



Shared mobility devices

Issues Paper

July \2019

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Executive Summary

This report seeks to inform the Local Government sector about the various methods of regulating emerging dockless mobility services and recommend a fit for purpose framework for councils in South Australia. It has been developed through a review of other cities’ dockless mobility frameworks, and engagement with councils and dockless mobility operators.

The City of Adelaide has supported mobility sharing since 2005 through the Adelaide Free Bikes Program. Although this model is ideal for tourism and leisure, it does not offer the same level of flexibility as dockless bike share schemes and was not intended for daily commuter use.

Dockless bike share schemes operated in Adelaide between December 2017 and June 2018. Operations were untroubled when compared to the experience in the Eastern States. However, of the ten South Australian councils that enabled dockless bike share operations in their jurisdictions, only four had formal permit agreements.

South Australian councils have not yet established the tools to enter formal agreements with dockless mobility operators alongside enforcement options such as impounding or removing devices from the street, when necessary, in a timely manner. This Issues Paper proposes use of the existing permit framework under Section 222 of the *Local Government Act 1999* as the most appropriate method of regulation, accompanied with a recommended update of council by‑laws.

Seven national and international examples of frameworks for regulating dockless mobility services are highlighted in this Paper. These frameworks varied significantly, from 2-page guidelines to 60+ page permit requirements. While all covered similar themes, each city’s regulatory requirements reflected the specific issues experienced in that city. For example, the Sydney and Melbourne frameworks were focused in mitigating issues of dumping and impounding, whereas those from US cities were focused on procurement process and equity programs.

Key findings from this review have been summarised under the common themes of engagement, equipment standards, maintenance and operations, user education, data requirements and transit integration. The issues and opportunities identified by some metropolitan councils and dockless mobility operators were considered as well to determine how best practice outcomes may be applied in South Australia.

**Based on these findings, it is recommended that** **a standard set of permit conditions are adopted by all South Australian councils. This will ensure that dockless mobility schemes are operated consistently across council boundaries, and the process of applying for and granting a permit for dockless mobility operators is streamlined.**

**Within this framework, there would be flexibility for councils to specify the requirements that directly impact on their localities and public spaces (such as fee, fleet size, deployment and density requirements, and preferred parking and exclusion zones). Advice is provided on how these parameters might be devised.**

**To ensure enforcement of the recommended permit conditions is legally viable, a new by-law, or by-law update is recommended.**

**Due to rapidly evolving technologies, service offerings and business models, no legislative changes have been recommended.**



Definitions

* **Council:** A Local Government body.
* **Dockless Mobility:** Includes stationless, free-floating shared devices. These devices do not need to be physically locked or returned to a designated station.
* **Local Government:** The LGA of SA, the 68 councils and regional LGAs.
* **Mobility Device:** Or ‘Device’. Includes pedal bicycles, e-bicycles, scooters and e‑scooters as well as any other emerging personal transportation device that might be permitted under legislation (both now and into the future).
* **Operator:** Private, commercially operated companies providing dockless mobility services.
* **Scheme:** The service provided by the operator.
* **Shared Mobility:** The shared used of a vehicle, bicycle, or other transportation device that allows users to access these modes on an as-needed basis.
* **User:** Includes customers and riders. Any person making use of the service.

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# INTRODUCTION

Sharing schemes for bicycles and other mobility devices offer attractive benefits to cities, such as increasing mobility options, promoting active transport, improving health and well‑being, and reducing traffic congestion, air pollution and car parking demand. Accordingly, mobility device sharing schemes can play an important role in achieving key social, economic and environmental outcomes that cities are already working towards.

A shift towards new methods of shared mobility will see sharing schemes for bicycles and other mobility devices become increasingly central to a city’s transport mix. The pace of technology-driven innovation from the private sector in shared transportation services is rapid and filled with opportunity.

Since 2016, ‘dockless’ bicycle sharing has rapidly emerged in cities around the world. Unlike previous generations of bicycle share, dockless bikes do not need to be physically locked with a conventional chain or returned to a designated station or rack. Users register, pay, unlock and lock dockless bicycles all through a mobile phone app. More recently this dockless model has expanded to include other personal mobility devices, such as electric scooters.

These systems present the opportunity for large scale mobility sharing without the expenditure and infrastructure typically required for docked schemes. Dockless systems enable mobility sharing in low-density urban environments where it is otherwise difficult to return a device to a particular location. In addition, the operator can provide cities with useful transport and mobility data that may assist in future mobility planning.

Whilst the potential of dockless mobility schemes is impressive, a lack of regulation around engagement, operations, fleet sizes and parking procedures has resulted in enforcement and safety issues, footpath clutter and bike dumping. As city streets are a finite resource, private operators and councils must be on the same page when it comes to expectations, roles and responsibilities if they wish to provide an effective service.

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| Image result for dockless bike share australia | Image result for dockless bike share australia | Related image |

**In addition to contributing to city-wide goals, a set of policies and procedures could be introduced to actively address the specific challenges related to dockless mobility device sharing.**

## Overview of Bike Share in Adelaide

Bicycle sharing services have been available in Adelaide since 2005, as part of the Adelaide Free Bike hire program. Co-funded by the City of Adelaide, the service is free of charge and over 200 bikes are now available for loan at over 20 staffed locations (including the Adelaide CBD, Port Adelaide, Semaphore, West Lakes, West Beach, Henley Beach and Hindmarsh).

As this bike sharing scheme involves the hire and return of bikes to the same staffed location, its services are limited to business hours, reducing the flexibility and spontaneity of trips. This model is unlikely to contribute significantly to the development of shared mobility options in Adelaide without significant investment. Therefore, the Adelaide Free Bike hire program is expected to continue providing visitors and residents sightseeing and leisure options rather than assisting in day-to-day commuting.

### Private Bike Hire

In addition to the publicly funded Adelaide Free Bikes, there are a number of private bike hire offerings across Adelaide. These vary in purpose, cost and availability and can broadly be grouped into the following two categories:

* **Tourism & Leisure Hire:** These are a combination of automated hire stations and staffed locations, which are generally co-located with visitor accommodation or tourist destinations (such as hotels and caravan parks). There are at least three businesses with this offering, with locations in the Adelaide CBD, Glenelg, West Beach, Brighton, Barossa, McLaren Vale, Victor Harbor and Port Elliot. Some companies offer a consistent fleet of bikes while others offer a broader variety (e.g. tandem and children’s bikes).
* **Speciality Hire:** These are generally operated by bicycle stores. These businesses offer bike hire for specific purposes such as racing, road and mountain riding. There are at least seven of these offerings across Metropolitan Adelaide. Typically, a day hire is required at minimum and this must be booked in advance. Prices vary significantly.

Despite this variety of bike hire offerings, they do not have the ability to provide the same service as dockless mobility schemes. While dockless bike share schemes may broadly compete with the tourism and leisure hire market (due to increased availability, affordability and flexibility), these bike hire offerings were not necessarily intended to contribute to a city’s transport options, and their pricing is set as such to discourage daily commuter use.

### Dockless Bike Share Operations

In 2017, a Funding Deed between the SA State Government and the City of Adelaide included $1m to initiate a point-to-point city bike share scheme. Market research conducted by the City of Adelaide investigated a range of different options and bike share models. On the other hand, concurrent experience in Sydney and Melbourne showed that private and commercially operated dockless bike schemes could provide a viable bike share service without the need for such public investment.

By late 2017, Dockless Bike Share Operators, Ofo and O-bike, had approached the City of Adelaide to seek permission to operate. The two bike share operators were granted a 3-month trial by the City of Adelaide in December 2017. However, this did not stop users from riding the bikes to other council areas, where no formal permission had been granted at the time. Other metropolitan councils were subsequently approached to enter into agreements with the bike share operators.

While the SA State Government was supportive, these schemes were the within the responsibility of councils that were left to manage and regulate the bike share operators at their own discretion. For some councils, this led to debates around the legal framework used, and legal advice was sought. For others, handshake agreements were made, and informal operations were allowed.

Overall, ten councils allowed operations in their jurisdictions (See Figure 1, overleaf). Four councils had formal permit arrangements, and another two commenced drafting such arrangements. Two councils allowed operations via an informal ‘handshake agreement’, while one was unresponsive, and operations were subsequently conducted informally. These inconsistencies in permitting the service were prevalent, creating complexities around both operations and customer experience.

While both operators started off with local operational staff and good communication protocols, by January 2018, O-Bike had become unresponsive. Issues of poor communication and business models, haphazard parking and inconsistent fleet distribution were common throughout operations. By mid-2018, both operators had withdrawn from Adelaide, and Australia as a whole.

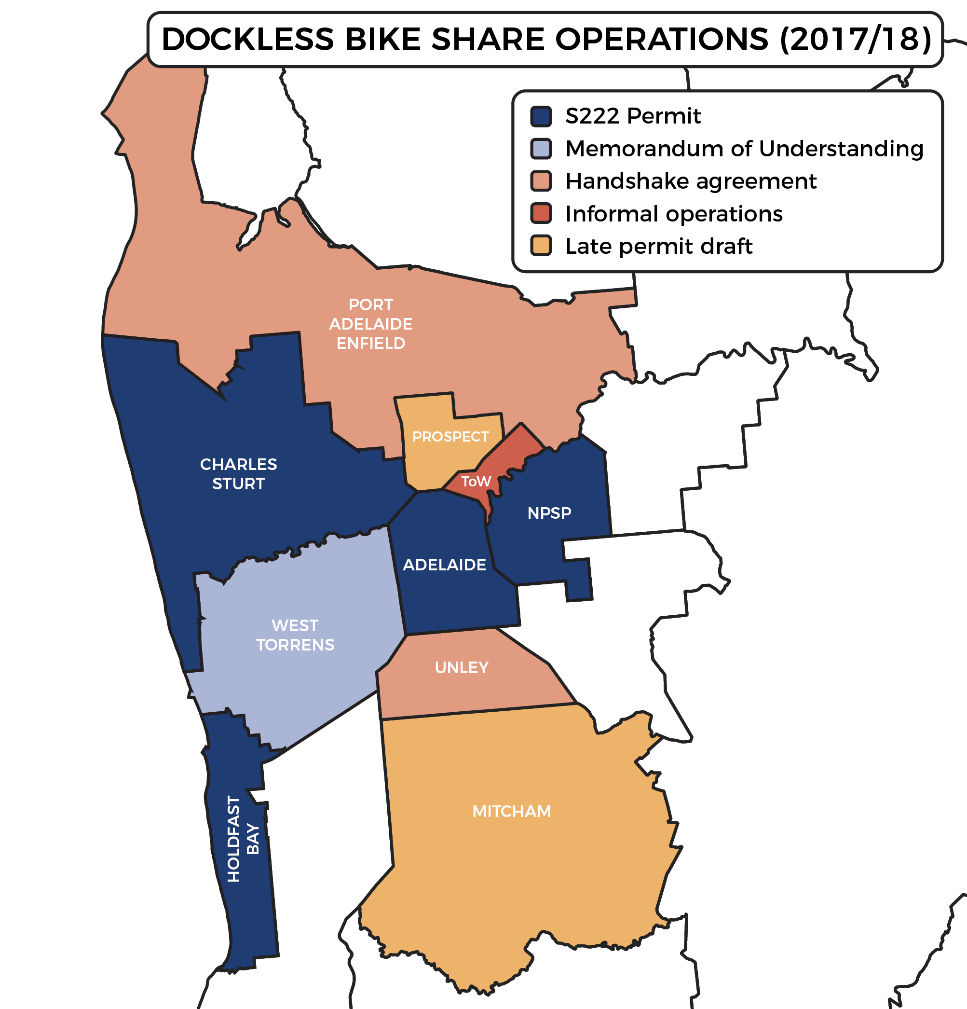


Figure 1: Map of Dockless Bike Share Operations in Adelaide (2017-18)

Compared to the experience in the eastern States, dockless bike share operations in Adelaide were generally uncomplicated. There was no instance of bicycle impounding nor was there the same level of dumping of bikes in waterways and other inappropriate locations that characterised operations in Sydney and Melbourne.

Despite the withdrawal of dockless bike share operators in metropolitan Adelaide, the City of Adelaide remained in communication with alternate dockless mobility providers, with the aim of enabling new services, such as e-scooters. E-scooters are regulated in a limited fashion, on a recreational level but in 2018 were not envisioned in an automated rental scenario. There are also additional operational considerations for these devices, such as re-charging and subsequent redistribution.

## Current Legal & Regulatory Options

As an emerging service with a relatively new business model, dockless mobility sharing exists in a regulatory grey area. There are, however, options for regulation and enforcement within the existing State Legislation. These exist within:

* The *Local Government Act 1999*, including
  + *Permits under s222*
  + *Disposing of objects on roads under s234*
  + *Dealing with abandoned vehicles under s236-237, and*
  + *By-laws under s246*
* The *Local Nuisance and Litter Control Act 2016*

It is recommended that any legal framework ought to include provisions that ensure councils have the power to oversee these services as well as actively prevent negative outcomes through enforcement.

### Local Government Act 1999

**Permit for Business Purposes**

Under the *Local Government Act 1999*, South Australian councils have the power to regulate and manage the types of activities permitted on footpaths, roads and road verges. In alignment with this legislation, potential dockless mobility operators can be directed to apply for a permit under Section 222 of the Act in order to operate their business on public land. As part of granting a permit, council can impose conditions. The conditions may include:

* the payment of a fee;
* the duration and commencement of the permit;
* the commencement of the permit being contingent on the occurrence of an event;
* the amendment of a condition related to the application;
* the area to which the permit applies; and
* where a permit is issued for an activity which will or may cause damage to a public place, the payment of a deposit or bond against such damage.

Section 222 provides sufficient options for a council to oversee these services through imposing such operational conditions. While these conditions may assist with regulation, enforcement options for a breach of permit condition are limited.

Furthermore,Section 222 permits are typically designed for activities in a specified location such as outdoor dining, busking and events. Permit conditions can vary significantly between councils.

**Power to deal with abandoned vehicles**

Councils have the power in *Sections 236* and *237* of the *Local Government Act 1999* to deal with “vehicles”, (defined to include bicycles) that have been “abandoned” on a public road or public place. The definition of vehicles in this Act, however, does not extend to include scooters or other mobility devices. A “vehicle” may be considered abandoned after 24-hours, after which time council is able to issue a warning notice. A vehicle cannot be removed by council until 24-hours after the issue of a warning notice.

These provisions regarding abandoned vehicles were drafted with motor vehicles in mind and create a laborious process for a council that is insufficiently timely to address issues that may arise with shared mobility devices. Furthermore, these provisions are of little assistance in dealing with issues other than abandonment, nor with wheeled mobility devices other than bicycles.

**Power to dispose of objects on roads and footpaths**

*Section 234* of the *Local Government Act 1999* provides a council with a power to remove and dispose of objects from roads and footpaths in a timely manner. However, this applies only if the object has been left on the road without authorisation or a permit, or after an authorisation or permit has expired or been cancelled.

It is unclear whether this power applies to bicycles, which are considered vehicles under the Act. It is also unclear whether this power would apply in the instance of contravening a permit condition, for example if a mobility device was left on a footpath in breach of conditions prescribed in a permit.

**By-laws**

Councils may make by-laws under *Section 246* of the Act. A council by-law may include vehicle related access and parking restrictions. A council is able to set its own penalties for a breach of by- laws, subject to a statutory maximum of $750, and a maximum expiation fee no more than 25% of the maximum penalty.

For example, *City of Adelaide’s By-law No. 4 – Roads* prohibits (without council permission) locking, a bicycle “to any pole, fence or other structure on a road where it may cause obstruction”. The by-law also provides the City of Adelaide with the power to remove and dispose of any item on the road in breach of this by-law and recover the costs from the owner. This by-law does not deal with mobility devices other than bicycles. Nor does it deal with obstructions that may be caused by devices that are not locked “to any pole fence or other structure”. A recommended new by-law for councils to consider is provided in section 4.2.

The City of Adelaide by-law 4 also prohibits, without council permission, using wheeled recreational devices (defined to include scooters and e-scooters) on a footpath. If (after a trial period in 2019) the State Government were to legislate to permit the continued use of wheeled recreational devices (in particular, e-scooters) then the City of Adelaide presumably would need to subsequently amend its by-law.

### Local Nuisance and Litter Control Act 2016

There are “litter” provisions that might be applicable to scooters but are not applicable to bicycles. *Section 22* empowers a council to issue fines for disposing of litter on land or water. However, these provisions do not apply to bicycles or motor vehicles that are covered by the “abandoned vehicles” provisions in sections 236 and 237 of the *Local Government Act 1999* (See above).

Therefore, these provisions might be relevant only to wheeled mobility devices other than bicycles, or perhaps to associated helmets and/or severed components of any devices. Furthermore, no offence of littering would occur if a mobility device was deposited on a road or a footpath “in accordance with” a permit issued by the council.

**Currently, there are sufficient provisions under state legislation to enable councils to regulate and oversee dockless mobility schemes through the Section 222 permit framework.**

**However, there are no clear legal methods for a council to maintain the power to impound or remove a dockless mobility devices from the street once the activity has been permitted under the Section 222 permit framework.**

**Figure 2 overleaf provides an overview of the powers and inconsistencies of the different enforcement options for dealing with inappropriately located dockless mobility devices under existing legislation.**

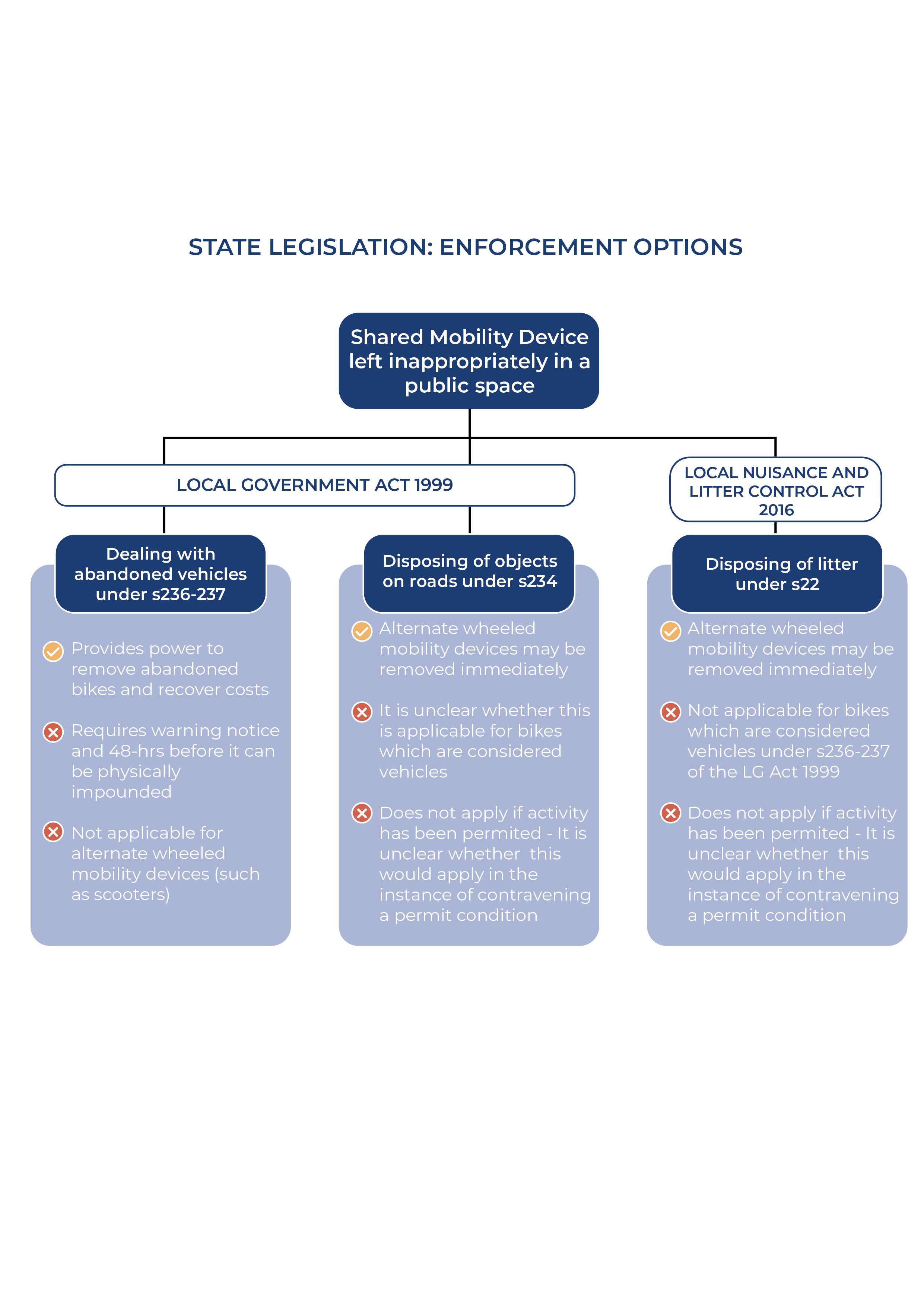
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Figure 2: Summary of enforcement powers

Inconsistencies between the way bicycles and alternate wheeled mobility devices are defined creates complexities in enforcing dockless mobility schemes. Furthermore, enforcement options under *s232* of the *Local Government Act 1999* and *s22* of the *Local Nuisance and Litter Control Act 2016*, are unclear once the activity has been permitted by council.

Any scheme to regulate dockless mobility devices will involve overlap between the Australian Road Rules, State legislation and the statutory powers of councils. The State Government, through the *Road Traffic Act 196*1 and its associated regulations, and adoption of the Australian Road Rules, determines standards for vehicles and mobility devices that are allowed on roads and footpaths.

The interconnectivity between various Acts and Regulations at the State level makes it problematic to recommend any specific legislative amendment. There would appear to be sufficient flexibility and powers to improve enforcement options under existing laws (such as the ability for council to make by-laws under *s246* of the *Local Government Act 1999*), that no legislative amendment would be required, other than consideration of potential safety issues with new types of mobility devices.

There has been no suggestion that the State Government would want to legislate in this area to exclude the discretion or powers of councils. It is important that councils have oversight in the operations of dockless mobility schemes, to control issues such as parking and footpath clutter, as councils have responsibility for maintaining local roads and footpaths.

Figure 3 below provides an overview of the positives and negatives of the different options for improving both regulation and enforcement of dockless mobility schemes within the existing legal framework.

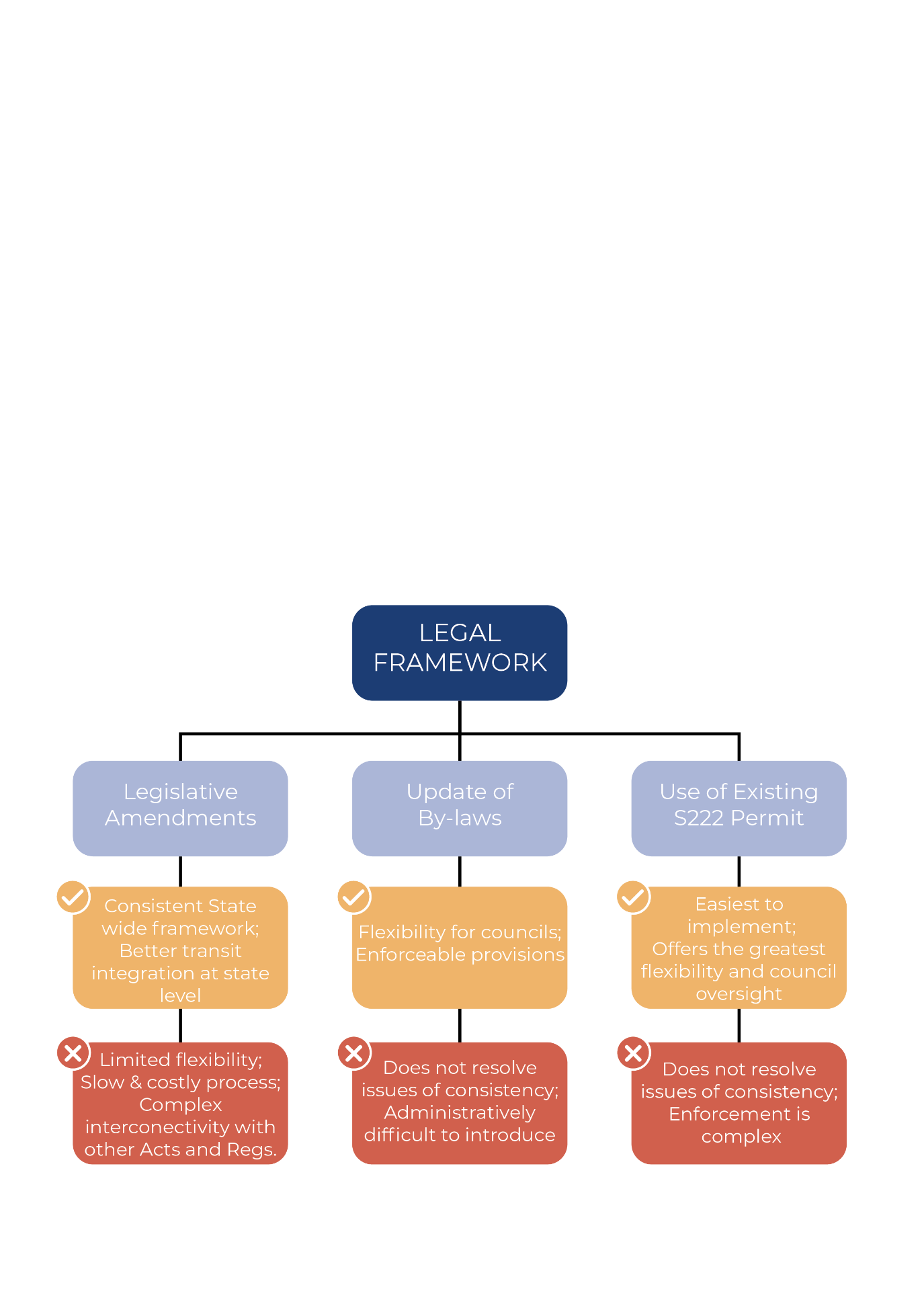


Figure 3: Positives and negatives of regulation and enforcement options.

For any devices which are permitted on roads and/or footpaths, all aspects of shared dockless mobility operations could be regulated under the existing provisions of Section 222 of the Local Government Act, with the possible exception of removing devices that might be left at inappropriate locations. While Section 222 permits are simple to draft and apply, options for enforcing a breach of a permit condition are relatively limited.

By-laws, such as the City of Adelaide example, may be drafted in such a way as to provide powers for a council authorised officer to deal with an abandoned bicycle or other mobility device. This may be the most appropriate method to ensure a council maintains control over the potential dumping and inappropriate parking of mobility devices. *Section 246* by-laws are more administratively difficult to introduce but are more easily enforced.

**A combination of a new by-law and a standardised permit template would provide councils with the tools necessary to impose operational conditions on dockless mobility operators while also maintaining the right to impound a dockless mobility device and recover costs.**

**Permit conditions offer the greatest level of flexibility, which is necessary when regulating rapidly evolving services. Despite any further evolution in technology and types of mobility devices, the issues of inappropriate parking and dumping will likely persist, warranting the implementation of enforceable by-laws to mitigate these issues.**

### Example Permit Review

The City of Adelaide was the first local government in South Australia to be approached by a dockless bike share operator. The Council sought legal advice to determine how to best manage these new services under the existing legislative framework. This resulted in regulation under the Section 222 of the *Local Government Act 1999*, by granting a Permit to use roads and footpaths for Business Purposes.

A set of permit conditions was drafted in 2017 by the City of Adelaide. These formed part of a formal agreement between the City of Adelaide and each of the two operators. The applicants (bike share operators) were each granted a permit after agreeing to the conditions in the permit. Key elements of the permit conditions included:

The operator’s responsibilities to:

* provide customers with guidelines to ensure responsible riding and public safety;
* not to exceed the maximum number of bikes noted on the permit;
* provide reports and statistics when requested by council;
* ensure bikes remain in a safe and presentable condition;
* respond to and resolve issues within the prescribed response times. The council may impound bikes if they are not removed within these response times and associated costs may be recovered;
* adhere to directions of the council and relocate bikes not suitably parked; and
* reimburse the council for any damage or maintenance costs that may arise.

In addition, the operators agreed that:

* bikes would not be used for the sole purpose of advertising or marketing;
* bikes would be equipped with a GPS tracker and locations monitored daily;
* penalties for breaches may be issued by the City of Adelaide or SA Police;
* the permit could be cancelled, suspended or modified by council at any time; and
* a permit fee might be introduced in the future.

The conditions also defined ‘Safe Bike Parking’ and included an indemnity clause to ensure that the Council was released from all liability arising from bike share operations.

The City of Adelaide was the first to establish these permit conditions, which were subsequently utilised by other South Australian councils, following the Section 222 permit process (See Figure 1). Some councils made minor adaptations and alterations to the conditions to ensure that the permits were suitable for their jurisdiction.

### Issues and Opportunities

Compared to dockless bike share operations across Australia, the experience in metropolitan Adelaide between the period of December 2017 and June 2018 was relatively uncomplicated. Unlike the prominent issues in Sydney, there were few instances of bike dumping and no impounding of bikes by councils. There was initially widespread community misunderstanding that a legitimately placed bicycle at the end of trip was “abandoned” which lead to many enquiries to councils. However, the City of Adelaide did not need to call upon the power in its by-law 4 to remove any bikes during this period. The relative success of these operations in metropolitan Adelaide between December 2017 and June 2018 has been attributed to good communications and relationships between the operators and councils. The few issues that did arise were generally solved through communication rather than enforcement.

Nevertheless, upon discussion with councils and dockless mobility operators, a range of issues and opportunities were identified with previous operations. A majority of these were consistent between the two operators, and can be grouped under seven key themes, as follows:

|  |  |  |
| --- | --- | --- |
| **POLICY** | **ISSUES** | **OPPORTUNITIES** |
| **ENGAGEMENT** | * Informal handshake agreements * Protocols for the termination of a permit are too time consuming * Unsure of the impacts of charging permit fees * Need to be able to cap number of permits/operators without acting solely on a ‘first-come-first served’ basis | * Operators believe all previous permit conditions were reasonable * Councils with permit agreements used the same conditions as CoA with minor adaptations * Operators believe a permit fee is acceptable if it’s a flat rate rather than per bike/unit * Performance standards in the permit condition are useful |
| **EQUIPMENT STANDARDS** | * E-scooters were prohibited under legislation * Clarity around power levels of electric vehicles required * Most commercially-available devices exceed the current power level limits (200 watts, 250 watts for pedelec) | * State government authorised an e-scooter trial during the Adelaide Fringe Festival in 2019 * Changes to State legislation to enable e-scooters * Operators can control the max speed/power level of devices |
| **FLEET SIZE & DISTRIBUTION** | * A perception that councils did not have the capacity to enforce restrictions on fleet numbers * Population density is too low for a self-calibrating system * Sustainability/cost/time of collection if staff must drive around to collect dumped bikes | * Improvements in location technologies will enable better oversight and easier balancing of fleet |
| **PARKING** | * CoA at one stage suggested using line marking to define acceptable parking spaces, but this was not adopted due to aesthetic concerns | * Success of AirBike in ACT attributed to the return of bikes to ‘hubs’ * Ofo were working towards designated parking areas (e.g. universities & libraries) |
| **USER EDUCATION** | * NPSP had several community enquiries and complaints around parking (however there were no complaints of obstruction) | * Incentives and disincentives can be used to promote self-regulation and compliance |
| **DATA-REPORTING** | * Some data requests were complex as the data was commercially sensitive and councils could not sign a non-disclosure agreement (NDA) * Operators did not always have the capability to collect the data that councils wanted (technology constraints) | * Potential to provide valuable data and insights for council * Data can be used to improve the service and assist in wider transport planning * Operators are continually improving their data collecting and sharing technologies |
| **TRANSIT INTEGRATION** | * How will this be integrated along GO zones on busy road corridors such as The Parade where footpaths are already cluttered/ at capacity | * DPTI were working with Ofo to create hubs at O-Bahn interchanges * First and last mile considerations |
| **LIABILITY / INDEMNITY** | * Clarity around insurance requirements is needed * Some councils wish to be named on liability insurance – this is complex with various LGA’s involved | * If operators hold public liability, Compulsory Third-Party insurance should not be required |

Mitigating the issues, and facilitating the opportunities identified in the table will be important in the success of any future dockless mobility schemes. These issues and opportunities have been considered alongside any future policy implications (see Section 3) to ensure they are sufficiently addressed.

## The Framework

Bike share and dockless mobility sharing schemes have an important role to play in South Australia’s transport future.

This framework seeks to inform the local government sector about the various methods of regulating emerging dockless mobility services and recommend policy and procedures for South Australian councils to consider adopting.

This framework has been developed in response to discussions with council staff who have had experience with dockless bikeshare operations, and private operators with experience providing these services in metropolitan Adelaide.

The nature of mobility devices is that they will be used across council boundaries. Therefore users, operators and councils would all benefit from the adoption of a consistent set of policies and procedures. The recommended outcomes are intended to be applicable to councils both within and outside of metropolitan Adelaide and may be applied to any emerging transportation devices that are allowed under legislation (both now and into the future).

**The key objectives of this framework are to:**

* improve planning & enforcement of dockless mobility schemes
* effectively manage public space
* cater for public demand
* facilitate uptake & remove unnecessary red tape
* minimise risk and inconvenience to the public

**As dockless mobility schemes are dependent on a network of users who would regularly cross council boundaries, it is desirable that a standardised approach is established for South Australian councils.**

# Case Studies

As businesses operating on city streets, dockless mobility operators require a level of oversight and regulation by public authorities. There have been various approaches taken by city authorities in attempt to regulate supply, manage public space, and ensure user safety.

This chapter provides an overview of how different cities around the world have approached similar issues.

## Sydney, New South Wales

In mid-2017, dockless bike share appeared on the streets of Sydney, with no warning or prior approval. Dockless bike share operations in Sydney were characterised by vandalism, inappropriate bike dumping, and footpaths cluttered with unused bikes, due in part to lack of sufficient bike parking areas.

In response to the arrival of dockless bike share in June 2017, six inner Sydney councils (Inner West Council, City of Sydney, City of Randwick, City of Waverley, Woollahra Municipal Council and City of Canada Bay), came together to develop the [*Inner Sydney bike-share guidelines*.](https://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0010/295759/Inner-Sydney-Bike-Share-Guidelines-22-Dec-2017-1.pdf)

The guidelines set out minimum standards for dockless bike share operations in Sydney and defined the roles and responsibilities of councils and dockless bike share operators. However, these guidelines were not part of a formal agreement or legal permit, making enforcement problematic. The structure and content of these guidelines is summarised below:

* **Customer safety and conduct:** The operator must inform customers of safe and responsible riding and parking, compliance with NSW road rules and Australian standards.
* **Safe bike placement:** The operator must educate users on parking impacts to the mobility and vision impaired and provide geo-fencing capabilities for preferred parking and exclusion zones.
* **Distribution and redistribution of bikes:** The operator mustprovide GPS tracking, monitor the location of bikes daily and be proactive in the redistribution of bikes. Council may determine appropriate bike deployment and nominate preferred parking areas.
* **Faulty damaged or misplaced bikes.** The operator must immediately deactivate broken bikes and remove or repair bikes within a specified timeframe. The Operator must also provide contact details on bikes and enable easy 24/7 customer reporting as well as a central point of contact for councils.
* **Legal and insurance:** Operators must hold relevant insurance, seek legal advice and advise customers of their personal risks and insurances.
* **Data sharing:** The operator must cooperate with council’s request for data and work together to survey customers about share bike usage. Operators should work towards live data portals for sharing with council. Council may use data for transport and urban planning
* **Council staff access to bikes:** Operator must provide access to council staff to unlock and move bikes.
* **Fees:** Council mayevaluate whether a fee or levy structure may be implemented.
* **Collection and relocation of faulty or damaged bikes:** The operatormust comply with the specified timeframes when council or a member of the public reports damaged, faulty, abandoned or inappropriately parked bike. Council may remove and impound a dangerously placed bike at any time to make area safe.
  + Immediate (upon verification) for a bike reported ass unsafe or significantly damaged
  + 3 Hours for dangerously placed bikes causing an unreasonable hazard
  + 1-7 days (depending on severity) for damaged bikes, bikes at inappropriate densities and illegally parked bikes
* **Unused bikes:** Council may instruct the operator to relocate an unused bike (after 11-days) or remove and impound an unused bike and charge a fee for the release of an impounded bike (after 15-days). Council may recycle an uncollected bike 28 days after impoundment.
* **Ceasing of operations:** The operator mustremove all bikes from public places within 15 days.
* **Review of Guidelines:** Council mayamend, expand and or alter these guidelines provided they give operators 14 days’ notice prior to implementing the change(s).

The most important aspect of these guidelines for inner Sydney councils were the conditions under which a bike could be impounded if dangerously parked, damaged or abandoned, and the prescribed timeframes for the collection of such bikes. Many of the timeframes specified within the guidelines were subject to criticisms of perceived severity, potentially leaving scope for inconsistencies around the enforcement of this provision.

Despite the implementation of these guidelines, inner Sydney councils maintained their varying approaches to regulation, enforcement and impounding. For example, between December 2017 and March 2018:

* Waverley Council began impounding bikes as soon as the guidelines were implemented, charging a $70 fee per bicycle for collection.
* City of Sydney and Inner West Council did not impound any bikes, nor did they rule out the impounding of bikes, with the intention to review after a three-month trial period.
* Randwick City Council considered a public tender to license two bike-sharing operations when three-month trial ended.

Following the three-month trial of the guidelines, the inner Sydney councils called for more legislative assistance from the State Government to cover dockless bike sharing. The New South Wales State Government then stepped in to provide more legislative power to councils to impound bikes.

The ***Impounding Amendment (Shared Bicycles and Other Devices) Act 2018 (NSW)*** made changes to the *Impounding Act 1993* from 1 December 2018 to empower councils to impound or move bicycles without issuing a removal notice. The changes clarified when a shared mobility device can be immediately impounded or is taken to have been abandoned. The amendments also significantly increased the maximum financial penalty for these offences.

Unlike the guidelines, the New South Wales legislation did not limit the definition of a device to dockless bikes only, but also encompassed any other device used for transporting persons. Since its introduction, the new law has been providing New South Wales councils with more scope to deal with new emerging dockless mobility devices.

**Given the prominent issues of bike dumping and excessive footpath clutter in Sydney, these guidelines and subsequent legislative amendments were intended to assist in mitigating negative impacts to other street users and retaining amenity.**

**However, the increased power for councils to impound bikes and impose heavy fines, combined with the high levels of vandalism has undermined the profitability of these schemes. This has made Sydney a less attractive market for dockless mobility operators and led to the withdrawal of a number of dockless bike operators from the city in June 2018 (including Ofo, O-bike and Reddy Go).**

## Melbourne, Victoria

Like Sydney, the arrival of dockless bike sharing in Melbourne was abrupt, and operations were characterised by vandalism, inappropriate user behaviour and bike dumping. This has been attributed at least in part, to the influx of thousands of easily-accessible bikes without any (or sufficient) expansion of designated bicycle parking facilities.[[1]](#footnote-1)

In October 2017, the City of Melbourne, the City of Yarra and the City of Port Phillip developed and signed a [*Memorandum of Understanding*](http://www.portphillip.vic.gov.au/MEDIA_RELEASE_-_Agreement_to_put_the_brakes_on_bike_share_clutter_-_1710....pdf) (MoU) with dockless bike share operators in order to address a range of issues associated with the implementation and operation of bicycle share schemes.

Aside from public liability and insurance requirements, the agreement was not legally binding. The purpose of the agreement was to document the roles and responsibilities of the councils and operators, in exchange of information, maintenance and service standards, and mitigation of the impacts of bike-share on public amenity.

In signing the MoU, both operators and councils agreed to the delivery objectives and key principles of the service, the defined roles and responsibilities, protocols for communication and openness, dispute resolution and variations, as well as liability and Insurance requirements.

The MoU details the operator’s requirement to:

* **provide a point of contact:** for communication with council and a 24-hour reporting system for users to report damaged, abandoned or inappropriately parked bikes.
* **monitoring and maintenance:** Monitor bike locations to avoid and address breaches of the deployment and parking guidelines. Provide adequate resources to action complaints. immediately disable a damaged bike from Revenue Service and repair before returned.
* **bicycle density limits:** will vary by location as determined by council. Councils may also choose to introduce designated areas where dockless bikes should be parked.
* **deployment guidelines:** The Operator shall deploy bicycles in a manner consistent with the user parking guidelines and density limits.
* **parking guidelines:** defines the general provisions for safe bike parking.
* **user behaviour:** The Operator shall ensure users know that legal penalties may be incurred for not wearing helmets, reckless riding or riding through red lights**.**
* **data sharing:** Provide a summary record of activity to council on the first day of each calendar month. Provide specified data in a machine-readable format for the purposes of transport planning and research**.**
* **bicycle infrastructure contribution:** The Operator agrees to pay a financial contribution to each of the councils ($50 per bike). A proportion of this fee of this fee is refundable to the operator based on performance against this Agreement.

The MoU also specifies that councils may:

* determine if bikes are placed in appropriate locations or clustered in excessive numbers;
* nominate a central point of contact for communication with the operator;
* use its media channels to encourage good customer behaviour and reporting;
* encourage staff to report damaged or abandoned and inappropriately placed or dangerously placed share-bikes on council land; and
* advise the operator of impounded share-bikes and charge an impounding fee.

This MOU did not solve the issues of abandoned and inappropriately parked bicycles in Victoria. Subsequently over 30 bikes were impounded, left unclaimed and crushed by the City of Melbourne alone. As a result, Victorian Governments authorities acted to give councils increased authority to address these issues.

The Environment Protection Authority (EPA) Victoria classifies dumped and vandalised bicycles as ‘litter’ and has invoked the litter provisions of the ***Environment Protection Act 1970 (Vic)****.* This enabled the EPA to issue a three-year Litter Abatement Notice against a former bike-share operator, oBikes. This gave Councils the power to issue fines of $3,000 for each incident where the company did not adhere to the specific timeframes for removing bikes. The Litter Abatement Notice required oBikes to remove bikes within the following time limits:

* 2 hours for bikes creating a hazard, such as blocking a street
* 24 hours for damaged or vandalised bikes
* 24 hours for bikes cluttering the street in excessive numbers
* 48 hours for bikes in inappropriate situations, such as on a roof, up a tree or on inaccessible land, and
* 7 days for any bikes found in a waterway

The official Litter Abatement Notices also required the operator to produce a management plan for abandoned bicycles, and a publicity plan to promote their customer service hotline and email address. If these plans were not produced, the operator was subject to a fine which might have escalated if compliance had been further delayed.

**Bike share operators were not able to meet these requirements set by Victoria’s Environment Protection Authority within the given timeframes, and were asked to cease operation in June 2018. It is likely that the financial contribution requirements, penalties and fees imposed made operations unviable.**

## Canberra, Australian Capital Territory

Unlike operations in Sydney and Melbourne, dockless mobility sharing in Canberra is regulated by a singular government body. The ACT government is directly responsible for matters normally carried out by both State and local governments. The responsibility of managing these services has been delegated to Transport Canberra and City Services

Canberra’s [*Dockless Bike Share Guidelines*](https://www.transport.act.gov.au/__data/assets/pdf_file/0018/1132434/Dockless-Bike-Share-Guidlines-A4-v7.pdf)are not as prescriptive as Sydney or Melbourne guidelines. This is likely because Canberra did not experience the same abrupt arrival nor unruly operations as the larger cities. In addition, the lesser population density and wider street verges in Canberra (compared to Sydney or Melbourne) leave more room for unregulated bicycle parking. The ACT Government has subsequently taken an approach to regulation that attracts operators and creates a new market, rather than attempting to belatedly regulate a market already crowded with various operators.

The guidelines provide guidance to operators considering the establishment of dockless bike share systems in Canberra. They provide advice on application and engagement requirements rather than imposing specific operational conditions.

The guidelines briefly cover:

* **protection of the public realm:** in terms of parking, end of operations, re-balancing, repair and maintenance;
* **customer experience:** in terms of personal information, liability insurance, bike quality and helmet requirements; and
* **innovation and technology:** in terms of data sharing, software maintenance and electric bikes.

Transport Canberra and City Services worked with the National Capital Authority, the Australian National University and Australian-owned company AirBike to support a six-month trial of dockless bike share that commenced in July 2018.

The success of dockless bike sharing in Canberra has been attributed to the city’s efforts to work with the operator to create hubs and preferred parking zones. Through the guidelines, operators are encouraged to work with the ACT Government to map appropriate parking locations. The ACT Government committed to marking these locations once determined.

**While these guidelines are loose and do not detail any enforcement powers, they have helped to successfully establish a mobility sharing market that has not been characterised by inappropriate behaviour nor poor management. However, with no prescriptive provisions nor requirements, there is little that is measurable in order to evaluate the performance of an operator.**

## Auckland, New Zealand

Since December 2016, the New Zealand Transport Agency has convened a bikeshare working party for local authorities. The Transport Agency developed a template for a dockless mobility agreement that is based on London’s code of practice. Auckland Council and Auckland Transport modified this template for the city’s requirements. These resources have also been adopted in Wellington and Christchurch.

The City of Auckland implemented the [*Code of Practice for Dockless Cycle and E-scooter Share*](https://at.govt.nz/media/1975718/dockless-cycle-share-code-of-practice.pdf)in September 2018. The Code of Practice outlines the requirements to which dockless mobility operators must adhere. Operators must agree to the requirements and recommendations in order to be issued with, and maintain, a licence approval.

Approvals are issued via mobile trading licences under Auckland’s *Trading and Events in Public Places By-law (2015)*. An application and license fee are charged based on a set fee structure which takes into account location (e.g. inner city, outer city, outer suburbs). Application fees are not required for licence period extensions although fees are pro-rated according to the duration of the licence.

The Code of Practice sets out the operators’ requirements in six key areas, as follows:

* **Engagement:** sets out the formal requirements for obtaining approval. The operator is required to supply plans demonstrating proposed operational logistics, communications, and strategic alignment with the city. The operator must also provide performance references and agree to work closely with the city.
* **Safety and maintenance:** requires operators to provide proof of ongoing public liability insurance, as well as detailed bike helmet supply, and servicing and maintenance plans. It also details equipment standards and GPS requirements. Operators must also agree that council may make new diagnostic and location technologies a requirement in the future.
* **Operations:** details the operators’ requirement to comply with all relevant legislation, and the responsibility to ensure users are aware of these. Council maintains a right to limit the number of operators and the number of devices per zone and can also determine where devices can and cannot be parked. The operator must advise users of parking restrictions and have methods to incentivise good parking and penalise non-compliance. Operators must demonstrate their capability to manage the redistribution of devices, with geo‑fencing capabilities likely to be a near-future requirement. Operators also agree to remove reported damaged or non-complying devices (within 12 hours), and devices in unlicensed areas (48 hours) or incur a removal cost charged by the council.
* **Customer Experience and Education:** requires operators to provide 24-hour communication channels for users. Operators must provide Auckland Council with a plan to respond to queries and complaints to minimise escalation to the council, as well a record of complaints and response times when requested.
* **Data requirements:** Requires operators to comply with the *Privacy Act 1993* (NZ) Operators must agree to share all anonymised data with the council via a prescribed data form as well as provide live real time information to the council. Operators agree to follow the General Bikeshare Feed Specification (GBFS), an open data standard for cycle share so that transportation-based apps can easily incorporate this data into their platforms. The City of Auckland also reserves the right to integrate the service into the city’s transport mobile app.
* **Integration with New Zealand Transport Agency’s Mobility Marketplace:** Operators should ensure the technological capability to integrate their services into this Mobility Marketplace, allowing customers to view all transport choices in one place as part of the NZTA MaaS Pilot. Appendix A provides the key information requirements for Mobility as a Service (MaaS) integration.

**The Code of Practice is very thorough in detailing the conditions under which dockless mobility schemes will operate, while also maintaining flexibility for the City of Auckland in terms of technological and service advances. While detailed, the conditions are not overly prescriptive.**

**The application process resulting from these requirements, paired with the license fee structure, work together to ensure that operators are committed to positively contributing to City of Auckland transport planning in establishing their schemes.**

## United States of America

The rollout of dockless mobility operations in the USA was inconsistent, involving a series of unpermitted schemes launched and subsequently closed. Numerous cities responded with pilot programs to permit a trial of dockless mobility share operations. By the end of 2017, five major dockless mobility companies reported operating in approximately 25 cities and suburbs.

The National Association of City Transportation Officials (NACTO) represents 62 cities and 11 transit agencies across North America. Amidst the uncertainty of dockless mobility, the Association developed Guidelines[[2]](#footnote-2) to help cities regulate and manage new shared active transportation services. The Guidelines show how cities can effectively manage operations while allowing for flexibility and experimentation to welcome innovation and new mobility choices. Most permit requirements for American cities are based on these Guidelines.

The Guidelines set minimum standards for Cities to manage dockless mobility, including:

* permitting frameworks;
* communication mechanisms;
* standards for communicating with the public;
* data requirements;
* minimum equipment safety standards; and
* customer privacy standards.

In addition to policy areas where all cities should be in alignment, the Guidelines detail where cities and policy makers should evaluate conditions at a local level. This includes aspects such as fleet size, distribution, parking options and community engagement..

**Due to the contextual differences in terms of legal framework, population density, city size, and market size and competition, American cities have taken a different regulatory approach to that of Australia and New Zealand.**

**Authorities responsible for managing dockless mobility in the USA are generally a city’s transit authority, enabling better integration with existing transit options and greater consistency for users and operators on a city-wide scale. Many large American cities also had an existing shared mobility market in which new dockless mobility operators began competing for market share.**

**The following is a summary of operations and regulatory requirements for dockless bike share operators in American cities. Due to the various contextual differences these are summarised for the new and innovative provisions and methods they impose.**

### Seattle, Washington

The pilot for dockless bike share in Seattle paved the way for the first set of rules for managing dockless bike share operations in the US. The Seattle Department of Transportation (SDOT) has since released the 2018-19 reiteration of its [*Free-Floating Bike Share Program Requirements*](http://www.seattle.gov/Documents/Departments/SDOT/BikeProgram/Seattle_Bike_Share_Permit_Requirements_v2.1_20181219.pdf). The document details the requirements for permitting dockless bike share over 60-pages. The requirements include:

* Introduction and Goals
* Equipment and Safety
* Parking
* Operations
* Data Sharing
* Compliance and Enforcement
* Application and Fees.

The requirements under each heading prescribe ways to manage high demand from dockless mobility operators seeking to establish in the city. Key measurable requirements of the permit are used as performance indicators for project evaluation. Some unique elements of the requirements include:

* **Procurement:** Currently allowing three companies (Jump, Lime, and Lyft) to operate in the city, with up to 6,667 bikes each, making a limit of 20,000 bikes.
* **Fees:** A fee of $250,000 (or $50 per bike) - the highest permit fee in the USA – Revenue from the fees is applied to full time program staff, data analytics, community programs, auditing, ongoing evaluation and designated parking for 1,500 devices.
* **Vendor Plans:** all operators must think proactively about how they can meet city and program goals and provide a detailed plan upon application.
* **Adaptive Cycling methods:** Supplying a wide range of devices to offer diverse, inclusive ways for children and people with disabilities to ride (e.g. tricycles, hand-pedaled cycles, recumbent cycles, tandems) and create new mobility opportunities for a wider market of riders.
  + *Adaptive Cycling Partnerships:* $50,000 of the permit fee is used to increase adaptive cycling access and help provide opportunities for people who would like individual fittings, wheelchair storage, or training in how to ride.
  + *Adaptive Fleet Size Bonus:* encouraging vendors to deploy adaptive cycles as part of their free-floating fleets. Vendors who deploy adaptive cycles receive application preference and could get a bonus of up to 1,000 extra devices.
* **Designated Parking Areas**: a portion of each vendor’s permit fees funds a designated parking area program. SDOT will designate clear, orderly device parking in key spots around town.
* **Fleet Size and Distribution:** SDOT may reduce a vendor’s fleet size for non-compliance or increase the permitted fleet size if there is demand. At least 10% of devices should be available across three “equity focus” areas, ensuring geographical spread into varying socio-economic areas.
* **Rider Education and Equity**: prepare and implement a rider education plan, including the vendor’s proposed device signage and strategies for overcoming knowledge and language barriers in “equity focus” communities.
* **Compliance Auditing:** tools to proactively measure and enforce compliance. Baseline audit standards are set and include;
  + no more than 30% of devices may be improperly parked;
  + no more than 3% of devices can be an obstruction hazard;
  + at least 70% of the vendor’s deployed fleet to be in good working order and available for rental at any time; and
  + fewer than 10% of devices may have safety-related maintenance issues.

### San Francisco, California

San Francisco reacted swiftly when dockless bikes and scooters started to show up on city streets. Photos of devices blocking sidewalks, littered in parks, or even dumped in rivers emerged on social media, along with complaints from residents. San Francisco banned dockless mobility operations and threatened steep fines until a city-approved permitting process was in place.

In June 2017, the San Francisco Municipal Transport Authority (SFMTA) finalised a [*permit application*](https://www.sfmta.com/sites/default/files/projects/2017/Bike%20Share%20Permit_v1.1_FINAL.pdf) for dockless bicycle sharing programs. Compared to other American cities, the permit requirements are less prescriptive, and set out the criteria in terms of:

* equipment standards;
* operational standards;
* data sharing requirements;
* required attachments (application requirements);
* indemnification and insurance;
* permit revocation;
* compliance with applicable laws;
* payment of fees;
* removal of improperly parked bicycles;
* permit jurisdiction;
* permissible parking locations; and
* permit fees

In January 2018, SFMTA issued an exclusive permit to one company, (Jump Bikes) for a dockless bike-sharing pilot. The 18-month permit allowed for 250 electric bikes, with the potential to add an additional 250 bikes after a nine-month evaluation period. Other bike-share companies had worked with the city for months on their application to be part of the pilot project. The rival companies expressed disappointment in the agency's permit granting process, claiming they met all requirements to receive a permit.

In addition to this permit application, Bay Area Rapid Transit (BART, the city’s public transit authority) issued a ***property use agreement*** authorising the parking of Mobility Devices on BART property. The agreement seeks to work towards better transit integration and enhancing the reach of the existing fixed line transit system. A licensing fee of $590 per station is charged by BART to cover material and staff costs for marking out mobility device parking areas. The agreement details:

* parking requirements for system operation on BART property;
* parking requirements specific to each station;
* operating requirements for system operation on BART property;
* site/Business Signage and Prohibition on Advertising; and
* data sharing requirements for system operation on BART property.

### Austin, Texas

In February 2018 Austin approved a dockless mobility pilot that included shared dockless bikes and scooters. The City began soliciting public input, while at the same time two dockless scooter companies began operating without permission.

By April 2018, the Austin City Council adopted an ordinance that authorised dockless scooter and bikeshare organisations to operate in the city with a citywide service license. The city's licensing system for both dockless scooters and bikes placed caps on the number of vehicles each company could operate, while also putting into place rules for both placement of vehicles and their safe usage by passengers. The[*Director Rules for Deployment and Operation of Shared Small Vehicle Mobility Systems*](https://austintexas.gov/sites/default/files/files/Transportation/Final_Notice_of_Rule_Adoption.pdf)included requirements for:

* dockless mobility units (e.g. equipment standards);
* service area and size of fleet;
* safety;
* parking;
* operations and customer service;
* privacy, data reporting and sharing; and
* insurance, performance bond and fees

Austin then licenced 7 dockless mobility operators with approximately 11,000 scooters and 850 bikes in total. The city then began working on two projects to address outstanding issues surrounding dockless mobility, including:

* Dockless Ordinance Refresh
  + aligning the business model and fee structure to offset infrastructure and other needs
  + investigating an operating authority model to better manage total number of companies and maximum fleet sizes
  + liability & discovery methodology and tools to hold users and companies accountable, where appropriate
* Safe Riding Ordinance
  + Austin Transportation Department was analysing data to develop a location-specific ordinance that would include safe and reasonable riding speeds and locations for all users
  + ATD would propose Dismount Zones, and other safety requirements for ALL riders, regardless of modal type
  + The outcomes of this work would be used to inform the development of a Safe Riding Ordinance; and
  + Clear indications of what was considered a riding violation making it easier to enforce any breaches.

### Specific E-Scooter Considerations: Portland Pilot Project

E-scooters first launched in the U.S. in September 2017 through a series of unregulated entrances in US cities. By August 2018, e-scooters were available in 65 cities across the U.S.

The City of Portland, Oregon, conducted a four-month pilot project from July to November 2018. Portland’s [*e-scooter pilot program*](https://www.portlandoregon.gov/transportation/77294) was established by administrative rule and a permit that set specific conditions for providing e-scooters within the city. The total number of e‑scooters was capped at 683 per company. The pilot scheme’s key regulatory elements included:

* advance citywide equity goals, requiring each company to deploy at least 100 scooters in East Portland each day;
* companies required to limit e-scooters to a maximum speed of 15 mph (24 km/h);
* e-scooter riders required to wear a helmet and prohibited from riding on sidewalks;
* the use of motorized vehicles, including e-scooters, on trails in Portland parks was prohibited;
* companies and riders required to park e-scooters only on the sidewalk close to the curb, in a manner that did not interfere with pedestrian access or travel; and
* as a condition of receiving a permit, companies were required to educate riders about safe riding and proper e-scooter parking.

Operationally, e-scooters differ from other mobility services because they are usually picked up every night to be charged and deployed the next day. Companies hire a mix of independent contractors as well as regular employees to charge, deploy, maintain, and respond to service requests. During Portland’s four-month pilot, companies reported working with 1,533 independent contractors (primarily chargers) and paying $643,000 in total wagers to these contractors.

During the Portland pilot period, e-scooter-related injuries increased. However, most e‑scooter injuries were not severe enough to warrant emergency transport. There were no e‑scooter-related traffic fatalities during the pilot period. Eighty-four percent of emergency room visits were the result of an individual falling off an e‑scooter. The high number of public complaints regarding sidewalk riding, coupled with the 3 percent of injuries resulting from collisions with pedestrians, suggest an impact to pedestrian safety and comfort.

## Summary

The frameworks used for regulating dockless mobility device sharing vary significantly, from 2-page guidelines to permit requirements of 60 pages or more, while all covering similar themes. Each city’s regulatory framework and requirements reflect the issues identified with dockless mobility operations in that city. For example, the Sydney and Melbourne agreements were focused on mitigating issues of dumping and impounding. Canberra’s open-ended guidelines were focused on attracting a market, whereas those from US cities were highly prescriptive and sought to regulate the existing market.

Only in Seattle and Austin did planning (and the fees that were charged to operators) allow for a revenue stream to fund the provision of mobility device parking facilities to accommodate the new demand.

For Sydney and Melbourne, the respective State Governments were not initially involved with the provision of any parking facilities, nor the enforcement of parking issues, believing these to be a normal part of the early stages of implementation. In these cities, councils developed and put in place agreements with the bicycle share operators. However, this did not solve the issues of abandoned and inappropriately parked bicycles, and further issues were created when operators did not collect council-impounded bicycles. As a result, the respective State Governments in Victoria and New South Wales both acted to provide councils increased authority to address these issues.

This is important to consider as, for most international cities reviewed, a singular transport authority was responsible for the management of dockless mobility schemes. Like Adelaide, operations in Sydney and Melbourne were managed by various councils. The interventions at the State level suggest that the policy response from a State level can either assist or effectively hinder or stifle take-up.

A summary of all key requirements from each city is provided overleaf. This has been collated under the common headings of engagement, equipment standards, data sharing, user education and safety, fleet size, distribution & deployment, parking, maintenance and transit integration.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sydney** | **Melbourne** | **Canberra** | **Auckland** | **San Francisco** | **Seattle** | **Austin** |
| **Engagement requirements** | Councils reserve the right to implement a fee or levy structure to contribute toward bike share infrastructure;  Remove all bikes from public places within 15 days after ceasing operations. | Agrees to pay a financial contribution ($50 per bicycle) to each of the councils - A proportion of this fee is refundable to the operator based on performance against the Agreement. | All bikes are to be removed within 7 days after ceasing operations. | Must supply plans for: operational logistics, communications, helmet supply, maintenance, re-distribution and strategic alignment with the city;  Provide previous performance references;  Council has the right to limit the number of operators. | A permit fee must be paid before any permit is issued;  Agrees to pay endowment of $25,000 to reimburse the City for any costs that may be incurred;  Permittee shall pay a fee to cover the cost of one standard bike rack for every two bikes in service;  The permittee shall provide evidence to demonstrate payment of any penalties. | The vendor shall maintain a $10,000 surety bond;  Must submit parking and fleet management, rider education and equity plans (and submit monthly updates on progress);  Must supply device design specifications shown to meet standards.  A permit may be revoked if compliance targets are not appropriately satisfied. | The Director may terminate a license and require that the entire fleet be removed from within 10 days;  Must have a staffed operations and customer service centre in the City;  Licensee shall have a performance bond of $100/unit. |
| **Equipment Standards** | Bicycles must comply with Australian Standards; incl. bells, helmets, front and rear lights, and reflectors;  Provide GPS tracking;  All bicycles must have kickstands. | Ensure that all share-bikes are easily identifiable;  The size of any third-party advertising on the bicycles is to be approved by the council/s. | Each bike should be equipped with GPS;  Bicycles must comply with Australian Standards; incl. bells, helmets, front and rear lights, and reflectors;  Electric-assist limited to 200 watts/27kph - Pedal-assist limited to 250 watts/25 kph. | Comply with all NZ standards;  Agree that council may make new diagnostic and location technologies a requirement in the future. | The Operator logo, and a unique identifier is displayed on both sides of the bicycle;  Contact information for the Operator shall be displayed on all Bicycles;  Equipped with on-board GPS capable of providing real-time location data;  All electric-assist Bicycles must employ an electric motor of less than 750 watts. | All devices shall comply with appropriate national or international design standards;  All devices must have the following components: unique identifier, location tracking GPS, lamps and reflectors, brakes, bell, security lock, maintenance mode, emergency unlocking;  All devices deployed on or after March 1, 2019 shall be capable of real time tracking. | Display the name of the licensee, their contact information and a unique unit number;  Equipped with an on-board GPS unit;  Electric-assist limited to 750 watts;  Max speed of 20mph for all devices;  All devices must comply with the relevant Code of Federal Regulation. |
| **Legal Requirements** | Hold public liability insurance which names and indemnifies council;  Seek independent legal advice. | Agrees to indemnify each council;  Hold a current public liability insurance policy. | Must hold appropriate liability insurance. | Provide proof of ongoing liability insurance. | Indemnify and save harmless City and its officers, agents and employees. | Sign and record an indemnity agreement;  Maintain commercial general liability insurance. | Licensee shall sign and record an indemnification agreement indemnifying and holding harmless the City. |
| **Data sharing** | Cooperate with council’s request for data;  ***Specifies what the data may include;***  Operators & council to work together to survey customers about bike use;  Work towards live data portals for sharing with council. | Provide a summary record of activity relating to the share bikes to council on the first day of each month;  Provide electronic data in a machine-readable format;  ***Specifies what data must be collected and shared.*** | Adhere to the Information Privacy Act 1988;  Provide the following, de-identified data at no cost and in a timely manner, including age & gender of riders, GPS Tracking incl. duration and distance. | Comply with the National privacy act;  Provide a record of complaints and response times when requested;  Agree to share all anonymised data with council via a ***prescribed data form***;  Provide live real time information to council;  Agree to follow the General Bikeshare Feed Specification (GBFS). | Provide a Privacy Policy that safeguards customers’ information;  Provide aggregate customer demographic data at least monthly;  Provide real-time data through an API interface;  Provide anonymized data for each trip record via a ***prescribed data form***;  Provide bike availability data for oversight of parking compliance and bicycle distribution via a ***prescribed data form.*** | Must collect and submit deployed-device data and trip data as per ***specified requirements;***  Deployed-device data should be provided in real-time;  For each week ending on Sunday, the vendor shall submit the trip data on or before the following Friday at noon;  Collect data on parking and maintenance reports and response times to submit each month. | Provide a Privacy Policy that safeguards customers’ information;  Keep a record of reported collisions and maintenance activities;  On a monthly basis, provide a complaint and collision history report;  Provide real time and historical information for their entire fleet through a documented (API) interface. |
| **User education & safety** | Inform customers of safe riding and parking, and compliance with NSW road rules;  Educate customers on parking impacts to mobility and vision impaired;  Encourage customers to reposition poorly located bikes. | Ensure users are aware of legal penalties for misconduct;  Encourage appropriate rider behaviour through instructions on the bike, in the App, website and/or Facebook page;  Council will use its media channels to encourage customers and the public to report issues and store share-bikes appropriately. | N/A | Ensure users are aware of compliance with all acts and regulations;  Convey appropriate parking areas to the user;  Have methods to incentivise good behaviour and penalise non-compliance;  Recommend that users under 18 years of age should be accompanied by an adult. | Instruct customers how to park a bicycle properly;  Maintain a multilingual website, call centre, and app that is available twenty-four hours a day, seven days a week;  During each calendar year of business operations, offer customers one safety training class every other quarter. | Educate riders how to operate and park its devices;  Develop and implement a rider education plan;  Provide rider education signage on each device;  Offer a translated instructions or translation support. | Educate users on lawful and safe use.  Instruct users on where parking is allowed and prohibited and how to park;  Notify the user of the cities ‘Dockless Mobility Code of Ethics’. |
| **Fleet size, distribution & deployment** | Monitor the location of bikes daily and be proactive in the redistribution of bikes;  Council may determine appropriate bike deployment. | Deploy bicycles consistent with the parking guidelines;  Monitor bike locations to avoid and address breaches of agreement;  Densities must not exceed six bicycles per 200m except at locations determined by council;  Council may determine if bikes are clustered in excessive numbers. | Have an appropriate number of staff available to redistribute and repair bikes. | Demonstrate capability to manage the redistribution of devices;  Council has the right to limit the number of devices per zone. | At a minimum, density shall not fall below 3 bicycles per square mile for more than 10 minutes between 6am- 10;  At least 20% of bicycle availability shall be maintained within groups of census tracts designated as ‘communities of concern’;  Provide a contact for staff capable of rebalancing bicycles;  Agree to relocate or rebalance bicycles within two hours of an SFMTA request. | Maximum fleet size to be determined with SDOT based on number of vendors;  Minimum fleet size (at least 80% of maximum fleet size) must be deployed;  Must distribute no less than 10% of fleet within prescribed geographic areas (equity). | Limit to a maximum of 500 units per initial license;  Units must maintain a minimum monthly average of 2 trips per day - Should this not be met, units may be required to be relocated or removed;  Must monitor distribution of units according to parameters set by Austin;  Provide a contact for staff capable of rebalancing bicycles;  Remove, relocate or rebalance units based on ***specified timeframes*** |
| **Parking within existing road and footpath environments** | Provide geo-fencing capabilities for preferred parking and exclusion zones;  ***Specifies definition of safe bike placement;***  Council may nominate preferred parking areas. | Council may determine if bikes are placed in appropriate locations;  Councils may designate areas where bikes cannot be parked, and the operator must implement a geofence to enforce restrictions;  Councils may choose to introduce designated parking areas in certain locations;  ***Specifies parking guidelines;***  Bicycles that breach the parking criteria can be seized by council. | Work with the ACT Government to map appropriate parking locations;  ACT Government will determine and mark locations. | Council has the right to determine where devices can and cannot be parked;  ***Specifies examples of inappropriate parking locations.***  Geofencing capabilities likely to be a near-future requirement; | Bicycles that are parked improperly shall be re-parked or removed by the Permittee within two hours;  Bicycles that are parked at a location for 7 days or more may be removed by City staff and taken to a City facility for storage at Permittee’s expense;  Bikes should be parked in the furniture zone of the sidewalk or at a public bicycle rack. | The vendor shall park devices consistent with the parking requirements;  Details generally where parking is allowed and prohibited ***(with specifications)***  SDOT may designate parking and restricted parking locations for the vendor to mark in its smartphone application;  Upon notification of an is improperly parked device, the vendor must inspect and remove/repark the device within ***specified timeframes.***  Use geofencing technology to prohibit parking locations. | Details generally where parking is allowed and prohibited ***(with specifications);***  The Director may restrict parking in areas, through geo-fencing requirements or written notice;  Units that are parked incorrectly shall be re-parked in a correct manner or removed by the operator within ***specified time frames;*** |
| **Provision of new parking facilities to accommodate demand** | No | No | Yes, as defined by ACT Government | No | No | No | Licensees shall pay for the costs associated with the installation of Parking Boxes at a ratio of 5% of total fleet size for every 10 units permitted. |

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| **Maintenance** | Immediately deactivate broken bikes and remove/ repair bikes within a ***specified timeframe;***  Provide contact details on bikes and enable easy 24/7 customer reporting;  Provide a central point of contact for council;  Provide access to council staff to unlock bikes;  Comply with the ***specified timeframes*** for reported damaged, faulty, abandoned, inappropriately parked or unused bikes;  Council may remove and impound a dangerously placed bike at any time to make area safe. | Establish a notification system (including a 24hr number service) to report broken/damaged, abandoned or inappropriately located bikes;  Provide adequate resources to receive and action complaints from the public and council;  After notice from a council or the public, any inoperable bike shall be immediately disabled from Revenue Service suitably repaired before it is returned;  Council will advise the Operator of any impounded bikes and charge an impound fee. | Any bikes removed or impounded may result in costs being incurred by the service provider;  Service providers should have an appropriate number of staff available to redistribute and repair bikes;  Bikes in need of repair or maintenance are quickly removed from the fleet and are not reintroduced until safe for riding;  Users should be able to easily report a bike in need of repair/maintenance, and the service provider should immediately respond by locking the bike;  Ensure the timely upkeep and maintenance of all software associated with the scheme, including online content and smartphone applications. | Requires operators to provide 24-hour communication channels for users;  Remove reported damaged or non-complying devices (12 hrs), and devices in unlicensed areas (48 hrs) or operator will incur a removal cost from council. | Provide a mechanism for customers to notify operators of a safety or maintenance issue;  Permittee shall have a 24-hour customer service phone number for customers to report safety concerns, complaints, or ask questions;  Implement a maintenance, cleaning and repair plan;  Bicycles that are not safe to operate shall be removed from the right-of-way within 24 hours after notice and shall be repaired before the bicycle is return to revenue service. | Maintain each deployed device in good working order and repair or remove any device that is not in good working order;  ***Specifies good working order;***  If notified, remotely suspend rentals on damaged/unsafe devices until repaired;  ***Specifies unsafe device;***  All devices shall be equipped with technology to remotely suspend new rentals of damaged devices;  If any City department incurs costs addressing non-compliance, the vendor shall reimburse the City no later than 30 days after notification. | Must be capable of quickly identifying and addressing safety and maintenance issues;  Provide a mechanism for customers to notify operators of a safety or maintenance issue;  Have a customer service phone number, website, and app available 24/7 for customers to report safety concerns, complaints or ask questions;  Licensees shall respond to complaints and obstructions within ***specified timeframes;***  All devices shall be equipped with technology to remotely suspend new rentals of damaged devices;  Remove any unit that is not safe to operate within 4 hrs of receipt of notice;  The Director may require the removal of units with batteries or motors that are deemed unsafe for public use; |
| **Transit integration** | N/A | N/A | N/A | Council reserves the right to integrate the service into the cities transport mobile app;  Ensure the technological capability to integrate their services into this Mobility Marketplace. | BART have a separate property use agreement for the right and license to place Mobility Devices on BART property | N/A | N/A |
| **Liability/ Indemnity** | Operators must have public liability insurance which names and indemnifies councils and other public landholders. | Operators shall be the holder of a current public liability insurance policy to cover legal liability to third parties for personal injury or property damage  The public liability policy shall extend to cover the each of the councils in respect to claims for personal injury or property damage  The public liability policy should be underwritten by APRA approved insurer/s, and the sum insured should not be less than $20,000,000. | Operators must have appropriate liability insurance in place, which includes costs incurred in the case of insolvency. The ACT Government does not accept any liability associated with the operation of private bike share systems. | Operators must hold public liability insurance of at least NZ$1,000,000. The operators must be able to show ongoing proof of their public liability insurance. | Permittee shall indemnify the City and its officers, agents and employees from any loss, cost, damage, injury, liability, and claims thereof  Permittee must maintain insurance in the following amounts and coverages:  Workers’ Compensation, Commercial General Liability Insurance, Commercial Automobile Liability Insurance, Professional liability insurance, Technology Errors and Omissions Liability coverage. | Commercial General Liability, Umbrella or Excess Liability, Automobile Liability insurance, Worker's Compensation, Employer's Liability or "Stop Gap"  Operator shall include the “City of Seattle” as an additional insured to all the insurance coverage listed above, except for Worker’s Compensation. | Licensee shall maintain commercial general liability insurance, worker’s compensation, business automobile insurance. The City of Austin shall be named as an additional insured. |

**\*See Appendix B for detail around specified time frames and data requirements**

# Policy Implications

South Australian councils considering dockless mobility operations in their jurisdictions are advised to establish a formal agreement with each prospective operator before any scheme is launched.

It is recommended that:

1. a formal agreement is accompanied by
2. a set of operational conditions to which the operator must adhere. This is best achieved with a permit under Section 222 of the *Local Government Act 1999*, backed up with
3. enforcement options within recommended newly-drafted by‑laws.

The proposed framework for both permits and by-laws is discussed in detail in Section 4.

**From the case study review in Section 2, it is evident that there are a range of approaches to imposing operational conditions, from open ended guidelines to prescriptive requirements. Most guidelines, requirements and conditions do, however, follow a similar structure.**

**The following are considered important aspects of any formal agreement with a dockless mobility operator.**

## Engagement

Permission might be granted only after an operator has demonstrated that it can meet the conditions set by authorities. A council might seek a detailed plan from the operator that demonstrates the methods and operational procedures used to meet the conditions and citywide goals. Guidance for application plan requirements is provided in Section 4.4.

Councils might wish to limit the number of operators permitted in their area and/or the total number of dockless mobility devices that may be deployed by each operator, or in total. In order to do so without acting solely on a ‘first-come-first served’ basis, some city authorities are releasing a request for proposals. A competitive process helps to determine which operators not only have the experience and qualifications to operate, but also have strategic and operational goals that align with those of the council. To reduce administrative costs, it is recommended that a successful proposal be implemented by issuing a permit, rather than entering a contractual arrangement which might necessitate appointment of a contract manager.

It is recommended that permits be issued for short, fixed-term periods to ensure a competitive market is maintained and innovation is encouraged. There could be scope for permits to be extended or revoked at the discretion of each council and based on the operator’s performance against the conditions.

Other important considerations for the engagement of dockless mobility operators include:

* **Insurance:** as standard practice, proof of public liability insurance should be required prior to commencing operation. Prescribing insurance and setting minimum amounts of public liability insurance aims to indemnify users and the council. It should be necessary for an operator to name and indemnify the council as an interested party.
* **Fees:** Councils might choose not to charge any fees as they might see shared mobility as a service they would wish to assist in providing to the public (e.g. council is the customer and sustainable transport is the product). If fees are to be charged, care should be taken not to set them at a level that might discourage innovation. However, fees might be used to generate revenue which could be allocated to assist in public education or provide infrastructure such as designated parking facilities for shared dockless mobility devices, particularly in locations of high parking demand.
* **Evaluation & Review:**  It is recommended that regular reviews are conducted to assess ongoing benefits and risks as well as address common and recurring issues. Some permit conditions include indicators against which the operator’s performance may be measured. These indicators generally satisfied by the compliance of the operator against the specified time frames and maintenance protocols within the permit (e.g. ability to relocate, repair or remove a device within the specified times, compliance with specified fleet numbers etc.)

## Equipment Standards

It is recommended that permits require dockless mobility devices to meet all relevant standards at national, state and local levels. Operators must have a system in place to ensure all devices, including helmets, continue to comply with legal standards and requirements.

At a minimum, it is recommended that:

* all devices and associated equipment must comply with Australian Standards and legislation;
* a compliant helmet must be provided with each device;
* all electric mobility devices must comply with state legislation in terms of speed and power level limitations;
* all devices must be equipped with GPS to enable their exact location to be tracked and monitored; and
* all devices must have a unique identifier.

Ideally, operators should be able to integrate on-board location technologies and eventually on-board wireless diagnostics, to more easily identify mechanical failure, and proactively intervene through preventive maintenance. Councils could revise permit conditions in future, to incorporate such requirements.

## Maintenance and Operations

In terms of maintenance and operations, there are various elements for council input and oversight. Aspects such as maintenance protocols and response times ideally could be consistent across a wide region (such as metropolitan Adelaide), whereas some considerations such as fleet size, distribution, parking and exclusion areas are more appropriately determined at the local level.

At a minimum, it is recommended that each council adopt, within the conditions of any permit and/or the provisions of any new by-law, requirements for:

* minimum response times for the operator to correct improperly located or damaged devices. Operators should be required to respond to complaints or notification within a certain time frame, typically two hours depending on the situation. Each council is encouraged to ensure that it also has the authority to fine the operator or remove the device from the street at the operator’s expense. Unless such a requirement was a condition of a permit, then the power would need to be found in a new by-law. See Section 4.2 below.
* easy 24/7 reporting of faulty or damaged devices, missing helmets or devices in inappropriate locations, through an app, website, email and a fully dedicated phone number that should be operational much longer than merely office hours.
* a detailed plan on how maintenance checks are to be undertaken and logged, as well as a proof of a process for users to notify the operator of any safety or maintenance issues. For any electric devices, councils are advised to seek a detailed plan from the operator on how devices will be charged and redistributed.
* a contact person from the operator with phone number and email (outside of the public customer service number) for the council to contact directly.

If councils adopted consistent permit conditions and by-laws it would ensure smooth operations and a more streamlined customer experience. Adoption of a model by-law would also assist a council to remove devices, including any that were ridden into a council area from another council’s area

Councils would want to have input into some of the key operational considerations that will have a direct impact on their jurisdiction. The operator might consider each council area as a separate ‘zone’ with varying operational requirements. The following elements might well vary between council areas and are further discussed in Section 4.3 below.

* **Fleet size:** A council might wish to impose a restriction on the maximum number of devices allowable in its area, although it would be prudent to adopt some flexibility to reflect either increased public demand, or to penalise poor operator performance. This might be determined as part of the application and engagement process. Operators might be required to redistribute their fleet across each council area, and/or across council boundaries.
* **Device densities and distribution:** A council might wish to develop density limits, either in specific zones such as activity centres or in general to avoid clustering. Operators would need to agree to regularly remove and relocate devices that have been left in clusters at certain locations. Each council could seek a plan of how an operator intended to meet these distribution requirements. A council might also consider the environmental impact of collection and redistribution, if multiple vehicle trips were required to re-distribute clustered devices.
* **Preferred parking and exclusion zones:** A council might wish to allocate areas in which devices should and should not be parked. This may be as a set of general guidelines (e.g. to specify safe and unsafe parking on streets) or by designating and excluding parking in specific areas and creating ‘hubs’. This might be enforced by the operator through geo‑fencing capabilities or alternatively by providing incentives and penalties for non-compliance. These parking and exclusion areas should be denoted on all service maps. Councils might consider allocating a proportion of revenue derived from permit fees to fund infrastructure such as the installation of dedicated parking facilities for dockless mobility devices in popular areas.

## User Education

Dockless mobility operators should include safety information for riders on their app and website. Such information should include educating riders to

* wear a helmet,
* inspect the device for damage before riding,
* submit a maintenance report,
* yield to pedestrians and
* park in appropriate locations.

Some operators use credit programs to incentivise self-regulation and compliance and discourage misuse.

At a minimum, councils are advised to ensure permit conditions require that:

* terms and conditions of use must be agreed by users when they use the dockless mobility device equipment and these terms must promote responsible and legal operation, public safety and good parking behaviour;.
* operators must provide 24/7 communication channels for users, including a clearly advertised telephone number provided on their website, apps and devices, and must also have a complaint handling process to minimise escalation to the council; and
* operators have systems in place to incentivise good operational and parking behaviour and penalise non-compliance by users.

## Data sharing requirements

The operation of shared mobility devices represents an opportunity for councils to better understand community transport needs and support transport planning. For this purpose, data sharing protocols are an important part of all formal agreements with dockless mobility operators.

Councils are encouraged to consider (as a condition of granting permits) requiring dockless mobility operators to submit periodic reports that include all anonymized trip data, maintenance activity data, complaints and response time log as well as crash and incident data.

It is recommended that periodic reporting occurs monthly in order to assist a council with planning and evaluation of the scheme. Anonymised trip data should be provided via a prescribed data form. This would ensure consistency of information to assist planning across council boundaries.

As a further step, councils might consider requiring operators to provide access to real-time data on the location of all operational devices, via a publicly accessible application program interface (API) in a standardised format, such as the General Bikeshare Feed Specification (GBFS). The GBFS is an open data standard that makes real-time data feeds publicly available online in a uniform format so that map and transportation-based apps can easily incorporate this data into their platforms. Modelled after the General Transit Feed Specification, the GBFS is applicable for all dockless mobility devices, including scooters.

* At a minimum the operator should provide monthly data reports which include anonymised trip data, maintenance activity data, complaints and response time log as well as crash and incident data.
* Council could consider preferencing applicants who have the ability to provide real-time information on the entire fleet through a documented application program interface (API).

Councils might also require operators to distribute an annual survey to users in order to collect data on the demographics of dockless mobility users and how and why they use dockless such devices. Such data could help analyse progress toward council goals, such as expanding access, and where and to what groups the city should target efforts to encourage shared mobility use.

## Transit integration

There are opportunities to link dockless mobility sharing devices with State-provided public transport services, to extend the reach of both types of transport. With co-operation between State and local government, and the providers of shared mobility devices, customers might ideally be able to use a single app to view and access a full range of transport options.

It is beyond the scope of this paper to recommend all steps towards a fully-integrated transit system. Nevertheless, councils are encouraged to partner with operators willing to work with State transit authorities to create hubs in appropriate locations such as stations and interchanges. Operators should also be able to demonstrate the protocols for managing the impacts of dockless mobility device clustering (e.g. at surrounding stations and interchanges).

Councils might consider giving preference to dockless mobility operators who have the technological capability to integrate their services into State transport apps, allowing customers to view all transport choices in one place. This capacity would be demonstrated by their compliance with the General Bikeshare Feed Specification (GBFS).

Preferably, dockless operators should provide devices that can be unlocked using an RFID card (such as the METRO card) or show willingness to work with State transit authorities to develop a payment platform that allows transfers between dockless mobility devices and public transport services.

# Recommended Framework

**Dockless mobility device sharing has an important role to play in South Australia’s transport future.**

**Councils and dockless mobility operators can work together to achieve transport, environment, health and other related goals as well as maintain equitable use of public space while minimising risk and inconvenience.**

**From the research conducted, the following Policy Framework is recommended:**

For optimum outcomes, dockless mobility schemes would operate consistently across council boundaries. For this reason, it is recommended that a standard set of permit conditions be adopted by all South Australian councils. A model set of permit conditions is provided as a separate document.

Within the model permit conditions, there are opportunities for councils to incorporate provisions that would apply to specific localities and public spaces. This includes fleet size, deployment and density requirements, and preferred parking and exclusion zones.

The model permit includes options for each council to determine an appropriate level for any fee. Any council-specific conditions could be the subject of negotiations with dockless mobility operators. Advice on how these parameters might be devised is provided in Section 4.3.

In order to improve a council’s capacity to deal with dumped or inappropriately-parked mobility devices, it is recommended that each council introduce or amend a relevant by-law (e.g. an existing ‘Roads’ by-law). Recommended by-law provisions are provided in Section 4.2.

The relationship between the ***Standard Operational Conditions,*** the recommended ***by-law provisions***, and the proposed ***Section 222 permit document*** is displayed in Figure 4 below.

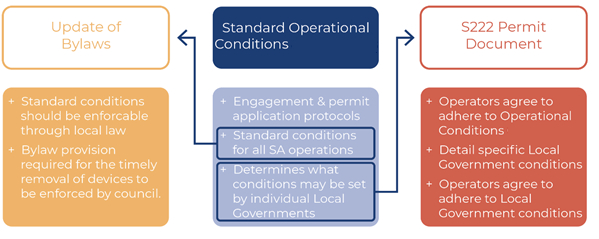


Figure 4: Recommended framework relationship

The recommended framework process is demonstrated in Figure 5 overleaf. It outlines procedures that could be followed by any South Australian council that might be considering engaging or authorising a dockless mobility operator. The proposed framework would streamline, for dockless mobility operators, the process of applying for and receiving a permit.

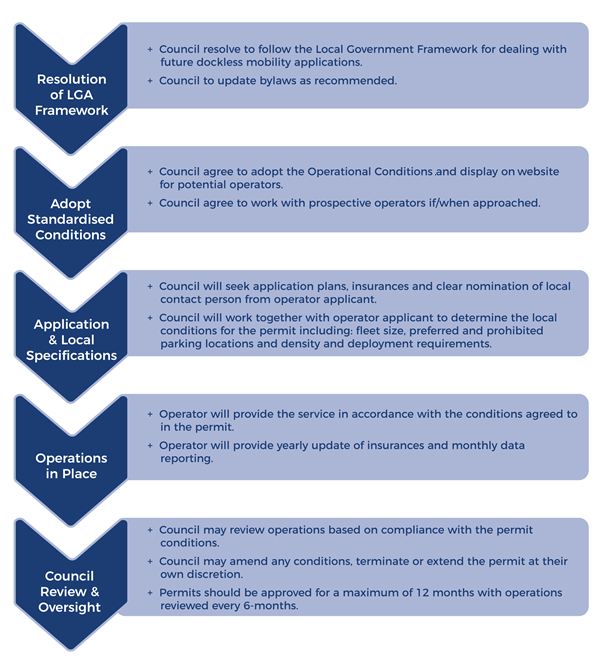


Figure 5: Recommended framework process

## Model Permit and Operational Conditions

A *Model Permit and* *Operational Conditions* recommended for adoption by all South Australian councils is available as a separate document. The *Model Permit and* *Operational Conditions* have been developed within the context of, and in response to the following:

* Issues and opportunities identified in previous operations;
* Conditions of a permit previously issued by the City of Adelaide;
* International best practice in regulating and managing dockless mobility sharing;
* Interstate and international guidelines, regulations and permits with contextual relevance to South Australian operations.

## Update to By-laws

It is recommended that each council consider updating by-laws (specifically a “roads” by-law) to enable greater enforcement options for dealing with the collection, removal and recycling of dockless mobility devices that might be inappropriately located, damaged, or in inappropriate densities.

The proposed provision might be incorporated into a *Management of Roads* section in an existing by-law, as follows:

**Activities Requiring Permission**

No person shall without permission on any Road:

Lock, affix, place or park a bicycle or other personal mobility device on a road or road related area, where the bicycle or device may cause an obstruction or unreasonable hazard, other than on a structure or space specifically designed and set aside by the council for that purpose;

**Removal of Objects**

If any goods, materials, object or substance has been left on a road in breach of this by-law, an authorised person or her or his agent may remove the item and dispose of it in a manner that authorised person thinks fit and may recover the costs of so doing from the person responsible as a debt.

## Council-specific conditions

The success of dockless mobility schemes depends, in part, on striking the right balance between providing regulatory flexibility to councils, while maintaining a degree of administrative and service consistency.

As part of this Paper’s recommended framework, the following parameters would be set by each council, separately, as conditions of a permit issued to an operator. These parameters would apply in addition to the response timeframes set out in clause 4.16 of the recommended *Operational Conditions*, which may be used to measure the performance of the operator against permit requirements.

As dockless mobility sharing is relatively new, there are no set standards for various operational requirements. The following sections provide advice drawn from best practice examples to assist councils to determine the conditions that are most appropriate for their area.

### Fleet Size

It is advisable to place some limit on the number of dockless mobility devices deployed within a council area. Without a cap, operators could flood a council area with high quantities of devices to capture market share. However, if the fleet cap is set too low, the system will not be used because it will be too difficult to locate a device.

In order to ensure that dockless mobility operators provide a reliable, convenient transport option, a balance needs to be struck between providing dockless mobility services and overcrowding public space with infrequently used devices.

To date, cities have employed a variety of metrics to determine appropriate fleet sizes for dockless schemes. Some cities have developed permit requirements that phase in fleets, either over time to allow cities and operators to adjust, or by requiring operators to meet basic service thresholds in order to expand. Common methods of fleet size capping include:

* Total number of devices that can be effectively managed by city staff;
* x devices per y residents;
* x devices allowed in first month, y devices allowed in second month (and so on);
* If the average daily usage is 1 trip, per device, per day (or higher) the fleet may expand - Less than 0.3 trips, per device, per day may warrant a reduction in fleet size.

### Deployment and Density Requirements

In order to provide reliable service, operators must ensure that devices are appropriately distributed across the service area. To ensure this, a council might prescribe that the operator must have a maximum and/or minimum number of devices in a defined area (e.g. identified shopping or medical precincts, particular suburbs etc.) or must provide a minimum service level in communities identified as being under-served. This could help to ensure more equitable spatial distribution of devices across a council area, and that devices can be more reliably found in less dense or less destination-heavy zones.

To date, cities have employed a variety of metrics to determine and regulate the distribution of devices throughout service areas. These include:

* Limiting the number of devices that can be located within any given area unit (e.g. metres or square metres)
* Defining geographic zones with maximum and/or minimum numbers of devices
* Requiring a certain number or percentage of the fleet to be maintained in a defined area
* Requiring that any unused devices (that have not moved in 7 days) be relocated.

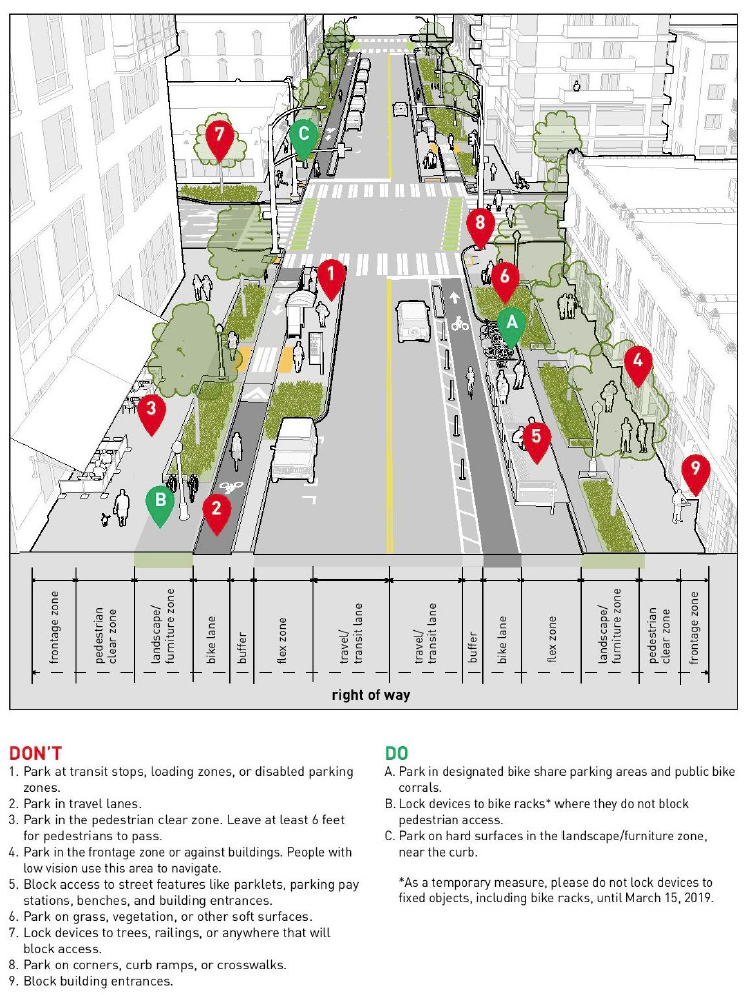
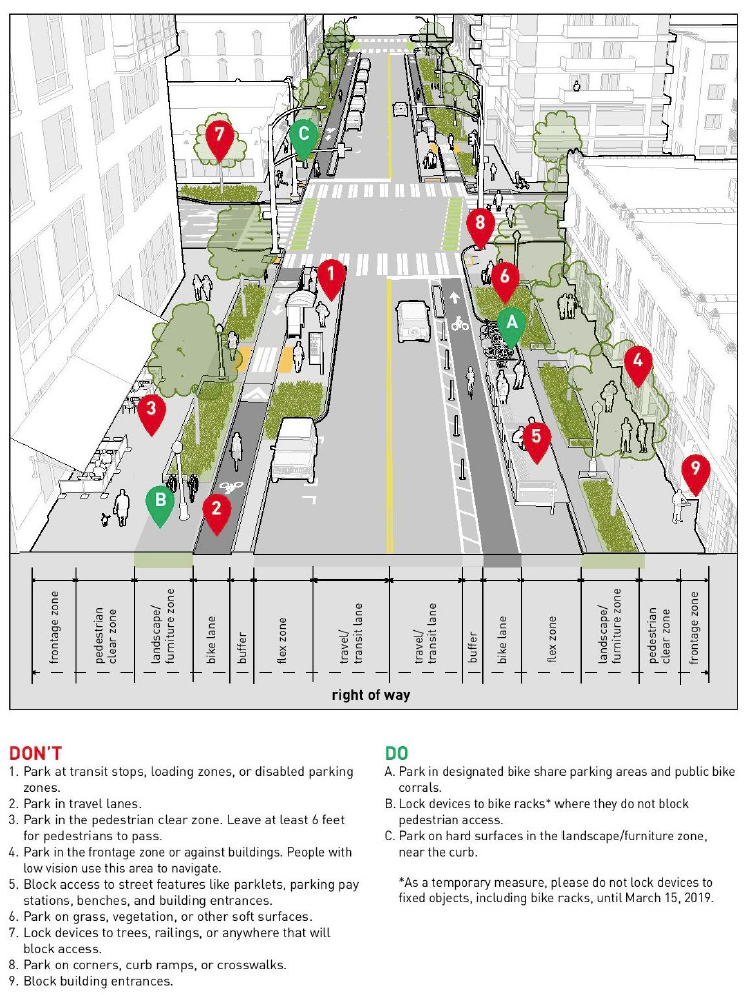
As an example, councils in Greater Melbourne have employed an overall density limit of 6 dockless bikes per 200 metres. There is an exclusion for specified locations such as activity centres, train stations and any other area determined by a council.

Because dockless mobility devices move around cities and App data may not be fully reliable, distribution enforcement is difficult. Many cities have taken a manual approach, tasking community and council staff to conduct regular spot-checks. However, as location technologies and data sharing capabilities improve, a council might wish to make real-time location data a requirement, to assist in proactive re-distribution.

### Preferred Parking and Exclusion Zones

Despite being “dockless,” allowing operators and customers to leave mobility devices in the public realm requires councils to determine locations where those devices can and cannot be parked. In some cities, device parking is unrestricted or “free floating,” meaning that customers can leave dockless mobility devices anywhere. In other cities, companies are required to tell their customers to only leave devices near the kerb, in the landscape/furniture zone (e.g. outside of the pedestrian zone) (see Figure 6).

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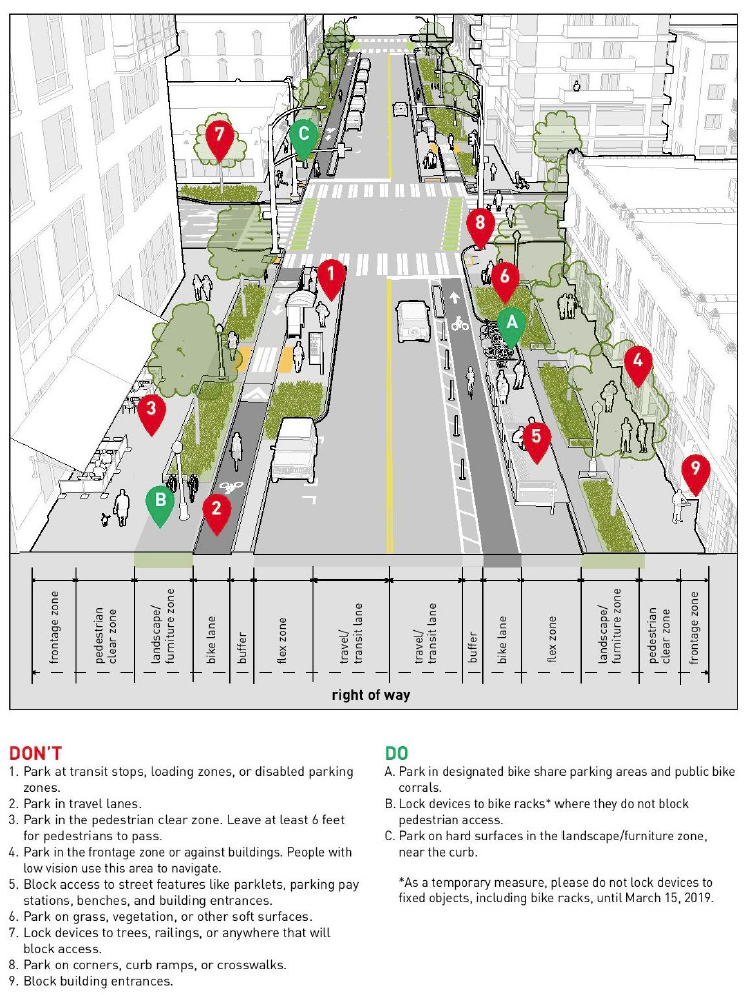


Figure 6: Parking requirements, general – Seattle Department of Transportation

Councils might specify designated areas where dockless mobility devices should be parked. This might not necessarily apply across an entire council area, but would be advisable in more congested areas such as shopping centres and transit stations (see Figure 7). There are a number of ways that councils and operators might wish to denote designated parking areas. These include:

* physical infrastructure such as designated racks, line-marking or signage;
* clear customer instructions via the operator’s app (displayed on across all Realtime service maps), including incentives and penalties for non-compliance;
* information on a council’s website; and/or
* geo‑fencing capabilities

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| --- | --- |
|  | **Designated parking area A** |
| **Designated parking area B** |

Figure 7: Parking requirements, Stations – Bay Area Rapid Transit (San Francisco)

Local governments might also wish to restrict mobility device parking in particular areas such as waterfronts, parks, car parks or other highly trafficked areas.

Currently, the limitations of GPS and geo-fencing technologies means that there is not a standard way to enforce parking restrictions. Typically, GPS can determine locations within about 3-7 metres but not to the finer degree of accuracy needed for parking spaces. Most cities rely on reported problems and spot-checks to assess compliance. As geo‑fencing technologies are improved and refined, a council might include a requirement to geo‑fence parking locations.

### Fees

Councils are advised to ensure that the full cost of regulating and managing dockless mobility operators is considered when setting fees. A council might choose to waive aspects of the permit fee, to encourage provision of the service to the extent that it aligns with the council’s strategic objectives.

Councils typically incur the following costs in managing or regulating dockless mobility schemes:

**Administration & Oversight Costs**

* Reviewing application
* Ensuring permit compliance
* Analysing and assessing data
* Responding to public complaints
* Liability insurance

**Direct Costs**

* Removing broken, damaged, and/or incorrectly parked devices if the Operators can’t/won’t
* Purchase and installation of physical infrastructure related to the system (e.g. rails, line marking)
* Potential reduction of available parking rails for private bicycles
* Loss of public right-of-way space, especially the pedestrian zone

**Planning and Engagement**

* Planning
* Advertising/outreach/encouragement
* Assessing Compliance

Some cities have calculated a permit fee based on these expected costs. Below is an example of how the city of Seattle calculated its permit fees:

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| --- | --- | --- |
| **Expense** | **Amount** | **Per Device**  *(if 5,000 devices)* |
| **Program Administration** | **$600,000** | **$30** |
| Program staff (1.5 full-time equivalent positions) | $370,000 | $18.50 |
| Data analysis, repository, and portal | $50,000 | $2.50 |
| Adaptive cycle share partnership (leverage community partnerships to increase adaptive cycling access) | $50,000 | $2.50 |
| Equity-based outreach and engagement | $50,000 | $2.50 |
| Compliance auditing | $50,000 | $2.50 |
| Ongoing evaluation (survey and other work to evaluate program) | $30,000 | $1.50 |
| **Designated Device Parking** (1,500 spaces) | **$400,000** | **$20** |
| **TOTAL** | **$1,000,000** | **$50** |

Some councils in Australia have established an infrastructure contribution fee (approx. $50 per device and hypothecated to ensure that funds are spent on cycling) to assist with the operational costs.

While councils have a power to charge fees, it is recommended that this is calculated at a flat rate permit fee, rather than per device. As these services are likely to align with a council’s strategic plans and assist in meeting a range of city-wide goals, it is important to ensure that potential operators are not restricted from providing the service due to financial strain. Furthermore, alternate mobility sharing models would involve a high cost if a council were to provide a similar service.

## Engagement requirements

Before engaging and permitting a dockless mobility operator, the recommended framework suggests working with the proposed operator to determine the factors detailed in Section 4.3, and also seek a range of plans.

It is advisable to seek these plans whether or not engagement is part of a competitive request for proposal. The proposed operator’s plans should demonstrate how the proposed dockless mobility share scheme would adhere to the recommended *Operational Conditions*. At a minimum, a proposed operator’s plans should include:

* a helmet supply, servicing and maintenance plan detailing how helmets are to be provided, and devices maintained and documented;
* an electric charging plan to detail the procedure for collecting, charging and re-deploying;
* a publicity plan to promote the customer service hotline, contact information and a process for users to notify the operator in the case of safety or maintenance issues;
* a communications plan to respond to queries and complaints, and minimise escalation to the council; and
* a device distribution management plan. It is recommended that this plan should place the onus for re-distributing clustered devices on onto the operator.

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# Appendix A: Summary of timeframes and protocols in other jurisdictions

Recommended timeframes for the removal of shared mobility devices (bicycles and/or e-scooters where relevant)

**Sydney**

|  |  |  |
| --- | --- | --- |
| Incident | Timeframe | Action |
| Dangerously placed | 3 hours | Where a device is causing an unreasonable hazard (i.e. parked across a road, carriageway etc.) the operator will relocate the device within two hours. Council/public landholder may remove and impound the device at any time to make the area safe. The operator will be contacted at the time of any such action. |
| Device reported as unsafe | Immediate (upon verification)  1-7 days (depending on severity) | Upon verification of an unsafe device, the operator will immediately deactivate it. The operator will check for safety/damage/faults and remove the device from the public area. |
| Significantly damaged | Immediate (upon verification)  1-7 days (depending on severity) | Upon verification of a damaged device, the operator will immediately deactivate it.  Operator will check for safety/damage/faults and remove the device from the public area |
| Inappropriate device density | 1-7 days (depending on severity) | Operator will be proactive in the redistribution of devices |
| Illegally parked | 1-7 days (unless escalated by council or public land holders) | Dependent on location of device (For example private property, motorcycle or disabled parking) |
| Unused devices | 7-11 days | If a device has not been moved after 11 days, a council/public landholder may instruct the operator to relocate the device. The device may be impounded after 15 days |

**Melbourne**

|  |  |  |
| --- | --- | --- |
| Incident | Timeframe | Action |
| Dangerously placed | 2 hours | Where a device is causing an unreasonable hazard (i.e. parked across a road, carriageway, etc.) the operator will relocate the device within 2 hours.  A council or relevant authority may remove and impound the device at any time. |
| Reported as faulty / damaged / unsafe | 0 - 24-hours | Operator will immediately deactivate the device.  Operator will check device for safety / damage / faults and will remove it from the public realm until it is suitably repaired. |
| Inappropriate density | 0 - 24-hours | Where excessive numbers are present the Operator will reduce the number at a single location by relocating the excess number of devices. |
| Device tipped-over | 0 - 24-hours | Operator will upright the device, within 24-hours of being notified. |
| Inappropriately placed | 0 - 48-hours | Where a device is parked in an inappropriate location, but where it is not causing an unreasonable hazard, the operator will relocate the device within 48-hours |

**Auckland**

* Damaged devices parked in a non-compliant manner or place need to be removed by the operator within 12 hours of being reported. If not, operators will pay any removal costs incurred by council. The cost to get the device back from the council after removal is $371 per item at time of writing. This cost may alter over time.
* Any device parked outside a licensed area, for 48 hours must be moved by the operator to a licenced location or it may be removed by Auckland Council at the expense of the operator.

**Seattle**

The vendor shall complete its inspection and correct any improper parking within the following times:

* if the notification alleges the device is an obstruction hazard and the report was made between 6:00 AM and 11:59 PM, two hours after the vendor receives notice;
* if the notification alleges the device is an obstruction hazard and the report was made between midnight and 5:59 AM, four hours after the vendor receives notice; or
* if the notification does not allege the device is an obstruction hazard, 24 hours after the vendor receives notice.

A device is idle if it has been parked in the same location in the City for more than seven days without being rented or being visually inspected by the vendor. If anyone notifies the vendor that a device is idle, the vendor shall inspect, repark, or remove the device no later than 48 hours after the vendor receives notice.

**San Francisco**

* Any device parked improperly shall be re-parked in a correct manner or shall be removed by the permittee within two hours
* Permittee shall relocate or rebalance devices within two hours of an SFMTA request.
* A device that is inoperable or not safe to operate shall be removed from the right-of-way within 24 hours after notice from the City and shall be repaired before it is returned to service.

**Austin**

Licensees shall rebalance the number of devices according to the following timelines

* Reduction shall occur within four (4) hours of receipt of notice on weekdays, 6am and 6pm, not including holidays;
* At all other times, reduction shall occur within ten (10) hours of receipt of notice

Licensee shall remove any device that is not safe to operate within four (4) hours of receipt of notice and shall not be redeployed until repaired.

Operator shall respond to complaints and obstructions within the following timeframes:

* Sidewalk Obstruction of less than 3 feet – 60 minutes;
* Travel and bicycle lanes – 60 minutes;
* Transit stop obstructions – 60 minutes;
* Environmentally sensitive area– 60 minutes;
* Private property – 2 hours;
* Rebalancing off-hours – 2 hours;
* Other obstructions and nuisances – 2 hours;
* Unauthorized portions of parks and trails – 2 hours; and
* Other unauthorized areas – 2 hours.

Data Sharing Requirements

**Sydney**

This commercial-in-confidence data may include:

* The number of registered users
* The total number of trips
* Trip origins and destinations, and trip duration (time and distance)
* The number of devices deployed and deployment locations
* Device redistribution numbers and patterns
* Data regarding damaged or lost devices, and helmets replaced
* Customer service contacts and response times

**Melbourne**

Provide the following electronic data in a machine-readable format for the purposes of transport planning and research by the council, researchers and third parties.

* Provide DoT, via the LGA, with GPS trace information for all trips for modelling purposes.
* Share information about the number of devices deployed and their location.
* Share data about the number of devices collected or relocated and the reason for this.
* Share data about the number and location of devices in each council area.
* Share anonymised usage data about trips made, including origin, destination time and duration.
* Share data about the effectiveness of providing helmets, their usage rates and their attrition rates over time.
* Share data about the number and nature of complaints from the public and resolution times, including; location of incident; response timeframes and actions and response resolution.

**Auckland**

The following table outlines the usage data to be provided to Auckland Council for each trip record. This is to be sent to council at least once a month or as requested.

|  |  |  |
| --- | --- | --- |
|  | **Format** | **Description** |
| Company Name | [company name] | n/a |
| Type of bicycle or e-scooter | “Standard” or “Electric” | n/a |
| Trip record number | Xxx00001, xxx00002, xxx00003,  … | 3-letter company acronym + consecutive trip # |
| Unique, hashed and persistent ID of the user |  | So council can understand one-time vs regular users. |
| User Demographics as available |  | For example, country of origin (from mobile phone or app store), gender and age (if collected). |
| Trip duration | MM:SS | n/a |
| Trip distance | KM | n/a |
| Trip weigh points to track the route (at least every minute) | An XML file format to be agreed | n/a |
| Start date | MM, DD, YYYY | n/a |
| Start time | HH:MM:SS (00:00:00 – 23:59:59) | n/a |
| End date | MM, DD, YYYY | n/a |
| End time | HH:MM:SS (00:00:00 – 23:59:59) | n/a |
| Start location | GPS location | n/a |
| End location | GPS location | n/a |
| Bicycle or e-scooter ID number | xxxx1, xxxx2, … | Unique identifier for every bicycle and e-scooter, determined by the company |

Operators should have the ability to provide council with real-time information on the entire fleet through a documented application program interface (API). The data to be published to the council API should include the following information in real time for every parked device:

* Identification number
* GPS Co-ordinate
* Availability start date
* Availability start time
* Fuel level (if electric)
* Date of last service
* Time to next service
* Service status

# Appendix B: Useful resources

* NACTO Policy 2018 Guidelines for the Regulation and Management of Shared Active Transportation - [*https://nacto.org/wp-content/uploads/2018/07/NACTO-Shared-Active-Transportation-Guidelines.pdf*](https://nacto.org/wp-content/uploads/2018/07/NACTO-Shared-Active-Transportation-Guidelines.pdf)
* ITDP Optimizing Dockless Bikeshare for Cities - [*https://www.itdp.org/2018/05/11/dockless-bikeshare/*](https://www.itdp.org/2018/05/11/dockless-bikeshare/)*;* [*https://3gozaa3xxbpb499ejp30lxc8-wpengine.netdna-ssl.com/wp-content/uploads/2018/05/ITDP-Optimizing-Dockless-Bikeshare-for-Cities-1.pdf*](https://3gozaa3xxbpb499ejp30lxc8-wpengine.netdna-ssl.com/wp-content/uploads/2018/05/ITDP-Optimizing-Dockless-Bikeshare-for-Cities-1.pdf)
* Transport for London, Dockless bike share code of practice For Operators in London September 2017 - [*http://democracy.cityoflondon.gov.uk/documents/s101100/Dockless%20Cycle%20Hire%20Report%20SW%20PT%20Sept18%20Appendix%202.pdf*](http://democracy.cityoflondon.gov.uk/documents/s101100/Dockless%20Cycle%20Hire%20Report%20SW%20PT%20Sept18%20Appendix%202.pdf)
* WA LGA Bicycle Share Schemes Discussion Paper -[*https://walga.asn.au/getattachment/Policy-Advice-and-Advocacy/Infrastructure/Urban-and-Regional-Transport/Bicycle-Share-Schemes/Bicycle-Share-Schemes-Discussion-Paper.pdf.aspx?lang=en-AU*](https://walga.asn.au/getattachment/Policy-Advice-and-Advocacy/Infrastructure/Urban-and-Regional-Transport/Bicycle-Share-Schemes/Bicycle-Share-Schemes-Discussion-Paper.pdf.aspx?lang=en-AU)
* International Municipal Lawyers Association Guidance for Regulation of Dockless Micromobility - [*https://nabsa.net/wp-content/uploads/2017/09/IMLA\_Dockless\_Guidance.pdf*](https://nabsa.net/wp-content/uploads/2017/09/IMLA_Dockless_Guidance.pdf)
* Portland Bureau of Transportation, 2018 E-Scooter Findings Report - [*https://www.portlandoregon.gov/transportation/article/709719*](https://www.portlandoregon.gov/transportation/article/709719)

**Reviewed permits/requirements:**

* Inner Sydney bike-share guidelines - [*https://www.cityofsydney.nsw.gov.au/\_\_data/assets/pdf\_file/0010/295759/Inner-Sydney-Bike-Share-Guidelines-22-Dec-2017-1.pdf*](https://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0010/295759/Inner-Sydney-Bike-Share-Guidelines-22-Dec-2017-1.pdf)
* Melbourne Memorandum of Understanding -[*http://www.portphillip.vic.gov.au/MEDIA\_RELEASE\_-\_Agreement\_to\_put\_the\_brakes\_on\_bike\_share\_clutter\_-\_1710....pdf*](http://www.portphillip.vic.gov.au/MEDIA_RELEASE_-_Agreement_to_put_the_brakes_on_bike_share_clutter_-_1710....pdf)
* Canberra Dockless Bike Share Guidelines - [*https://www.transport.act.gov.au/\_\_data/assets/pdf\_file/0018/1132434/Dockless-Bike-Share-Guidlines-A4-v7.pdf*](https://www.transport.act.gov.au/__data/assets/pdf_file/0018/1132434/Dockless-Bike-Share-Guidlines-A4-v7.pdf)
* Auckland Dockless Cycle Share Code of Practice - [*https://at.govt.nz/media/1975718/dockless-cycle-share-code-of-practice.pdf*](https://at.govt.nz/media/1975718/dockless-cycle-share-code-of-practice.pdf)
* Seattle DOT Free-Floating Bike Share Program Permit Requirements for the 2018-2019 permit cycle- [*https://www.seattle.gov/Documents/Departments/SDOT/BikeProgram/Seattle\_Bike\_Share\_Permit\_Requirements\_v2.1\_20181219.pdf*](https://www.seattle.gov/Documents/Departments/SDOT/BikeProgram/Seattle_Bike_Share_Permit_Requirements_v2.1_20181219.pdf)
* San Francisco MTA Stationless Bikeshare Program Permit Application - [*https://www.sfmta.com/sites/default/files/projects/2017/Bike%20Share%20Permit\_v1.1\_FINAL.pdf*](https://www.sfmta.com/sites/default/files/projects/2017/Bike%20Share%20Permit_v1.1_FINAL.pdf)
* Austin, Director Rules for Deployment and Operation of Shared Small Vehicle Mobility Systems -[*http://www.austintexas.gov/sites/default/files/files/Transportation/Final\_Notice\_of\_Rule\_Adoption.pdf*](http://www.austintexas.gov/sites/default/files/files/Transportation/Final_Notice_of_Rule_Adoption.pdf)

1. <https://theconversation.com/the-problem-isnt-dockless-share-bikes-its-the-lack-of-bike-parking-102985> [↑](#footnote-ref-1)
2. htt[ps://nacto.org/2018/07/11/shared-active-transportation-guidelines](https://nacto.org/2018/07/11/shared-active-transportation-guidelines/)/ [↑](#footnote-ref-2)