



GOVAN GRAVING DOCKS

BASELINE ECOLOGICAL REPORT

Introduction

The Govan Graving Docks have been closed for over 30 years, and in that time, they have become derelict and overgrown. In place of boats and buildings, there are now birds, butterflies, and bees. Birch and Willow thrive in the thin soil which has built up over the two-century old cobblestones. Flowers and insects can be found in hidden corners of crumbling granite.

During the day ducks and swans swim in the disused docks, fishermen cast their lines into its waters. At night, foxes hunt in the undergrowth and swifts catch the evening flies. The site is brimming with life.

The Docks has not only been reclaimed by wildlife, but also by people. Just by its mere existence the site offers some amenity value as a place for both adventure and relaxation. It has become an unofficial nature reserve and may be one of the only truly 'wild' places in the city.

To date there has been no formal ecological assessment of these Dockyards. This report compiles all the *known* information about the site and includes a habitat map created during several site visits. There is still much to learn about species present, and the health of the habitats which are supported here. Therefore this report *must not* be used in lieu of full ecological assessment performed by trained and competent professionals for future planning applications.



Potential for mixed-use nature conservation

Under the latest iteration of Scotland's National Planning Framework (NPF4) vacant sites and historic buildings will be re-used more broadly to "better reflect a wider range of potential uses" which may include "renewable energy, green infrastructure/naturalisation, community growing, employment, investment and housing". Having a full appreciation for the valuable habitats which have developed at the docks can be used to achieve this governmental aim for sustainable multi-use places.⁷

The value of such sites is being recognised though the 'Scottish Land Use Strategy 2021-2026'. This outlines a governmental vision to "deliver a culture change in Scotland's approach to vacant and derelict land" with a community focus. This has parallels with other aims within the Strategy for enhanced historic and natural environments along with "initiatives to enhance Biodiversity" within urban areas.



What is already known?

Some online resources exist which allow members of the public to record and submit wildlife sightings. Examples include the NBN Atlas² and inaturalist.org³.

To see what had been recorded already on site, the following search terms were fed into the NBN Atlas Website:

Date: 12/04/2021
Time: 15:03
Location search term: "Govan Dry Docks"
Search Radius: 0.5Km

This showed that there were 1,257 separate records within this search radius. Only 7 species sightings were recorded within the docks themselves. inaturalist.org was also used for the assessment. This website does not have the same search functionality as NBNAtlas, so search was done using a 'click and drag' map. This showed only a single species record at the site. The species recorded only within the dock boundary is shown in the next page:

Please note - This by no means reflects the true species present at the site and is reflective of only what people have chosen to submit to these websites. This serves only to show what information is already available.

Common Name	Latin Name	Year recorded
Yellow Archangel	<i>(Lamiastrum galeobdolon)</i>	1988
Bearberry Cottoneaster	<i>(Cotoneaster dammeri)</i>	1994
Pipistrelle Bat	<i>(Pipistrellus sp.)</i>	2002
Birch Shieldbug	<i>(Elasmotethus interstinctus)</i>	2013
Black Clock Beetle	<i>(Pterostichus madidus)</i>	2013
Seven spotted ladybird	<i>(Coccinella septempunctata)</i>	2013
Great Cormorant	<i>(Phalacrocorax madidus)</i>	2020

The presence of the Pipistrelle bat is the most significant finding in this case. Pipistrelles and all other bats in the UK are protected under the Wildlife and Countryside Act 1981⁴. This means that it is illegal to harm or kill any bats or disturb roosting areas. This is a relatively old sighting (reported 2002), so more up-to-date surveys should take place before development occurs to ensure compliance with the law.

Connectivity to surrounding sites.

Connectivity is important for wildlife conservation because it allows populations of different species to travel to different areas for breeding or to find food⁴.

There is only one nearby site which could potentially be connected to the docks by a wildlife corridor. The land surrounding the Prince's Dock, S.E of the Govan is rich in wildlife³ but is disconnected from the docks by a palisade fence and a strip of grass, which some species may be hesitant to cross. Improving connectivity between sites may benefit people and wildlife but would require the consent and support of relevant community members and landowner. (See Appendix 1).

Habitat Mapping

The habitat map was created based on guidelines from the Joint Nature Conservancy Committee (JNCC). The colour codes and classifications of habitat features were made with reference to the JNCC Phase 1 habitat handbook and adapted for more user-friendly viewing.

Phase 1 habitat mapping allows for rapid recording of semi-natural vegetation over large areas. It offers a very general view of the habitats on a particular site.

Based on the results from the survey, the site may be split into 4 habitats 'zones' – labelled A, B, C and D.

Please see appendix 2. For the habitat map with labelled zones.

Habitat Zones

Zone A

Zone A is dominated by relatively dense thickets of various willows (*Salix sp.*) and birch (*Betula sp.*) trees, as well as buddleia (*Buddleja davidii*) and some cherry trees (*Prunus sp.*). These range in height from between 3-4 metres, with some individual trees reaching 5+ metres. Understorey vegetation in this area is dominated mainly by mosses and grasses.

Within Zone A there is also an open patch of grassland. This is of low diversity (less than 5 different species per m²) containing species such as Ribwort plantain (*Plantago lanceolata*), Coltsfoot (*Tussilago farfara*), and some grasses and mosses.

Zone B

Zone B is defined mainly by bare ground and is situated immediately surrounding the dry docks. The ground here is mainly made up of cobblestones, as well as rubble and some loose substrates. The land here is not entirely bare, as there is some very light vegetation growing, mainly grasses and mosses.

Young individual trees (mainly Buddleia and Willow) are also found colonising the area, along various grasses, mosses, and other plants.

Zone C

Zone C is a distinct belt of slightly more mature trees than is found at Zone A (between 4 and 5+ metres high). Its proximity to the River Clyde makes this a 'riparian zone'. Riparian woodlands are important features for river health and climate change resilience. Therefore this area may be of high conservation value.

This zone is dominated by Birch, Willows and Alder (*Alnus glutinosa*) trees. The understory of this is mainly dominated by grasses, but also contains brambles (*Rubus fruticosus*), wild strawberries (*Fragaria vesca*) and various other plants. One non-native invasive species has been identified in this area – Few-flowered Leek (*Allium paradoxum*) which has the potential to out-compete native species if left unattended.

Zone D.

Zone D is dominated mainly by young trees (e.g. Birch as well as Common Broom (*Cytisus scoparius*)). These trees are much younger than those found at either Zone A or Zone C (only between 2-3m high). The main appeal to preserving the habitat at this area is its proximity to the Pacific Quay area mentioned earlier. This would be a nodal point for an ecological corridor in/out of the docks and throughout the surrounding area.

Spoil Heaps

Spoil heaps are common on OMHPDL sites and provide excellent habitat for amphibians and invertebrates. The heaps on this site are composed of various sizes of rubble. The largest being made from cobblestones (Around the size of a rugby ball), and the smallest being composed of a very coarse sand/fine gravel.

These heaps are clearly supporting vegetation, primarily buddleia and willow, though birch can also be found growing.

If development should occur on site, these heaps should be surveyed to determine presence of any key invertebrates or amphibians.

Conclusion.

The Govan Graving Docks contain UK Biodiversity Action Plan 'Priority Habitats' and are therefore of nature conservation value.

Species present on the site are currently under-recorded relative to the surrounding area. A pipistrelle bat sighting was recorded in 2002. Pipistrelle bats are a protected species, and roosting sites should be noted to ensure protection if development is to occur.

It may be possible to create linkages between the Govan Docks and another nearby places. This would improve both connectivity for people and wildlife in an out of the docklands.

Habitat mapping has outlined the habitat distribution at the site, however further work is needed to increase detail and determine exactly which species are found.

In future, if development of any kind should occur here, the wildlife and habitats which have developed over the past 30 years should be catalogued and preserved. Areas of highest/lowest nature conservation value should be identified to assess where development would have the least impact. In doing so, this would create a new greenspace area for the people of Govan, without excluding the opportunity for new economic activities taking place at the site.

If the site is left for nature conservation, more detailed assessment of site biodiversity should be made. Requirements for management should be explored through the creation of a conservation management plan, which would serve as a guide to conserve and create new habitats on the site.



References

¹ UK Biodiversity Action Plan Priority Habitat Descriptions. July 2010. <https://data.jncc.gov.uk/data/a81bf2a7-b637-4497-a8be-03bd50d4290d/UKBAP-BAPHabitats-40-OMH-2010.pdf>

² NBN Atlas. <https://nbnatlas.org/>

³ iNaturalist (Glasgow). <https://www.inaturalist.org/projects/wildlife-of-glasgow>

⁴ Bats and the Law. *Bat Conservation Trust*. <https://www.bats.org.uk/advice/bats-and-the-law>

⁵ Handbook for Phase 1 habitat survey. *JNCC*. <https://data.jncc.gov.uk/data/9578d07b-e018-4c66-9c1b-47110f14df2a/Handbook-Phase1-HabitatSurvey-Revised-2016.pdf>

⁶ Exploring the City of Rubble: Botanical Fieldwork in Bombed Cities in Germany after World War II. <https://www.journals.uchicago.edu/doi/abs/10.1086/649386>

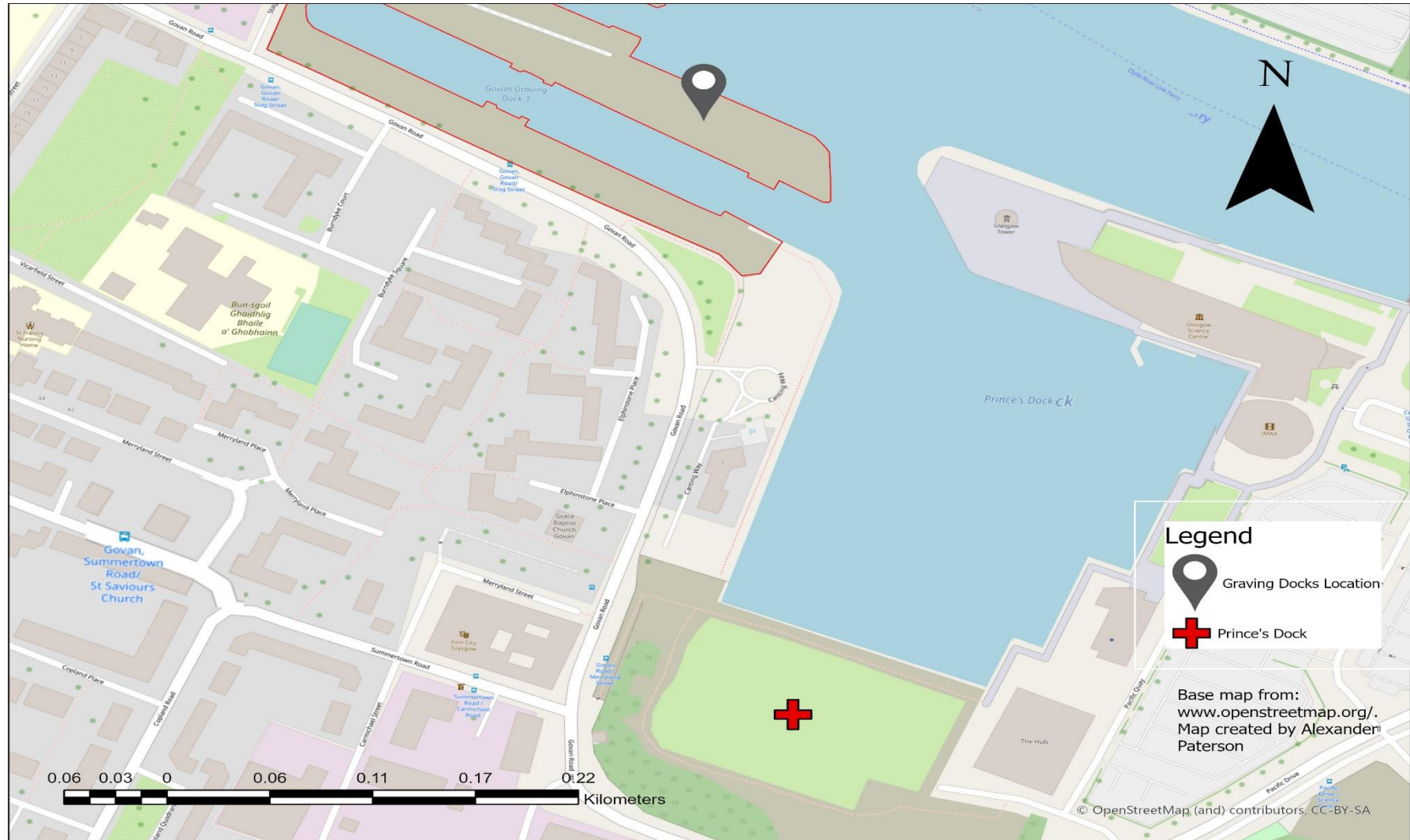
⁷ Fourth National Planning Framework: position statement. *Scottish Government* <https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/pages/7/>

⁸ JNCC UK Biodiversity Plan (post 2010) <https://jncc.gov.uk/our-work/uk-bap/#the-uk-post-2010-biodiversity-framework>

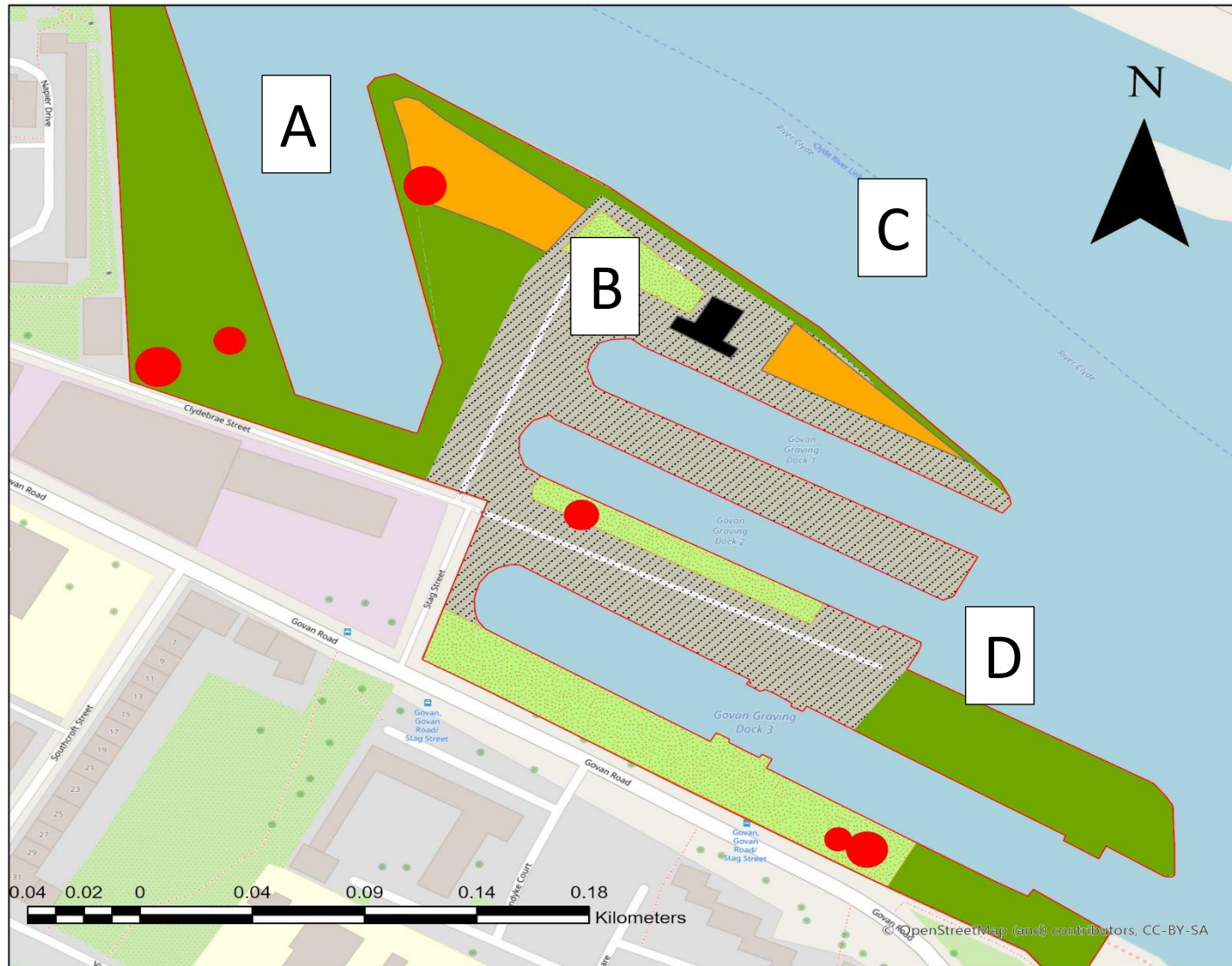
⁹ Scotlands Land Use Strategy 2021-2026 <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2021/03/scotlands-third-land-use-strategy-2021-2026-getting-best-land/documents/scotlands-third-land-use-strategy-2021-2026-getting-best-land/scotlands-third-land-use-strategy-2021-2026-getting-best-land/govscot%3Adocument/scotlands-third-land-use-strategy-2021-2026-getting-best-land.pdf?forceDownload=true>

Appendices

Appendix 1.



Appendix 2 – Habitat Map



Phase 1 Habitat Map of Govan Graving Docks

Legend

- Site Boundary
- Pump House
- Bare Ground
- Loose scrub
- Dense Scrub
- Grassland
- Spoil

Legend based on NVC phase 1 habitat survey guidance.
Base map from:
www.openstreetmap.org/.
Map created by Alexander Paterson

