Areas of Deficiency in access

Transforming data into information

What is AoD?

Areas of Deficiency in access (AoD) to Nature and AoD to Public Open Space are datasets created by GiGL to show which areas of Greater London are over a reasonable walking distance from relevant sites.

AoD to Nature are areas over 1km* walking distance from Metropolitan and Borough Sites of Importance for Nature Conservation (SINCs).

AoD to Public Open Space are over the walking distances* specified in the London Plan from the different categories of Public Open Space (POS).

We measure the walking distances from access points and along roads and footpaths.

The standard walking distances are based on current guidance, but alternative distances can be used where appropriate.

Why is AoD mapping important?

Areas of Deficiency mapping indicates whether people living and working in a given area can easily visit Public Open Spaces or wildlife sites.

It is a more meaningful measure than the number or total area of relevant sites, because it accounts for the distribution and accessibility of the sites and includes the effect of sites in neighbouring areas.

How is AoD mapping used?

Policy: Areas of Deficiency mapping is used by Local Councils to assess open space provision in their boroughs — a policy requirement in the London Plan. GiGL can assist by providing standard or custom AoD maps that include sites from neighbouring boroughs and are based on detailed models of possible walking routes.

Planning: We can model the effect of potential new developments on AoD, to aid planning decisions. We can adapt our AoD maps demonstrate and measure the effects of adding or improving sites and walking routes on alleviating AoD.
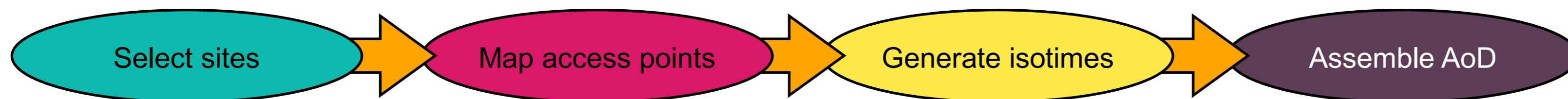
Analysis: We can analyse AoD maps against boundary data such as boroughs or LSOAs to generate statistics for comparison across London. With access to census data, we can use AoD maps to calculate statistics on the numbers of people living in AoD, which can provide further detail for policy making or research.

Research: AoD mapping can be analysed against other datasets for research, for example to see whether green cover is greater in non-AoD areas. Students and researchers often use our AoD mapping in their projects, to find out whether AoD correlates with factors such as health, crime rates or house prices.

Informing: As with all GiGL datasets, the information is not limited to its original context and can potentially be used by our diverse assortment of partners and clients in a great variety of ways, including: campaigning, education, journalism, historical studies and artwork.

How GiGL makes AoD maps

Overview

Select sites → Map access points → Generate isotimes → Assemble AoD

GiGL can advise our partners and their contractors on how best to collect and curate data that is suitable for AoD modelling.

Select sites

Sites that alleviate AoD to Nature:

- Sites designated as Sites of Borough or Metropolitan Importance to Nature Conservation (Local SINCs are usually not included).
- Accessible to the public (open most days and no entrance fee).
- Advised by boroughs on whether to include specific sites; e.g. sites may be excluded if their designation is for specific wildlife that is rarely visible to visitors, or if the site is in poor condition.
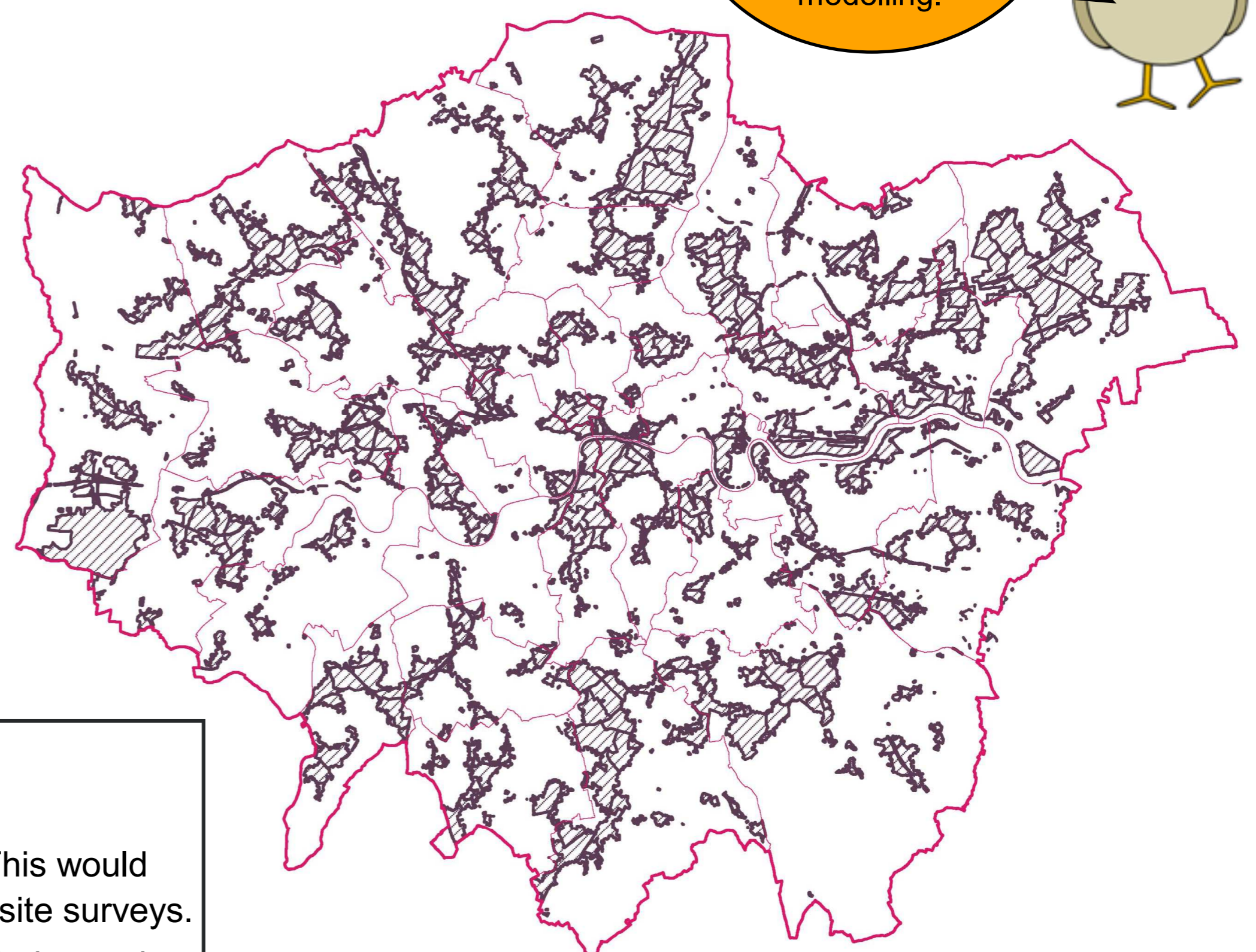- May be part of site only.

Sites that alleviate AoD to Public Open Space:

- Sites which meet the criteria for Public Open Space given in the London Plan.
- Accessible to the public (open most days and no entrance fee).
- Selected based on information from the boroughs, *or* modelled based on relevant information in our GiGL open space database.
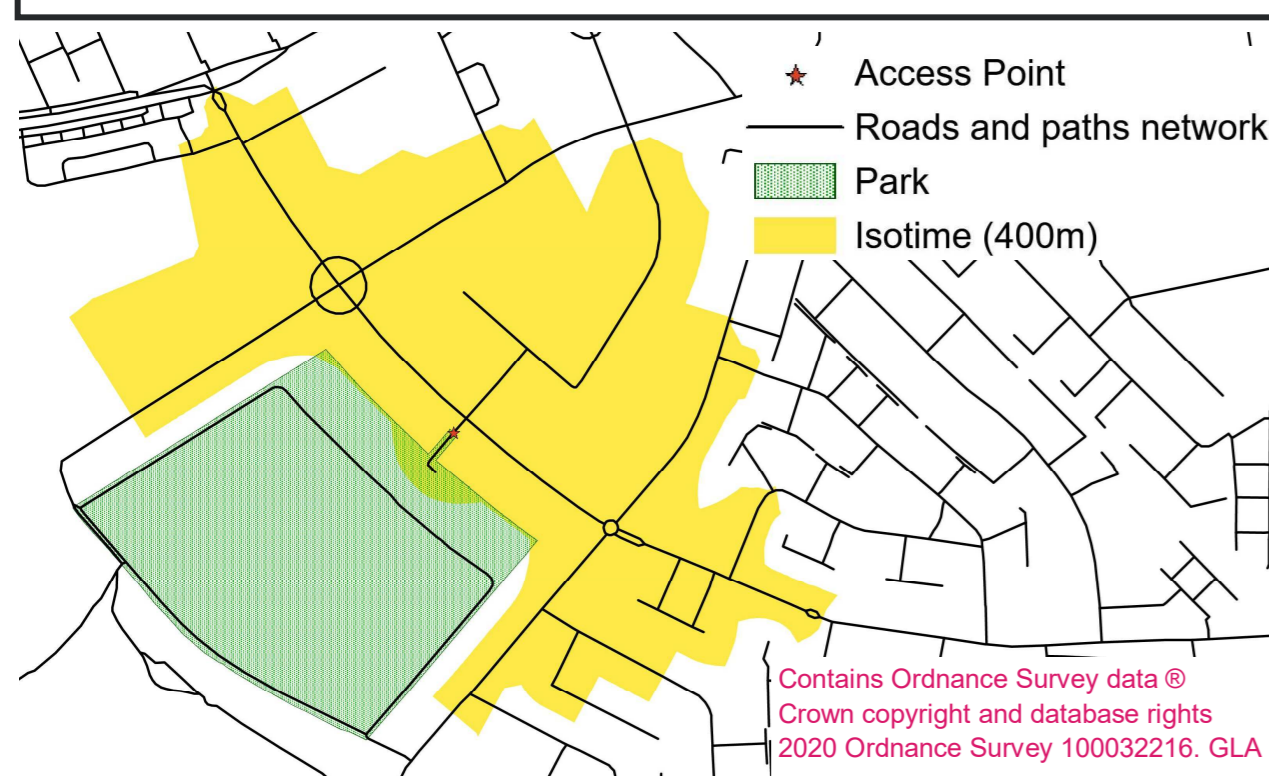
Map access points

Access points (e.g. gates) must be recorded as points with precise co-ordinates.

- Ideally access point data should be based on on-the-ground survey information. This would usually be provided by the relevant Local Authority following SINC or open space site surveys.
- If no survey data is available, access points can be modelled based on site boundaries and road network GIS data.
- Access points can be checked against OS maps; local knowledge; aerial imagery; and/or information available online.

GiGL Areas of Deficiency in access to Nature

Borough boundaries based on OS data ® Crown copyright and database rights 2020 Ordnance Survey 100032216. GLA

★ Access Point
— Roads and paths network
▨ Park
▨ Isotime (400m)

Contains Ordnance Survey data ® Crown copyright and database rights 2020 Ordnance Survey 100032216. GLA

Generate isotimes

Isotimes are the areas within the defined walking distance of the site access point. They are the areas which are *not* AoD.

We use the Ordnance Survey MasterMap roads and paths network GIS layer (previously Integrated Transport Network, now Highways Network) and route optimisation software to model possible walking routes from the access points, generating the isotimes.

Assemble AoD model

Areas of Deficiency in access are the areas outside of the specified walking distance from the site access points: so they are what is left when you cut out the isotimes from your area of interest (i.e. Greater London).

The sites themselves are also removed as non-AoD (even those which are not accessible).

Green Belt and Metropolitan Open Land are usually also removed from SINC AoD.