EAB Report

Ward(s) affected: ALL

Report of: Director of Planning and Regeneration

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Public Bike Share Scheme for Guildford

Executive Summary

This paper identifies the potential for a public bike share scheme in Guildford, specifically in areas close to the town centre. This would be a highly visible project stating the borough's commitment to sustainable transport, encouraging modal shift away from the private motor car and providing a new service to many who do not currently cycle. After identifying the current available systems, a recommendation for further feasibility and (depending on the outcome) a tendering process is made.

Recommendation to Executive Advisory Board (EAB)

The EAB is asked to endorse the inception of a project to look further into the feasibility of delivering a public Bike Share scheme in Guildford. The EAB is also invited to comment on the scope of a feasibility study and the questions that should be answered in any such assessment.

Reason(s) for Recommendation:

The scheme would improve the sustainable transport options available for residents and visitors to Guildford helping to maintain air quality and improve public health and well-being whilst assisting with, amongst others, the following strategic priorities as set out in the Council's Corporate Plan 2015-2020:

- Sustainable transport – urban and rural
- Protecting and improving our environment

The Corporate Plan also includes "Improving accessibility and pedestrian environment" as a stated priority under the theme of 'Our Borough', with two of the identified associated projects or actions being to:

- Coordinate progressive improvements in access for buses and by cycling and walking to reduce the dominance of the car; and
- Explore and, subject to feasibility, introduce an electric bike scheme

1. Purpose of Report

1.1 This report outlines the options available to Guildford to provide a public Bike Share (commonly known as “Cycle Hire”) scheme within the Town. It looks at the benefits of bike share as well as other bike share activities in Guildford. Broad cost estimates for providing a large-scale bike share project serving the Town Centre and its surroundings are included. The purpose of this report is to gain endorsement from the EAB to explore the potential for Bike Share further.

2. Strategic Priorities

2.1 The Council’s adopted strategic priorities of “Sustainable transport – urban and rural” and “Protecting and improving our environment” are supported by the proposal as this scheme will promote cycling in the borough, making bikes accessible within the Town Centre to those who arrive by alternative means. The proliferation of cycling in the town would then seek to further increase the image and number of people cycling, making the streets safer for cyclists and also offering a realistic alternative for many short journeys currently made by private motor vehicle. Such a scheme would also provide associated benefits in relation to air quality and public health and well-being.

3. Background

3.1 On-street bicycles (sometimes referred to as “Boris Bikes”) arrived on the streets of London in 2010. This highly successful scheme has now grown to over 14,000 bikes accessed from more than 770 stations across London, echoing developments in other major cities across the World. Since then, public bike share schemes have been established in a number of large towns and cities outside of the capital, including Liverpool, Glasgow, Belfast, Bath, Reading and Oxford.

3.2 Costs for bike share schemes have reduced significantly in recent years with competition from China and new technology becoming established. The sector is innovating with smart lock dockless bike share, integrating with car share clubs, whilst electric bike share is also emerging in exclusively electric or mixed fleets.

3.3 Across the United Kingdom, 17 cities and towns are currently operating a bike share with many others currently in development. 17,000 bikes are shared for over 10 million trips annually by more than 420,000 unique users.

3.4 In the rest of the world, public bike share is growing globally with over 1,175 cities and an estimated 2,294,600 bikes. Of this total, around 11,000 have electric-assist.

3.5 Benefits of Bike Share include:

- Improved health and well-being by increasing the number of cycle trips
- Supporting public transport by either:
  - Relieving pressure on overcrowded public transport routes
  - Increasing use of public transport with multi-modal trips
  - Offering flexibility for journeys where services are limited
- Reducing car miles driven
- Providing improved access to jobs, education and amenities with "first /last mile" connectivity issues and "pay-as-you-go" cycling
- Developing tourism by offering an enjoyable way to link leisure facilities
- Improving road safety by increasing the number and visibility of cyclists
- The visibility of the scheme means that the Council's efforts in increasing Sustainable transport and its commitment to encouraging modal shift away from the private motor car are obvious to all
- Increasing visibility also means that it is possible to attract sponsorship to offset some, or all, of the ongoing running costs

3.6 Bikeplus is the representative body for UK bike share and they undertook a survey in 2016 to assess: the impact of schemes on attracting people to cycling; the health and wellbeing benefits people report; and how bike share schemes are influencing people's travel choices, particularly in moving away from making car journeys. The headline results from the survey found that:

- 13% of survey respondents outside of London said they have begun cycling as a result of the bike share scheme
- There is a much more even gender balance amongst bike share users, with 57% male and 43% female, compared to a 75% male and 25% female ratio for all cycling trips
- 20% of respondents used bike share in conjunction with bus trips and 40% with the train, indicating how bike share is complementary with public transport
- 22% said they previously travelled by car or taxi, indicating a potential for bike share to meaningfully contribute towards reducing congestion and pollution.

<u>Potential scheme options</u>

3.7 Essentially, there are two main options that could be implemented in a town such as Guildford. Both utilise GPS technology and can provide users with real-time information regarding the availability and location of bikes:

Public Bike share: Self-service on-street docking stations

3.8 This is the most familiar and may be seen as “traditional docking”. Bikes are placed in clusters of 5-20, fixed to docking stations framework by various forms of attachment. Docks are placed in key locations around the town/city and regular intervals in between for convenience. The dock may include a terminal to release the bike or the technology may also be located on the bikes themselves.

3.9 The bikes can be returned to any dock to end the hire and with some technology it is possible to lock them on standard cycle parking stands if the dock is full. Typically, pricing models encourage half hour “short hop” hires although bikes can be hired for longer. Examples include Santander Bikes in London, Nextbike in Glasgow, and Hourbike in Liverpool.

Smart Lock and Dockless Bike Share /Free floating Bike Share

3.10 Smart locks transfer the means to locate, release and pay for the bike via an app and the lock rather than the bike. Bikes can be located using an app and dropped off at any cycle parking facility creating a more open network of bikes than on-street docks. Free-floating systems enable bikes to be dropped-off at any location within a city or town’s boundaries.

3.11 Smart lock schemes may be more suited to small to medium sized communities, business parks, housing developments and further education sites where the market may not be large enough to cover higher set up costs of docking stations. Examples include Mobike in Manchester, Air Donkey, Copenhagen & Plymouth.

Some Pros and Cons of both options are set out in the table below:

	Traditional Docking	**Smart lock/Free floating**
Pros	Predictable locations for finding bikes	A potentially lower cost and more convenient solution
	Supports one way short trips	Can be used with any fleet of bikes
	Highly visible docks act as a marketing tool for the scheme	
	There can be alternatives to smart phone for access	
Cons	Higher set up costs	Operational distribution challenges
	Sometimes planning permission is required for public highway sites	Uncertainty for customers finding a bike
	Electricity supply is sometimes required, although stations are often solar powered.	Can result in bikes being dumped, left in undesirable places or an untidy streetscape

3.12 Considering the points above, and recent reports from the free-floating bike share implementation in Manchester (Mobike), which has seen numerous thefts and users having difficulty in obtaining a bike, it is suggested that if Bike Share is to be pursued a traditional model should be adopted as this would be more appropriate for Guildford and its demographics. This approach would enable the Borough to dictate where the docking takes place, and as the scheme develops and travel patterns become clearer, it is possible to relocate docking stations relatively easily, quickly and cheaply. However, the relative benefits/disbenefits would need to be assessed more fully through a feasibility study.

Electric Bike Share

3.13 Given the topography of the town, Guildford is well suited to an electric bike share offer. Electrical assist still offers many of the health benefits of traditional cycling, but requires less effort, particularly up hills. Electrical assist does not enable users to travel without pedalling.

3.14 In conversations with suppliers, and looking at existing systems in the UK, a hybrid scheme that includes a mixture of electric and non-electric cycles might be appropriate. Depending on the supplier, there is potential for the cycles to look the same and also to use the same docks. The disbenefits of electric bikes relate to the additional cost of set up and the need to install a mains power supply, which can add to complication in construction and could make the docking station more difficult to relocate if required.

Operational considerations

Docking Station locations

3.15 The docking stations for non-electric bikes are generally easy to install, although there are a number of different systems, they tend to comprise of a bolted down base and a separate “totem” which contains the required telemetry; this is usually solar powered.

3.16 A feasibility study and analysis of the topography, likely origin and destinations and the suitability of the road network for cyclists would be completed to establish the preferred locations of the docking stations. Following implementation, detailed information can be collected to show usage at each site and also the main routes this can be used to assist with developing routes further in future and also relocating docking stations or increasing capacity at key sites.

Distribution and Maintenance

3.17 There are inevitably tidal flows in any town and it often becomes necessary to redistribute the bikes across any given day. People use the bikes because they are readily available and if they find when they arrive at a given docking station

that there are no bikes available they are likely to lose faith in the scheme and return to their old transportation habits. It is therefore important to ensure a sufficient number of bikes overall within a scheme to meet likely demand and that the hubs are 'rebalanced' with bicycles daily.

3.18 Maintenance is also required as the bikes, although robust, will inevitably require repair, servicing and, on occasion, rebranding.

3.19 Officers have observed systems where local organisations or the third sector are employed to undertake both the redistribution and maintenance of the bikes; this appeared to be particularly successful in Milton Keynes where a social enterprise was created to manage the bikes and young unemployed volunteers were trained to maintain the bikes whilst providing a service to the community. Other models have seen the bike share company manage this directly with on-site support or an agreement with a local bike shop to carry out similar activities.

Administration

3.20 The Bike Share supplier will administer the system and maintain record of all usage and membership. The pricing structure would need to be agreed as part of the procurement process, but normally there is an annual membership cost, which enables users to use the bikes, and then charges based on the time that the bike is hired for. Examples of current pricing structures in other towns is presented below.

Safety

3.21 There is a common argument amongst any cycling scheme regarding road safety and also the use of cycling helmets.

3.22 In terms of road safety, on hiring a bike, the user is asked to sign a disclaimer that makes them responsible for their own safety including use of any safety equipment. The roads in Guildford may be a concern for many potential users, particularly those who do not already cycle regularly. There are ongoing plans to improve conditions for cycling around the town, such as the creation of a Sustainable Movement Corridor, however, in the meantime users would still be able to use existing infrastructure and share the road with other vehicles as is the norm for cyclists. Reading Borough Council have indicated that since implementing their own public bike share scheme there have been requests for improvements but also the data itself has helped them to prioritise improvements for cyclists, as well as identifying potential locations for new docking stations.

3.23 Cycling helmets remain the choice of the cyclist in national law. Currently bike share schemes in the UK do not have any cycle helmet option, and users who wish to use a helmet are required to bring their own.

Current Bike Share developments in Guildford

University of Surrey

3.24 The University has recently been part of a competition for a new bike share scheme linking the Stag Hill campus with the Sports Park and Manor Farm campus. This is a national competition, which will provide the two winning universities a scheme of 50 bikes and the associated docking infrastructure required. There is a crowd funding element of the scheme which is to be used to cover the operational costs of the scheme. The competition has been set up by Santander who sponsor the London bike share scheme and a successful scheme in Milton Keynes in partnership with Nextbike, one of the leading bike share companies in the UK.. It is understood that the University of Surrey entry has reached the final stages and there is a reasonable chance of success.

3.25 If successful, the University would be implementing the project in 2018/19 and because they would be tied to using a single supplier it may be appropriate that any future work Guildford Borough Council would like to do in this area should also use this supplier to ensure compatibility across the two projects.

Electric Bike Share Pilot

3.26 There have been discussions with a local stakeholder who has worked with developers to fund a pilot electric bike share scheme, which would enable tenants of one of the Guildford Business Park buildings to make use of a scheme to travel between the Rail Station and the Business Park. Officers have been assisting in trying to find a suitable docking station location for the pilot. Discussions are continuing and it is hoped that if the trial goes ahead, officers will be able to assess the success of the scheme and the potential to broaden its scope. However, whilst it may be a welcome complementary exercise, at this stage the proposed pilot scheme remains small scale and is not comparable with the Council's ambitions for public bike share

Guildford Bike Share

3.27 Nextbike, the company partnering the Santander competition that the University of Surrey has entered, approached Guildford Borough Council with a proposal to provide 150 bikes for public use with fifteen docking station locations. Further to this, officers have visited sites in the SE managed by two competing operators, ITS (Intelligent Transport Systems) and Hourbike, to compare market leaders' systems and observe their operation.

3.28 Officers have started informal discussions with these suppliers to see whether there is likely to be a suitable bike share model for the Town; visits to some their current schemes have been made. A summary of the three suppliers' current projects is given overleaf. However, it should be noted that there are other operators in the market and no preferred partner has been identified as yet.

Supplier	Examples (site visited in bold)	Scheme size	Pricing		
			Duration	**Pay as you ride**	**Subscription**
NextBike	Bath Exeter Glasgow **Milton Keynes**	42 Stations 300 Bikes	First 30 minutes	£1	£60/year then Free
			Every additional 30 min	£1	£0.50
			5 – 24 hours	£10	£5
ITS*	London **Slough** Belfast	11 Stations 50 Bikes	First 30 minutes	£1	-
			Every additional 60 min	£0.50	-
			0-4 hours	-	£60/year then free
Hourbike	Liverpool Oxford **Reading** Sheffield University	29 Stations 200 Bikes	First 5 mins	Free	-
			First 30 mins	-	£51/year then free
			Each additional hour	£1	£1

*NB - ITS operate as a consultant and can complete various stages including development, construction and operation of cycle hire schemes, they do not supply the bikes themselves.

3.29 Each company has provided the borough with further information regarding the likely capital cost of delivering a scheme of around 150 bikes in the town. This is summarised in Section 6 of this report. It should be noted that at this stage this has been an informal enquiry and only a full procurement exercise will give us accurate costings.

Scope of Feasibility Study

3.30 The preceding paragraphs set out some of the key issues that officers believe need to be properly considered in a more detailed feasibility assessment/study. However, the views of the EAB are sought in respect of the overall scope of the study, should one be commissioned, and the questions that should be asked of it.

3.31 A list of potential questions for the assessment to consider is set out below:

- What local demand is there for a public bike share scheme in Guildford?
- What competition is there likely to be to a Council scheme?
- Compatibility with other schemes (e.g. if University of Surrey is successful in winning Santander competition or decides to implement a scheme anyway)?
- Benefits/disbenefits of traditional docking vs dockless/free-floating?
- Should we consider courting a ‘capital free’ scheme (e.g. Mobike)?
- Optimal number of bikes/docks for a scheme in Guildford?

- Best locations for siting docking stations around the town?
- Timing of delivery of bike share scheme (e.g. before or after SMC cycle lane improvements have been delivered)?
- What additional cycle infrastructure improvements would be necessary in the town centre and beyond to support a bike share scheme?
- What percentage of electric bikes would it be appropriate to include?
- Relationship to sponsorship strategies and ongoing revenue implications?
- Opportunities to link bike share with other corporate ambitions (e.g. providing docking stations that provide dual role for electric vehicle charging)?
- Any legal or liability implications of introducing public bike share?

Consultations

4.1 To date there has been no public consultation exercise regarding the potential for bike share in Guildford, but it is envisaged that we would undertake appropriate consultation prior to the implementation of any scheme.

4.2 We would welcome comments from the EAB regarding a suitable communication strategy.

5. Equality and Diversity Implications

5.1 As the scheme progresses, we would look to complete a full Equality Impact Assessment (EIA) once more details of the scheme are known and prior to tendering.

6 Financial Implications

Capital set-up costs

6.1 Each of the operators approached was asked to indicate the likely cost of two "typical" schemes for Guildford; one with 150 standard hire bikes, and a second comprising 120 standard cycles with 30 electric cycles (an 80/20 split).

6.2 There were invariably some variations in the costs and also in the options regarding the type and number of hire stations. However the overall range of capital costs which includes the purchase of the bikes themselves by the Council, as well as the station installation (but not any associated land costs) suggested by the operators was:

- For **150** traditional bikes with 10-15 stations - **£288,000 to £370,000**
- For **120** traditional bikes and **30** electric Bikes with 10-15 stations - **£360,000 to £460,000**

6.3 These prices are currently only an indication of likely costs and the detail of the tender and Guildford's requirements will produce a more refined cost, which could be either higher or lower. Officers would also suggest that the decision on the final scheme is weighted appropriately more towards quality, rather than simply on cost, to ensure that the scheme meets with our requirements and is suitable for a town such as Guildford.

6.4 The lifetime of each hire bike scheme is around 5-7 years. Following this period, it is likely that a further capital investment will be required – albeit much of the physical infrastructure for docking would already be in situ.

6.5 In addition to the capital costs of the scheme itself that there may be some minor associated infrastructure improvements, which would enable cycling to and around the town centre more safely and conveniently. These might include signing, new lanes and enabling access to some areas that currently do not allow cycling. It is suggested that there could be a complimentary project to improve cycle routes between the docking stations. This could be developed in close consultation with local stakeholders.

Revenue costs and income

6.6 The London cycle hire scheme is sponsored by Santander and many other cycle hire schemes across the country are now sponsored by a mixture of local and national companies. The London sponsorship deal only covers approximately a third of the scheme's operational costs and although the scheme is well used, there currently remains an ongoing requirement for TfL to continue to subsidise. Nevertheless, all of the operators we have spoken to have expressed an opinion that Guildford is an attractive place for a public bike share scheme to be set up, particularly due to its demographics and the presence of a large University and Research Park, and are confident that sponsors could be found to meet most, if not all, of the ongoing operational revenue costs.

6.7 It is possible to operate a new scheme more efficiently than the London example, particularly using local volunteer organisations for maintenance and distribution and having hire station locations that require less redistribution of bikes. It could be possible to operate a bike share scheme, which with the right sponsorship and fee structure could break even or generate a small return. During feasibility and the tendering process it will be established whether the objectives of modal shift, visibility and mobility can be met and sustained whilst providing no subsidy on an annual basis.

6.8 In the event that there is a profit generated following all the operator costs it can be written into the tender that this profit be shared or recycled into the project to continue its ongoing growth. All operators approached have indicated they are open to alternative financial models of delivering a scheme.

Feasibility Study

6.9 There would be a relatively modest revenue cost associated with procuring the necessary feasibility work from an external consultant with experience in this area. Given the close links between this proposed project and the work being progressed by the Major Projects Team in respect of the Sustainable Movement Corridor (SMC), it is considered that these study costs could be met from the existing SMC revenue budget.

7. Human Resource Implications

7.1 Once the scheme has been implemented, minimal resources would be required to manage the contract, it is suggested that this could be undertaken within the existing structure of the Council. However, this will be established as feasibility progresses.

7.2 During the feasibility and tendering process, the Major Projects Team will have capacity to oversee and project manage the work with support from other relevant teams across the Council.

8. Conclusion

8.1 Given the benefits of bike share and its successful implementation in other towns, Guildford represents an opportunity for a highly visible project, which will enable more people to cycle and encourage further cycling and offer a meaningful alternative to the private car for many.

8.2 A feasibility study is required to help quantify the benefits and make a business case for implementation of a bike share project. This would also identify the most suitable sites for docking stations and the Key Performance Indicators (KPIs) that would be necessary to achieve our goals for the project.

8.3 Given the topography of the Town, a proportion of electric bikes would prove useful in introducing to a wider audience the convenience and inclusivity of cycling in and around the town.

8.4 It is therefore hoped that the EAB will endorse taking this project forward to the next stage and provide commentary on the questions they would like a more detailed feasibility study to answer.