

This document summarises the evidence base for the City of London Riverside Strategy, providing data and mapping from our desktop study, drone survey and associated technical report and City Corporation Geographic Information System

City of London Riverside Strategy

Appendix 1 Where are we now – the evidence base



Raising Requirements – End of Stage 2 (2065)

In order to determine the magnitude of raising of the flood defence that is required to meet the TE2100 levels, we need to know what the current levels are. All of the tidal flood defences within the City currently meets the current statutory requirements from the Environment Agency (5.41m and 5.28m AOD upstream and downstream of London Bridge respectively). But there are large variations in how much they go above these levels

Raising requirements have been set out for both the end of Stage 2 (2065) the 2065 Level (5.8m AOD) and the end of Stage 3 (2100) the 2135 Level (6.3m AOD) (please note, these dates could be brought forward by the Environment Agency in line with climate change projections).

The magnitude of raising requirements were determined from a survey of the flood defence heights in July 2020. A survey measured the heights of the flood defences and consultants compared to the existing defence levels. This maps shows the indicative level of raising required for each section of the river flood defence to provide the 2065 defence level.

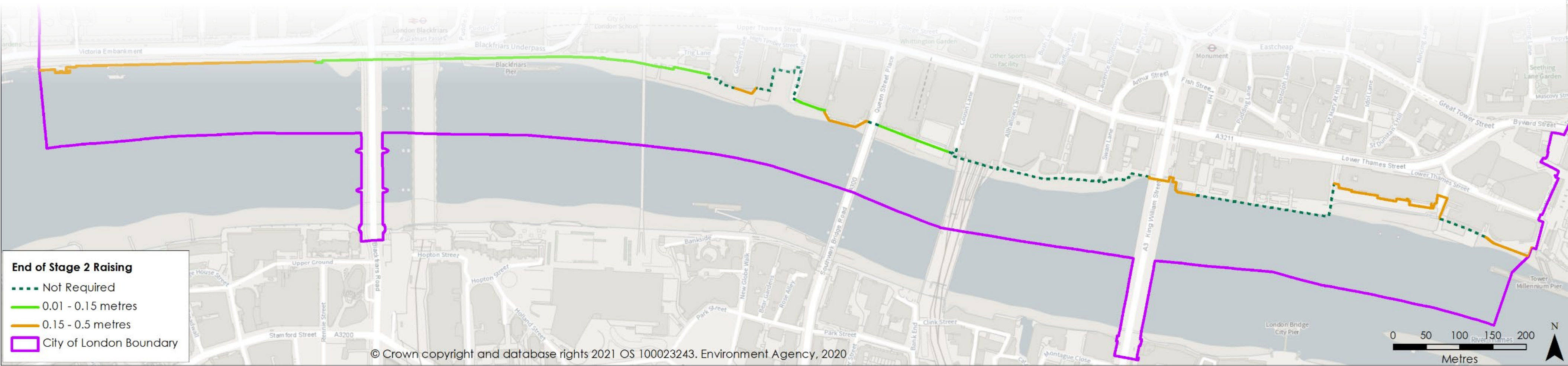
The survey made assumptions about the flood defence structures and more detailed surveys will be needed to ascertain the exact flood defence level for individual structures where works are proposed. This will be particularly important where the parapet is incorporated into the defence.

There are discreet areas in which no raising is required to reach the 2065 Level. Where raising is needed it is generally only up to 150mm with the exception of 6 sites which require more significant raising.

How does this impact the Strategy?

There are significant stretched of the flood defence which will not need to be raised before the end of Stage 2 (2065). The strategy should focus on the areas that require raising to first TE2100 level, whilst still enabling preparation for raising to higher level at a later time. Areas needing raising at the first stage intrinsically need raising to the higher level in future, which will impact choices on implementing raising and the design for future raising.

The magnitude of raising required will impact the scope and range of benefits that raising may unlock



Raising Requirements – End of Stage 3 (2100)

The TE2100 Plan has two target dates at which different levels of raising need to be implemented. The later of these is for the end of Stage 3 (2100) and is intended to provide protection up to 2135 and requires a defence level of 6.3m AOD along the whole stretch of the City's riverside.

Similar to the Raising Requirements – End of Stage 2 map the current levels of the defence from the 2020 survey have been compared to the proposed flood defence levels. This gives an indication of the magnitude or raising required in each stretch.

The majority of the City's riverside will need some form of flood defence raising to achieve the higher level.

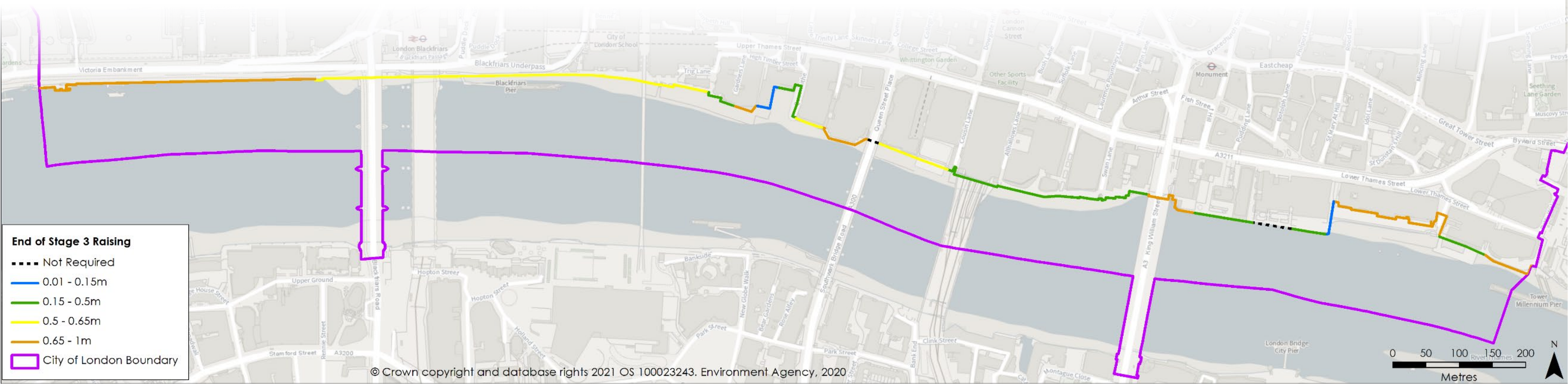
These raising requirements shown do not account for raising that will occur before Stage 3 to achieve the 2065 Levels. Work to implement the early level will be an opportunity to implement at the higher defence level at an earlier stage. At very least the earlier works should enable raising to the future level.

Adjoining sites require different levels of raising, the continuity of the defence should be accounted for especially where sections are raised separately.

How does this impact the Strategy?

The phasing of defence raising works will be impacted by the implementation method and whether previous works have been required to achieve the 2065 Level. Earlier raising to the 2135 Level and where works allow for future raising will minimise disruption in areas where direct intervention is required and will help towards ensuring a continuity of the defence.

The expected design life of defence structures will have to be considered when assessing the feasibility of raising the defence to the higher level.



Non-Developable Sites

A proportion of the flood defence raising can be achieved through re-development of riverside sites over the coming years.

However, there are certain areas that have been identified that will not come up for development. These are areas such as Victoria Embankment that is not associated with a development as it is along a road. Also, areas that have recently been developed so will not come up again before the flood defences need raising.

Other areas include ends of roads down to the river such as the end of Cousin Lane and Allhallows Lane. These sites would be raised by direct intervention but would not be consistent with the rest of the riverside and would not benefit from the wider strategy aims. Making sure this does not happen is key.

How does this impact the Strategy?

As these areas have been identified, a plan needs to be in place on how these will be raised outside of developments.



Historic Environment

The whole riverside is of significant historical importance as it is the birthplace of London. The foreshore is littered with archaeological finds from history that have been logged on the *Greater London Historic Environment Records* database, but there will be many more that haven't been found yet.

There are 2 conservation areas adjacent to the riverside, The Temples and Whitefriars. Both are on the west side of the City.

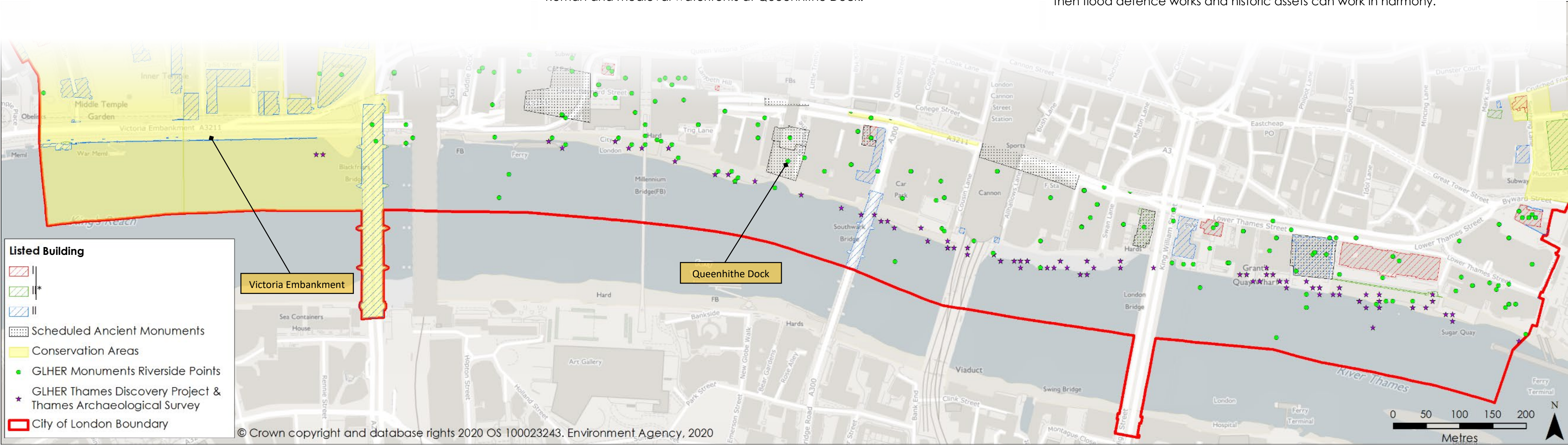
There are many listed structures along the riverside including bridges, railings, buildings and the actual flood defence, most notably the Victoria Embankment on the west side of the City.

There are also scheduled ancient monuments along the river, most notably the Roman and medieval waterfronts at Queenhithe Dock.

How does this impact the Strategy?

The City's riverside is steeped in history but much of it cannot be seen or appreciated currently. This brings an opportunity to bring out the historic importance of the riverside through this strategy.

Sometimes historic assets can limit the amount of work that can be done on a site, but if this strategy makes sure to highlight the historic importance of the riverside, then flood defence works and historic assets can work in harmony.



Land Use and Ownership

There are over 20 different landowners along the Riverside with a mix of public and privately-owned land. Public owners include the City Corporation and other public bodies such as the PLA. Land use along the river is mainly commercial offices, with two distinct residential cluster. There are around 320 residential units in each clusters, this accounts for around 8% of the total City's residential units (City of London's LLPG, 2021). Currently, it is the landowners responsibly to maintain and raise the flood defence that falls within their boundary.

There is the additional layer of complexity with freeholders and leaseholders of land. Different agreements may be in place about who pays for maintenance of the flood defence (therefore the raising), the freeholder or leaseholder.

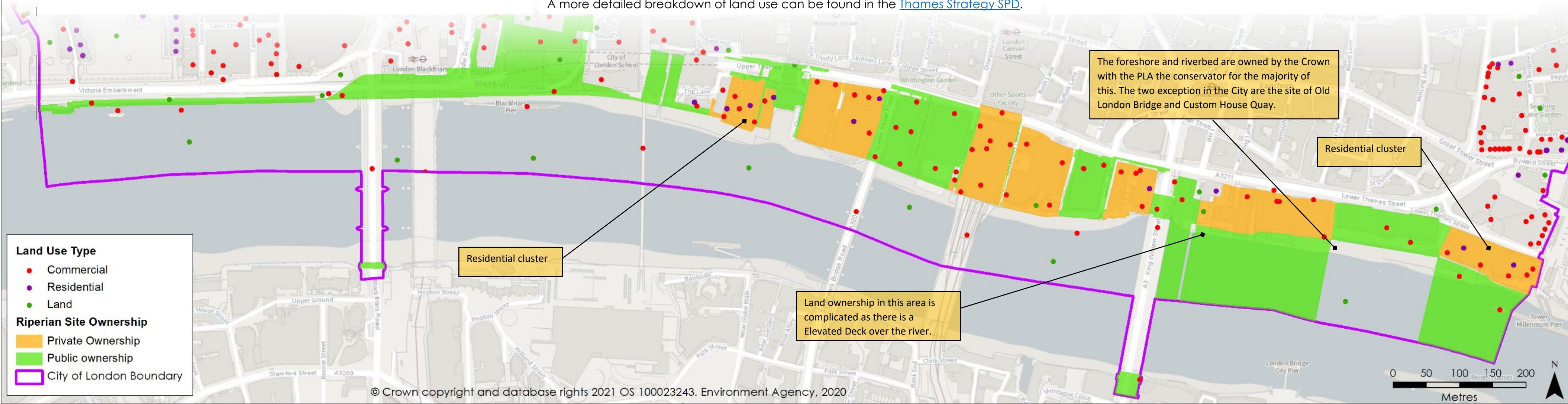
The emerging CityPlan 2036 promotes a mix of commercial and cultural uses being led by office development to add vibrancy to the riverside. Any development on or over the river is restricted to uses which require a riverside location for a river use. Freight and passenger transport are also encouraged, as well as waste (residential and construction) transport from Walbrook Wharf.

A more detailed breakdown of land use can be found in the [Thames Strategy SPD](#).

How does this impact the Strategy?

With over 20 landowners, plus leaseholders, the individual raising of the flood defence by each owner could result in a sporadic, random mix of raising methods. This would impact the riverside walk and public access. Also, if one owner does not do the raising, the whole project fails. A strategy to make the flood defence raising coherent is vital to maintain riverside views and accessibility.

When interviewing one of the owners along the river, much emphasis was put on bringing all the parties involved to get a joint up approach on how the raising is going to be done.



Access to the Riverside

Access to the riverside from the rest of the City is quite poor in most areas. As the riverside is built up, there are few opportunities to open up areas for access.

There is a busy road behind the row of buildings directly at the riverside. This is another barrier to access to the riverside as it can be hard to cross and is not a particularly pleasant environment.

There are a number of stairs and lifts that bring people to the riverside. Currently, the whole riverside walk is wheelchair friendly. However, the City Corporation has had long term success in securing public access to the riverfront via development.

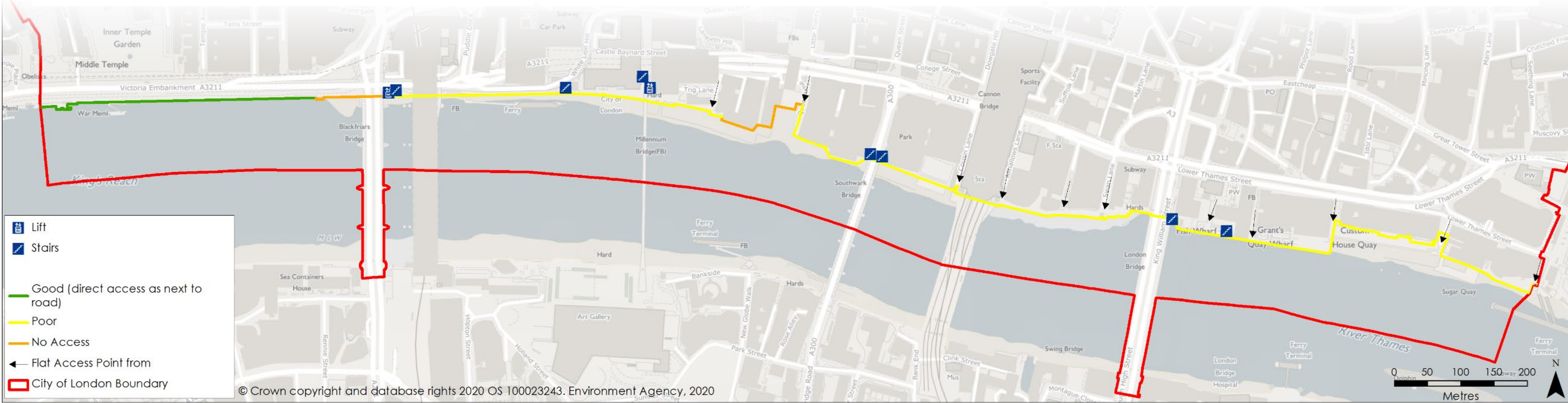
The Thames Path runs almost continuously along the City's Riverside and is an important, low pollution, east-west pedestrian route through the City. Strava, the running and cycling app, shows the City's riverside is almost constantly used by runners at all times of day and throughout the week. 121 interviews show the riverside is liked by runners and walkers as it is wider than most footpaths in London, is not polluted and has nice views across the river, you can see the sky.

How does this impact the Strategy?

Opportunities to increase access to the riverside will only come with development of a site. Every opportunity should be taken through planning to secure better access.

If raising works are to be done by each owner at different times, then there may be issues of wheelchair access between sites if one walkway is higher than next doors.

As an important route in the City, any works to the flood defences may impact the usability of the riverside walk.



River Safety

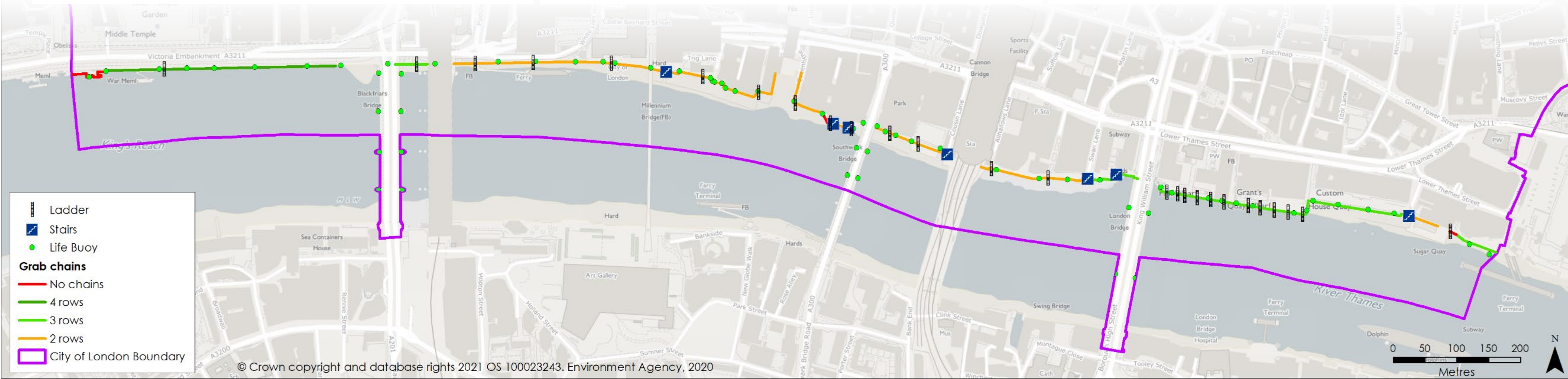
Lifesaving equipment include life buoys and grab chains.

There are also many access points such as stairs and ladders out of the river and foreshore.

The emerging City Plan 2036 Policy s17 Thames Policy Area requires "maintaining and enhancing access points to the River Thames foreshore, from both land and water, for public or private use as appropriate, subject to health and safety and environmental safeguards."

How does this impact the Strategy?

This equipment and access points should be retained and ideally improved upon going forward.



Natural Capital and Biodiversity

The River Thames is a huge part of the natural capital of the City as a Site of Metropolitan Importance for Nature Conservation.

There are a number of green roofs along the riverside, linking the important river habitat to other natural spaces.

However, the majority of the riverside walk is hardscape, with a few trees dotted along the riverside and a few planting beds.

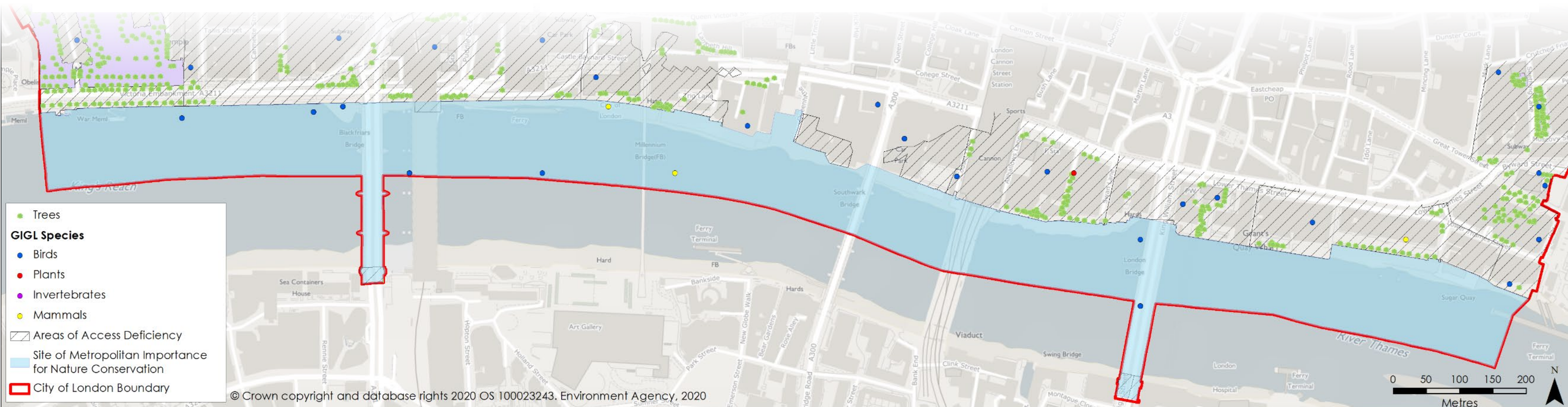
Read more about biodiversity in the City of the website:

<https://www.cityoflondon.gov.uk/things-to-do/city-gardens/target-species>

How does this impact the Strategy?

There is huge opportunity to increase natural capital along the riverside. Creating green corridors from the river into the City could increase biodiversity in the whole City.

Going forward, increasing tree shade cover should be prioritized as the riverside is south facing and is going to be a hot area when temperatures rise in line with climate change projections.



Public Realm Furniture

This map and the map on the next page show bins, benches, bollards and lighting on the riverside.

There are specific design guides and technical manuals on the Public Realm section of the City of London website:

<https://www.cityoflondon.gov.uk/services/streets/public-realm-and-lighting-design-guidance>

Lighting is a consistent feature along the riverside, it is well lit throughout with a lot of the lighting mounted on the flood defence wall.

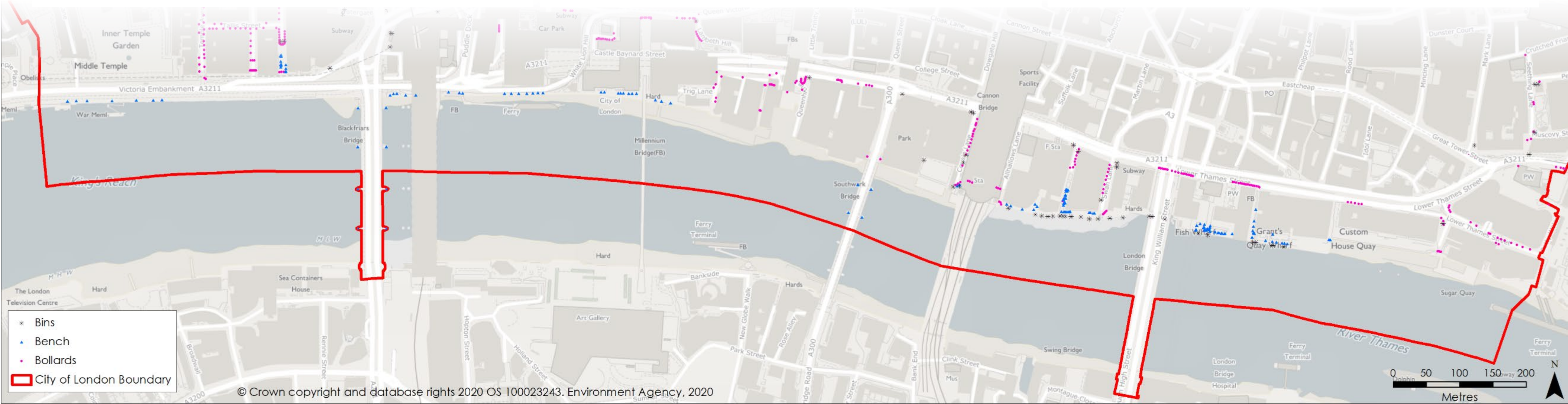
Benches are sporadically spaced along the riverside, some areas have a lot of benches, other having none. This may be due to the width of the riverside walkway being narrow in some areas.

Bins are again sporadically placed along the riverside with a lot in some areas and none in others.

How does this impact the Strategy?

This strategy will allow more useful public realm features to be integrated into the riverside. This will be in line with the City of London's Public Realm guidance.

Lighting may need to be reconsidered as part of the river wall, as it may be difficult to raise lighting columns.



Public Realm Furniture- Lighting

