

5. FUTURE PARKING ASSESSMENT

5.1. Introduction

5.1.1. An assessment of future parking demand in 2016 and 2021 has been undertaken for the peak month and a typical month of the year. The approach taken is very much a 'predict and provide' approach and although it could be considered simplistic it is considered to represent a robust basis for assessing future parking requirements. Further discussion of the appropriateness of this method is considered in paragraph 5.3.16.

5.2. Methodology

5.2.1. Ticket sale information at CBC operated car parks for the year 2005 / 2006 reveals that December is the peak month of the year. Ticket sales in March and November represented the median volume of ticket sales and are therefore typical months of the year. The Design Manual for Roads and Bridges (DMRB) Volume 12.2.1. states that:-

"Surveys should be carried out during a 'neutral', or representative, month avoiding main and local holiday periods, local school holidays and half terms, and other abnormal traffic periods."

5.2.2. DMRB highlights November as being a 'neutral' month of the year. Late March is also highlighted as being 'neutral'. Datasets from dates throughout the selected months were included in the analysis. November has been chosen as being representative of a typical month because data from the entire month is considered 'neutral'. Data has been analysed for Wednesdays, Thursdays, and Saturdays as these represent a typical weekday, a market day, and weekend. Analysis has identified 11:00-12:00 as being the peak for Wednesdays, 12:00-13:00 as being the peak for Thursdays, and 12:00-13:00 as being the peak for Saturdays. As such these hours will be used in the analysis.

5.2.3. In order to convert data collected during January to November and December, a conversion factor has been applied. Factors have been derived from ticket sale information at CBC operated car parks. Calculations are presented in **Appendix H** and the factors are as follows:-

- January to November = 0.896
- January to December = 1.118

5.2.4. In order to estimate 2016 and 2021 data, a growth factor has been applied. The survey of car park users undertaken by Marketing Innovation revealed that of the sample, 53.0% of

journeys were between 0 and 5 miles in length, and 36.5% of journeys were between 6 and 10 miles in length. The majority of trips were therefore from Loughborough and its immediate surroundings. As such it is considered that the growth in number of houses in Loughborough during the periods to 2016 and 2021 provides a reasonable indicator for estimating growth in vehicle traffic and therefore parking demand. Growth factors have been obtained from TEMPRO for the estimated growth in Loughborough housing during the required timescale. These factors will be applied to existing parking numbers. The factors are as follows:-

- 2006 to 2016 = 1.081
- 2007 to 2016 = 1.072
- 2006 to 2021 = 1.125
- 2007 to 2021 = 1.114

5.2.5. In accordance with national, regional, and local planning policy, improvements to sustainable modes of travel (public transport, walking, cycling), and demand management measures will be implemented during the period to 2021. This is likely to result in a reduction in the demand for parking. It is difficult to accurately quantify the impact any future initiatives may have. However, a sensitivity test has been undertaken to reflect a 10% and 20% modal shift from car to other modes of travel. This is presented later in this chapter.

5.3. Analysis

5.3.1. The TCMP does not specifically identify any changes in the number of parking spaces resulting from the proposals in the TCMP. As such a review of the TCMP has been undertaken in order to establish areas where the number of parking spaces will change. Paragraphs 5.3.3 to 5.3.13 explain any changes.

5.3.2. **Table 22** summarises the following TCMP changes to car parking numbers:-

Table 22:- Review of TCMP Parking Spaces

Location	TCMP Proposals (Mon-Fri)	TCMP Proposals (Sat)
Pinfold Gate Car Park	-48	-48
New IRR car park	0	50
Granby Street Car Park	0	0
Macaulay House	-32	-32
Browns Lane Car Park	70	70
Southfield Extension Car Park	-43	-43
Southfield Offices Car Park	0	-16
Devonshire Square	-19	-19
Bedford Square	-8	-8
Leicester Road	-20	-20
Wards End	-13	-13
Total	-113	-79

- 5.3.3. The existing Pinfold Gate car park is to be removed.
- 5.3.4. Re-development of land in the vicinity of Aumberry Gap will involve construction of a new medical centre and removal of the existing one and its associated car park. The existing car park has a capacity in excess of 100 spaces and is free of charge to those using the medical centre and walk in centre through the use of a token operated barrier system.
- 5.3.5. It is anticipated that during the week the majority of the 100 spaces at a new surface level car park would be occupied with these vehicles re-locating from the existing Pinfold Gate medical centre car park into the new surface level car park effectively removing these 100 spaces from the overall provision of available public parking in Loughborough. There are still a number of uncertainties associated with the development of a multi-storey car park at this site, particularly with regard to the number of spaces and future management of the car park. For these reasons the proposed IRR car park has initially been removed from weekday future demand calculations. On Saturdays the 'walk in' centre is open but the surgery is closed. On-site observations suggest that the maximum number of vehicles parking in the medical centre car park on Saturdays is approximately 50. It is therefore assumed that, on Saturdays, 50 spaces at the new IRR car park would be available for use by the public.
- 5.3.6. The TCMP proposes re-development of land in the vicinity of Devonshire Square. It is likely that the development would extend into the existing Granby Street car park. It has been assumed that if the area of the surface level car park were reduced multi-storey car parking would be provided at the site in order to ensure that the number of parking spaces remains

at the existing level of 183. As such it is assumed that there will be no increase or decrease in parking numbers at Granby Street car park as part of the TCMP.

- 5.3.7. The TCMP outlines the possibility of providing additional parking at Browns Lane car park. It is anticipated that approximately 70 additional spaces could be provided on land adjacent to Browns Lane. This is discussed in greater detail in paragraphs 6.3.3 to 6.3.11.
- 5.3.8. Southfield Extension car park is to be removed with the site identified for re-development.
- 5.3.9. Southfield Offices car park is currently available for use by the public on Saturdays only. Provision of a new Leicester Road / Southfield Road junction associated with construction of the new IRR will result in capacity at this car park being reduced by approximately 16 spaces.
- 5.3.10. 19 on-street parking spaces will be lost along Devonshire Square as part of the extension of the pedestrianisation in this area.
- 5.3.11. 8 spaces will be lost at Bedford Square as part of improvements proposed at Bedford Square / Wards End.
- 5.3.12. Provision of a new Leicester Road / Southfield Road junction will result in a reduction of 20 on-street spaces along Leicester Road.
- 5.3.13. 13 on-street spaces will be lost along Wards End as part of improvements proposed at Bedford Square / Wards End.
- 5.3.14. As detailed in paragraph 5.3.5 during the week the 100 spaces (50 on Saturdays) to be provided at the new IRR car park will be used by relocated medical centre users and therefore realistically a new car park is unlikely to fully operate as a town centre car park. Based on this assumption **Table 22** demonstrates that the TCMP proposals will reduce the overall number of public parking spaces within the study area.
- 5.3.15. An assessment of future occupancy has been undertaken at the 2016 and 2021 assessment years. Full details of this assessment are presented in **Appendix H**. A summary of the overall occupancy levels (on-street and off-street parking) based on the TCMP proposal is shown in **Table 23** below:-

Table 23:- 2016 and 2021 Overall Percentage Parking Occupancy Levels (TCMP Proposals)

Percentage Occupancy											
2016						2021					
November			December			November			December		
Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat
58	70	95	75	90	111	60	72	99	79	93	115

5.3.16. It is acknowledged that this approach represents a 'predict and provide' estimate of future parking demand. However, it is considered to represent the worst case scenario and offer a robust basis for estimating future parking demand for the following reasons:-

- Whilst the TEMPRO growth factors will not specifically include for future developments as outlined in the TCMP, TEMPRO assumes a level of growth based on an assumed level of future development. Traffic modelling work undertaken by LCC estimates that the TCMP proposals will generate two-way traffic flows of 250 trips in the AM peak hour and 250 trips in the PM peak hour. These flows are considered to be quite low and therefore it is appropriate to assume that the TCMP proposals have been included for within the level of growth assumed in TEMPRO.
- CBC has confirmed that no additional committed developments or highway schemes need to be considered in the Parking Strategy. As such the growth factor applied is considered representative.
- When estimating the displacement of parking following the introduction of CPE It is commonly assumed that 5% of existing vehicles will be displaced from on-street spaces into car parks. In Loughborough the number of vehicles parking for longer than permitted is considered to be high. Furthermore, there is a reasonable amount of illegal parking (vehicles parking on double and single yellow lines). It is likely that the displacement of vehicles will be greater than 5% in Loughborough. Given the difficulties involved in quantifying CPE, it has been excluded from the analysis.
- The car park validation surveys outlined in section 2.19 suggested that occupancy at Beehive Lane and Granby Street car parks in particular is actually above the level shown in the ticket sale information provided by CBC (which is the information used in this assessment). Beehive Lane and Granby Street car parks represent approximately 25% of the overall number of parking spaces in Loughborough.

5.3.17. Analysis suggests that during a typical month of the year the theoretical 85% threshold will be exceeded during the peak hour on a Saturday but during other times of the year there

will be sufficient spare capacity. During the peak month of the year the 85% threshold will be exceeded during the peak hour on a Thursday and Saturday.

- 5.3.18. It is considered that any permanent increase in the general parking stock above existing levels simply to cater for higher demand at peak times would be contrary to relevant parking policies. Policy 46 of the Draft East Midlands Regional Plan advises against increases in parking not associated with development. Nevertheless the TCMP proposals demonstrate a weekday reduction in parking spaces of 113, and a Saturday reduction in parking spaces of 79. It is anticipated that a reduction in town centre parking could have a detrimental impact on the town centre particularly in the absence of any significant measures to encourage people to use alternative modes of travel. **It is recommended that new areas of permanent parking are created to address the reduction in parking outlined in the TCMP.**

5.4. Devonshire Square Re-development (Granby Street Car Park)

- 5.4.1. The TCMP proposes re-development of land in the vicinity of Devonshire Square. It is not recommended that capacity at the Granby Street Car Park is reduced as part of this re-development. **Should future re-development reduce the surface area of this car park, it is recommended that parking is provided in a multi-storey car park at this site.**

5.5. Southfield Offices Car Park

- 5.5.1. The existing Southfield Road Offices Car Park is used by CBC staff during the week and operates as a public car park at weekends.
- 5.5.2. A Travel Plan was approved by CBC for the Southfield Road Offices in 1999. Because little progress was made regarding this Travel Plan, a revised version was issued during 2005 / 2006. This includes initiatives to reduce car travel such as car sharing, and a car park charging policy. In order to promote cycling and walking it was recommended that appropriate facilities are provided at the offices such as showers and lockers. Staff can also participate in the Arriva 'green card' scheme in order to qualify for discounted travel on public transport. It was also recommended that the provision of sustainable travel information should also be improved.
- 5.5.3. It is considered that CBC should be leading the way in terms of reducing car travel in Charnwood, and in order to assist in satisfying the objectives in the Travel Plan consideration has been given to designating a section of the car park as a public car park.

- 5.5.4. Information has been obtained from CBC regarding the number of permits issued in 2006 at this car park. A breakdown of the number issued is as follows:-

Essential user	29
Car Share	6 (cars)
Disabled	2
Discounted	29
Total	66

- 5.5.5. It is **recommended that 46 of the 79 spaces at the Southfield Offices Car Park are designated as public car parking spaces. The remaining 30 spaces should remain as CBC parking spaces for use by permit holders as outlined in item 5.5.4 with priority given to disabled users and car sharers. This will result in there being fewer spaces than permit holders. Nevertheless it is not recommended that spaces are made available at Beehive Lane car park to make up for this shortfall.** Although this means there are less spaces than permit holders it is considered acceptable as not all permit holders will seek parking at the same time.

- 5.5.6. During the week Southfield Offices Car Park currently operates free of charge to CBC employees and visitors only. **It is recommended that the same tariff structure is introduced at this car park for all car park users that is currently operating in all other CBC car parks (excluding town centre users in Browns Lane Car Park). A Green Badge scheme should be introduced for all permits and discounted tickets issued by CBC at Southfield Offices car park. It is suggested that discounts of 25% are offered to drivers of vehicles with carbon dioxide emissions of less than 120g/km.** It is understood that emissions are taken into consideration when issuing permits. Nevertheless this recommendation progresses this initiative further.

5.6. Aumberry Gap Re-development (New Inner Relief Road Car Park)

- 5.6.1. The TCMP outlines the potential to re-develop the proposed IRR surface level car park as a multi-storey car park. It is anticipated that a multi-storey car park would have capacity for a maximum of 200 vehicles. As an estimate it is assumed that 100 of these spaces would be available for use by town centre users during the week and 150 on Saturdays. It is estimated that the remaining 100 spaces (50 on Saturdays) would be occupied by users of the medical centre, although in practice occupancy by medical centre users will vary throughout the day in line with the busiest periods at the medical centre. Should a 200 space multi-storey car park be constructed as part of the Aumberry Gap Re-development it is considered that this would be suitable in addressing the shortfall in parking outlined in **Table 22.**

- 5.6.2. Based on the recommendations in item 5.5 and 5.6 and the proposals in the TCMP changes to future parking numbers are summarised in **Table 24** as follows:-

Table 24:- TCMP and Parking Strategy changes in parking numbers

Location	TCMP Proposals (Mon-Fri)	TCMP Proposals (Sat)
Pinfold Gate Car Park	-48	-48
New former hospital site car park	100	150
Granby Street Car Park	0	0
Macaulay House	-32	-32
Browns Lane Car Park	70	70
Southfield Extension Car Park	-43	-43
Southfield Offices Car Park	46	-16
Devonshire Square	-19	-19
Bedford Square	-8	-8
Leicester Road	-20	-20
Wards End	-13	-13
Total	33	-29

- 5.6.3. **Table 24** indicates a small increase in the number of parking spaces available during the week. This is considered acceptable in this instance. Although it could be argued that use of Southfield Offices as a weekday public car park should be a temporary measure until the new IRR multi-storey car park is constructed in order to avoid over provision of parking spaces, recommendations for Southfield Offices are short term recommendations and should be implemented not only to address the shortfall in town centre parking but also to assist in satisfying the targets in CBCs Southfield Offices Travel Plan. Given the number of uncertainties associated with construction of a multi-storey car park at the Aumberry Gap site it is anticipated that provision of a multi-storey car park at this site would be a long term measure. **Table 24** indicates a small decrease in the number of spaces available on Saturdays. It is considered vital that town centre parking is provided at the Aumberry Gap site particularly on Saturdays.
- 5.6.4. A revised assessment of future occupancy has been undertaken at the 2016 and 2021 assessment years based on the changes in **Table 24**. Full details of this assessment are presented in **Appendix H**. A summary of the overall occupancy levels (on-street and off-street parking) based on the revised number of spaces is summarised in **Table 25** as follows:-

Table 25:- 2016 and 2021 Overall Percentage Parking Occupancy Levels (TCMP plus Parking Strategy recommendations)

Percentage Occupancy											
2016						2021					
November			December			November			December		
Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat
55	66	92	72	85	107	57	69	95	75	89	111

5.6.5. Analysis suggests that during a typical month of the year the theoretical 85% threshold will be exceeded during the peak hour on a Saturday but during other times of the year there will be sufficient spare capacity. During the peak month of the year the 85% threshold will be exceeded during the peak hour on a Saturday and only at 2021 in December on a Thursday.

5.6.6. It is considered of critical importance that the existing level of parking provision within the study area is not reduced as part of the TCMP proposals. Any reduction is likely to be detrimental to the town centre economy. **Should town centre car parking not form part of the Aumbery Gap Re-development it is recommended that permanent car parking is provided elsewhere.**

5.7. Sensitivity Test (Modal Shift Targets)

5.7.1. Sensitivity tests have been undertaken to establish the likely effect a 10% and 20% reduction in car travel would have on overall parking occupancy levels within the study area. A reduction could occur through modal shift from car usage to other modes of transport or because a journey is no longer required. A reduction in car usage could be expected to occur over the period to 2016 and 2021 as a result of factors such as:-

- Increased impact of climate change issues;
- Internet shopping from home;
- Increased effectiveness of planning policy;
- increased spend on improved access by walking, cycling, and public transport by LCC as part of the LTP process.

5.7.2. The results of this sensitivity test using the level of parking outlined in **Table 25** are as shown in **Table 26**:-

Table 26:- 2016 and 2021 Overall Percentage Parking Occupancy Levels – Modal Shift Sensitivity Test (TCMP plus Parking Strategy recommendations)

Modal Shift Target	2016						2021					
	November			December			November			December		
	Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat	Wed	Thur	Sat
10%	49	59	82	64	77	96	51	62	86	67	80	100
20%	44	53	73	57	68	86	45	55	76	60	71	89

5.7.3. Analysis suggests that if a 10% or 20% modal shift target is achieved overall occupancy during the week will be below 85% at both the 2016 and 2021 assessment years. During a Saturday in November overall occupancy is estimated to be below 85% at both the 2016 and 2021 assessment years. However, during a Saturday in December analysis suggests that if a 10% modal shift target is achieved the 85% threshold will be exceeded by 2016. If a 20% modal shift target is achieved the 85% threshold will be exceeded during December but not November in 2021.

5.7.4. A 10% or 20% modal shift represents a significant change in behaviour for existing car users. LTP2 has a number of 'Smarter Choices' initiatives to encourage people to switch from car travel to other modes. These are:-

- School Travel Plans and Routes to School Programmes
- Workplace Travel Plans
- Personalised Travel Planning
- Travel Marketing and Promotion
- Public Transport Information and Marketing
- Active Travel

5.7.5. As well as 'Smarter Choices' initiatives LTP2 states that there will be investment in sustainable transport schemes in Loughborough including:-

- Developing a comprehensive cycle route network in the town
- Formulation of high quality on-street bus hubs in the town centre

5.7.6. Whilst LTP2 encourages 'Smarter Choices' and proposes improvements to cycle and public transport infrastructure these initiatives alone are not considered sufficient to achieve modal shift changes of 10% to 20%. It is considered that further measures would be required. The initiatives outlined in LTP2 cover the period to 2011. There will be further opportunities to increase investment in sustainable and integrated transport provision within forthcoming LTP's. Whilst it would be desirable that 10% or 20% of car users will switch to alternative modes of travel by 2016 or 2021 this cannot be guaranteed. Nevertheless with

an appropriate balance of measures and a robust application a reduction in car travel by 10% or 20% could be achieved. It is not considered a sensible approach to base the parking strategy assessment on this assumption. The measures proposed in LTP2 are not considered sufficient to facilitate this level of modal shift. CBC has expressed similar concerns. .

Summary of Assessment

- 5.7.7. Parking demand is likely to exceed supply during the peak times if appropriate measures are not introduced to encourage modal shift away from the private car. Since it cannot be guaranteed that any measures introduced will prove successful it is not considered sensible to base the recommendations in this Parking Strategy on achieving specific modal shift targets. If the required number of parking spaces was assessed on the basis that modal shift targets of 10% or 20% were achieved it is likely that parking provision in Loughborough would be below the required level. This would undoubtedly reduce the attractiveness of Loughborough town centre and could reduce the number of people visiting. **In the eventuality that modal shift targets are not achieved it is recommended that temporary solutions are implemented to accommodate the peak demand that may arise in future years.**
- 5.7.8. Initial feasibility work has been undertaken in relation to establishing potential existing private parking areas that could be allocated for public use as either town centre car parks or park and ride sites during the busiest periods of the year.

Future Parking Demand Solutions

- 5.7.9. There are a number of private car parks in the town centre. The majority of these tend to be associated with activities that remain operational on Saturdays or, are either too small to make a significant contribution to town centre parking numbers and have therefore not been considered further. These include car parks along Packe Street, Southfield Road, and Bridge Street. However, William Davis has offices located along Forest Road with a larger car park. **It is recommended that discussions are held between CBC and William Davis with a view to using the William Davis offices car park as a public car park during every Saturday throughout the year.** It is understood that William Davis currently make this car park available to Emmanuel Church.
- 5.7.10. A number of potential sites for a weekend park and ride service have been explored, towards the north, south, east, and west of Loughborough adjacent to key strategic routes into the town centre (A6, A512, A60). **Recommendation:- discussions are held with 'Loughborough University' and '3M' regarding the feasibility of introducing a**

temporary park and ride service at their sites. The 'Loughborough University' site adjacent to the A512 is considered to be located along a key strategic route into Loughborough, particularly for people travelling in from the Motorway and Shepshed area. The '3M' site is located adjacent to the A6 / Bishop Meadow Road Roundabout and is also considered to be located along a key strategic route into Loughborough for traffic approaching from the northern area of town, Hathern, and Kegworth.

5.8. Loughborough Grammar School

- 5.8.1. Loughborough Grammar School has a car park located adjacent to the A6 Leicester Road approximately 750m from the town centre. The site is considered to be too close to the town centre to be used as a park and ride site. Assuming a 1.8 m/s walking speed this car park is located approximately 8 minutes 20 seconds from the town centre. Assuming a 1.2 m/s walking speed this car park is located approximately 12 minutes and 30 seconds from the town centre. Whilst this may be considered too far to walk for some people it is considered reasonable to assume that some people could be prepared to walk this distance. **Recommendation:- discussions are held between Loughborough Grammar School and CBC with a view to using the school car park as a public car park during every Saturday throughout the year.**

5.9. Other Sites

- 5.9.1. Loughborough College has a car park located adjacent to Radmoor Road towards Epinal Way located approximately 1km from the town centre. The site is considered to be too close to the town centre to be used as a park and ride site. Assuming a 1.8 m/s walking speed this car park is located approximately 9 minutes 15 seconds from the town centre. Assuming a 1.2 m/s walking speed this car park is located approximately 13 minutes and 50 seconds from the town centre. Whilst this site isn't much further from the town centre in comparison to Loughborough Grammar School, the nearest shop to the College is Sainsbury's. However, there are a number of town centre shops located along the route from the Grammar School to the town centre which make the location of the Grammar School car park more attractive. For this reason the use of the Loughborough College car park as a temporary car park should not be pursued at the current time.

5.10. Future Developments and Initiatives

Civil Parking Enforcement

- 5.10.1. A Civil Parking Enforcement (CPE) regime for the future management of parking in Loughborough has been developed in partnership with Leicestershire County Council

(LCC). As part of this, the future enforcement of parking regulations will pass to LCC and will no longer be the responsibility of the Police. In Loughborough enforcement of the regulations will be undertaken by enforcement officers employed by CBC. CPE will begin during summer 2007. The introduction of CPE will enable enforcement to be provided at the level required to effect the regulations. Government guidance indicates the main advantages of local authority enforcement of regulations are:-

- Effective implementation of parking policies yielding improved traffic flow, better management of traffic levels, less accidents, a fairer distribution of parking spaces and more pleasant streets;
- Better enforcement of the effectiveness and value of regulations;
- Ability of local authorities to use the revenue from charges to fund enforcement with any surplus used for improving off-street parking or other transport related measures.

5.10.2. Effective management of parking regulations and charges assists in developing a culture of motorists complying with other regulations such as speed limits.

5.10.3. As recorded in the surveys undertaken by WYG (see **Table 12 and 13**) under the existing system there is little enforcement throughout Loughborough and as a result some vehicles stay beyond the maximum time permitted. Because the number of enforcement officers will increase following implementation of CPE, the likelihood of receiving a penalty charge for illegal parking will increase. As such the amount of illegal parking is likely to decrease. In areas where CPE has already been introduced this has resulted in the displacement of parking from on-street to off-street spaces.

5.10.4. It is anticipated that a proportion of the vehicles that currently park in on-street areas will be displaced into car parks. The proportion of vehicles likely to be displaced depends on a number of factors including:-

- type and extent of the restrictions introduced;
- location of off-street car parks and the availability of spaces;
- walking distance between the uncontrolled area and the town centre;
- the cost, quality, and availability of public transport alternatives;
- the proportion of vehicles currently parking for longer than the maximum time permitted.

5.10.5. When estimating the displacement of parking following the introduction of CPE It is commonly assumed that 5% of existing vehicles will be displaced. In Loughborough the number of vehicles parking for longer than permitted is considered to be high with vehicles

parking for the full day on some roads. It is likely that the displacement of vehicles will be greater than 5% in Loughborough.

- 5.10.6. The introduction of CPE is expected to greatly improve enforcement of parking and therefore assist demand management in the town centre by freeing road space for through traffic. CPE should also lead to improved turnover of parking spaces, resulting in economic benefits associated with easier access to shops and key services. The IHT Parking Strategies & Management guidance states that a move to CPE may form the cornerstone of the enforcement element of a parking strategy.

Growth Point Bid

- 5.10.7. During development of the report, work was ongoing by LCC on reviewing the highways and transportation impact of possible RSS and Growth Point housing allocations in the Loughborough area. At the time of preparing this report the findings from this work were not known. **These studies are at an early stage and it is recommended that the findings from this work are reviewed once the RSS work is complete.**