be looked into.

Anne Donovan: Suggestion - Isn't there a way to control when people can walk the walks like they do at Milford Sounds.

Greg Dickie:
Observation - General turn around every 4 hours.

Dianna Belle:
- Buses coming many of the main roads can't turn around. Buses therefore in all car parks need to be accommodated for.
Idea - Dedicated Bus Parks

Ron Egan: Suggestion - Residents only permit scheme.

Note:
- Where do we go from here? Good report but has some holes in it.
MWH - Allan Gregory: Decisions need to be made and we need recommendations to take back to Council.

John North:
- Want report updated.
- Stakeholders meeting next Wednesday at 4pm - The Agenda is to go through the Traffic Management plan and do a formal response to the Council.
- Public meeting 28th of November 2015, involving Iwi, Council and DOC.
Note:
- Agreed that further data is needed and this summer period coming is a good opportunity to gather more data.

John North: What are Len’s thoughts on the MWH’s report?
Len:
- Agree with MWH that more data is needed.
- Len was here personally in Hahei over the last summer period.
- First thing we want to do is the Pa Road car park straight to stage two of 200 car parks.
- This report is a good start point and gives us an idea on where to go now.
- TCDC has to look at roading as a whole for the whole district.
- We need more car parks than just Pa Road.

Public - what’s happening with the Great Walks John?
John Gaukrodger:
- The two things occurring at the moment are below.
  1. Planting through the gorse.
  2. Work in Stella Evered's.

Mike Wilkinson: Has anyone costed out the option of a resident only parking and looked at the bigger picture?

**Where to from here:**

John North: Thank you.
- Thank you everyone for attending and as we all can see everyone is very passionate about this area.
- A formal response/recommendations will be sent to Council after Wednesday stakeholders meeting.

**Meeting concluded at 3.17pm**
## Appendix C  RAMM Data Summary

<table>
<thead>
<tr>
<th>Road</th>
<th>Chainage</th>
<th>Surface Treatment</th>
<th>Application</th>
<th>Renewal</th>
<th>MWH Observed Deficiencies</th>
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<tr>
<td><strong>Pye Place</strong></td>
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<tr>
<td>0-338m</td>
<td>Two coat seal (reseal)</td>
<td>2010</td>
<td>2021</td>
<td>-</td>
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<tr>
<td>286-480m</td>
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<td>2015</td>
<td>2027</td>
<td>-</td>
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<td>0-625m</td>
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<td>625-1,845m</td>
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<td>Pavement heaving outside Newton Rd.</td>
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<td>1,845-3,066m</td>
<td>Void fill seal (reseal)</td>
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<td>3,066-4,869m</td>
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<td>5,898-6,883m</td>
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<td>2025</td>
<td>Poor drainage at the intersection of Domain Rd.</td>
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<td><strong>Hot Water Beach Road</strong></td>
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<td><strong>Link Road</strong></td>
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<td>0-812m</td>
<td>Two coat seal (1st coat)</td>
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<td>2013</td>
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<td>1,687-3,380m</td>
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<td>3,380-3,925m</td>
<td>Two coat seal (reseal)</td>
<td>2015</td>
<td>2027</td>
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<td><strong>Hahei Beach Road</strong></td>
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<tr>
<td><strong>Lees Road</strong></td>
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<td>1,620-2,780m</td>
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<td>2016</td>
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<td>0-498m</td>
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<td>498-1,056m</td>
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<td>2015</td>
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<td>2,912-4,132m</td>
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<td>One lane Bridge needs rescaling.</td>
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<td>4,132-6,070m</td>
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<td>6,283-7,260m</td>
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<td>2012</td>
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<td>7,260-8,737m</td>
<td>Rack in seal</td>
<td>2013</td>
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<td>Scabbing and heavy flushing on Purangi Road and intersection.</td>
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<td>8,816-9,727m</td>
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<td>Edge break and patching.</td>
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<td>10,253-11,394m</td>
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Appendix D  TCDC Proposed District Plan Maps
<table>
<thead>
<tr>
<th>Overlays</th>
<th>Zones</th>
<th>Flood Hazard</th>
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<tbody>
<tr>
<td>Pauanui Airfield Amenity Yard</td>
<td>Airfield</td>
<td>Low Flood Hazard Area</td>
</tr>
<tr>
<td></td>
<td>Coastal Living</td>
<td>Medium Flood Hazard Area</td>
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<tr>
<td></td>
<td>Commercial</td>
<td>High Flood Hazard Area</td>
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<td></td>
<td>Conservation</td>
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<tr>
<td><img src="triangle" alt="10" /> Archaeological Site</td>
<td>Extra Density Residential</td>
<td>Defended Area</td>
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<tr>
<td></td>
<td>Gateway</td>
<td>0.5m Above Flood Level</td>
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<td><img src="beach" alt="Beach Amenity Area" /></td>
<td>Industrial</td>
<td>Floodway</td>
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<td><img src="beach" alt="Beach Front Yard" /></td>
<td>Light Industrial</td>
<td>Overland Flow Area A</td>
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<td>Low Density Residential</td>
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<td>Marine Service</td>
<td>Overland Flow Area B</td>
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<td>Pedestrian Core</td>
<td>Overland Flow Area C</td>
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<td>Recreation Active</td>
<td>All Ponding Areas</td>
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<td>Recreation Passive</td>
<td>RL 3.0m Tararu Datum</td>
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PROPOSED DISTRICT PLAN - December 2013
PLANNING MAP LEGEND

THAMES COROMANDEL
DISTRICT COUNCIL

13 December 2013
Appendix E   Visitor Questionnaire
Mercury Bay Visitor Survey

1) Gender
☐ Male ☐ Female

2) Which age group do you fit in?
☐ < 24  ☐ 25-35  ☐ 36-55  ☐ 56-65  ☐ > 65

3) Where are you from?
☐ Local Area  ☐ Waikato  ☐ Auckland  ☐ NZ  ☐ Overseas

4) Group size
☐ 1  ☐ 2  ☐ 3 to 5  ☐ > 5

5) How many nights are you staying in the area?
☐ 0 nights  ☐ 1 night  ☐ 2 nights  ☐ 3 nights  ☐ > 4 nights

6) If you're staying overnight, where is your accommodation?
☐ Whitianga  ☐ Hahei  ☐ Cooks beach  ☐ Other

7) Which places have you either visited or plan to visit?
☐ Cathedral Cove  ☐ Hot Water Beach  ☐ Hahei  ☐ Cooks Beach  ☐ Whitianga

7a) If you have visited Hahei, where abouts did you go?
☐ Tour operators  ☐ Shops/Cafe/Brewery  ☐ Beach  ☐ Other (please state)

8) Approximately, how long do you plan on staying at each attraction?
☐ < 1 hour  ☐ 1 to 2 hours  ☐ 2 to 4 hours  ☐ > 4 hours

9) If a shuttle service ran between the main attractions (Ferry Landing, Cooks Beach, Cathedral Cove, Hahei and Hot Water Beach) - would you use it? (see map)
☐ Yes  ☐ No  ☐ Maybe/Unsure (please explain)

10) If yes or maybe, how much would you be prepared to pay for this shuttle service? (per trip)
☐ Free  ☐ <$5  ☐ $5 to $10  ☐ >$10

To alleviate summer time traffic and parking issues, Council are proposing to restrict general parking at Grange Road during the summer and provide both a new car park at Lees Road and a permanent park and ride at Pa Road (see map). Lees Road is located just outside of Hahei, but will provide a direct access to Cathedral Cove (similar walking time as the existing route from Grange Road).

11) Would you use this new car park at Lees Road or the Park and Ride?
☐ Park and Ride  ☐ Lees Road  ☐ Neither

12) If you have indicated neither, please explain why?

13) How much would you be prepared to pay for car parking to access Cathedral Cove?
☐ Free  ☐ <$5  ☐ $5 to $10  ☐ >$10 Per day
☐ Free  ☐ <$2  ☐ $2 to $4  ☐ >$4 Per hour

14) Council plan on implementing a high quality day walk track which links Whitianga to Hot Water Beach, including Cathedral Cove (see map). Would you use this walk?
☐ Yes  ☐ No
Appendix F  2016 Traffic Volumes
Appendix G  TCDC Roading Standards
## Table 3.1A: Guide for Rural Roading - Geometric Standards

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<thead>
<tr>
<th>GROUP</th>
<th>1</th>
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<tbody>
<tr>
<td>Traffic Volume (AADT)</td>
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<tr>
<td>Annual Average Daily Vehicle</td>
<td>Under 30</td>
<td>30 - 100</td>
<td>100 - 250</td>
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<tr>
<td>Annual Average Heavy Vehicle</td>
<td>Under 10</td>
<td>10 - 40</td>
<td>40 - 80</td>
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<td>Topography Level</td>
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<tr>
<td>Number of Traffic Lanes</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>Design Speed (km/h)</td>
<td>As practicable</td>
<td>As practicable</td>
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<tr>
<td>Sight Distance Minimum (m)</td>
<td>Refer to Table 3.6</td>
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<tr>
<td>Traffic Lane(s): Width (m)</td>
<td>3.5</td>
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<td>Carriageway: Width (m)</td>
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<tr>
<td>Road Reserve: Width (m)</td>
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<tr>
<td>Bridge Widths (m)</td>
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<tr>
<td>Under 6m long</td>
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<td>6m - 30m long</td>
<td>3.7</td>
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<td>3.7</td>
</tr>
<tr>
<td>Over 30m long</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Bridge Design Standards</td>
<td>Refer to NZTA Bridge Manual</td>
<td></td>
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</table>

**Key:**
- S = Seal
- M = Metal
### Table 3.1B: Guide for Rural Roading - Geometric Standards

<table>
<thead>
<tr>
<th>GROUP</th>
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<tbody>
<tr>
<td>Traffic Volume (AADT)</td>
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</tr>
<tr>
<td>Annual Average Daily Traffic</td>
<td>250 - 500</td>
<td>500 - 2500</td>
</tr>
<tr>
<td>Annual Average Heavy Traffic</td>
<td>80 - 150</td>
<td>Over 150</td>
</tr>
<tr>
<td>Topography</td>
<td>Level</td>
<td>Rolling</td>
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<tr>
<td>Number of Traffic Lanes</td>
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<td>2</td>
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<tr>
<td>Design Speed (km/h)</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>Sight Distance Minimum (m)</td>
<td>Refer to Table 3.6</td>
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<tr>
<td>Traffic Lane(s): Width (m)</td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Carriageway: Width (m)</td>
<td>8.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Road Reserve: Width (m)</td>
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<td>20</td>
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<tr>
<td>Bridge Widths (m)</td>
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<td></td>
</tr>
<tr>
<td>Under 6m long</td>
<td>8</td>
<td>8</td>
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<tr>
<td>6m - 30m long</td>
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<td>8</td>
</tr>
<tr>
<td>Over 30m long</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Bridge Design Standard</td>
<td>Refer to NZTA Bridge Manual</td>
<td></td>
</tr>
<tr>
<td>Type of Surfacing</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Key:
- S = Seal
- M = Metal
Appendix H  Existing Parking Areas

Hot Water Beach Car Parks

Grange Road (Cathedral Cove) Car Park

Ferry Landing Car Parks

Hahei Beach Car Park

Hahei Village Entrance Car Park (Park and Ride)
Appendix I  Parking Accumulation
Appendix J  Subdivision Details
Diagram A
Cooks Beach Expansion Site Development Plan

- Site Development Plan Boundary
- Lakes and Stormwater Reserve and Overflow Areas
- Cadastral Boundary
- Development Setback
- Vehicle Access
- Reserve

Key:
- Esplanade Reserve (20m wide)
- Purangi Estuary (Development Setback average width 15m (variable between 13-20m)
- Purangi Road Closure: No direct access onto Purangi Road
- Purangi Road Development Setback 10m wide (protection, cycle track, visual and noise attenuation buffer and vegetation strip)
- Recreation Reserve (parking and access to estuary foredunes)
Appendix K 2021 Forecast Methodology

2021 Average Traffic

- Background traffic growth between 2016 and 2021 is assumed to be fully associated with the outlined subdivision developments. Although the stakeholders identified that the Hahei Holiday Resort would not be subdivided, given, for robustness of assessment the area has been assumed to be subdivided (in line with the Thames-Coromandel Proposed District Plan). The background growth has been applied to the 2016 base volumes. Assumed that the typical residential occupancy is 30% during off-peak periods.

- The growth in the average daily traffic growth along Grange Road is greater than anywhere else within the study area as result of the ever growing popularity of Cathedral Cove. Therefore, an adjustment to account for the additional Grange Road trips was determined based upon the historical Cathedral Cove visitor numbers, peak summer traffic along Grange Road and consideration of residential based trips.


2021 Peak Summer Day

- Assumed that the occupancy of the Cooks Beach and Hahei developments will be 100% during the peak summer period.

- 2021 Peak Summer Traffic = 2016 Peak Summer Volumes + 2016-2021 Background Growth (Peak) + Additional Cathedral Cove Trips (Peak)

2021 Peak Summer Day Inc. P&R

- The effect of the Park and Ride in reducing trips along Hahei Beach Road and Grange Road was estimated by taking into account the maximum facility capacity, parking duration (determined from surveys) and an eight hour opening period.

2021 Peak Summer Day Inc. P&R and Lees Road

- The additional effect of the Lees Road car park in reducing trips has taken into account residential trips, redistribution to Lees Road (determined from the visitor surveys) and the maximum capacity of the Hahei Village Entrance Car Park.

- Assumed that 10% of visitors to the Lees Road car park will (out of curiosity) continue further up Lees Road to the Stella Evered Memorial Park.

2021 Summer Time: Great Walks

- The additional coastal walkway trips have been estimated based the application of a ratio between peak day traffic and annual visitor numbers determined from the Cathedral Cove track counter data. The factor was then applied to the forecast visitor numbers for the ‘ambitious’ scenario as per the Coromandel Great Walks: Cathedral Coast Walkway Feasibility Study & Report.

- Assumed that 20% of additional Great Walks demand for the Lees Road car park will (out of curiosity) continue further up Lees Road to the Stella Evered Memorial Park.
Appendix L  2021 Forecast Traffic Volumes
Appendix M  Stakeholder Feedback

Visitors
As part of the 2016 Visitor Survey, a number of questions were asked in regard to the proposals for a new car park at Lees Road, expansion of the Cathedral Cove Park and Ride and the introduction of a new shuttle bus service. A summary of the result is provided within Table 9-2.

Table 9-2: Visitor Questionnaire Results (Behaviour)

<table>
<thead>
<tr>
<th>Question</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>If a shuttle service ran between the main attractions, would you use it?</td>
<td>Yes (56%), No (42%)</td>
</tr>
<tr>
<td>If yes, how much would you pay for the shuttle (per trip)?</td>
<td>Average = $5.</td>
</tr>
<tr>
<td>Are you more likely to use a new car park at Lees Road or the Park and Ride?</td>
<td>Lees Road (68%), Park and Ride (32%)</td>
</tr>
<tr>
<td>How much would you pay for car parking access to Cathedral Cove?</td>
<td>Average = $4 per day or $1 per hour.</td>
</tr>
</tbody>
</table>

Hahei Stakeholder Group
In a letter dated the 20th October 2016, the Hahei Stakeholders Group provided their position in regard to each of the aforementioned mitigation options, as summarised below.

Hahei Stakeholder Group Feedback

<table>
<thead>
<tr>
<th>Option</th>
<th>Hahei Stakeholder Group Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalisation of on-street parking.</td>
<td>Do not support. This will have undesirable negative implications, including drawing more traffic and parking into those residential streets, eroding the overall coastal village quality of the area. Residents in these streets strongly object to this proposal.</td>
</tr>
<tr>
<td>Beach Parking.</td>
<td>Do not support. Similarly, further developments of sealed parking areas immediately adjacent to the beach are not supported. The net gain will be marginal, but the implications to the beach environment will be significant. Such a measure is last century response to the provision of parking.</td>
</tr>
<tr>
<td>Cathedral Cove Park and Ride.</td>
<td>Support with conditions. We support an extended season Park and Ride operation, coupled with appropriate signage to divert traffic flows away from Beach and Grange Roads. 1. Bus fares will need to be priced appropriately to ensure the service is sustainable and patronised. 2. Vehicular access to the Pa Rd car parking area must all be from Hahei Beach Rd via the Jackson paper road. To have vehicular access from Pa Road draws traffic unnecessarily further into residential areas within the Village and onto a road which provides tractor/boat access to the beach. Prominent signage to maximise the attractiveness of the Pa Rd car park for parking for all visitor activities would be much more effective if accessed via Hahei Beach Road. 3. In order to discourage day visitors from attempting to park at the Grange Rd car park, the Hahei Beach car park, or around the residential streets, the Pa Rd car park should be free.</td>
</tr>
<tr>
<td>Lees Road Car Park.</td>
<td>Support with conditions. Safety, for both visitors and residents is an absolute prerequisite prior to establishing and promoting the Lees Rd Car park/Stella Evered Walk. It is essential to ensure that the entire length of Lees Rd is fit for purpose, not just the section to the proposed new Lees Rd car park.</td>
</tr>
<tr>
<td>Drop-off only at the Grange Road car park.</td>
<td>Support The Grange Rd car park should be ‘drop off only’ during peak months with effective signage to reduce traffic through Hahei Village and up Grange Rd. Outside of the holiday season, the Grange Road car park should be Pay and display. Overnight freedom camping should not be permitted at any time.</td>
</tr>
</tbody>
</table>
Appendix N  Planning Considerations

Hahei Village Entrance Car Park

The site of the proposed car park at the entrance to Hahei Village is zoned “rural” in both the Operative District Plan and Proposed District Plan. TCDC hold a designation on the site for the purposes of “Wastewater Treatment and Disposal”. It is proposed that the new car park will be sited next to the wastewater treatment plant, on or adjacent to a decommissioned wastewater treatment pond.

The establishment of a public car park at this site would be a non-complying activity under both District Plans and would therefore need a non-complying activity resource consent. TCDC as a Requiring Authority could alternatively seek to designate the relevant portion of the site for the purpose of a public car park.

Planning issues to be considered in the development of a car park include:

- Whether there are any contaminated land issues given the use of the site for wastewater treatment. A resource consent is likely to be required under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

- Other potential effects include traffic impacts upon the existing local road network, visual effects and noise effects.

TCDC confirmed in March 2016 that resource consent of the Hahei Village Entrance Car Park has been lodged.

Lees Road Car Park

The site at Lees Road is zoned “rural” in both the Operative District Plan and the Proposed District Plan. The establishment of a public car park on this site would be a non-complying activity under both District Plans and would therefore need a non-complying activity resource consent. TCDC as a Requiring Authority could alternatively seek to designate the relevant portion of the site for the purpose of a public car park.

Planning issues to be considered in the development of a car park at this site include:

- Given the site’s location within a rural and forested landscape there is the potential for adverse visual effects. It is suggested that TCDC seek the input of a landscape architect at an early stage to ensure any adverse visual effects can be suitably mitigated.

- If the upgrading of Lees Road requires road widening, and this cannot be accommodated within the existing road corridor, TCDC may need to seek a designation for road widening purposes. Purchase of land from adjoining property owners would also be required.

- It is assumed that stormwater from the site would be discharged to land soakage. This is likely to be a permitted activity under the Waikato Regional Plan providing it is suitably designed to accommodate the flow rate.

It is unclear whether the development would require the removal of any trees, however this is likely to be a permitted activity under the Waikato Regional Plan, provided the land slope is less than 25 degrees.