

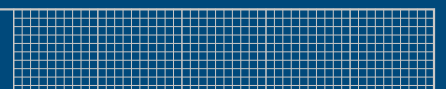


ElAR Volume 4: Offshore Infrastructure Technical Appendices Appendix 4.3.6–9: Intertidal Bird Surveys at Shanganagh WWTP – Winter 2023/24

Kish Offshore Wind Ltd

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Dublin Array Offshore Wind Farm

Environmental Impact Assessment Report

Volume 4, Appendix 4.3.6-9: Intertidal Bird Surveys at Shanganagh
WWTP – Winter 2023/24

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Acronyms

Term	Definition
AA	Appropriate Assessment
BoCCI	Birds of Conservation Concern in Ireland
BTO	British Trust of Ornithology
Dublin Array	Dublin Array Offshore Wind Farm
ESAS	European Seabirds at Sea
EU	European Union
GIS	Geographical Information System
ITM	Irish Transverse Mercator
I-WeBS	Irish Wetland Bird Survey
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
NPWS	National Parks and Wildlife Service
SCI	Special Conservation Interest
SLR	SLR Environmental Consulting (Ireland) Ltd
SPA	Special Protection Area
VP	Vantage Point

1 Introduction

1.1 Introduction

- 1.1.1 SLR Environmental Consulting (Ireland) Ltd (SLR) was commissioned by Kish Offshore Wind Limited and Bray Offshore Wind Limited in September 2023 to carry out a non-breeding intertidal bird survey programme for the landfall location in Dublin Bay for the proposed Dublin Array Offshore Wind Farm (Dublin Array).

1.2 Project background

- 1.2.1 Dublin Array Offshore Wind Farm (Dublin Array) is a proposed offshore wind farm on the Kish and Bray Banks. The Kish and Bray Banks are located approximately 10 km off the east coast of Ireland, immediately south of Dublin city off the coast of Dún Laoghaire, Co. Dublin and Bray, Co. Wicklow. The offshore wind farm will be located within an area of approximately 59 km², in water depths ranging from 2 m to 50 m at lowest astronomical tide (LAT). The project is being developed by Kish Offshore Wind Limited (hereafter referred to as the Applicant).
- 1.2.2 At this stage of the project development the applicant has identified the landfall location for the proposed sub-sea grid connection cable. The landfall location is at Shanganagh, adjacent to the wastewater treatment plant (WWTP). Two cable circuits will be required to come ashore at Shanganagh.
- 1.2.3 Two vantage points (VPs) at Shanganagh Park (VP1) and Shanganagh (VP2) were previously surveyed by SLR during winter 2019/20 and autumn 2020 where more than one potential landfall location was being considered. As Shanganagh Park is no longer being considered as a potential landfall location, only VP2 was surveyed during the current 2023/24 winter season.
- 1.2.4 Shanganagh is bordered by Shankill Beach, which is a shingle beach which stretches for approximately 4.5 km from the electoral district of Killiney South in a southerly direction to the electoral district of Shankill/Shanganagh. The foreshore width along the beach is relatively narrow, ranging approximately 15 to 20 m from the upper shore to the highwater mark. The intertidal zone is also relatively narrow with an approximate horizontal range difference of 5 m to 7 m between the high and low water mark.

- 1.2.5 The study area for the landfall location at Shanganagh Cliffs (see Section 2.2 and Figure 1; Appendix 1 Drawings) lies outside any EU site designated for nature conservation. The closest Special Protection Area (SPA) designated for the protection for bird species is Dalkey Islands SPA (Site Code: 004172), which is situated approximately 3.1 km northeast of the northern boundary of the landfall location. Dalkey Islands SPA is designated for the protection of roseate tern (*Sterna dougallii*), common tern (*Sterna hirundo*) and Arctic tern (*Sterna paradisaea*). All three of these species are breeding migrants to Ireland. While the current study relates to non-breeding birds, surveys were carried out during the autumn migration period, so post-breeding terns from this SPA have been considered within the scope of this report.
- 1.2.6 The next closest EU designated site to the study area is the South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), which is located approximately 6.1 km to the north west of the landfall location. This site is potentially more relevant to the current study as it is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex. At the time of its designation (March 1995), this SPA supported internationally important numbers of light-bellied brent goose (*Branta bernicla hrota*) and nationally important numbers of a further nine species, namely, Eurasian oystercatcher (*Haematopus ostralegus*), common ringed plover (*Charadrius hiaticula*), grey plover (*Pluvialis squatarola*), red knot (*Calidris canutus*), sanderling (*Calidris alba*), dunlin (*Calidris alpina*), bar-tailed godwit (*Limosa lapponica*), common redshank (*Tringa totanus*) and black-headed gull (*Chroicocephalus ridibundus*) (Department of Arts, Heritage and the Gaeltacht, 2015). Other species occurring in smaller numbers include great crested grebe (*Podiceps cristatus*), Eurasian curlew (*Numenius Arquata*) and ruddy turnstone (*Arenaria interpres*). South Dublin Bay is a significant site for wintering gulls, with a nationally important population of black-headed gull, but also common gull (*Larus canus*) and European herring gull (*Larus argentatus*). Mediterranean gull (*Ichthyophaga melanocephalus*) is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter. Although some use of the study area by birds forming part of the South Dublin Bay and River Tolka Estuary SPA cannot be ruled out, given the intervening distance it is considered to be unlikely that there is any regular interchange of birds between the study area and the SPA. This issue will be examined further within the appropriate assessment (AA) screening report and as a precaution, this SPA has been included within the scope of this report.
- 1.2.7 The above notwithstanding, national and SPA Irish Wetland Bird Survey (I-WeBS) data were reviewed (Lewis *et al.*, 2019) in relation to the results of the current study in order to provide some context regarding the relative abundance of waterbird species recorded (see Section 4 - Discussion and conclusions).

1.3 Study and report scope

1.3.1 The purpose of this report is to provide robust baseline ornithological survey data of non-breeding waterbird species density, abundance, distribution and patterns of behaviour within the study area during the winter period 2023/24 and the 2023 autumn migration period. These data will be used to inform the ecological impact assessment and AA for the project. The scope was agreed with the client as follows:

- To carry out monthly survey visits to the study area throughout the winter of 2023/24 which would follow the I-WeBS methodology;
- To analyse data from the field survey visits in a Geographical Information System (GIS); and
- To produce a report presenting the results of the field surveys, drawing conclusions where possible.

2 Methodology

2.1 Field surveys

- 2.1.1 The field survey methodology is set out below. The methodology and associated recording forms were based on the I-WeBS methods (BirdWatch Ireland and National Parks and Wildlife Service (NPWS), 2009) with some minor adjustments developed by SLR and agreed with the applicant.
- 2.1.2 Surveys were undertaken by SLR Project Ecologist, Alice Magee (AM) and independent Ornithologist, Brian Porter (BP).
- 2.1.3 Alice is a Project Ecologist with SLR and holds a BSc in Zoology from University College Dublin and an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. Alice has two years' experience in conducting ornithological surveys for wind farm projects, including extensive experience conducting intertidal bird surveys and vantage point surveys.
- 2.1.4 Brian has worked in wildlife consultancy since 2001 and holds a 'European Seabirds at Sea' (ESAS) certificate from Joint Nature Conservation Committee (JNCC). Brian has worked on a wide variety of ornithology surveys for many wind farms in Ireland throughout his career.

2.2 Study area

- 2.2.1 VP2 was located at Irish Transverse Mercator (ITM) coordinates 725982.603, 723180.303.
- 2.2.2 This location was chosen to maximise visibility of birds within the intertidal zone up to 750 m to the north and to the south of the potential cable landfall location i.e. a total shoreline distance of 1.5 km and looking east out to 1 km offshore. Figure 1 in Appendix 1 Drawings shows an outline of the study area together with the VP, the potential subsea cable route corridors and cable landfall location. Illustrative plates showing the views from the VP are presented in Appendix 2 Illustrative Plates.

2.3 Survey timings

- 2.3.1 The landfall location was visited four times per month. The visits were coordinated so that counts were made of each of the four possible tidal states (rising type 1, ebbing type 1, rising type 2 and ebbing type 2¹) per calendar month. The survey times are presented in Table 1 Survey dates, times and tides.

¹ Rising type 1 starts 4 h before high tide; ebbing type 1 starts 1 h after high tide; rising type 2 starts 1 h after low tide; ebbing type 2 starts 4 h before low tide.

Table 1 Survey dates, times and tides

Date	Start time	End time	Tidal state	Tide time
25/09/2023	09:46	12:46	Ebbing type 1	High tide: 08:46
25/09/2023	15:23	18:23	Rising type 2	Low tide: 14:23
28/09/2023	12:56	15:56	Ebbing type 2	Low tide: 16:56
29/09/2023	08:19	11:19	Rising type 1	High tide: 12:19
10/10/2023	11:19	14:19	Ebbing type 1	High tide: 10:19
13/10/2023	07:56	10:56	Rising type 1	High tide: 11:56
24/10/2023	10:04	13:04	Ebbing type 2	Low tide: 14:04
24/10/2023	15:04	18:04	Rising type 2	Low tide: 14:04
01/11/2023	09:26	12:26	Rising type 1	High tide: 13:26
07/11/2023	08:52	11:52	Ebbing type 2	Low tide: 12:45
07/11/2023	13:45	16:45	Rising type 2	Low tide: 12:45
08/11/2023	09:26	12:26	Ebbing type 1	High tide: 08:26
11/12/2023	11:43	14:43	Ebbing type 2	Low tide: 15:43
13/12/2023	12:28	15:28	Ebbing type 1	High tide: 11:28
18/12/2023	11:28	14:28	Rising type 1	High tide: 15:28
19/12/2023	10:39	13:39	Rising type 2	Low tide: 09:39
02/01/2024	11:47	14:47	Rising type 1	High tide: 15:47
03/01/2024	10:46	13:46	Rising type 2	Low tide: 09:46
09/01/2024	11:16	14:16	Ebbing type 2	Low tide: 15:16
10/01/2024	11:21	14:21	Ebbing type 1	High tide: 10:21
12/02/2024	09:04	12:04	Rising type 1	High tide: 13:04
12/02/2024	14:04	17:04	Ebbing type 1	High tide: 13:04
19/02/2024	14:29	17:29	Rising type 2	Low tide: 13:29
22/02/2024	12:28	15:28	Ebbing type 2	Low tide: 16:28
04/03/2024	14:02	14:54	Rising type 1	High tide: 18:02
06/03/2024	09:50	12:50	Ebbing type 2	Low tide: 13:44
06/03/2024	14:44	17:44	Rising type 2	Low tide: 13:44
28/03/2024	14:14	17:14	Ebbing type 1	High tide: 13:14

2.4 Relative abundance and species distribution

- 2.4.1 The numbers and locations of all waterbirds² visible from each vantage point were mapped every 30 minutes throughout the duration of each survey to determine the abundance and distribution of birds across a range of tidal states. A separate datasheet and field map were used for each count. Where flocks of birds were present, the location of each flock was recorded on the field map at the approximate central point. Bird flyovers and flypasts were also recorded on field maps and datasheets. However, as these do not represent birds that are using the study area for any behaviours other than transit, these are not counted within the relative abundance or distribution figures presented in this report.
- 2.4.2 If disturbance events were noted during counts (see below), then the focus switched to the disturbance event with the count resuming once the event had concluded.

2.5 Flock behaviours

- 2.5.1 There were four primary flock behaviours observed in all species. These behaviours are listed below together with their definitions:
- ▲ Foraging – Obvious feeding behaviours such as searching in flight above the water, diving for prey, searching along the shore on foot and probing the substrate for prey.
 - ▲ Loafing – Idle flying behaviour not connected with feeding or travelling in any specific direction.
 - ▲ Roosting – Resting on the water, shoreline or rocky outcrops.
 - ▲ Maintenance – Preening, bathing, drying of feathers.
- 2.5.2 The behaviours of each individual bird or flock of birds were recorded as such during each count in order to provide an indication of how birds use the study area.

2.6 Disturbance events and responses

- 2.6.1 During each survey period, all potentially disturbing events visible from the survey point were recorded, including those where no evidence of disturbance of waterbirds was observed.
- 2.6.2 Potential disturbance events that may have affected the accuracy of each count included:
- ▲ Walkers;
 - ▲ Dogs;

² The term 'waterbirds' is defined as birds that are ecologically dependent on wetlands (Ramsar Convention, 1971) and is synonymous with waterfowl (Wetlands International, 2012).

- ▲ Anglers;
 - ▲ Bait Diggers;
 - ▲ Shell-Fishers;
 - ▲ Vehicles;
 - ▲ Unpowered Boats;
 - ▲ Powered Boats; and
 - ▲ Other.
- 2.6.3 The 'other' category included any potential anthropogenic disturbance events that could not be attributed to one of the other categories. Examples might include people on stand-up paddleboards or kayaks, etc. The nature of each 'other' disturbance event was recorded on each occasion.
- 2.6.4 For each potential disturbance event the following information was collected on the same recording form as the bird numbers (Appendix 3 Raw Field Data):
- ▲ Disturbance response (where relevant) as follows:
 - Low – birds move slightly away from disturbance but continue their behaviour;
 - Moderate – birds move to another part of the study area, may return to original position;
 - High – birds move out of the study area completely and are not observed returning.
- 2.6.5 The approximate distance at which each reaction took place and, where possible, the approximate distance to which birds walked/swam/flew was also recorded. Distances were estimated by eye using the known location of specific features to assist in distance estimation. Where relevant and where possible, the time at which flushed birds returned to the area of disturbance and/or the time at which birds continued the activity they were engaged in prior to the disturbance event, e.g. foraging, was also recorded. However, this was not consistently achieved for practical reasons (i.e. attention was diverted to recording other disturbance events or undertaking half-hourly counts).

2.7 Survey limitations

One rising type 1 survey in March 2024 was abandoned after one hour due to adverse weather conditions, and the survey was not repeated due to staff and time constraints. However, considering that 82 hours of surveys were completed out of the expected 84 hours (98%), and that surveys undertaken around high tide generally recorded lower numbers of birds, this is not likely to have significantly affected the results. Details of weather conditions during surveys are provided in Appendix 3 Raw Field Data.

2.8 Data analysis

- 2.8.1 On completion of the field surveys waterbird count data were digitised and entered into ArcGIS (version 10.5.1). Species distribution and relative abundance across the entire survey season were mapped using proportional symbology, i.e. the numbers of each species recorded during each count are presented in proportion to one another using circular symbols increasing in size, thus illustrating the relative abundance and distribution of species usage of the study area across the entire survey season. Maps are presented for each species in Appendix 1 Drawings.
- 2.8.2 In order to provide some context to the current survey data relative to national and SPA species populations, the peak count for each species in each month (i.e. the peak count recorded on any one of the six half-hourly counts) has been identified, allowing comparison with the most recently available 5-year peak species counts (2011/12 to 2015/16) recorded at I-WeBS sites supporting waterbird numbers of national importance (Lewis *et al*, 2019). Given that the I-WeBS dataset covers a five-year period, it is acknowledged that there are some limitations in the direct comparability of these two datasets. As such, a degree of caution is warranted when making comparisons in numbers. However, by comparing the peak counts for each species between the two datasets, some context in numbers of birds using the study area can be obtained relative to the national and SPA populations.
- 2.8.3 Summary disturbance data recorded at the VP are presented in this report in order to provide information regarding existing levels of disturbance within the study area. However, the detailed analysis of disturbance data was outside the scope of this study and as such, it was not deemed necessary to map disturbance events and responses within the GIS.

3 Results

3.1 Field survey

Relative abundance and species distribution

- 3.1.1 The relative abundance and the distribution of individual species recorded within the study area are shown in Figure 1 to Figure 29 (Appendix 1 Drawings). These figures illustrate how the various species tend to use the site across the survey season. The figures are arranged taxonomically to best illustrate any taxonomic variations or similarities in site usage by species assemblages. Count data for each individual count on each survey (six counts per survey) are provided in Appendix 3 Raw Field Data.
- 3.1.2 Overall, these figures show that most waterbird taxa such as gulls, wildfowl, divers, cormorants and shags were recorded on or over the water offshore out to 1 km. As expected, wader species such as Eurasian oystercatcher, common ringed plover and ruddy turnstone tended to be observed foraging along the water's edge. The shoreline was less utilised by waterbirds owing to its narrow foreshore and absence of a strand, except for the mouth of the Shanganagh River, which enters the sea approximately 200 m to the north of VP2. Small to medium sized flocks of gulls and waders (c. n = 2-106+) were recorded foraging in this area throughout the survey season.

Peak count data

- 3.1.3 Table 2 shows the peak counts of each waterbird species recorded, for each month, throughout the survey period. Table 2 also show the proportional frequency of observation for each species, i.e. the proportion of half-hourly counts on which each species was recorded, to show how regularly each species uses the survey area.

Table 2 Peak counts of waterbird species recorded from VP2

Species	No. of counts in which species observed	Proportional frequency of observations	September	October	November	December	January	February	March
Bar-tailed godwit	1	<1%	-	-	-	2	-	-	-
Black guillemot (<i>Cephus grille</i>)	6	4%	-	-	-	-	-	14	-
Black-headed gull	113	69%	25	8	12	29	20	25	23
Brent goose (light-bellied)	3	2%	-	-	-	-	50	-	200
Common guillemot (<i>Uria aalge</i>)	16	10%	-	1	2	1	-	-	2
Common gull	5	3%	-	2	5	1	-	1	-
Common kestrel (<i>Falco tinnunculus</i>)	1	<1%	-	-	-	-	1	-	-
Common ringed plover	28	17%	40	35	25	40	4	14	-
Common tern	1	<1%	2	-	-	-	-	-	-
Eurasian curlew	1	<1%	-	-	-	-	-	-	3
Eurasian oystercatcher	39	24%	14	25	26	20	30	23	20
European herring gull	150	91%	47	106	27	46	22	71	27

Species	No. of counts in which species observed	Proportional frequency of observations	September	October	November	December	January	February	March
European shag (<i>Phalacrocorax aristotelis</i>)	71	43%	1	2	3	15	4	4	2
Great black-backed gull (<i>Larus marinus</i>)	109	66%	6	3	3	4	4	3	2
Great cormorant (<i>Phalacrocorax carbo</i>)	87	53%	4	3	4	6	1	6	1
Grey heron (<i>Ardea cinerea</i>)	2	1%	-	1	-	-	-	-	-
Grey wagtail (<i>Motacilla cinerea</i>)	1	<1%	-	-	-	1	-	-	-
Lesser black-backed gull (<i>Larus fuscus</i>)	2	1%	-	-	1	-	-	-	2
Mediterranean gull	36	22%	19	45	2	2	4	28	5
Northern gannet (<i>Morus bassanus</i>)	5	3%	1	1	-	-	-	-	-
Razorbill (<i>Alca torda</i>)	8	5%	1	-	-	3	-	2	-

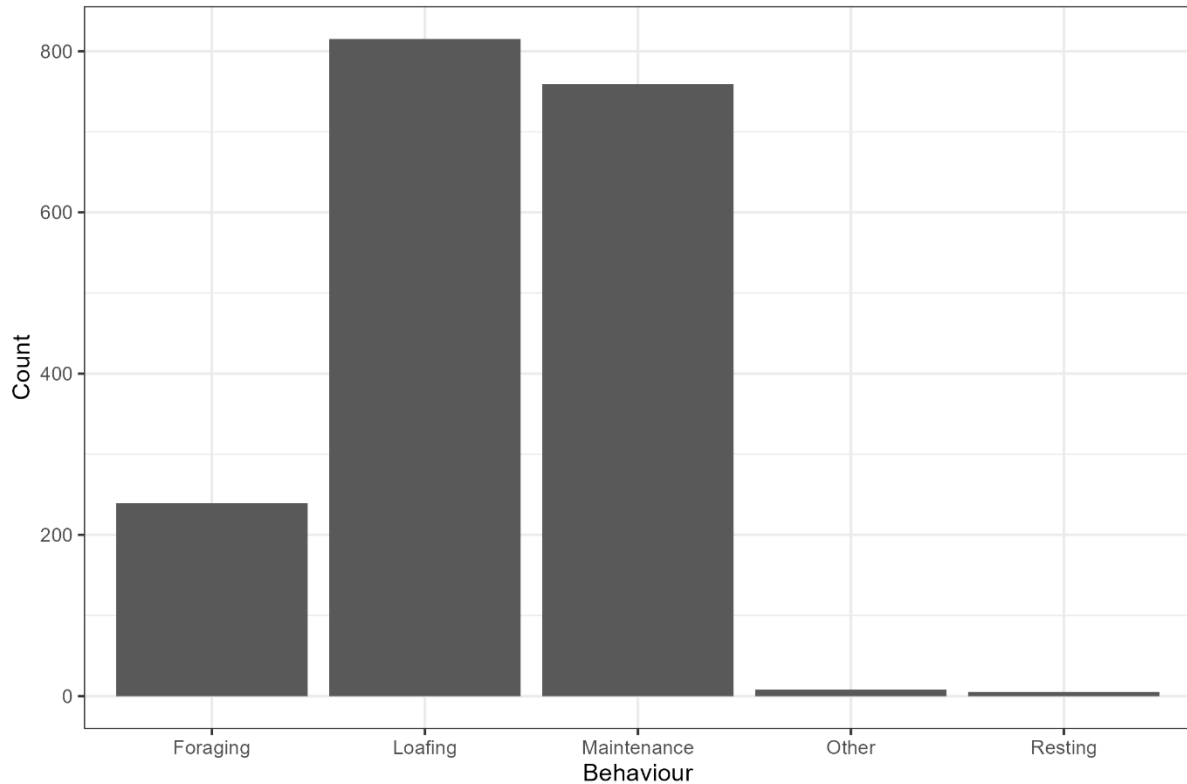
Species	No. of counts in which species observed	Proportional frequency of observations	September	October	November	December	January	February	March
Red-throated diver (<i>Gavia stellata</i>)	10	6%	-	1	-	3	-	1	-
Ruddy turnstone	26	16%	20	5	5	2	1	2	-
Sand martin (<i>Riparia riparia</i>)	1	<1%	7	-	-	-	-	-	-
Sandwich tern (<i>Thalasseus sandvicensis</i>)	1	<1%	1	-	-	-	-	-	-

- 3.1.4 There were at least 25 species recorded from VP2 throughout the survey period. As expected, in general, *Laridae* (gull species) and *Phalacrocoracidae* (shags and cormorants) were the most frequently occurring taxa using the study area.
- 3.1.5 European herring gull was recorded during 91% of counts from VP2 throughout the season, making it the most frequently recorded species. European herring gull showed a peak count of 106 individuals in October. The only other species recorded during >50% of counts were black-headed gull (recorded during 69% of counts, with a peak count of 29 recorded in December), great black-backed gull (recorded during 66% of counts, with a peak count of six recorded in September), and great cormorant (recorded during 53% of counts, with a peak count of six recorded in December and February).
- 3.1.6 European shag was the next most frequently recorded species with birds recorded during 43% of counts. A peak count of 15 individuals was recorded in December, but all other observations consisted of four individuals or less.
- 3.1.7 Excluding gulls, the highest peak count for any species was light-bellied brent goose (n = 220). However, when we inspect the frequency of this species (Table 2), the data shows that light-bellied brent goose was only recorded during three counts during the survey period. This species was recorded during two counts in January (n = 50 and n = 12) and one count in March (n = 220). These data show that although some peak counts of light-bellied brent goose were relatively high, the frequency of their occurrence within the study area was low. It is likely that the March count was exceptionally high due to the geese gathering in preparation for spring migration. This species was recorded flying from the cliffs and it was not clear whether the geese were using the survey area.
- 3.1.8 All other species were recorded in frequencies of less than 39 times (24%) over the entire season with peak counts below 45. The only tern species recorded were common tern and sandwich tern, with two and a single individual recorded in September 2023 for each species, respectively. The observations likely represented birds on passage as they were recorded during the autumn migration period.

Flock behaviours

- 3.1.9 Loafing was the most frequently recorded behaviour throughout the entire survey season (45%). Maintenance was the next most frequently recorded behaviour observed, followed by foraging, other and resting respectively. Chart 1 provides illustrative representation.
- 3.1.10 It must be noted that some species would not have displayed all these behaviours and some species may have displayed only one or two of these behaviours. The time spent engaged in each behaviour is also likely to vary by species. The behavioural data are presented for all species combined to provide an overall indication of site usage only.

Chart 1 Observations of primary behaviours recorded throughout the survey season



Disturbance event and responses

3.1.11 A total of 46 disturbance events were logged over all surveys throughout the survey season. There were four disturbance types recorded. The number of disturbance events of each type recorded is provided in Table 3. Further details of each event are provided in Appendix 3 Raw Field Data.

Table 3 Number of disturbance events of each type recorded throughout the survey season

Disturbance type	Total
Walkers with dogs	29
Walkers	13
Other	2
Power boats	2

3.1.12 Walkers with dogs were the most frequently recorded source of disturbance recorded throughout the survey season (n = 29).

- 3.1.13 Herring gull was the species recorded as being most frequently disturbed throughout the survey season (n = 11 events; see Appendix 3 Raw Field Data for data). This is most likely because it was the species most frequently recorded distributed along the shoreline (Figure 13), whereas many of the other species were primarily distributed over or on the water.
- 3.1.14 The strength of behavioural response to disturbance events by birds (all waterbird species combined) recorded is provided in Table 4. Further details of each event are provided in Appendix 3 Raw Field Data.

Table 4 Strength of behavioural responses to disturbance events by birds

Disturbance type	no response	weak	moderate	high	total
Walkers with dogs	1	13	7	8	29
Walkers	-	4	1	8	13
Other	-	2	-	-	2
Power boats	1	1	-	-	2

- 3.1.15 Most behavioural responses to disturbance events were recorded as being weak in strength i.e. birds moved slightly away from disturbance but continue their behaviour. Most of these weak disturbance events were caused by walkers with dogs (n = 13). This disturbance type, along with walkers without dogs, was also noted as being the source of the greatest number of high responses to disturbance events (n = 8 and n=8, respectively), i.e. birds moved out of the study area completely and were not observed returning). There were seven responses to walkers with dogs which were recorded as being moderate i.e. birds moved to another part of the site and may have returned to their original position later. There was only one disturbance event relating to walkers with dogs which elicited no response.

4 Discussion and conclusions

4.1 Peak count data

4.1.1 Peak counts for each of the waterbird species which were recorded within the study area during the survey period are shown in Table 5. By way of providing context to the results of the current study, these data are presented alongside the most recent national non-breeding population data, i.e. the national five year mean peak count I-WeBS data for the period 2011/12-2015/16 (Lewis *et al.*, 2019), where such data are available. The proportion of the national population recorded at the vantage point is also presented. No special conservation interest (SCI) birds for Dalkey Islands SPA were recorded. However, SCI birds from South Dublin Bay and River Tolka Estuary SPA were recorded. Additional context has also been provided by presenting the most recent SPA population data. This was taken from the Dublin Bay I-WeBS site, which covers both North Bull Island SPA, and South Dublin Bay and River Tolka Estuary SPA. These two SPA sites are inextricably linked. While the Dublin Bay population counts are presented, it is acknowledged that they will be larger than for the South Dublin Bay and River Tolka Estuary population alone.

Table 5 Peak counts of waterbird species recorded across the survey period

Species	Peak count	ROI population (five year mean peak 2011/12-2015/16)	% of the ROI population recorded from VP2	Dublin Bay population (five year mean peak 2011/12-2015/16)	% of Dublin Bay population recorded from VP2
Bar-tailed godwit	1	13,385	0.007%	2,119	0.05%
Black guillemot	6	No data	-	Not SCI	Not SCI
Black-headed gull	29	57,892	0.05%	3,131	0.9%
Brent goose (light-bellied)	220	30,295	0.7%	3,747	5.9%
Common guillemot	2	No data	-	Not SCI	Not SCI
Common gull	5	30,216	0.02%	Not SCI	Not SCI
Common ringed plover	40	10,545	0.4%	168	23.8%
Common tern	2	No data	-	23	Calculation not possible using I-WeBS data

Species	Peak count	ROI population (five year mean peak 2011/12-2015/16)	% of the ROI population recorded from VP2	Dublin Bay population (five year mean peak 2011/12-2015/16)	% of Dublin Bay population recorded from VP2
Eurasian curlew	3	28,300	0.01%	Not SCI	Not SCI
Eurasian oystercatcher	29	42,875	0.07%	3,115	0.9%
European herring gull	106	13,959	0.7%	Not SCI	Not SCI
European shag	15	1,948	0.8%	Not SCI	Not SCI
Great black-backed gull	6	4,392	0.1%	Not SCI	Not SCI
Great cormorant	6	7,967	0.07%	Not SCI	Not SCI
Grey heron	2	1,943	0.1%	Not SCI	Not SCI
Grey wagtail	1	No data	-	Not SCI	Not SCI
Lesser black-backed gull	2	20,832	-	Not SCI	Not SCI
Mediterranean gull	45	439	10%	Not SCI	Not SCI
Northern gannet	1	No data	-	Not SCI	Not SCI
Razorbill	3	No data	-	Not SCI	Not SCI
Red-throated diver	3	657	0.4%	Not SCI	Not SCI
Ruddy turnstone	15	6,296	0.2%	Not SCI	Not SCI
Sand martin	7	No data	-	Not SCI	Not SCI
Sandwich tern	45	No data	-	Not SCI	Not SCI

4.1.2 Although caution must be applied when comparing numbers from datasets which are not directly comparable, Table 5 indicates that the peak counts recorded represent considerably less than 1% of the national population for the vast majority of species recorded during the current survey. Similarly, for those species that are SCIs of South Dublin Bay and River Tolka Estuary SPA, bar-tailed godwit, black-headed gull and oystercatcher represent less than 1% of the SPA population. Species that represent more than 1% of the SPA population include light-bellied brent goose and common ringed plover.

- 4.1.3 There is one exception to this finding, Mediterranean gull, for which numbers within the study area appear to represent 10% of the national population. However, Lewis *et al.* (2019) report that, although recording gulls during I-WeBS counts is optional, comparisons of sites that have consistently opted to do so illustrates that there has undoubtedly been an increase in numbers of wintering Mediterranean gull in Ireland in recent years. They also report that it is not possible to determine a trend for this species in Ireland based on I-WeBS data, because counting gulls is optional. Thus, the current national population is likely to be greater than the figure of 439 provided by Lewis *et al.* (2019). The peak count of 45 recorded during the surveys is therefore likely to represent less than 10% of the national population but is it possible that it forms part of a nationally important population wintering within the survey area and the wider Dublin Bay area. While they are listed under Annex I of the Birds Directive, Mediterranean gull is not listed as an SCI for any SPAs in Ireland; however, they are amber-listed according to the latest Birds of Conservation Concern in Ireland (BoCCI 4) assessment (Gilbert *et al.*, 2021).
- 4.1.4 There are several species for which national wintering population data are unavailable, namely northern gannet, common tern, sandwich tern, sand martin, common guillemot, razorbill and black guillemot. Common tern, sandwich tern and sand martin are summer migrants to Ireland so they are not covered by the I-WeBS data. The remaining species are largely pelagic in winter, with only rare occurrences along the coast outside of the breeding season. As such, it is likely that accurate national wintering population estimates for these species are not possible. This is also evident in the very low peak counts and frequencies of these species recorded during the current study and as such, these numbers are unlikely to be of national importance.
- 4.1.5 Based on Table 5, it can be concluded that numbers of Mediterranean gull recorded during the winter survey season 2023/24 are possibly of national importance. For all other waterbird species, it can be concluded that numbers recorded during the survey season are not of national importance.
- 4.1.6 Similarly, it can be concluded that the numbers of light-bellied brent goose and common ringed plover recorded during the winter survey season 2023/24 are possibly of importance to the South Dublin Bay and River Tolka Estuary SPA population. For all other waterbird species, it can be concluded that numbers recorded during the survey season are not of importance to this SPA.

5 References

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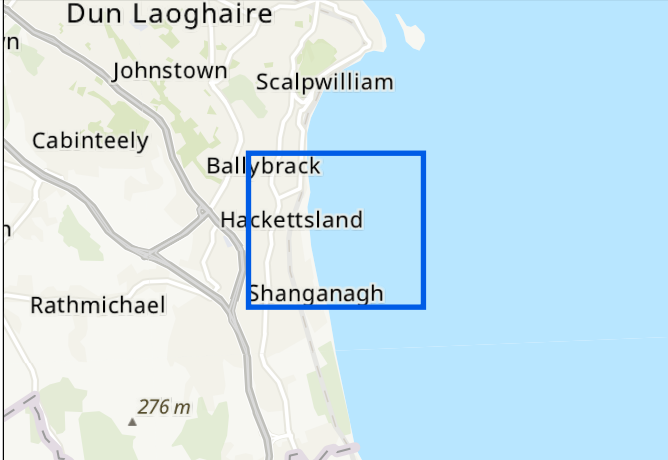
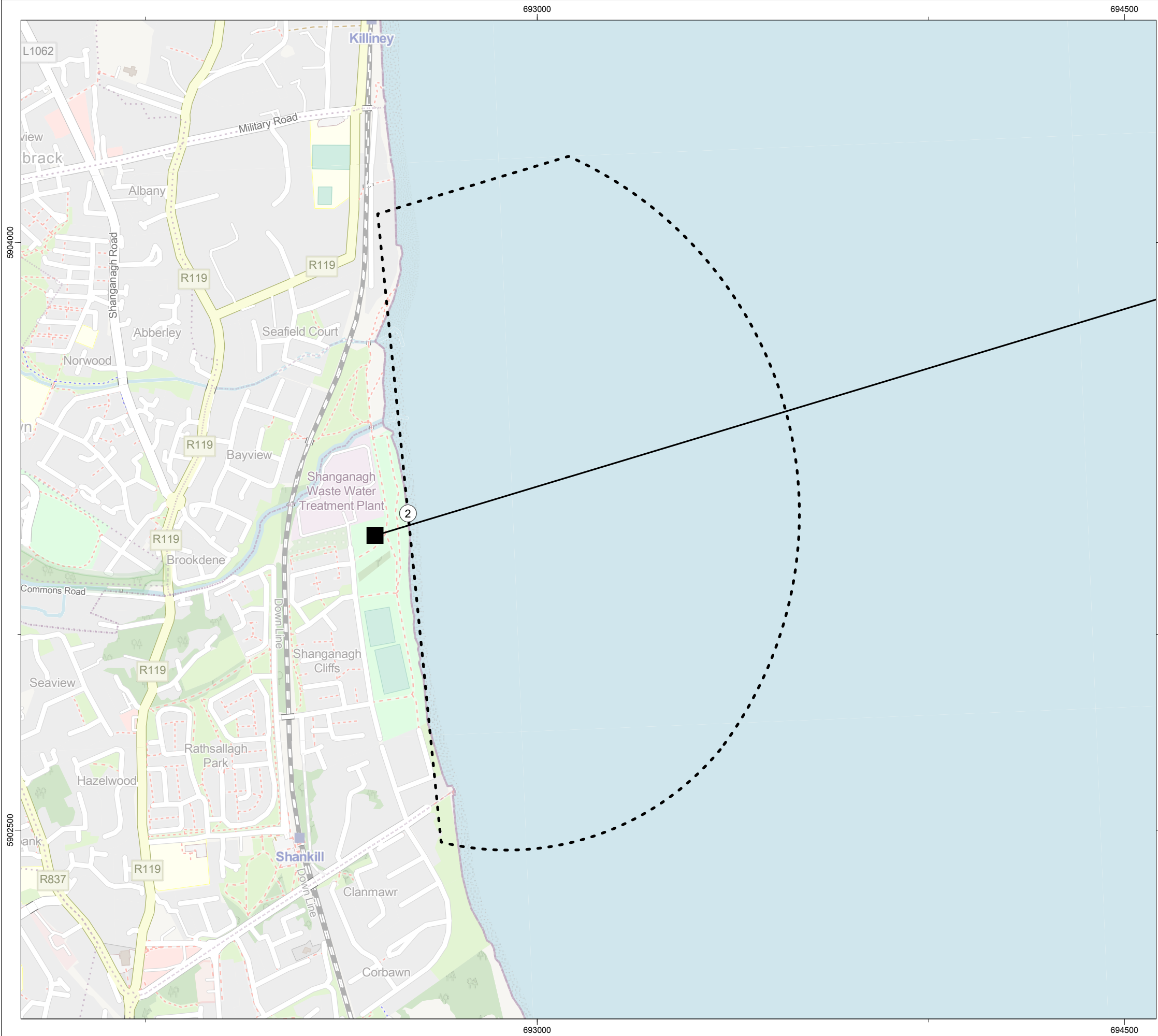
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Appendix 1 Drawings



- Potential Landfall Location
- Potential Subsea Cable Route Corridor
- Study Area
- Vantage Point

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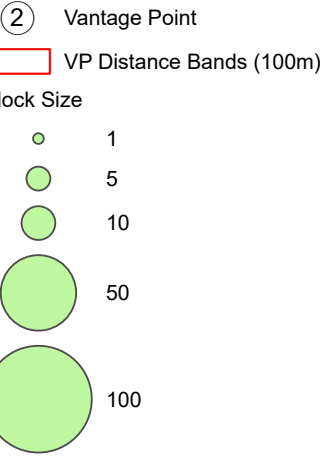
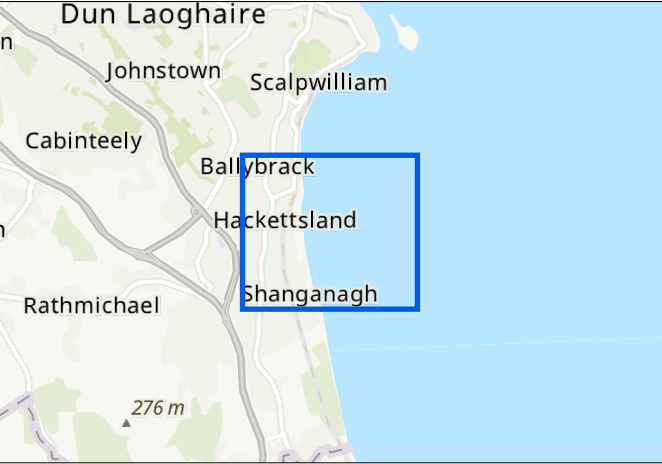
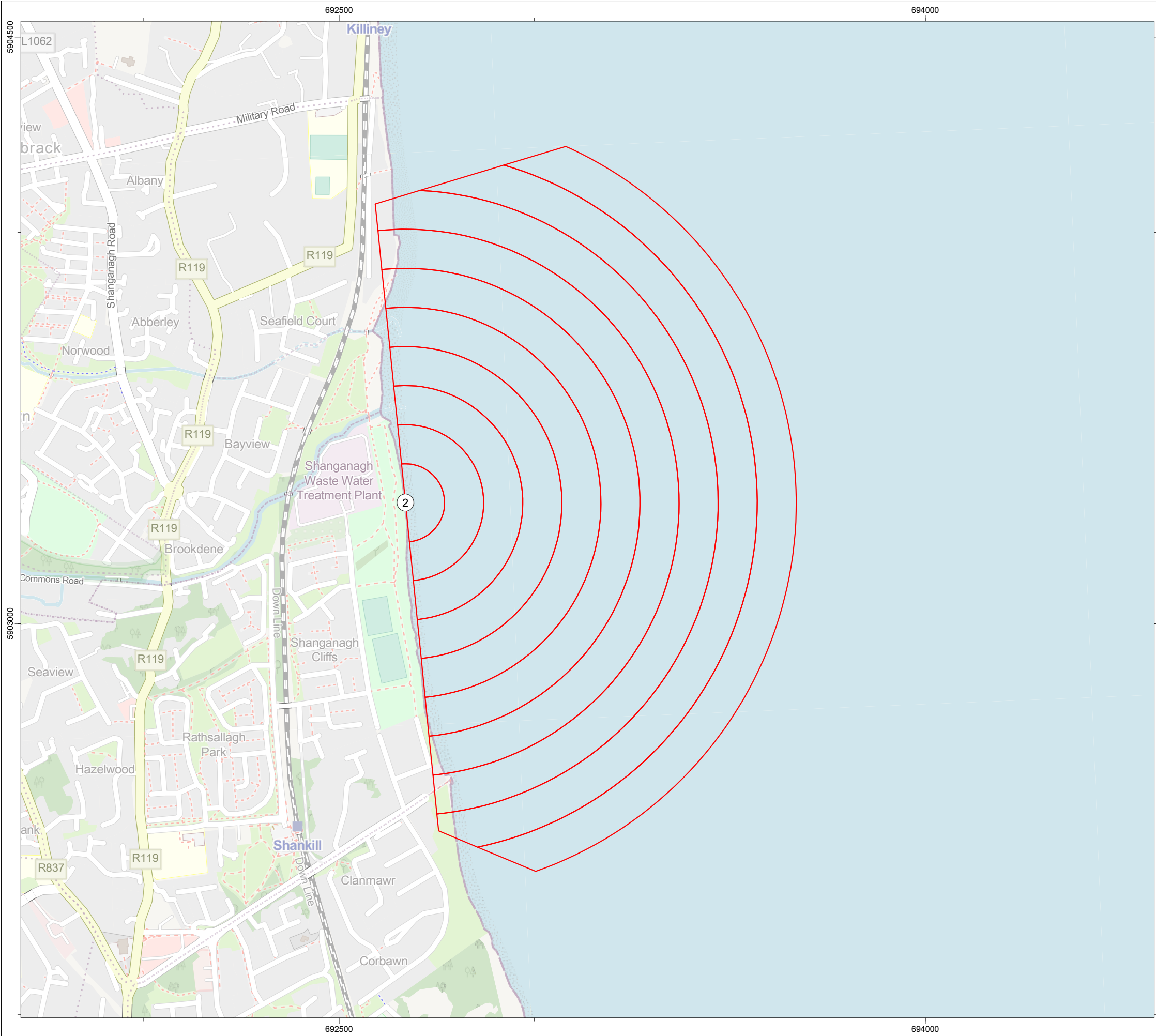
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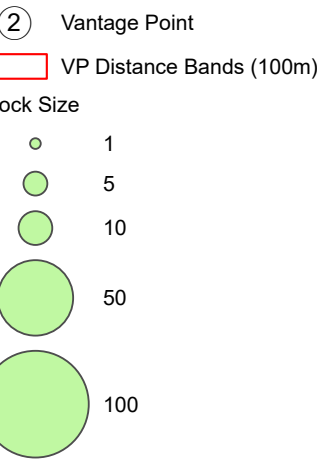
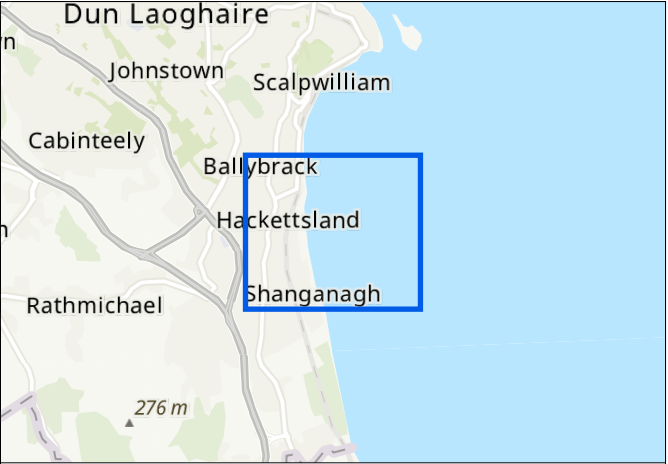
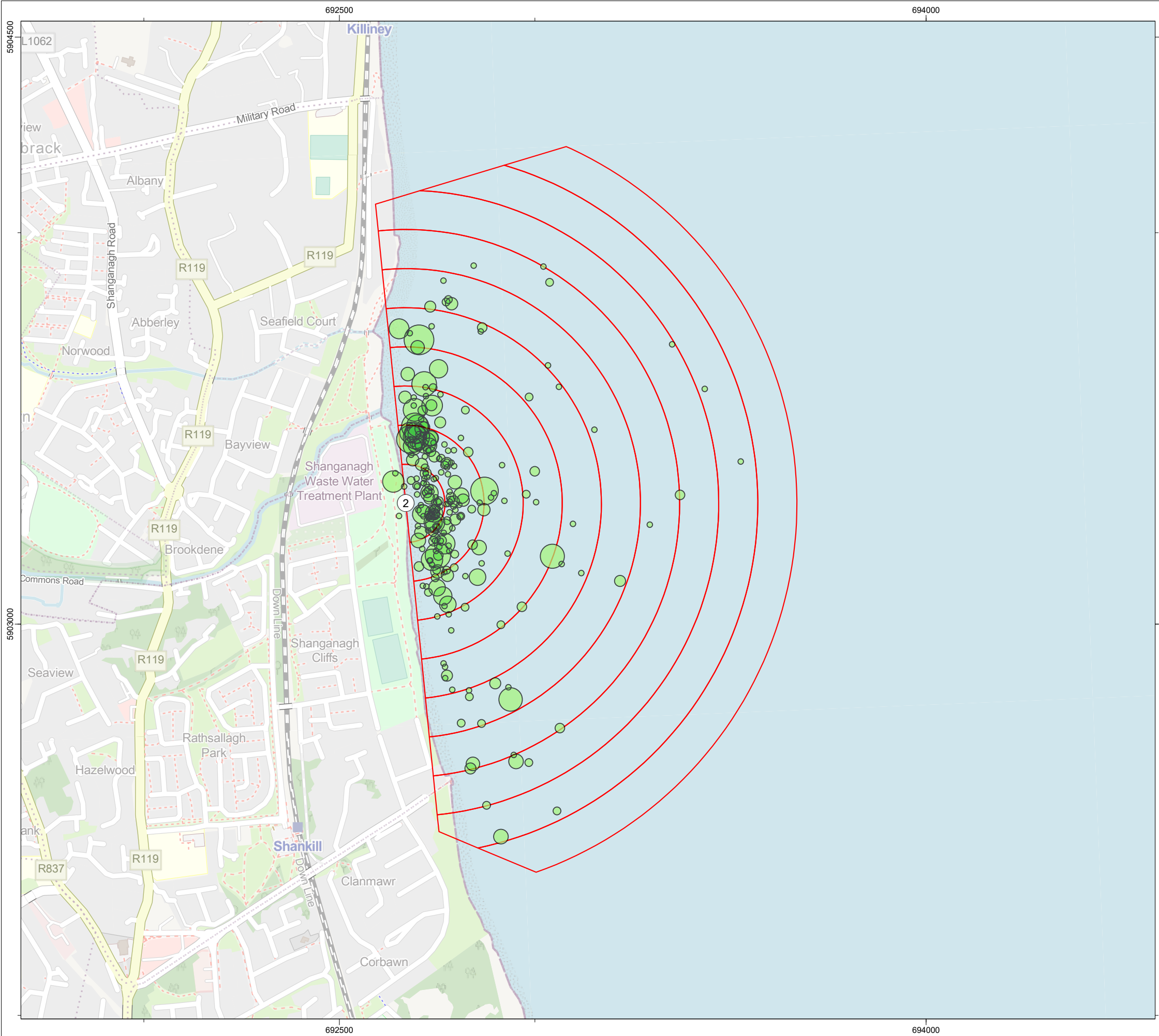
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Relative Abundance and Distribution of Bar-tailed Godwit

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PROJECT TITLE **Dublin Array**

DRAWING TITLE **Relative Abundance and Distribution of Black-headed Gull**

DRAWING NUMBER: Figure 3			PAGE NUMBER: 2 of 28		
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02	2025-01-31	Public	JK	AM	AM

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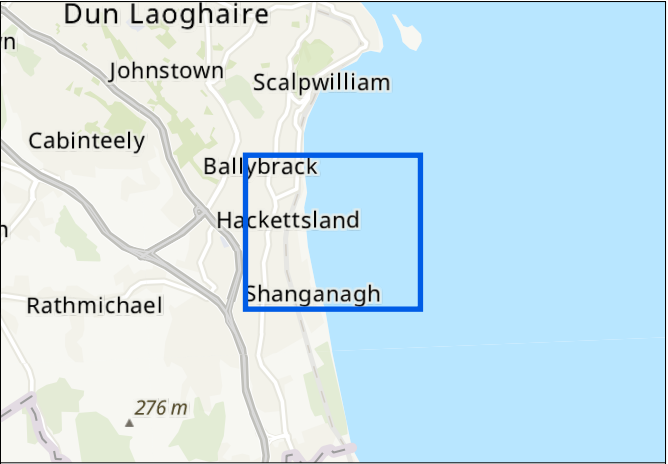
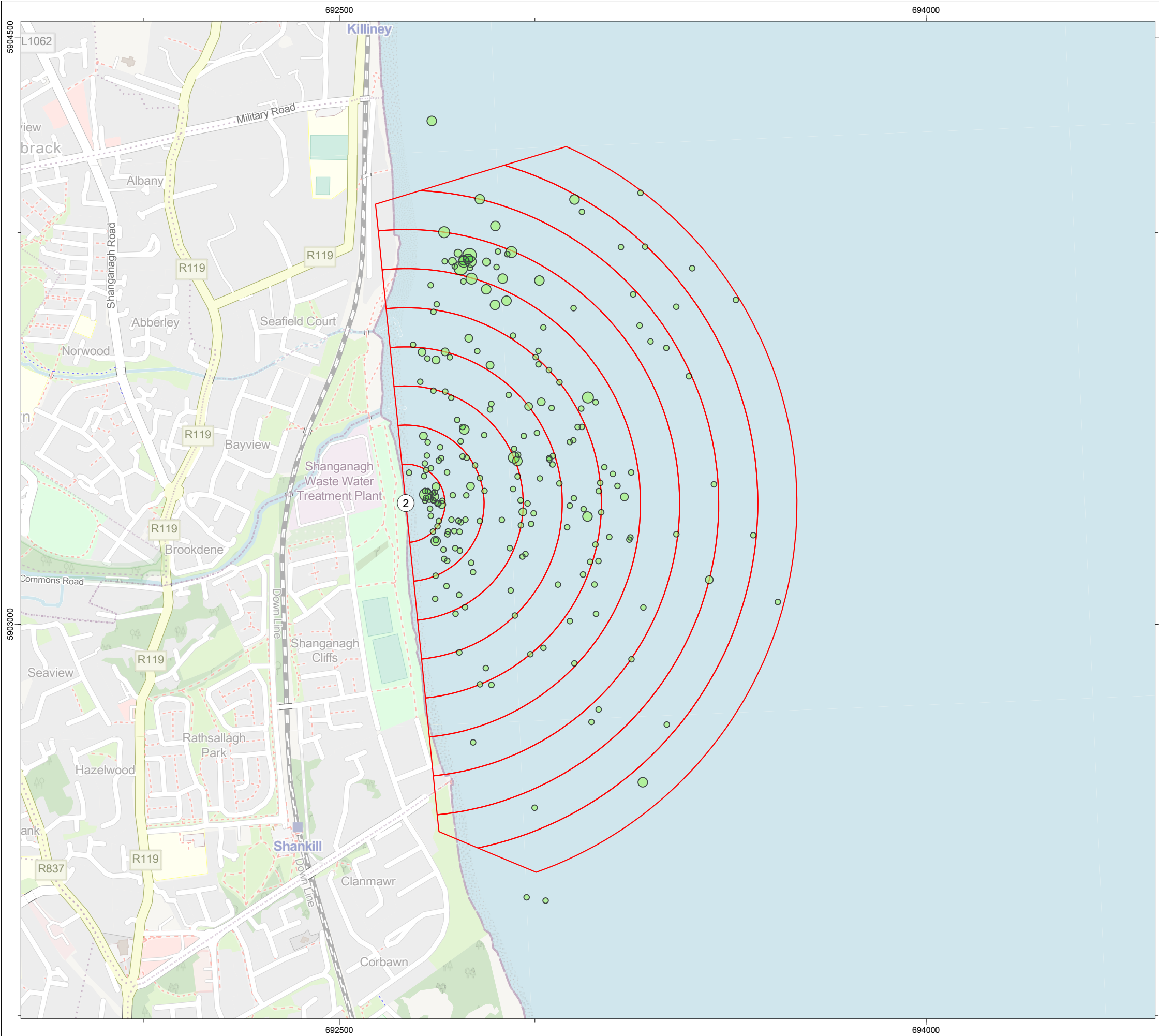
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Generation for generations
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② Vantage Point

VP Distance Bands (100m)

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DRAWING TITLE: **Relative Abundance and Distribution of Cormorant**

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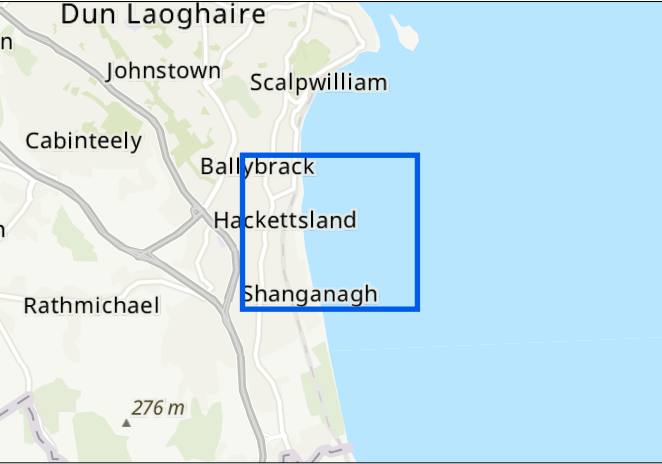
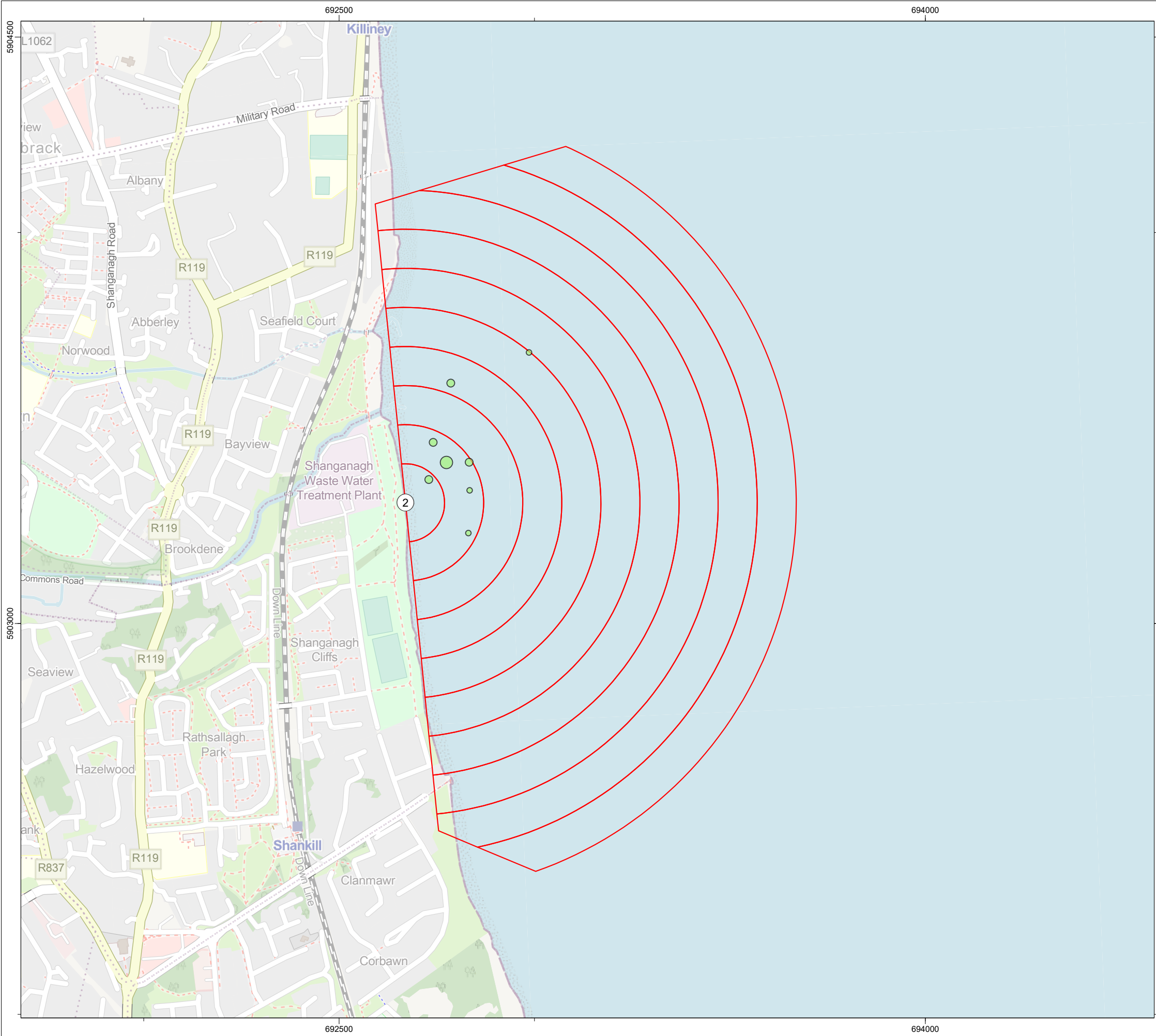
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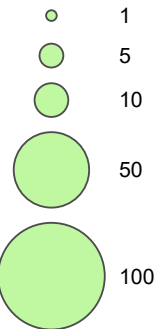
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② Vantage Point

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Flock Size



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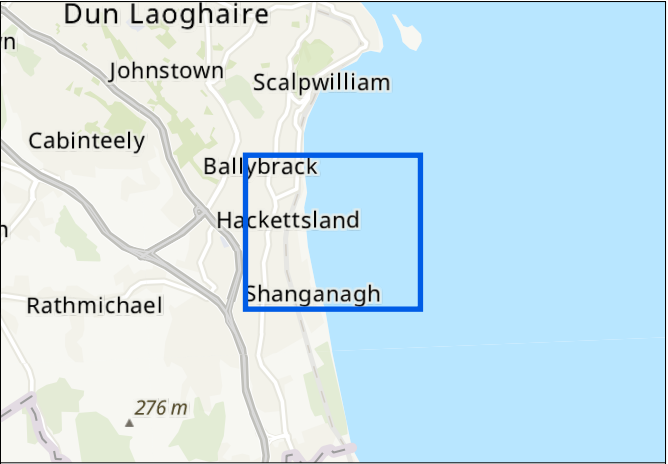
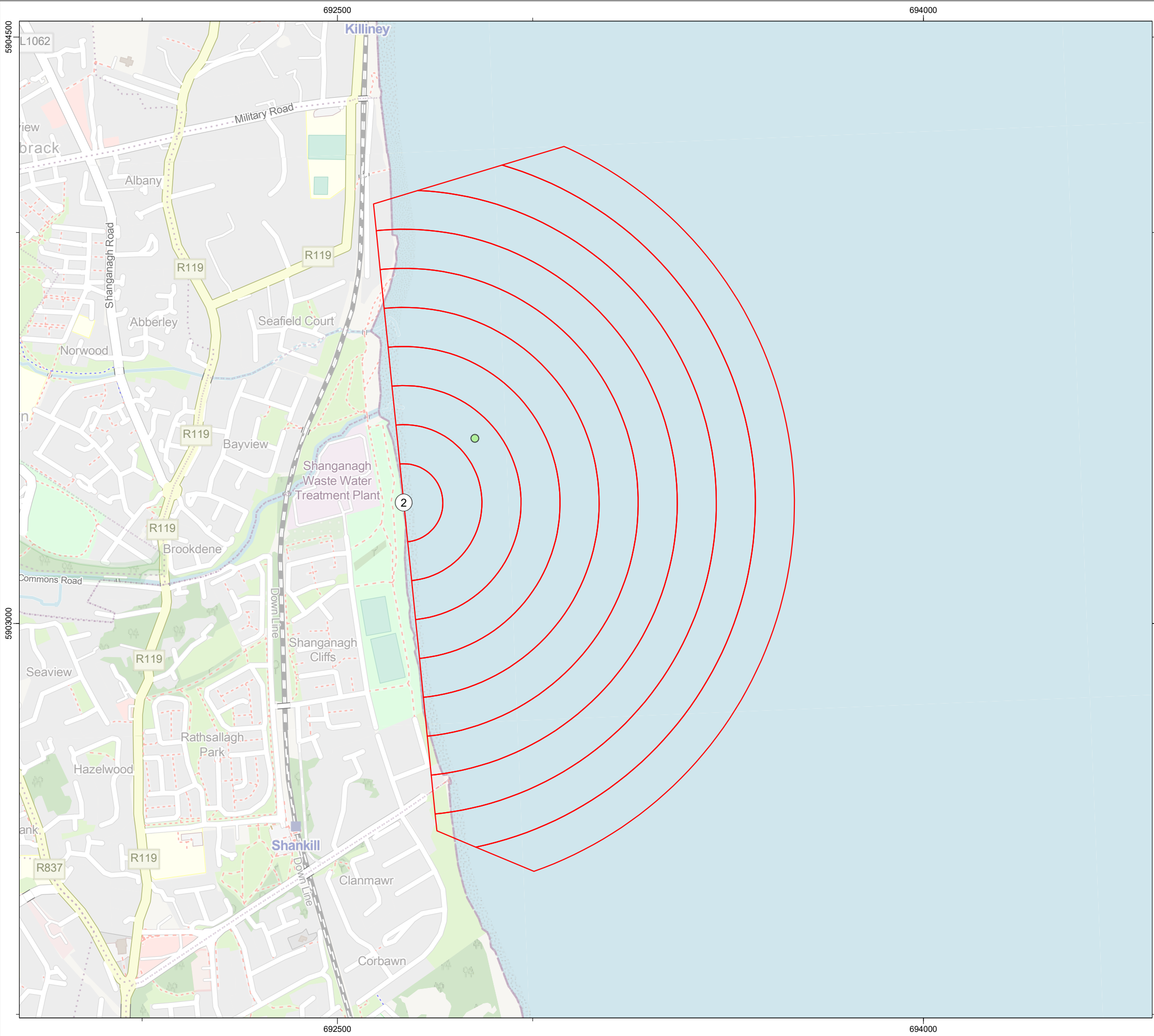
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DRAWING TITLE
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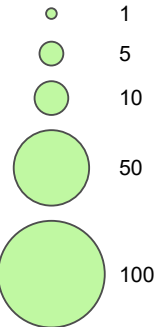




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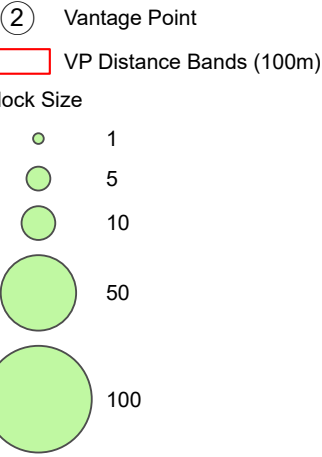
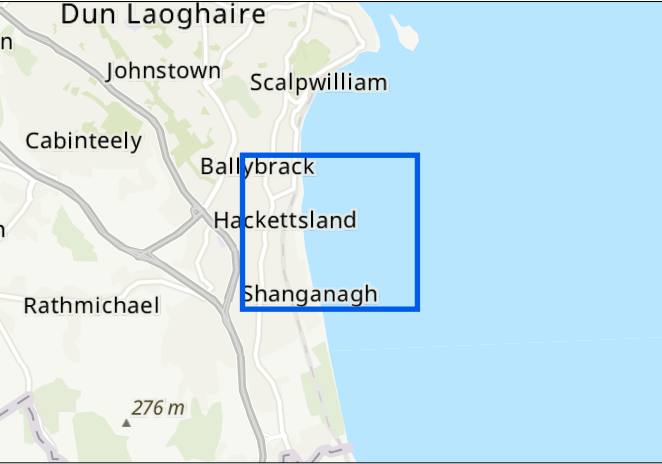
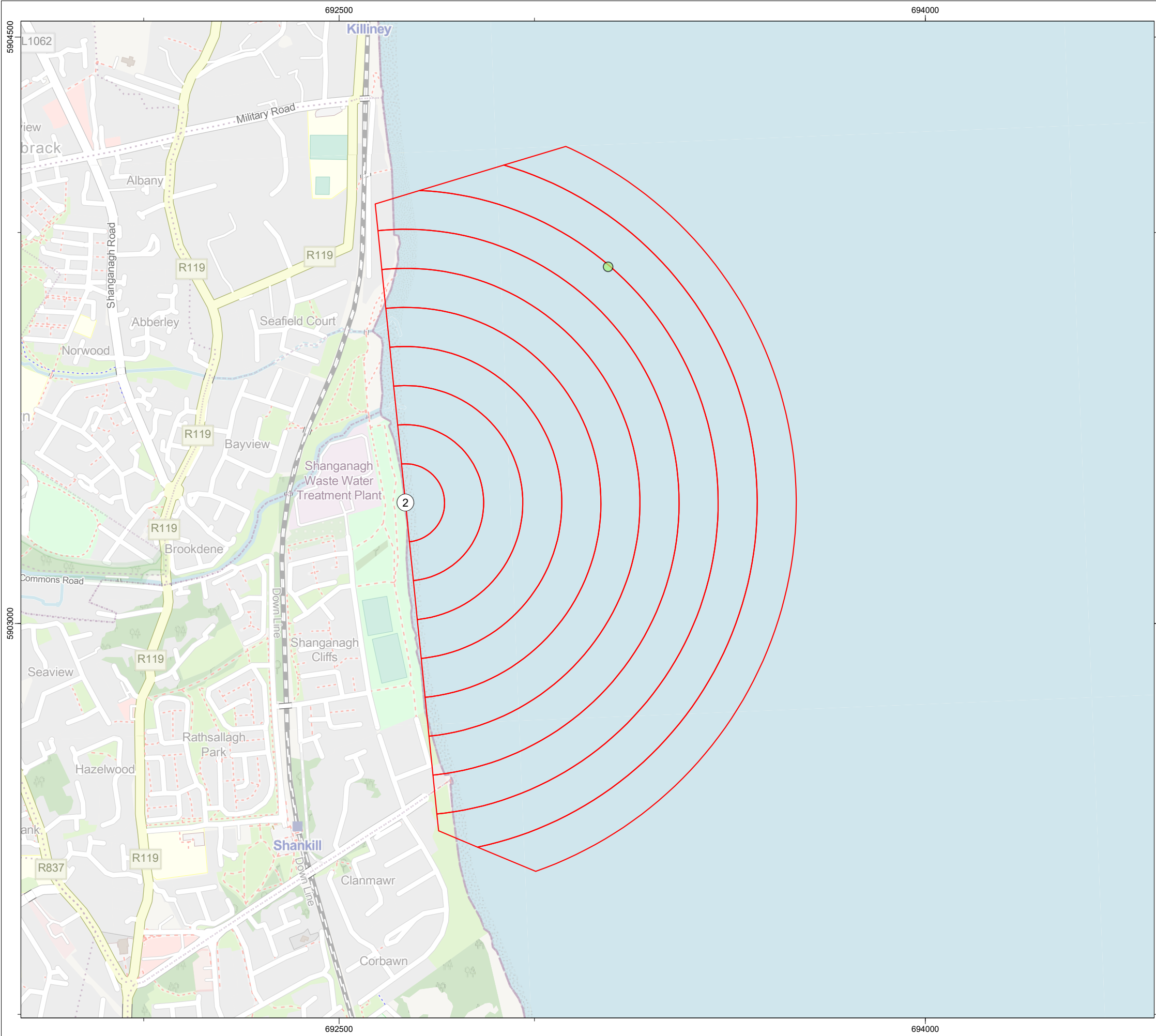
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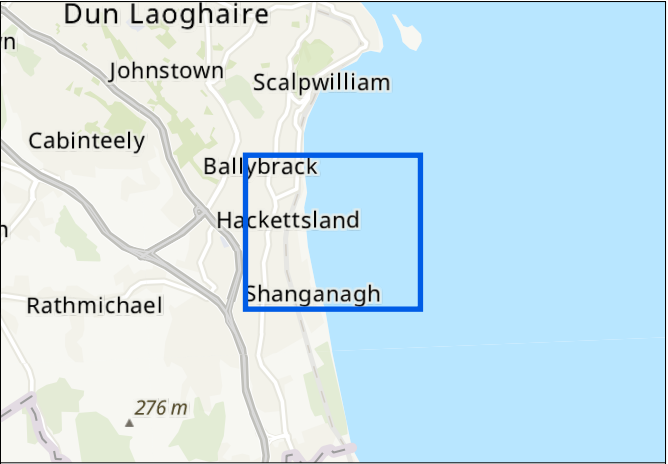
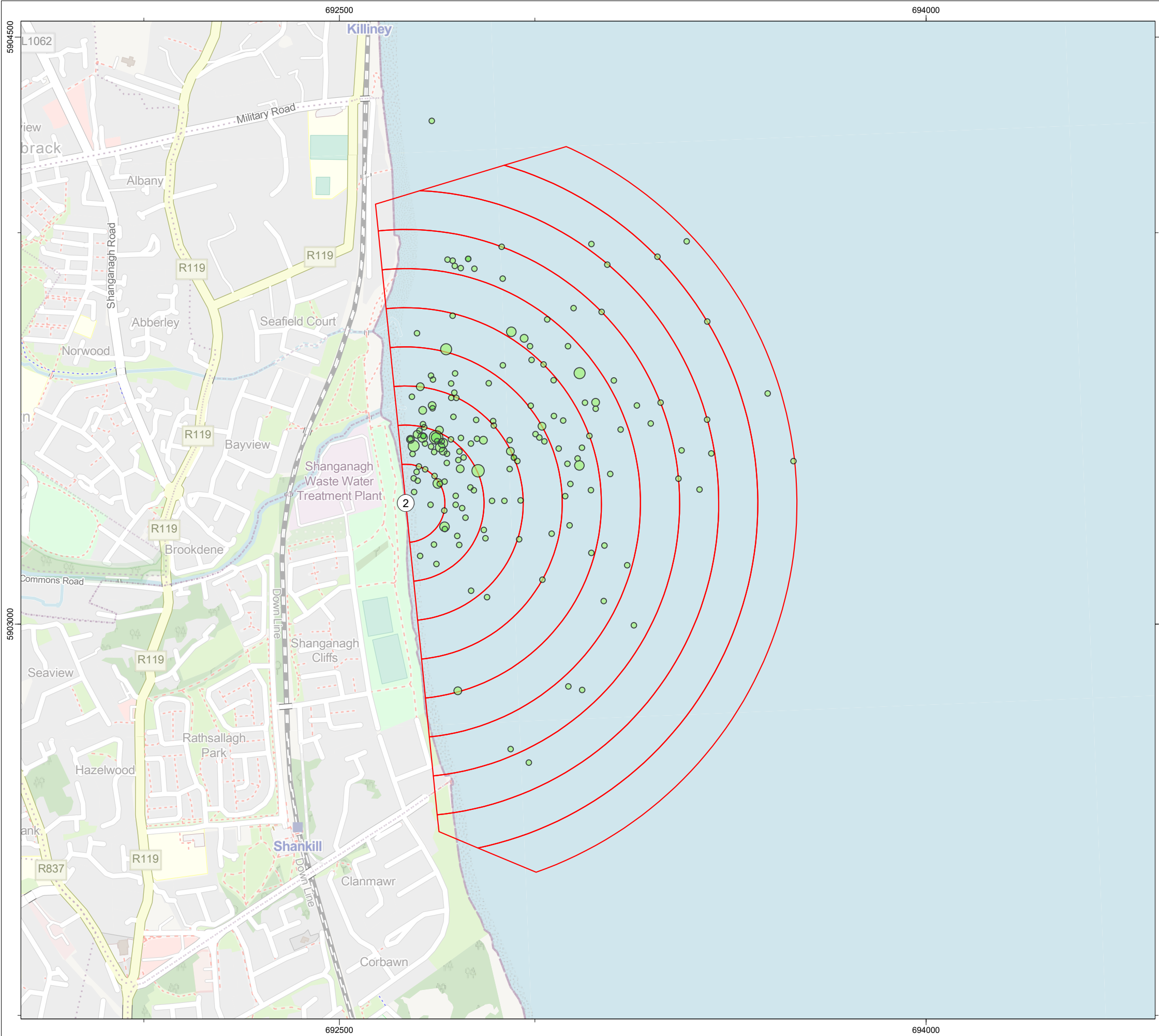
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② Vantage Point

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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Great Black-backed Gull

DRAWING NUMBER:

Figure 8

PAGE NUMBER:

7 of 28

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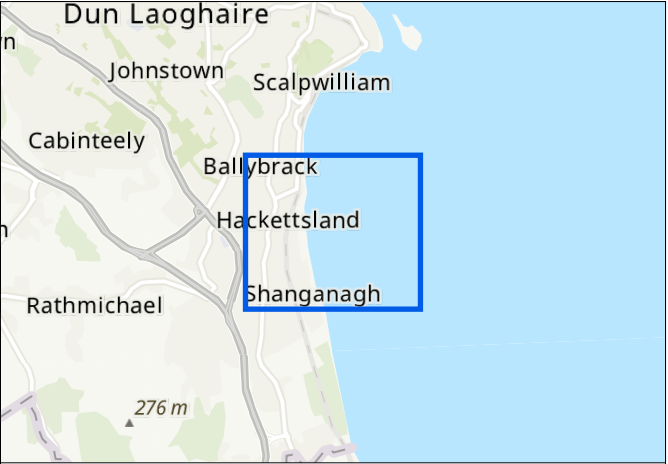
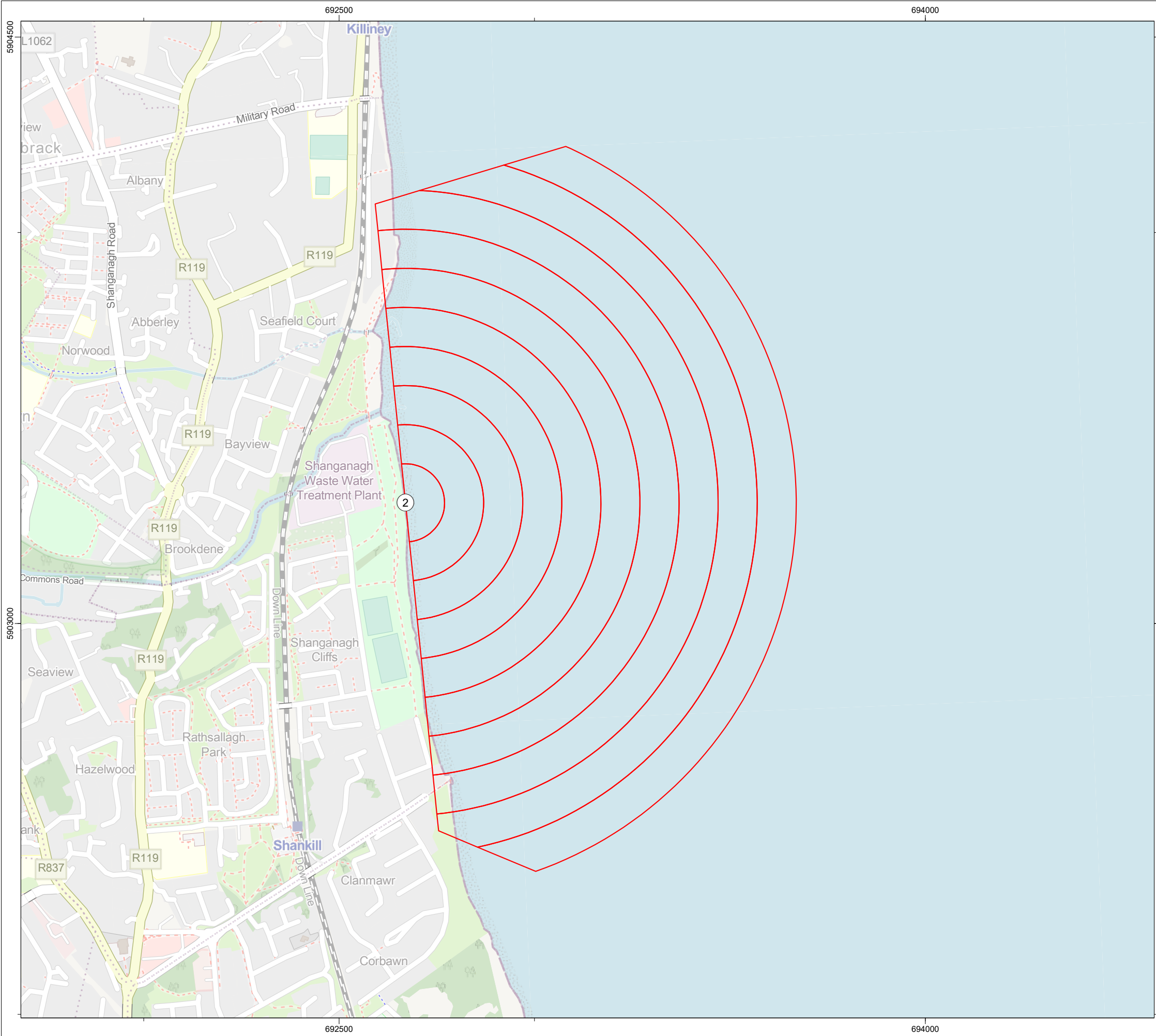
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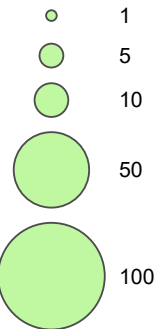
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② Vantage Point

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PROJECT TITLE

Dublin Array

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**Relative Abundance and Distribution of
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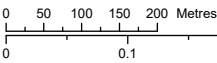
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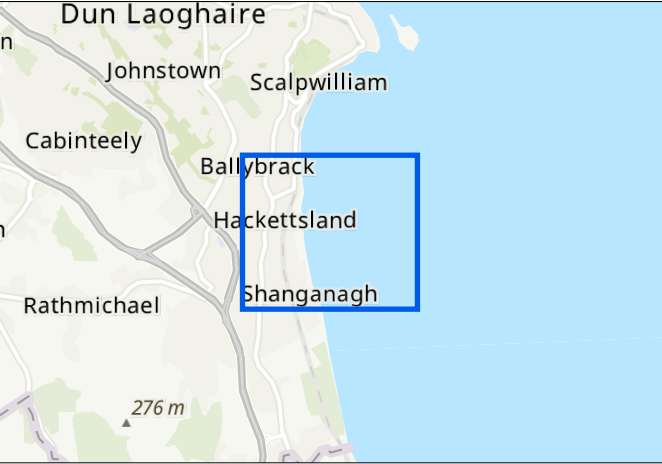
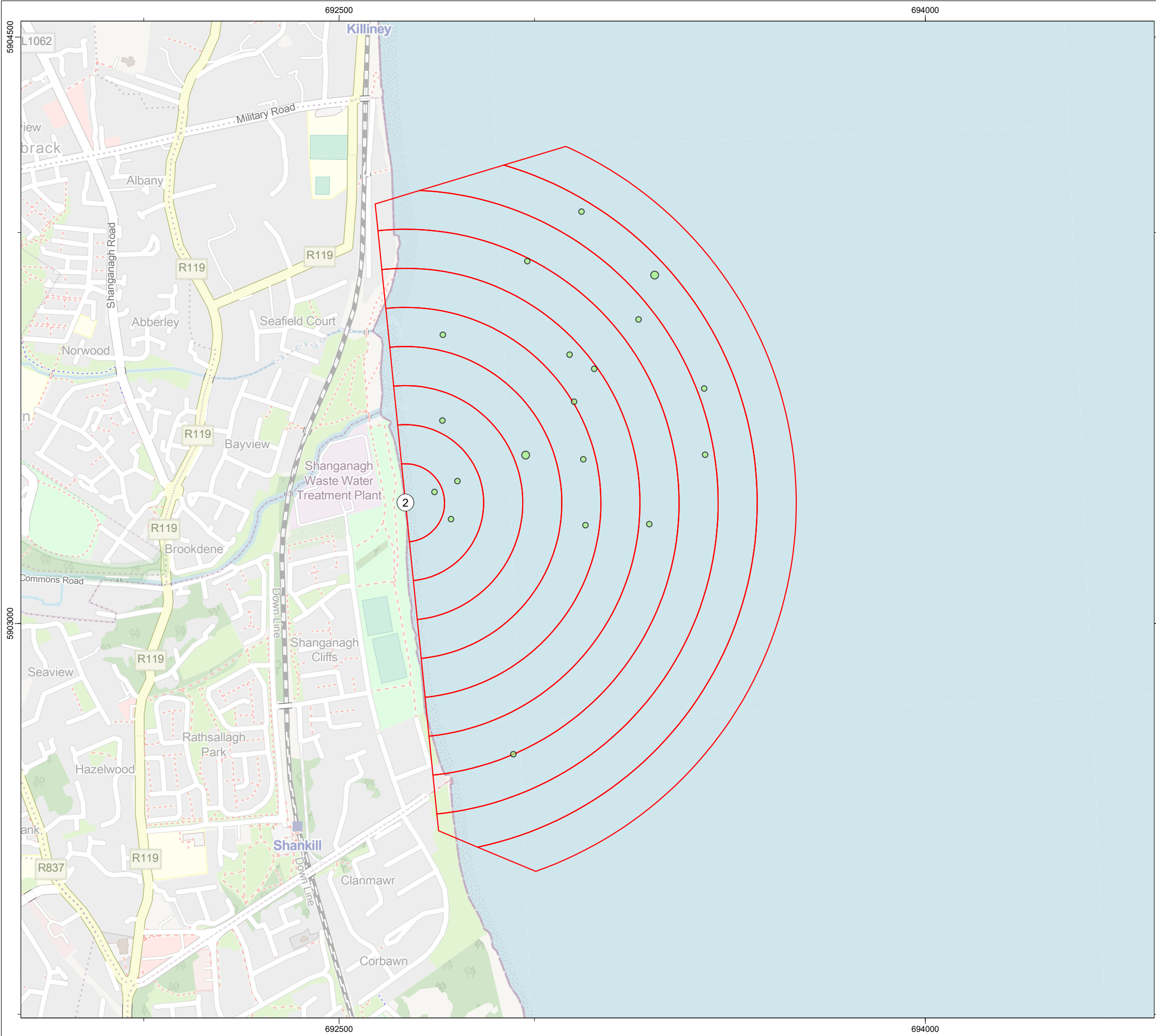
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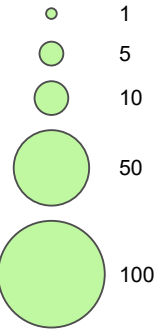




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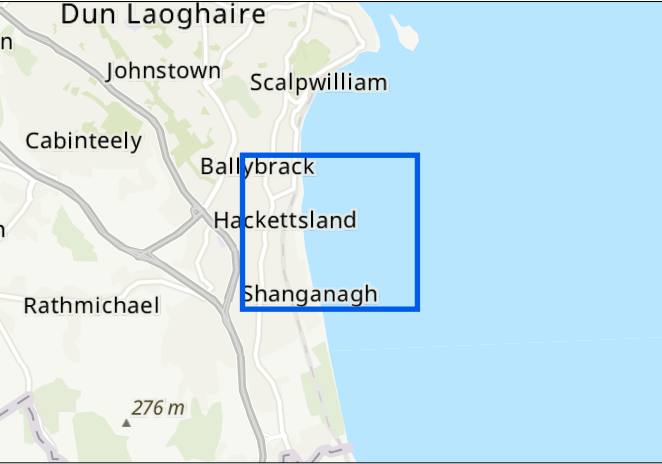
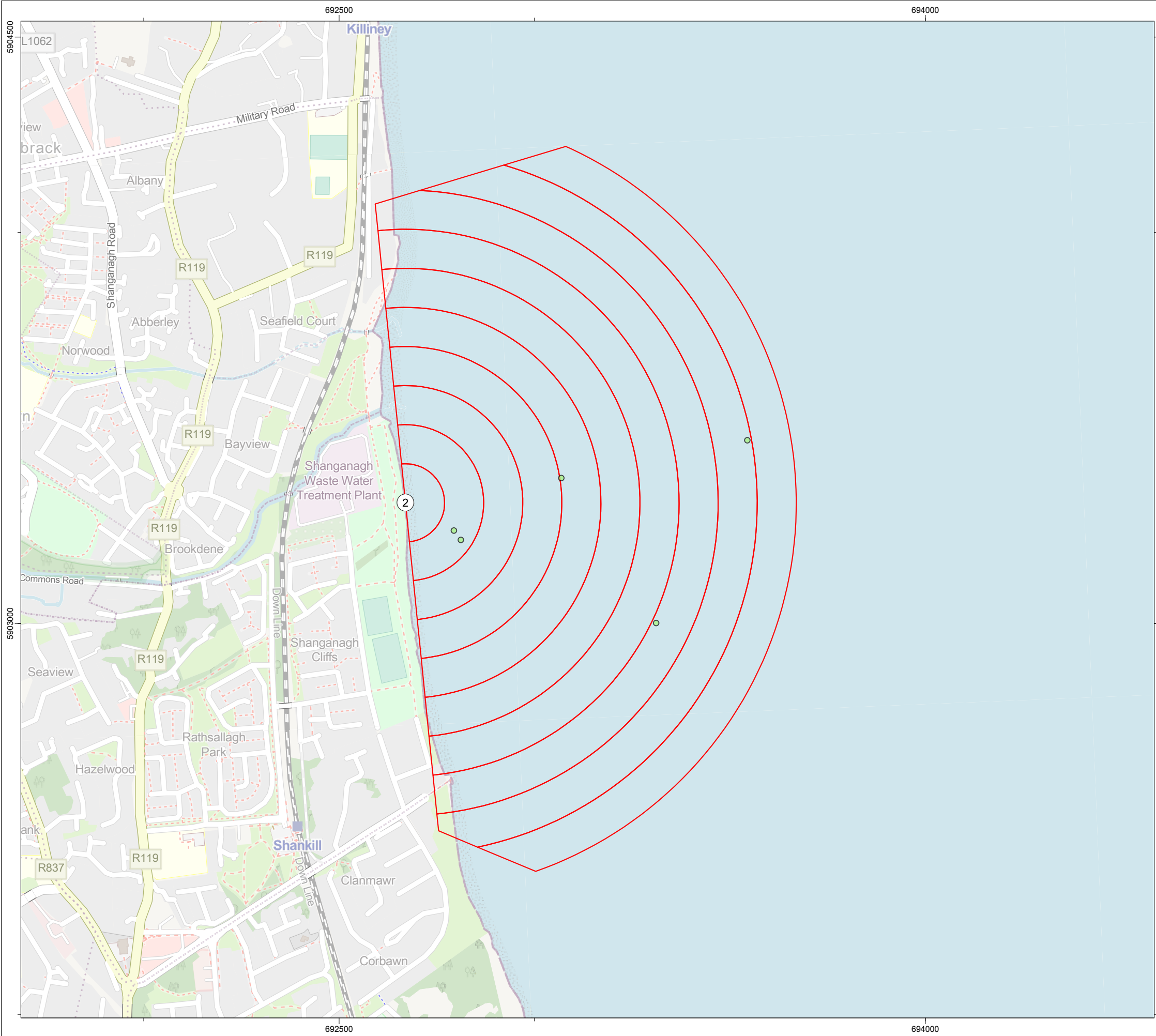
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Guillemot

DRAWING NUMBER: **Figure 10** PAGE NUMBER: **9 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

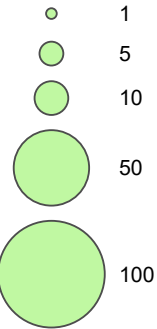




② Vantage Point

VP Distance Bands (100m)

Flock Size



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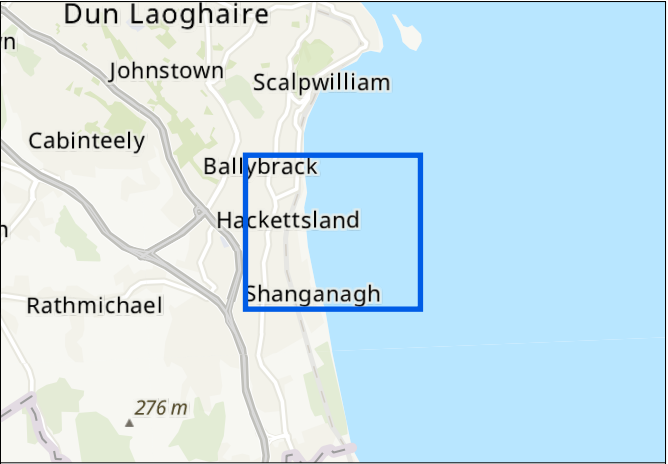
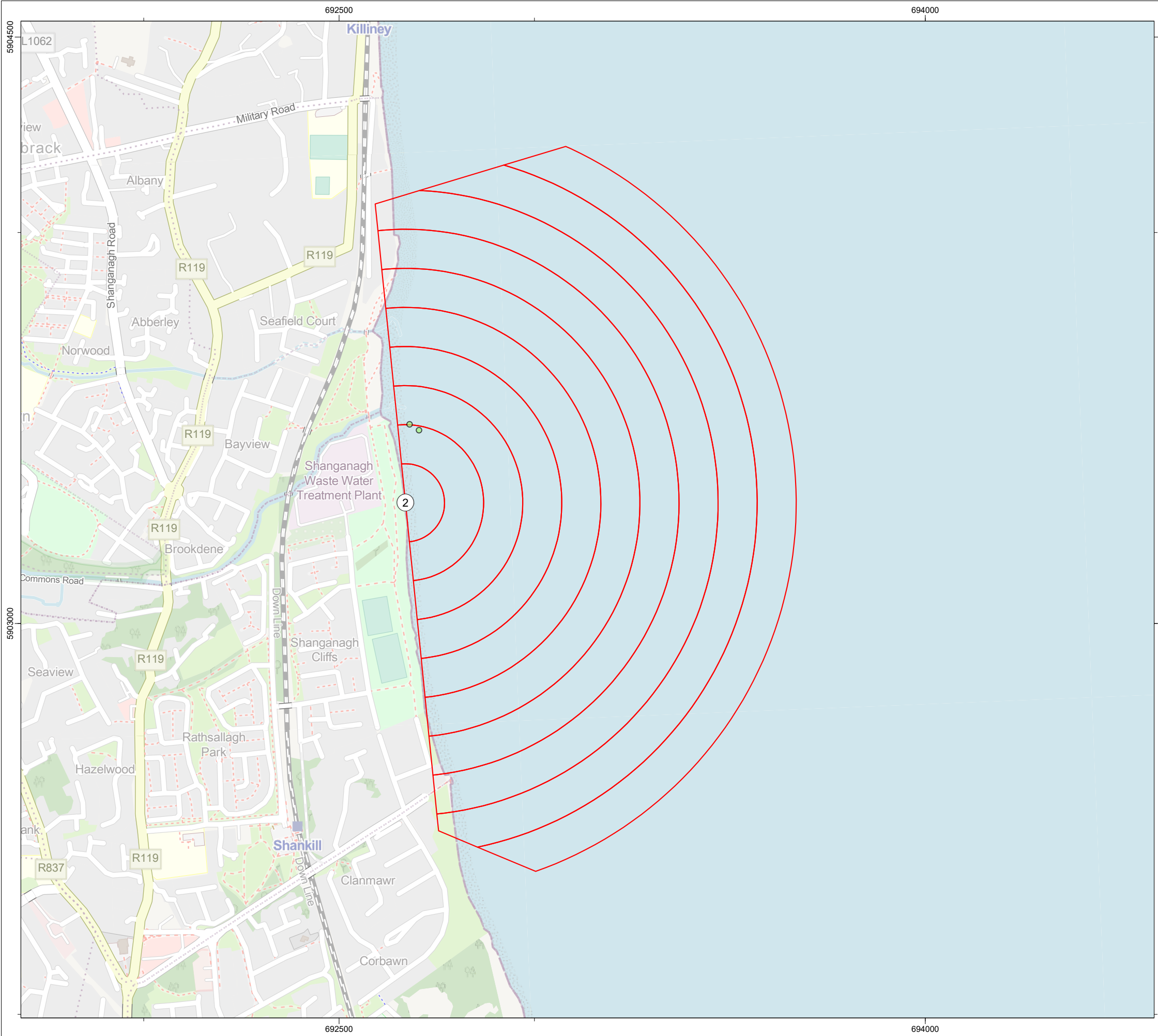
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Gannet

DRAWING NUMBER: **Figure 11** PAGE NUMBER: **10 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM





② Vantage Point

VP Distance Bands (100m)

Flock Size

- 1
- 5
- 10
- 50
- 100

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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Grey Heron

DRAWING NUMBER: Figure 12

PAGE NUMBER: 11 of 28

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

0 50 100 150 200 Metres

0 0.1 0.2 Miles

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ORIENT NORTH

SCALE 1:10,000

DATUM WGS 1984

PRJ WGS 1984 UTM Zone 29N

PLOT SIZE A3

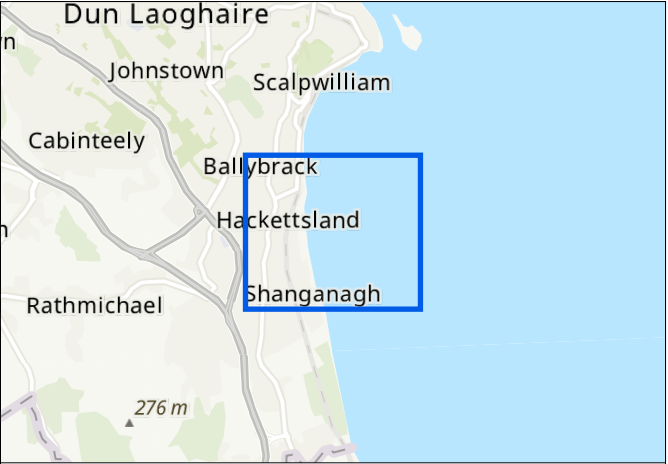
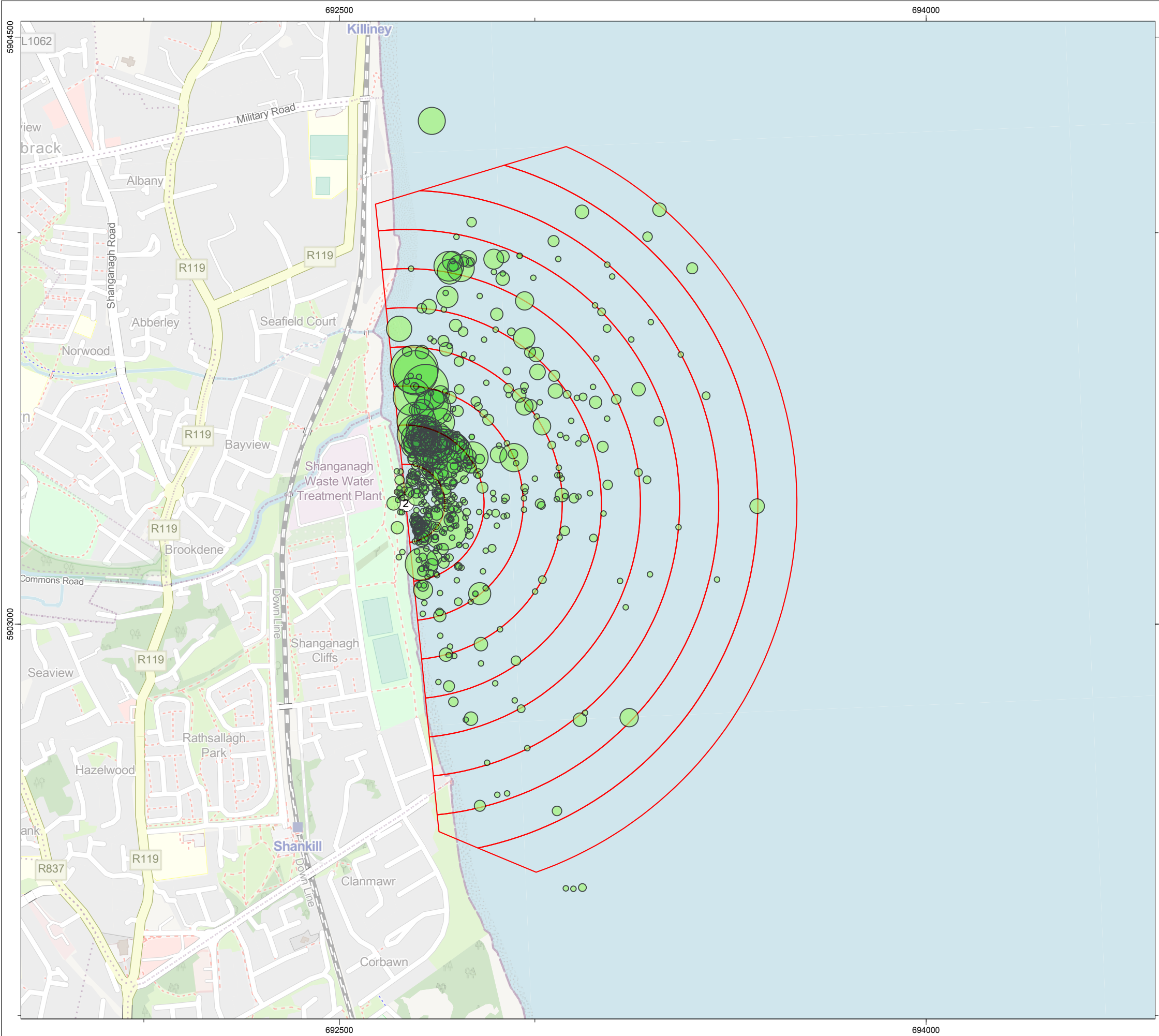
VERTICAL REF DDN/LAT/MLLW

SLR

DublinArray

Generation for generations

Kish Offshore Wind Limited - Bray Offshore Wind Limited



② Vantage Point

VP Distance Bands (100m)

Flock Size

- 1
- 5
- 10
- 50
- 100

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PROJECT TITLE **Dublin Array**

DRAWING TITLE **Relative Abundance and Distribution of Herring Gull**

DRAWING NUMBER: Figure 13			PAGE NUMBER: 12 of 28		
VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

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0 0.1 0.2 Miles

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ORIENT NORTH

SCALE 1:10,000

DATUM WGS 1984

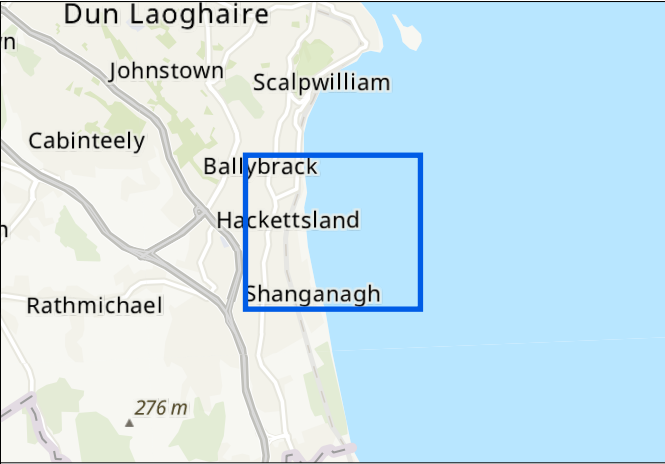
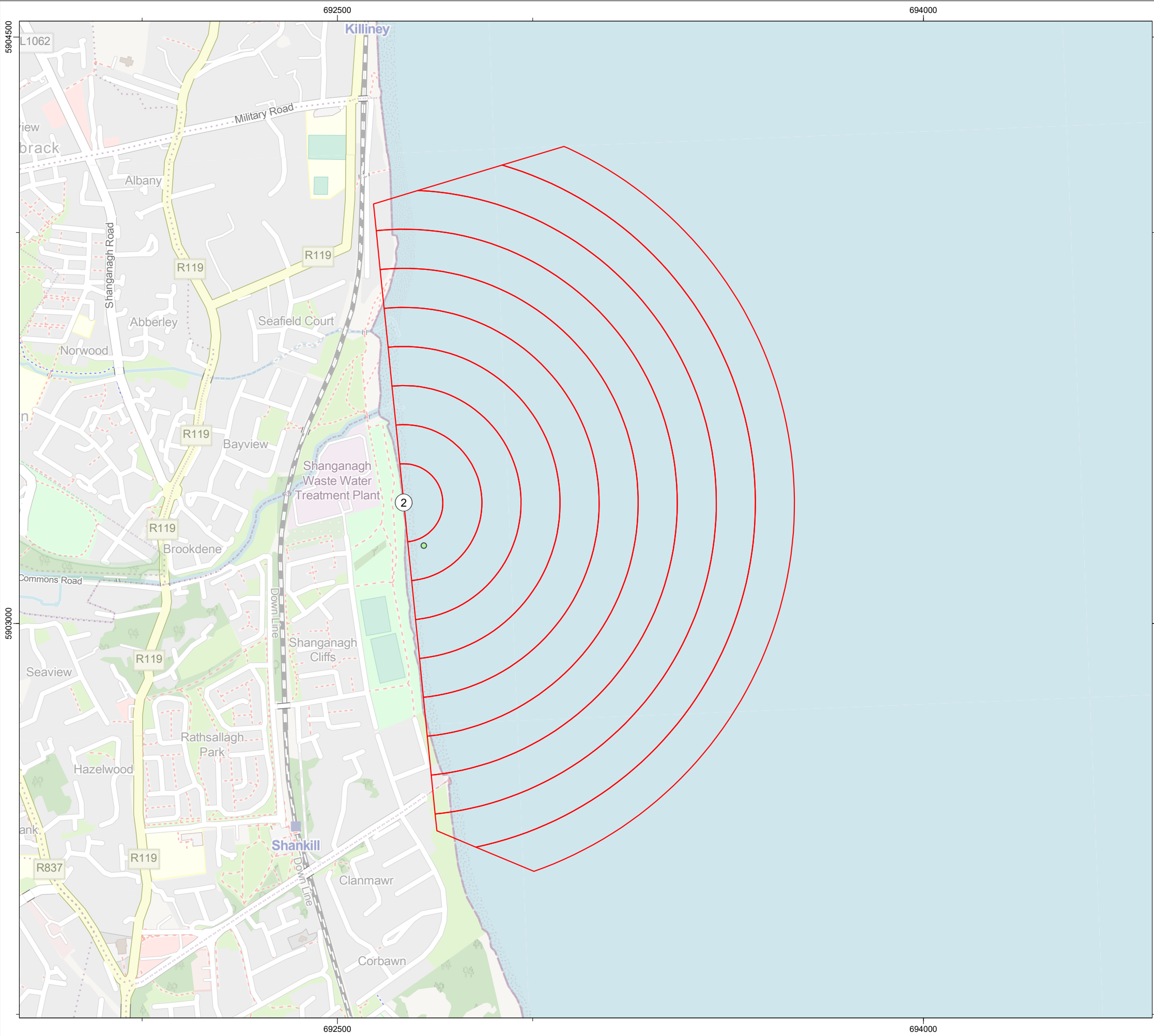
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PLOT SIZE A3

VERTICAL REF DDN/LAT/MLLW

SLR

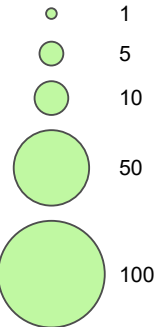
Dublin Array
Generation for generations
Kish Offshore Wind Limited - Bray Offshore Wind Limited



② Vantage Point

VP Distance Bands (100m)

Flock Size



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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Kestrel

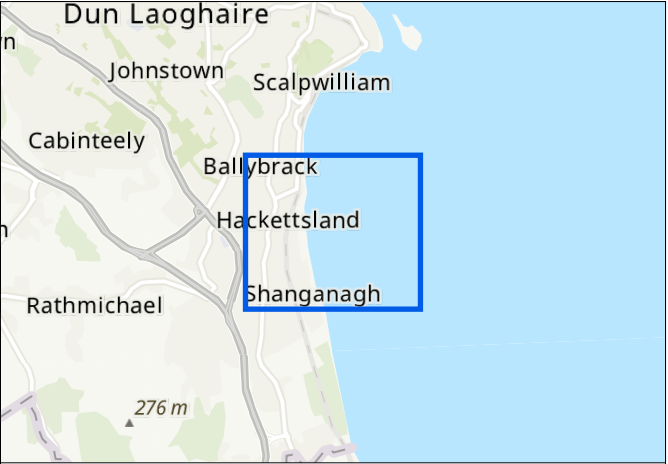
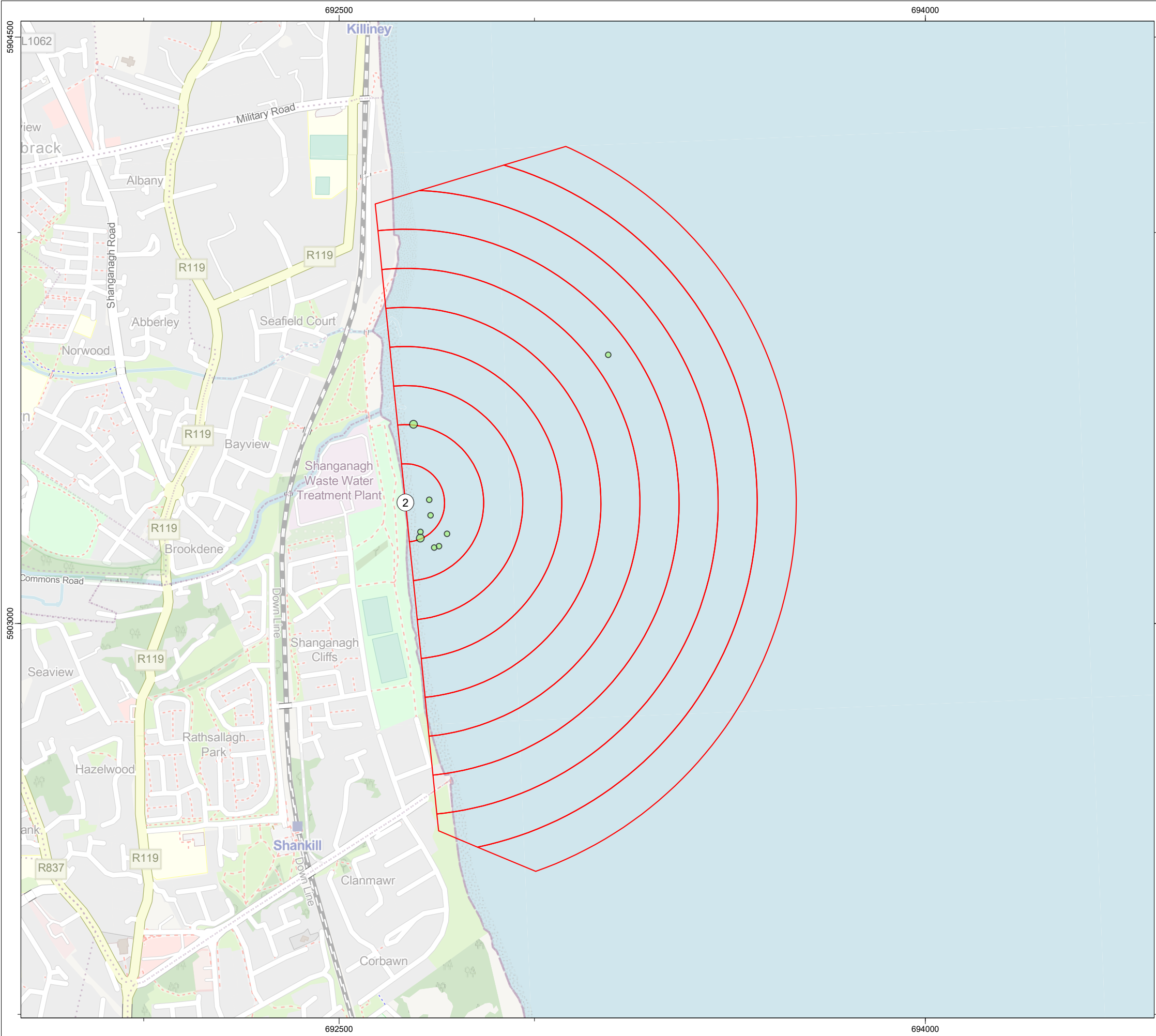
DRAWING NUMBER: **Figure 14**

PAGE NUMBER: **13 of 28**

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02	2025-01-31	Public	JK	AM	AM

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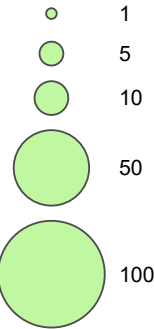




② Vantage Point

VP Distance Bands (100m)

Flock Size



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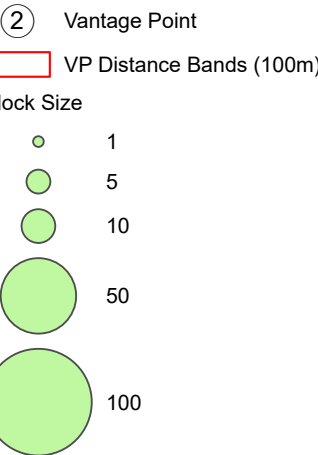
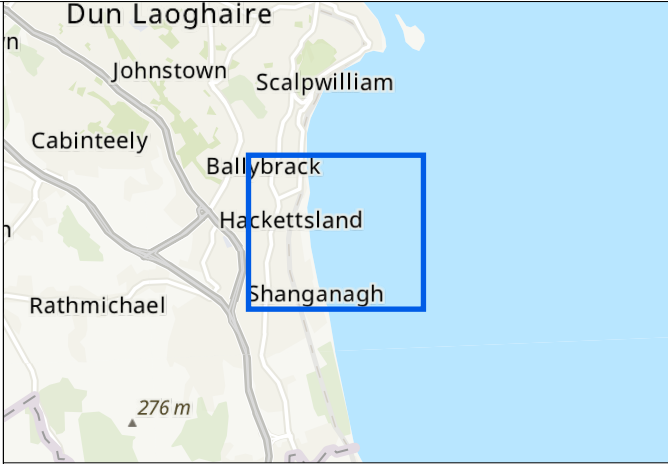
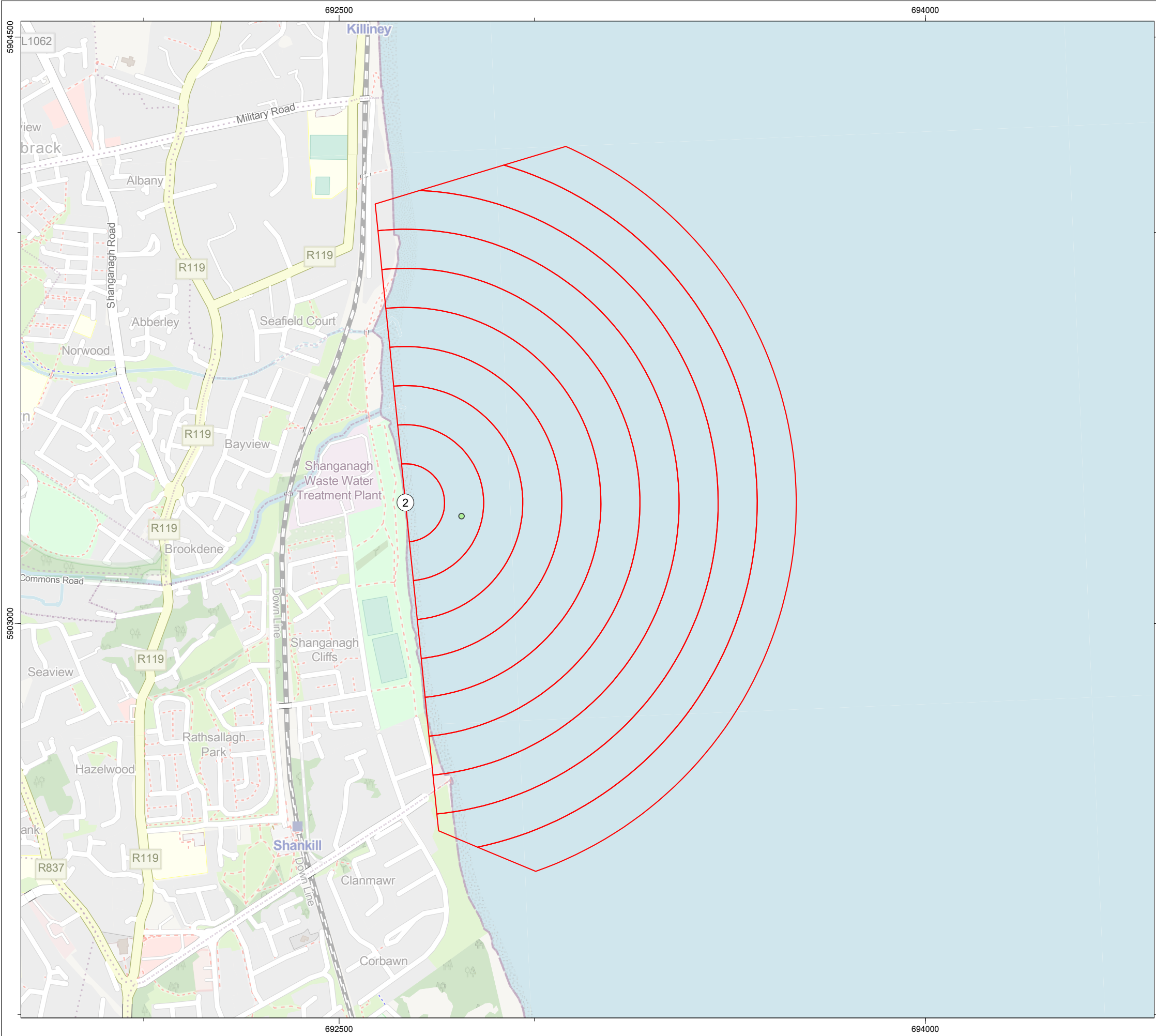
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Lesser Black-backed Gull

DRAWING NUMBER: **Figure 15** PAGE NUMBER: **14 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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PROJECT TITLE

Dublin Array

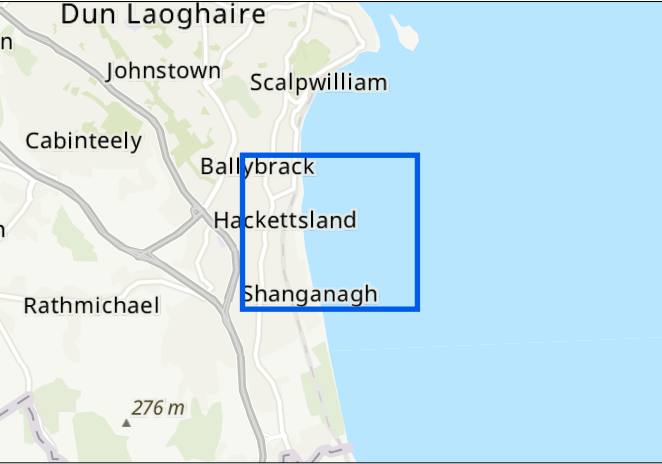
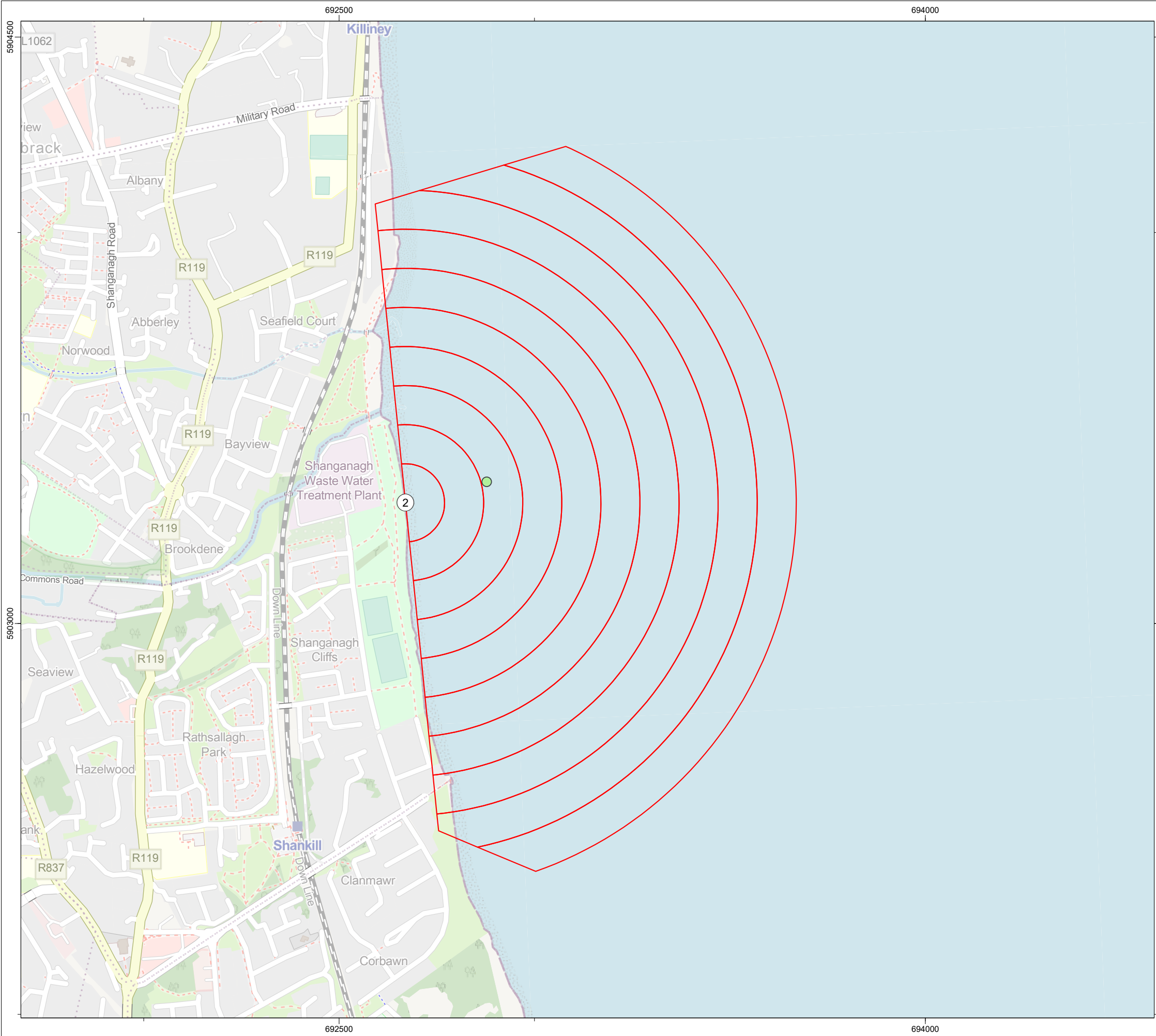
DRAWING TITLE

Relative Abundance and Distribution of Mallard

DRAWING NUMBER: **Figure 16** PAGE NUMBER: **15 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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02	2025-01-31	Public	JK	AM	AM

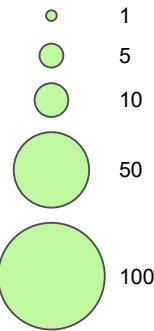




② Vantage Point

VP Distance Bands (100m)

Flock Size



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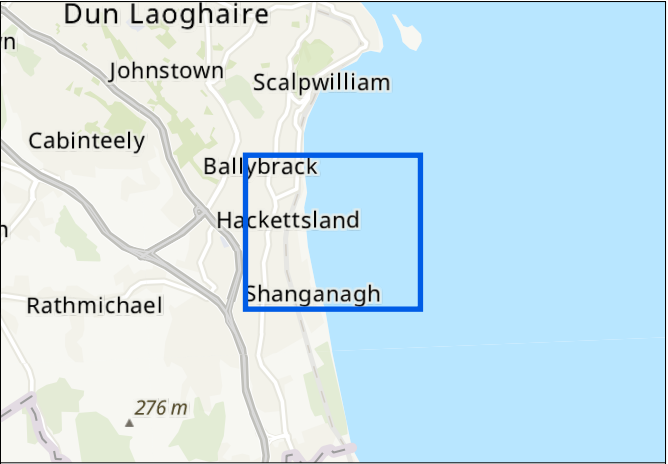
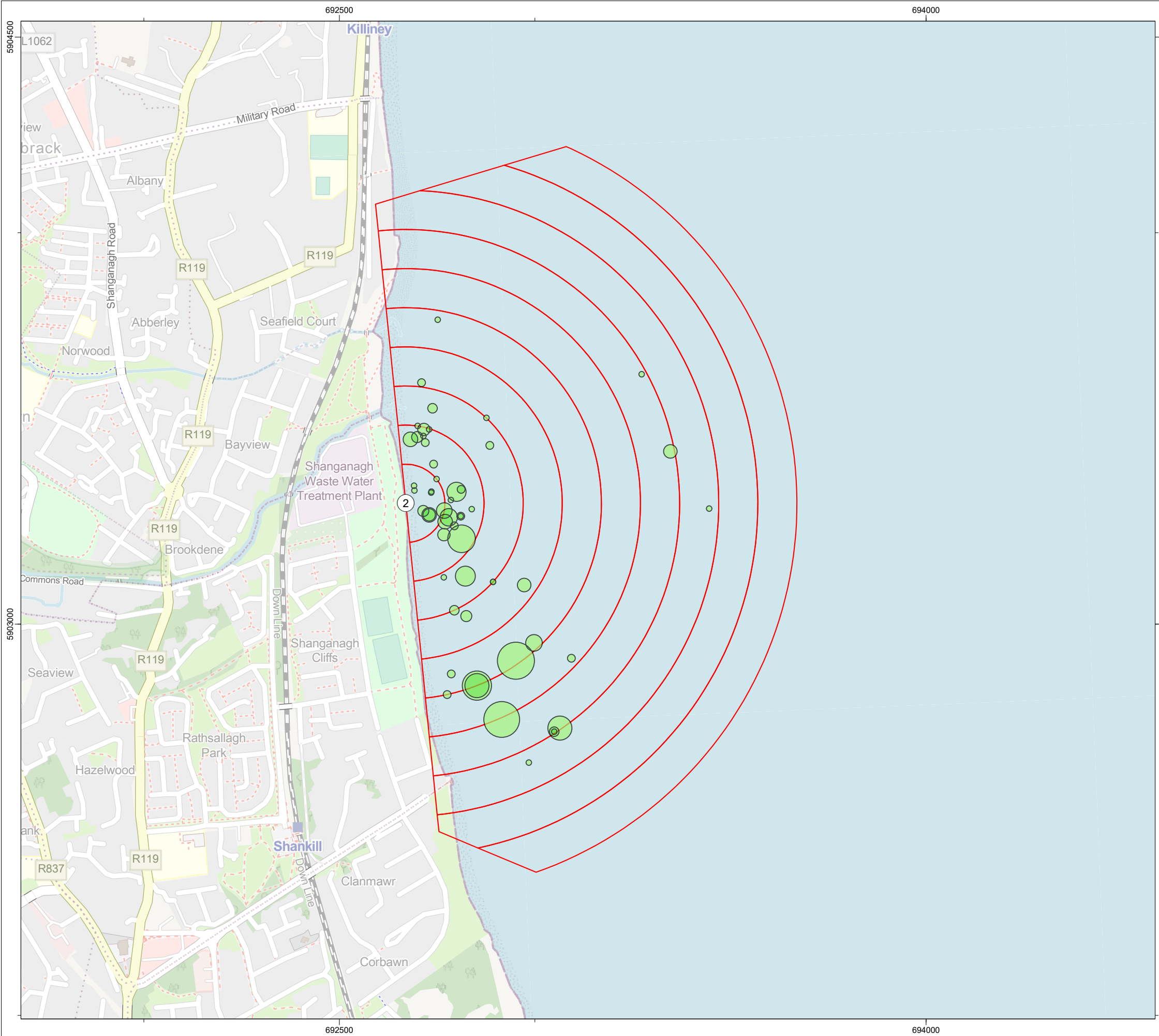
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Mute Swan

DRAWING NUMBER: **Figure 17** PAGE NUMBER: **16 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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02	2025-01-31	Public	JK	AM	AM

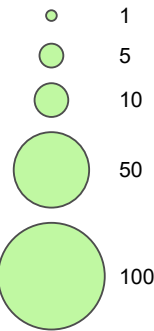




② Vantage Point

VP Distance Bands (100m)

Flock Size



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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Mediterranean Gull

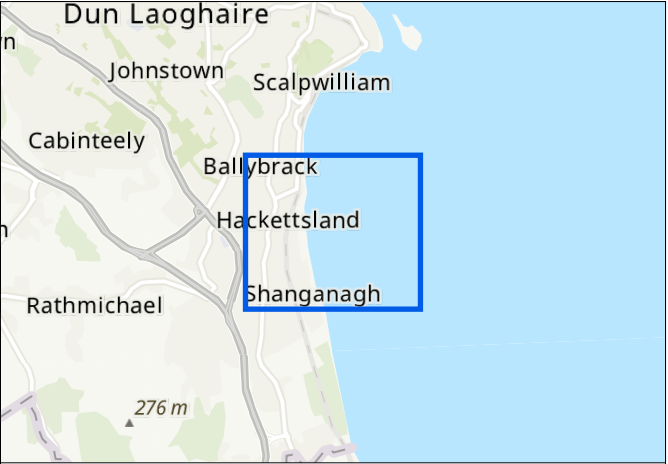
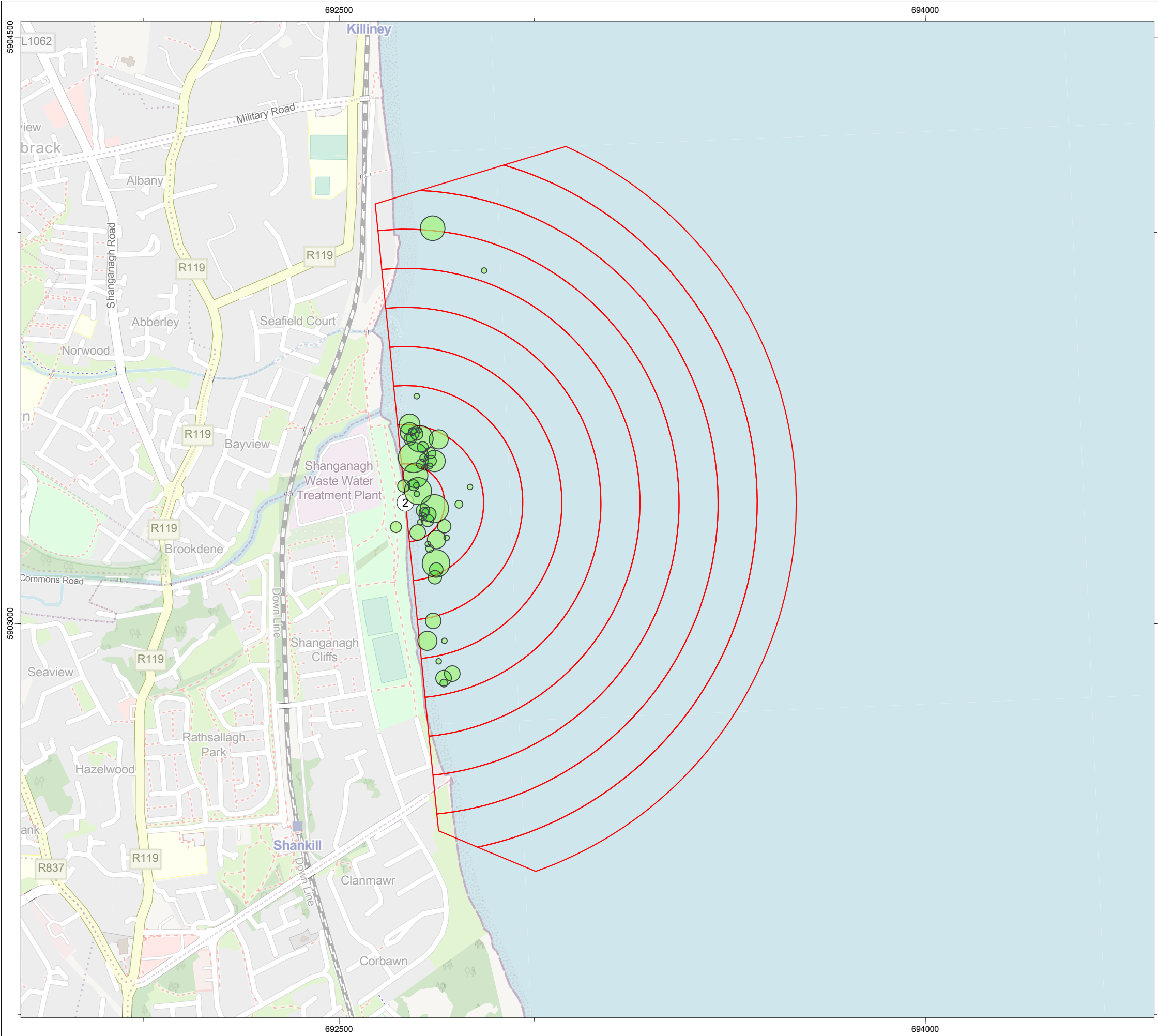
DRAWING NUMBER: Figure 18

PAGE NUMBER: 17 of 28

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02	2025-01-31	Public	JK	AM	AM

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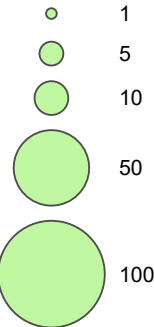




② Vantage Point

VP Distance Bands (100m)

Flock Size



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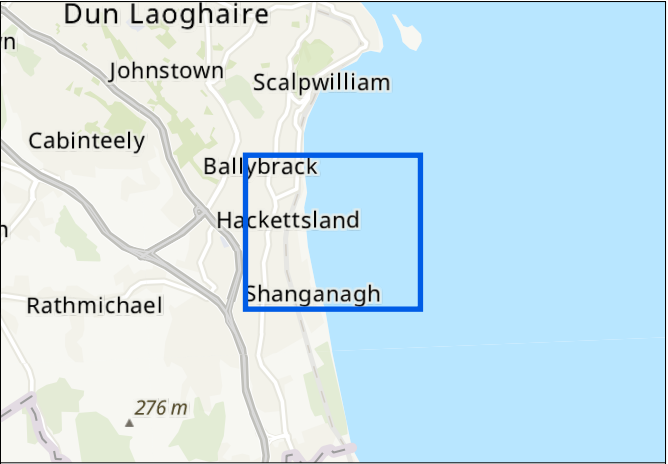
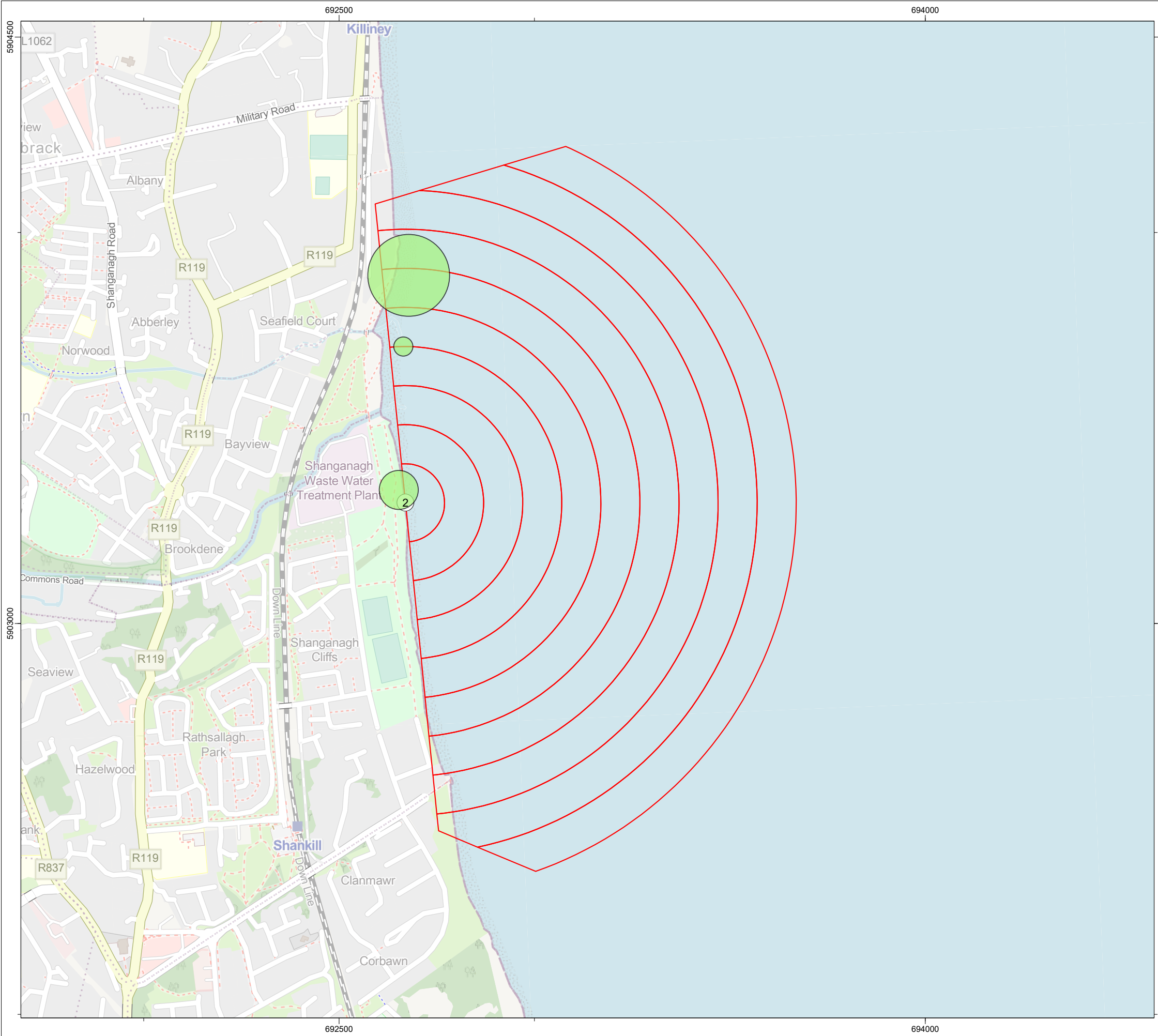
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Oystercatcher

DRAWING NUMBER: **Figure 19** PAGE NUMBER: **18 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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② Vantage Point

VP Distance Bands (100m)

Flock Size

- 1
- 5
- 10
- 50
- 100

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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Brent Goose (Light-bellied)

DRAWING NUMBER: **Figure 20** PAGE NUMBER: **19 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

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0 0.1 0.2 Miles

N

ORIENT NORTH

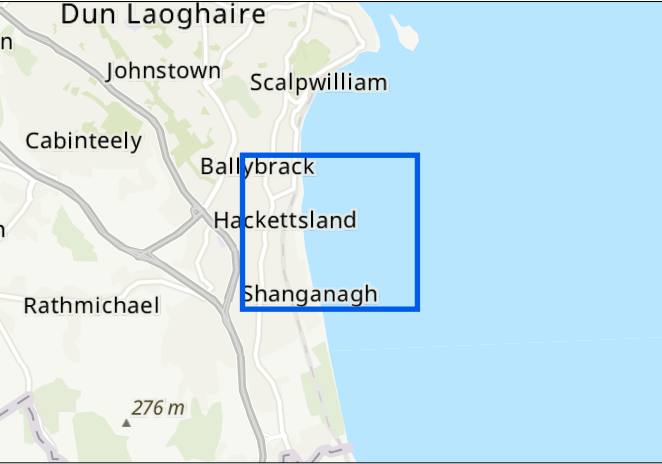
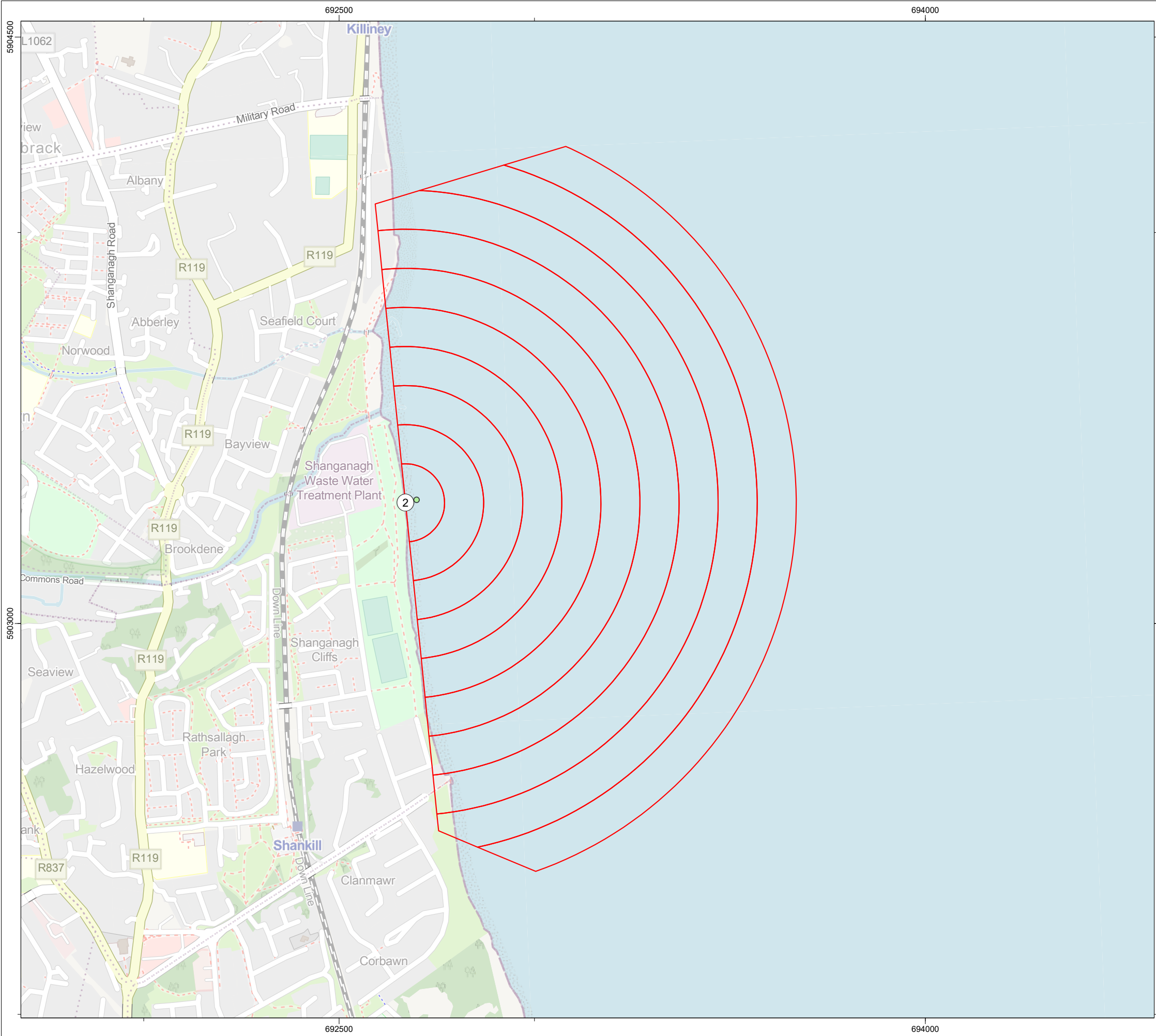
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PLOT SIZE A3

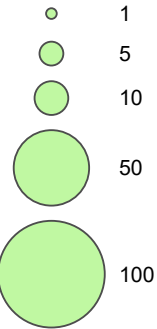
VERTICAL REF. DATUM IRLAND



② Vantage Point

VP Distance Bands (100m)

Flock Size



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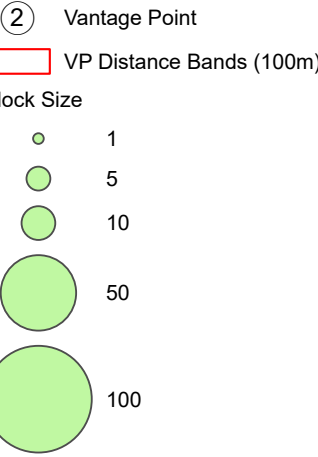
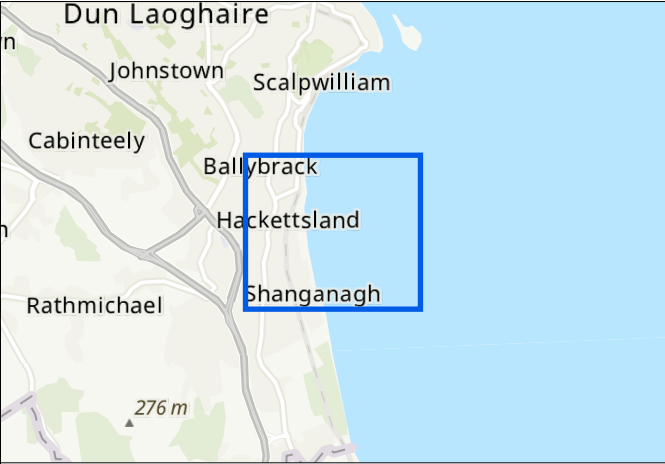
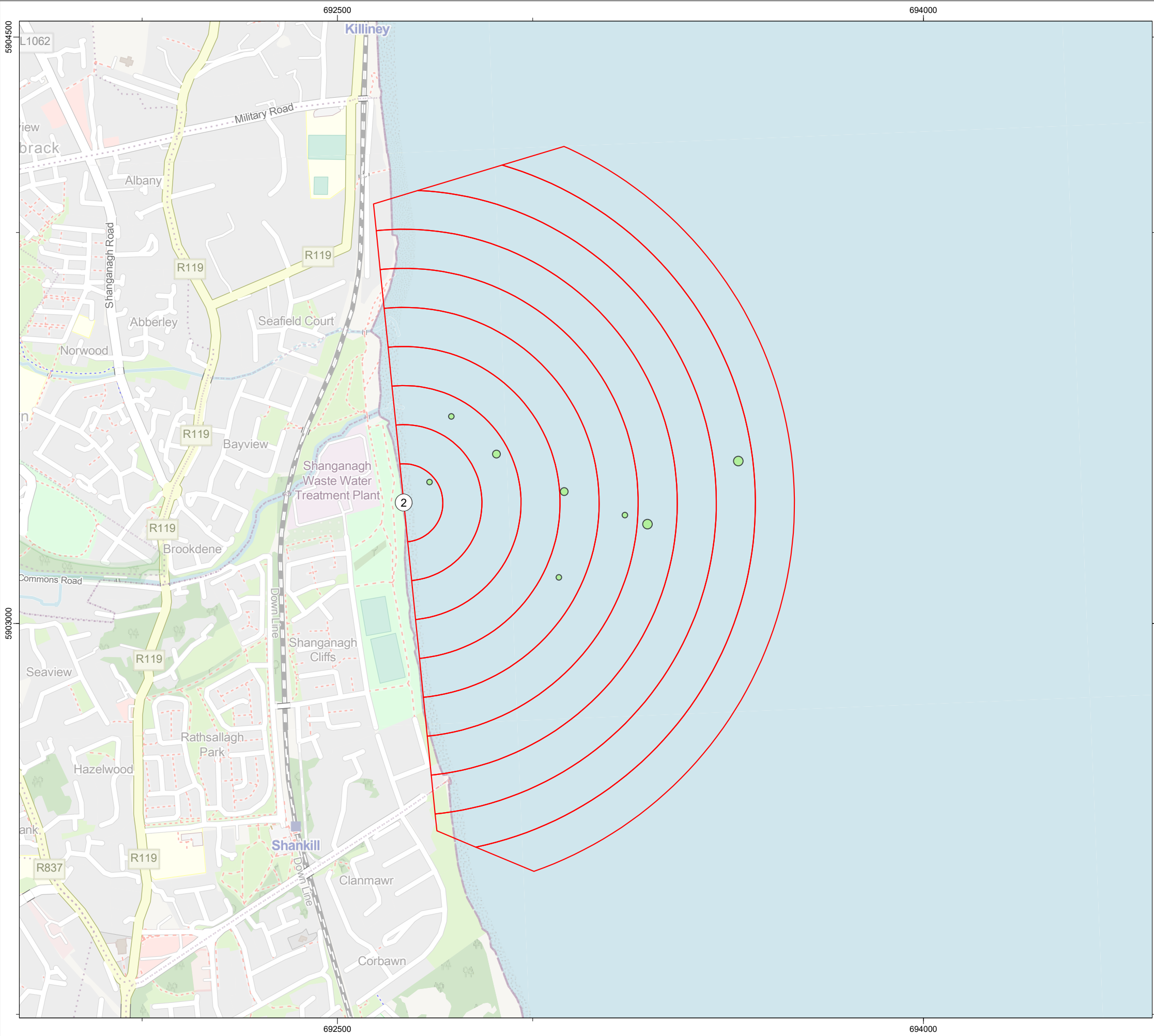
PROJECT TITLE
Dublin Array

DRAWING TITLE
**Relative Abundance and Distribution of
Pied/White Wagtail**

DRAWING NUMBER: **Figure 21** PAGE NUMBER: **20 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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PROJECT TITLE

Dublin Array

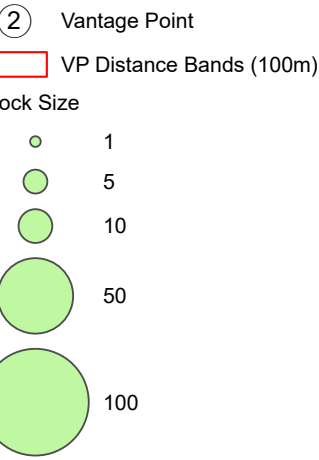
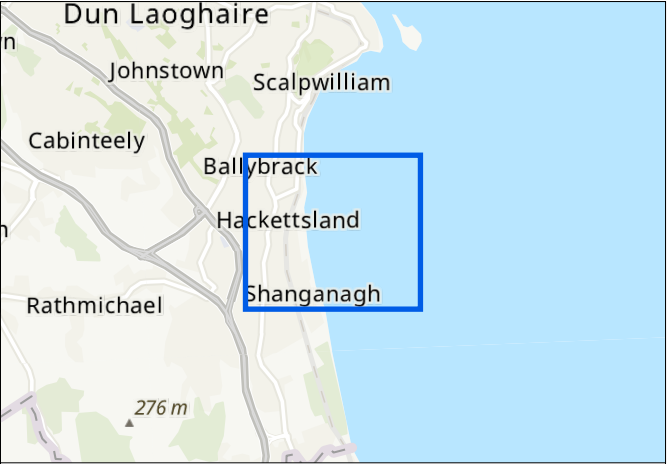
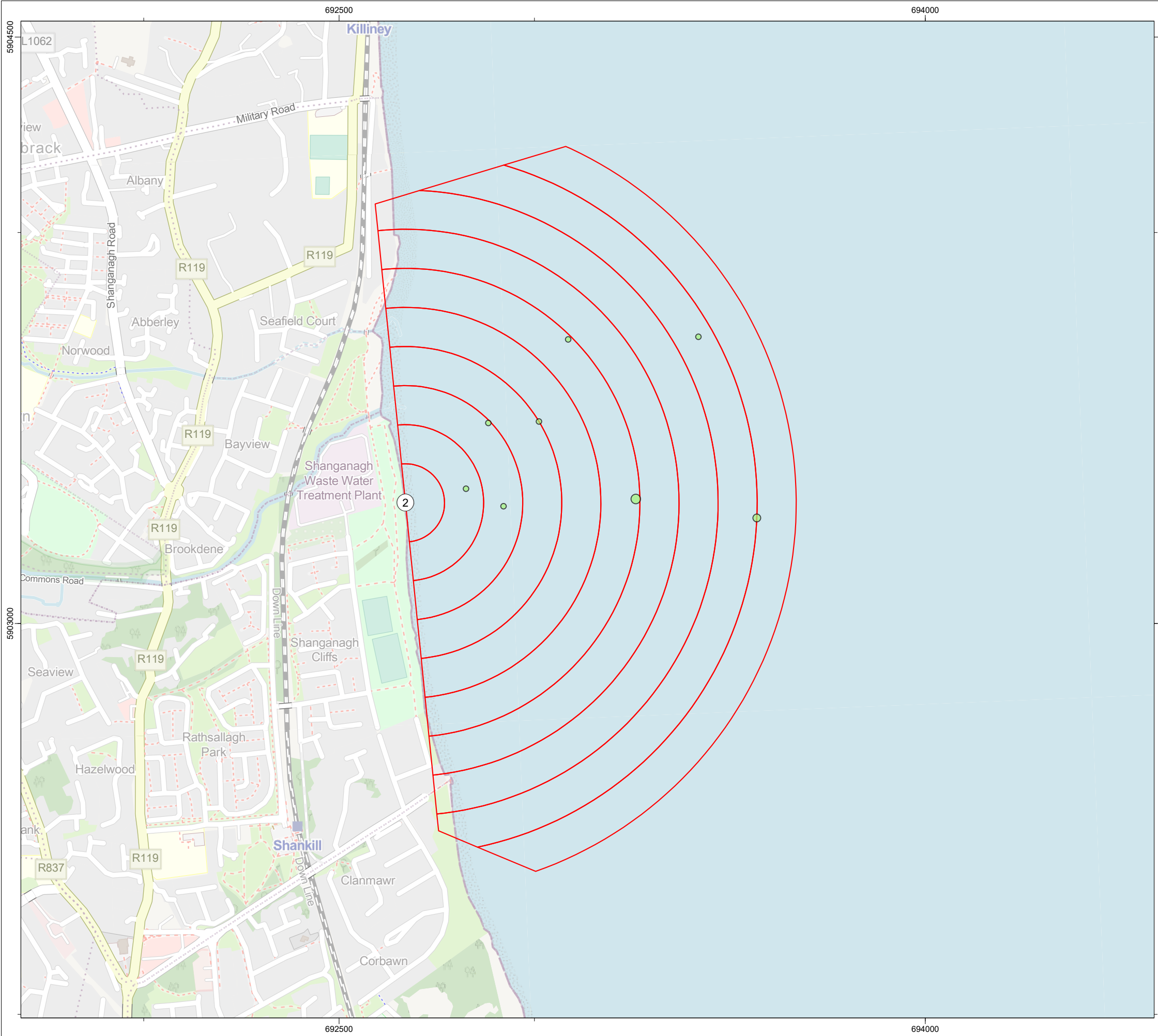
DRAWING TITLE

Relative Abundance and Distribution of Razorbill

DRAWING NUMBER: **Figure 22** PAGE NUMBER: **21 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
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PROJECT TITLE

Dublin Array

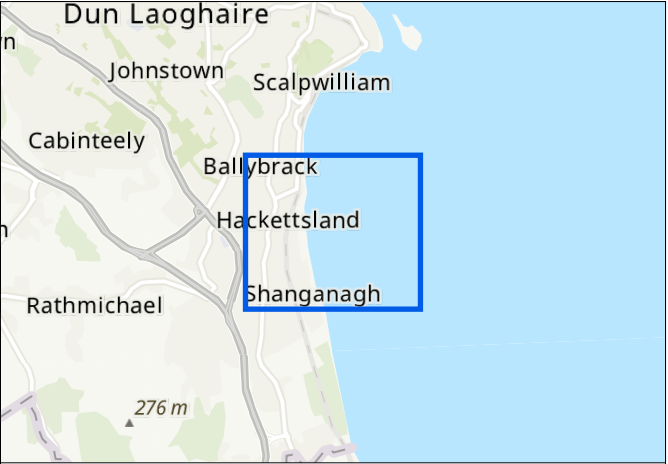
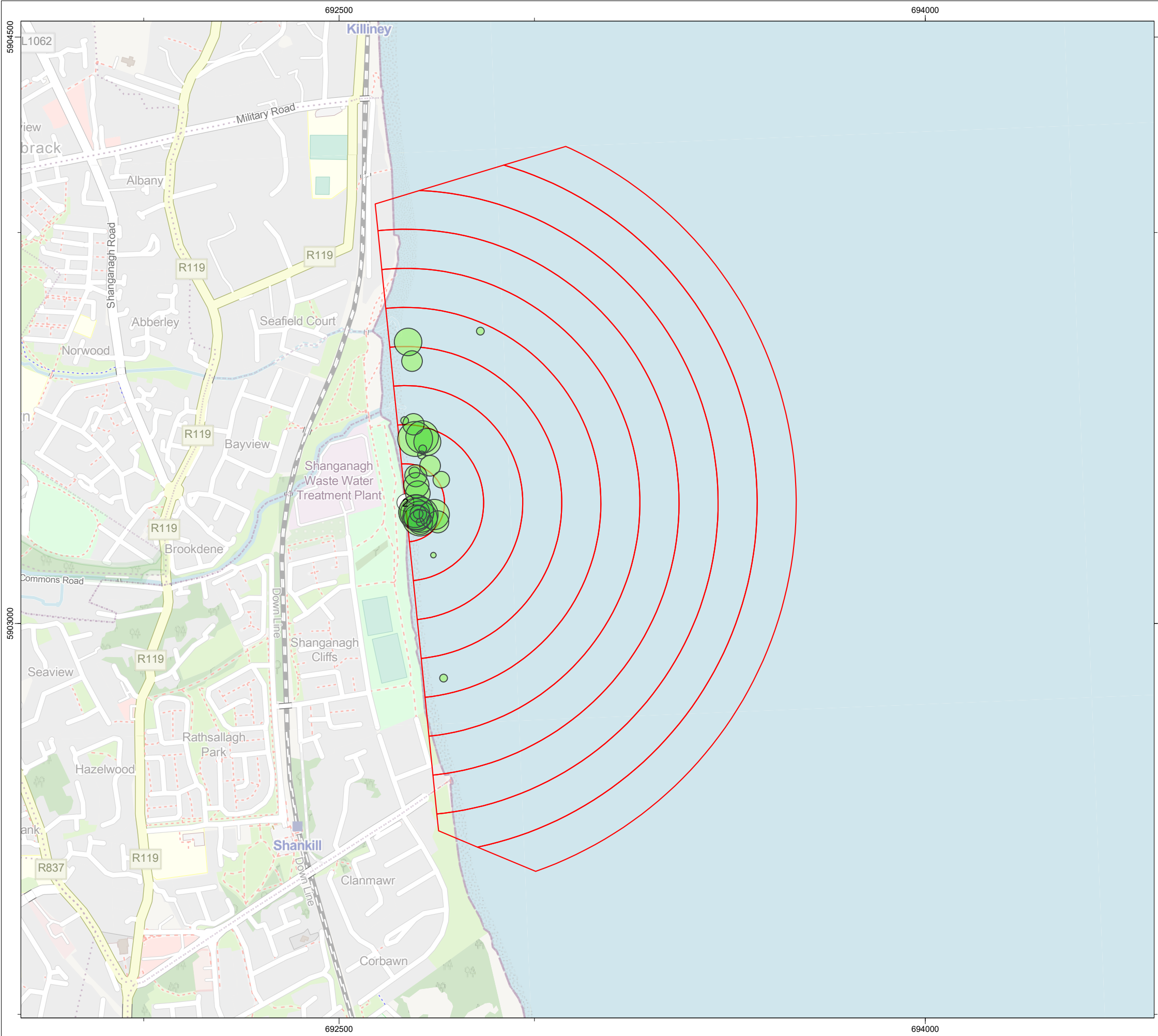
DRAWING TITLE

Relative Abundance and Distribution of Red-throated Diver

DRAWING NUMBER: **Figure 23** PAGE NUMBER: **22 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM





② Vantage Point

VP Distance Bands (100m)

Flock Size

- 1
- 5
- 10
- 50
- 100

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PROJECT TITLE **Dublin Array**

DRAWING TITLE **Relative Abundance and Distribution of Ringed Plover**

DRAWING NUMBER: Figure 24			PAGE NUMBER: 23 of 28		
VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

0 50 100 150 200 Metres

0 0.1 0.2 Miles

N

ORIENT NORTH

SCALE 1:10,000

DATUM WGS 1984

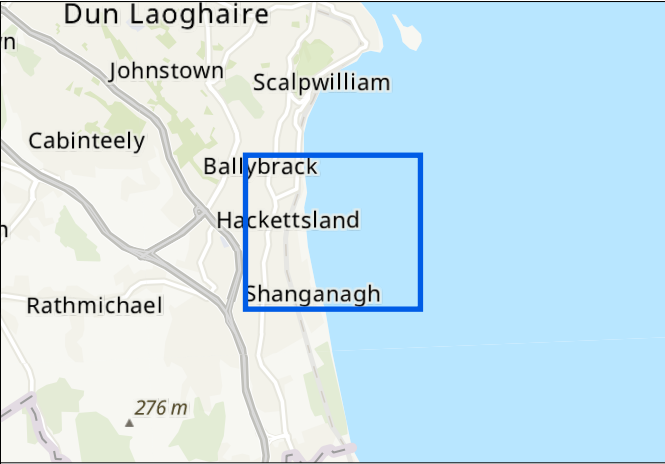
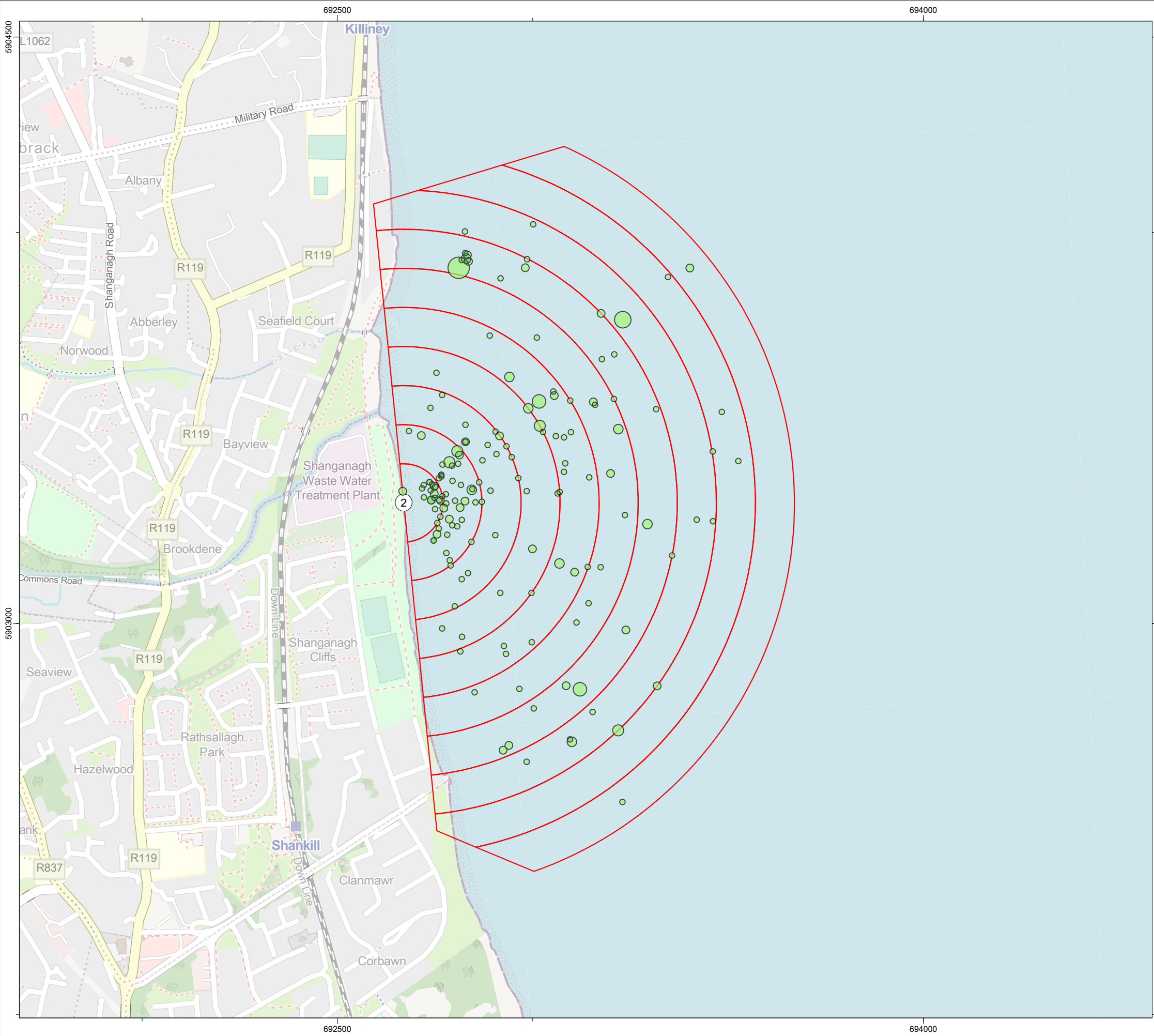
PRJ WGS 1984 UTM Zone 29N

PLOT SIZE A3

VERTICAL REF DDN/LAT/MLLW

SLR

DublinArray
Generation for generations
Kish Offshore Wind Limited - Bray Offshore Wind Limited



② Vantage Point

VP Distance Bands (100m)

Flock Size

- 1
- 5
- 10
- 50
- 100

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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Shag

DRAWING NUMBER: **Figure 25** PAGE NUMBER: **24 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM

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0 0.1 0.2 Miles

N

GRID NORTH

SCALE 1:10,000

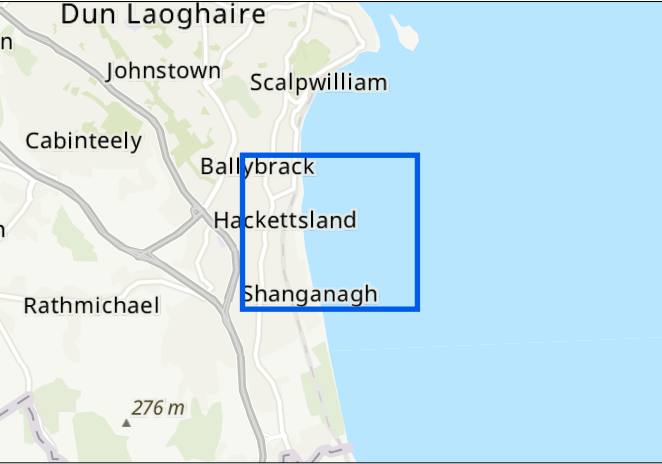
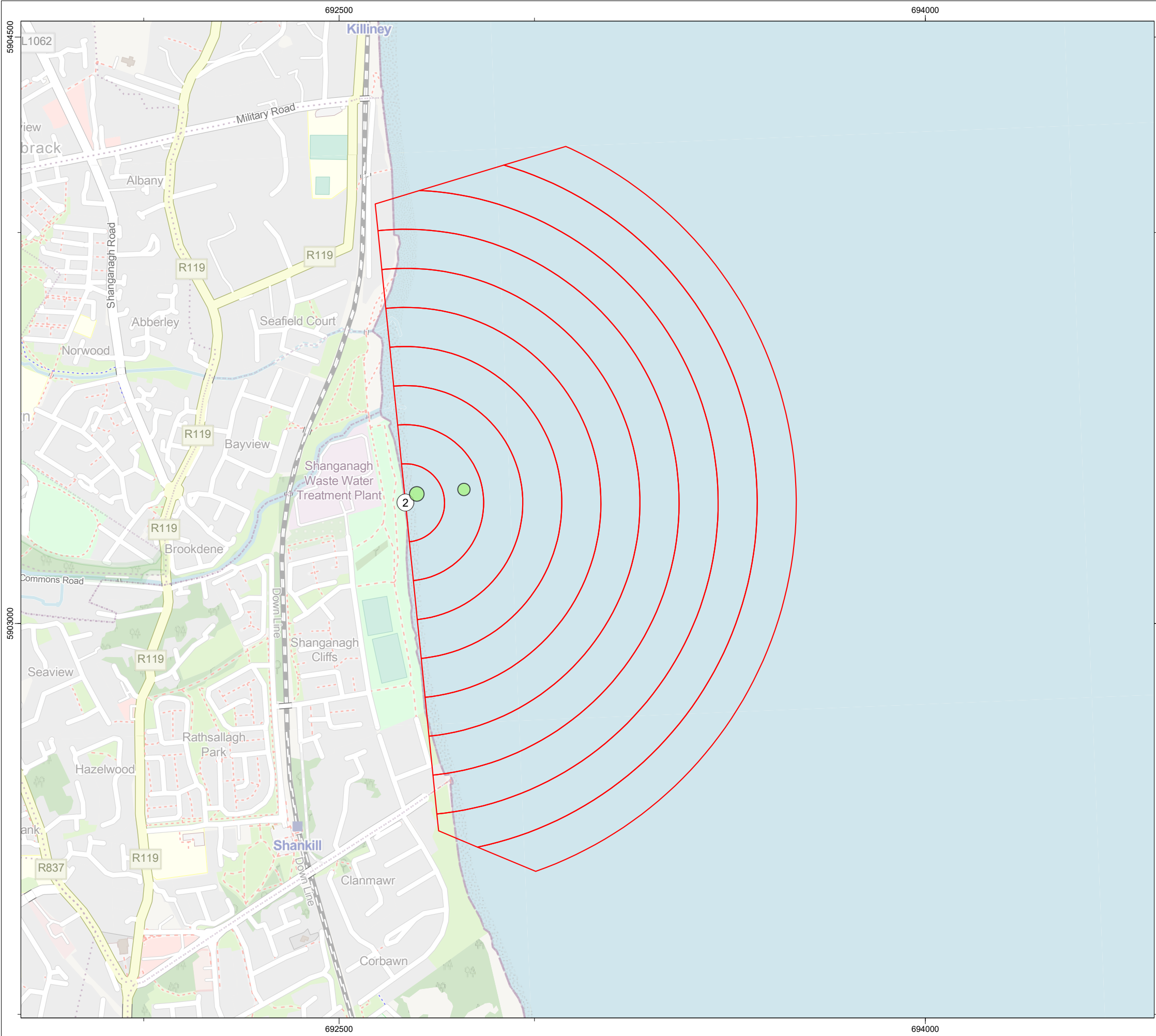
DATUM WGS 1984

PRJ WGS 1984 UTM Zone 29N

PLOT SIZE A3

VERTICAL REF DDN/LAT/MLLW

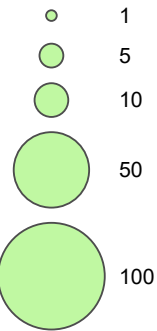




② Vantage Point

VP Distance Bands (100m)

Flock Size



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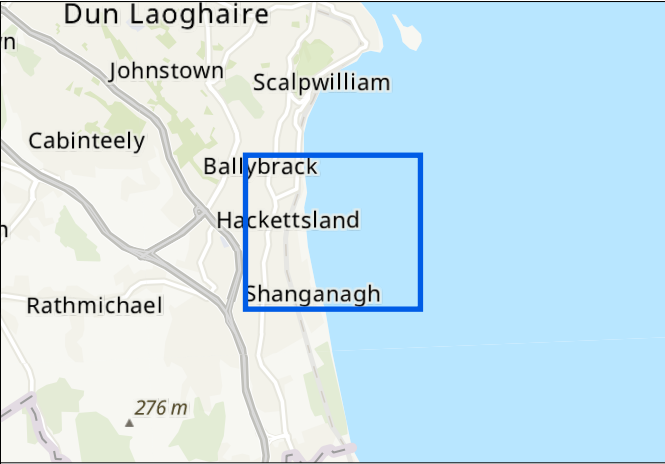
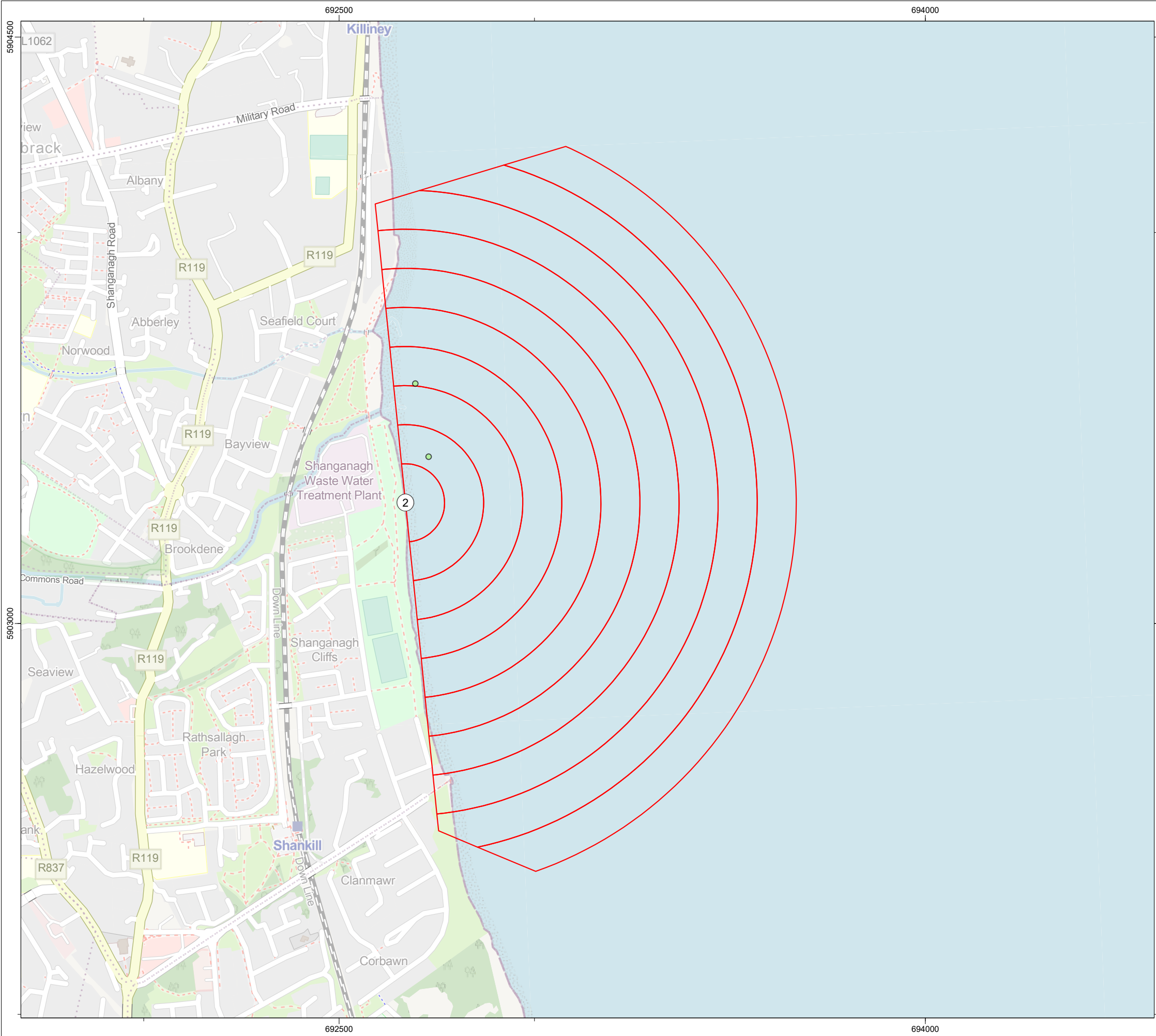
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Sand Martin

DRAWING NUMBER: **Figure 26** PAGE NUMBER: **25 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
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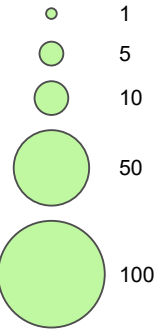




② Vantage Point

VP Distance Bands (100m)

Flock Size



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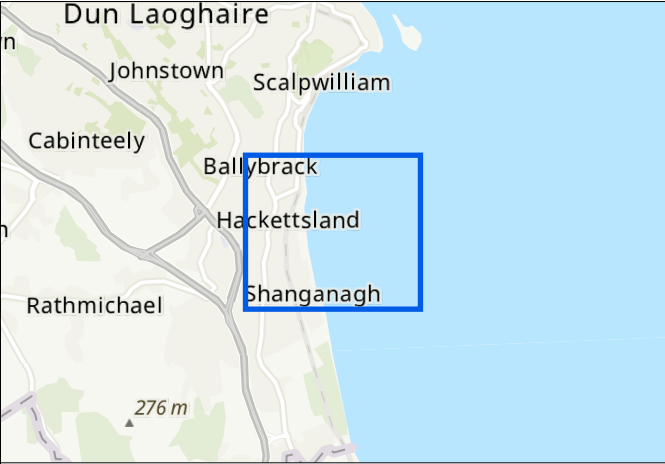
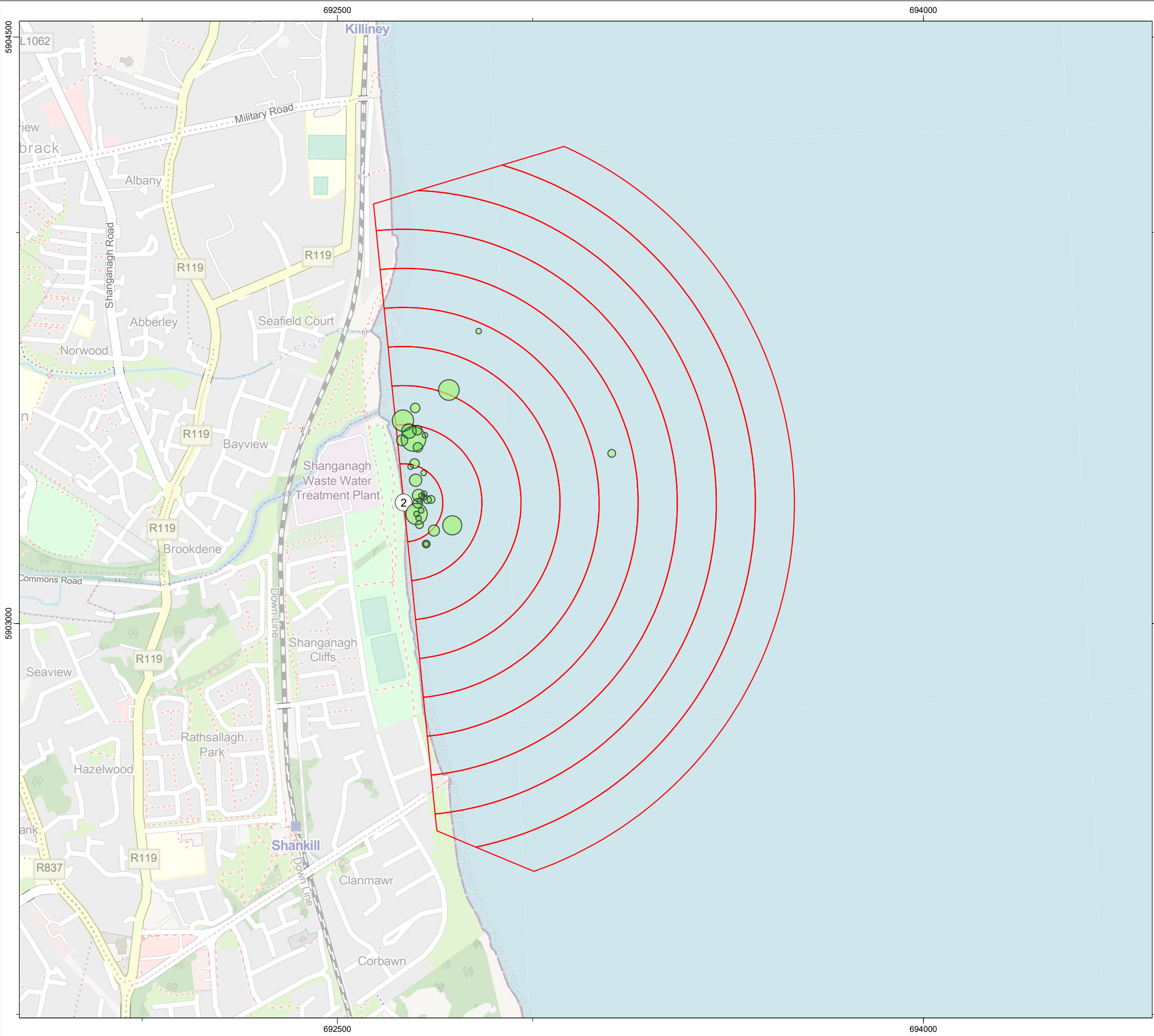
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Sandwich Tern

DRAWING NUMBER: **Figure 27** PAGE NUMBER: **26 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
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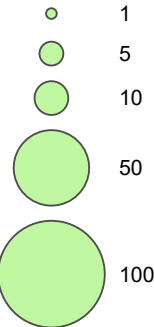




② Vantage Point

VP Distance Bands (100m)

Flock Size



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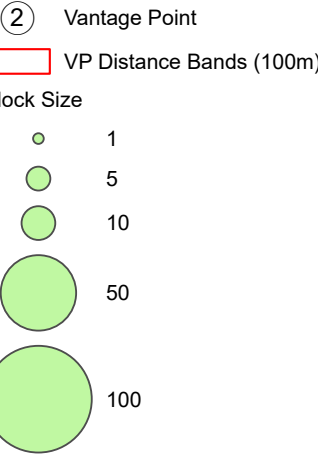
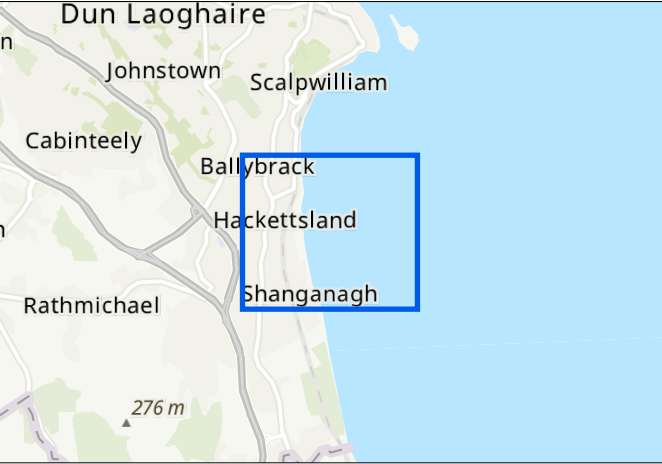
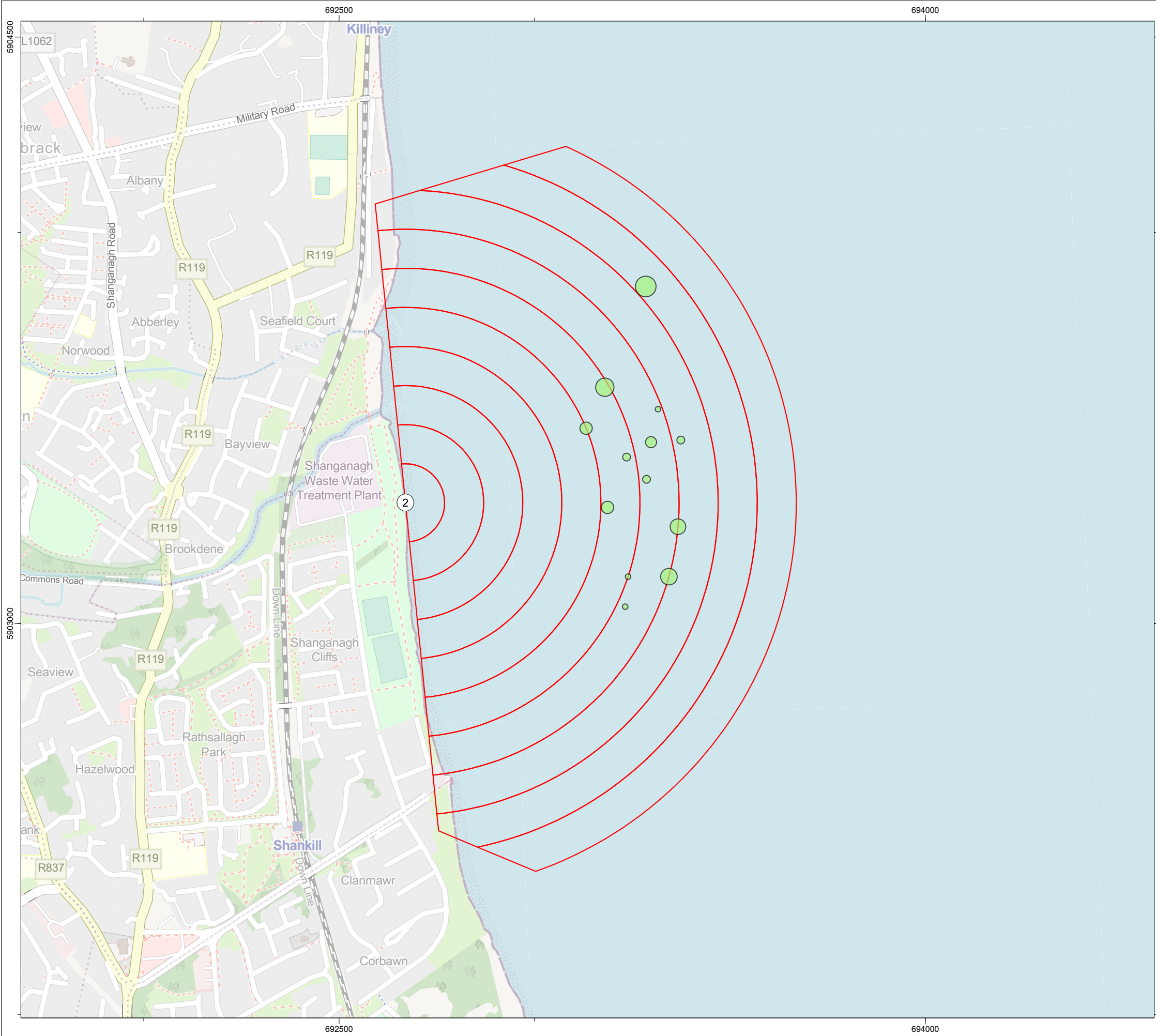
PROJECT TITLE
Dublin Array

DRAWING TITLE
Relative Abundance and Distribution of Turnstone

DRAWING NUMBER: **Figure 28** PAGE NUMBER: **27 of 28**

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PROJECT TITLE

Dublin Array

DRAWING TITLE

Relative Abundance and Distribution of Black Guillemot

DRAWING NUMBER: **Figure 29** PAGE NUMBER: **28 of 28**

VER	DATE	REMARKS	DRAW	CHEK	APRD
01	2025-01-31	First Issue	PW	AB	AE
02	2025-01-31	Public	JK	AM	AM



Appendix 2 Illustrative Plates



Plate 1 VP2 – View east immediately in front of VP



Plate 2 VP2 – View north towards Killiney



Plate 3 VP2 – View south along coast towards Bray Head

Appendix 3 Raw Field Data³

³ Surveyor initials: AM = Alice Magee, BP = Brian Porter
Behaviour codes: F = foraging, L = loafing, M = maintenance, R = roosting
Species = BTO Codes, with a key provided in Appendix 4

Table 6 Count data from intertidal bird surveys conducted at VP2 in September 2023

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Ebbing type 1	AM	1	09:46	10:16	1	HG	13	16	M		
25/09/2023	Ebbing type 1	AM	1	09:46	10:16	2	BH	1	1	M	Powered boat	None
25/09/2023	Ebbing type 1	AM	1	09:46	10:16	3	HG	1	1	O	Powered boat	Flying over boat
25/09/2023	Ebbing type 1	AM	2	10:16	10:23	4	BH	2	2	M		
25/09/2023	Ebbing type 1	AM	2	10:16	10:23	5	HG	3	3	M		
25/09/2023	Ebbing type 1	AM	2	10:16	10:23	6	HG	2	2	M		
25/09/2023	Ebbing type 1	AM	2	10:16	10:23	7	HG	1	1	M		
25/09/2023	Ebbing type 1	AM	3	10:46	10:56	1	HG	5	5	M		
25/09/2023	Ebbing type 1	AM	3	10:46	10:56	2	HG	1	1	M		
25/09/2023	Ebbing type 1	AM	3	10:46	10:56	3	BH	3	3	F		
25/09/2023	Ebbing type 1	AM	3	10:46	10:56	4	HG	3	3	M		
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	5	HG	3	3	L	Dogs	Moderate
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	6	HG	1	1	M		
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	7	HG	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	8	HG	3	3	L, M		
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	9	HG	6	6	M		
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	10	HG	6	6	M		
25/09/2023	Ebbing type 1	AM	4	11:16	11:25	11	TT	2	2	L		
25/09/2023	Ebbing type 1	AM	5	11:46	11:51	1	OC	1	1	L		
25/09/2023	Ebbing type 1	AM	5	11:46	11:51	2	HG	10	10	M		
25/09/2023	Ebbing type 1	AM	5	11:46	11:51	3	GB	1	1	M		
25/09/2023	Ebbing type 1	AM	5	11:46	11:51	4	PW	1	1	L		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	5	HG	1	1	M, F		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	6	MU	1	1	M		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	7	HG	32	32	M		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	8	GB	5	5	M		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	9	TT	7	7	F		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	10	BH	2	2	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	11	BH	19	19	M		
25/09/2023	Ebbing type 1	AM	6	12:16	12:30	12	RA	1	1	M		
25/09/2023	Rising type 2	AM	1	15:23	15:31	1	HG	47	47	M	Dog	Moderate
25/09/2023	Rising type 2	AM	1	15:23	15:31	2	BH	2	2	M	Dog	Moderate
25/09/2023	Rising type 2	AM	1	15:23	15:31	3	CA	1	1	L		
25/09/2023	Rising type 2	AM	1	15:23	15:31	4	BH	1	1	L, M		Landed near 1 and 2
25/09/2023	Rising type 2	AM	1	15:23	15:31	5	CA	1	1	L		
25/09/2023	Rising type 2	AM	1	15:23	15:31	6	GB	1	1	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	1	MU	2	2	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	2	GB	1	1	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	3	HG	2	2	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	4	HG	10	10	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	5	HG	2	2	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	6	HG	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Rising type 2	AM	2	15:53	16:02	7	HG	3	3	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	8	BH	7	7	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	9	HG	1	1	M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	10	CA	1	1	L, M		
25/09/2023	Rising type 2	AM	2	15:53	16:02	11	HG	1	1	L		
25/09/2023	Rising type 2	AM	3	16:23	16:31	1	HG	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	2	MU	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	3	HG	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	4	BH	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	5	CA	1	1	L		
25/09/2023	Rising type 2	AM	3	16:23	16:31	6	OC	1	1	L		
25/09/2023	Rising type 2	AM	3	16:23	16:31	7	BH	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	8	HG	1	1	M		
25/09/2023	Rising type 2	AM	3	16:23	16:31	9	MU	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Rising type 2	AM	3	16:23	16:31	10	HG	3	3	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	1	BH	2	2	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	2	HG	1	1	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	3	BH	1	1	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	4	BH	2	2	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	5	BH	2	2	L		
25/09/2023	Rising type 2	AM	4	16:53	17:01	6	HG	13	13	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	7	GB	1	1	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	8	HG	1	1	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	9	MU	1	1	M		
25/09/2023	Rising type 2	AM	4	16:53	17:01	10	BH	1	1	L, M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	1	TT	3	3	F, L		
25/09/2023	Rising type 2	AM	5	17:23	17:30	2	HG	4	4	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	3	BH	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Rising type 2	AM	5	17:23	17:30	4	HG	13	13	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	5	BH	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	6	GB	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	7	BH	3	3	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	8	HG	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	9	BH	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	10	BH	5	5	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	11	HG	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	12	BH	1	1	M		
25/09/2023	Rising type 2	AM	5	17:23	17:30	13	HG	1	1	L, M		
25/09/2023	Rising type 2	AM	5	17:53	18:09	1	HG	1	1	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	2	HG	1	1	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	3	HG	1	1	L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	4	HG	2	2	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
25/09/2023	Rising type 2	AM	6	17:53	18:09	5	BH	1	1	L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	6	BH	14	14	M, L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	7	BH	2	2	M, L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	8	BH	1	1	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	9	HG	5	5	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	10	HG	1	1	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	11	HG	1	1	L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	12	BH	3	3	L		
25/09/2023	Rising type 2	AM	6	17:53	18:09	13	BH	2	2	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	14	TT	3	3	F		
25/09/2023	Rising type 2	AM	6	17:53	18:09	15	RP	2	2	F		
25/09/2023	Rising type 2	AM	6	17:53	18:09	16	HG	8	8	M		
25/09/2023	Rising type 2	AM	6	17:53	18:09	17	HG	1	1	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	1	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	2	HG	1	1	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	3	BH	15	15	L, 7 M		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	4	TT	12	12	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	5	BH	3	3	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	6	HG	2	2	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	7	GB	1	1	L		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	8	MU	1	1	M		
28/09/2023	Ebbing type 2	AM	1	12:56	13:17	9	RP	21	21	L		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	1	RP	16	16	L	Other	Low
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	2	BH	2	2	L		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	3	CA	1	1	L		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	4	BH	1	1	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	5	MU	2	2	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	6	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	7	HG	1	1	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	8	BH	1	1	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	9	BH	2	2	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	10	MU	2	2	F		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	11	HG	2	2	M	Other	Low
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	12	TT	14	14	L		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	13	HG	13	13	M		
28/09/2023	Ebbing type 2	AM	2	13:26	13:40	14	BH	5	5	M, L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	1a	TT	14	15	L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	1b	RP	9	9	L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	2	HG	1	1	L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	3	BH	2	2	L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	4	BH	1	1	L		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	5	BH	2	2	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	6	GB	1	1	M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	7	BH	2	2	L, M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	8	HG	2	2	M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	9	BH	1	1	M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	10a	GB	3	3	M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	10b	HG	2	2	M		
28/09/2023	Ebbing type 2	AM	3	13:56	14:11	11	HG	29	29	M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	1a	TT	1	1	F		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	1b	RP	3	3	F		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	2	HG	1	1	M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	2	BH	4	4	M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	3	HG	6	6	L, M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	4	GB	1	1	L		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	5	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	6	HG	2	2	M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	7	HG	20	20	M		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	8	BH	1	1	L		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	9	CA	1	1	L		
28/09/2023	Ebbing type 2	AM	4	14:26	14:40	10	TE	1	1	L		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	1	TT	1	1	F		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	2	GB	2	2	L, M		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	3	BH	25	25	L, M		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	4a	HG	19	19	L		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	4b	GB	3	3	L		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	5	CA	1	1	L		
28/09/2023	Ebbing type 2	AM	5	14:56	15:05	6	OC	4	4	L		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	1a	TT	10	20	L	Dogs	High
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	1b	RP	30	40	L	Dogs	High

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	2a	GB	6	6	M	Dogs	Low
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	2b	HG	31	31	M	Dogs	Low
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	3	CN	2	2	M		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	4	CA	1	1	M		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	5a	BH	3	3	M		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	5b	HG	1	1	M		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	6	OC	1	1	L		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	7a	HG	5	5	L		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	7b	BH	1	1	L		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	8	OC	14	14	L		
28/09/2023	Ebbing type 2	AM	6	15:26	15:47	9	GX	1	1	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	1	BH	1	1	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	2	TT	4	4	F		
29/09/2023	Rising type 1	AM	1	08:19	08:30	3	HG	8	8	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	1	08:19	08:30	4	HG	3	3	M		
29/09/2023	Rising type 1	AM	1	08:19	08:30	5	HG	11	11	M		
29/09/2023	Rising type 1	AM	1	08:19	08:30	6	CA	3	3	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	7	BH	2	2	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	8	HG	1	1	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	9	CA	2	2	L		
29/09/2023	Rising type 1	AM	1	08:19	08:30	10	SA	1	1	F		
29/09/2023	Rising type 1	AM	1	08:19	08:30	11	RP	2	2	F	Dog	Low
29/09/2023	Rising type 1	AM	1	08:19	08:30	11	TT	15	15	F	Dog	Low
29/09/2023	Rising type 1	AM	1	08:19	08:30	12	GB	1	1	L		
29/09/2023	Rising type 1	AM	2	08:49	09:01	1	CA	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	2	GB	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	3	HG	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	4	HG	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	2	08:49	09:01	5	CA	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	6	BH	1	1	L, M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	7	RP	20	20	L	Dog	Low
29/09/2023	Rising type 1	AM	2	08:49	09:01	8	HG	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	9	BH	1	1	M		
29/09/2023	Rising type 1	AM	2	08:49	09:01	10	HG	11	11	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	1	HG	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	2	HG	2	2	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	3	RP	2	2	F		
29/09/2023	Rising type 1	AM	3	09:19	09:38	4	CA	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	5	HG	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	6	CA	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	7	CA	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	8	BH	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	3	09:19	09:38	9	GX	1	1	L		
29/09/2023	Rising type 1	AM	3	09:19	09:38	10	BH	1	1	L		
29/09/2023	Rising type 1	AM	3	09:19	09:38	11	HG	1	1	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	12	MU	19	19	M		
29/09/2023	Rising type 1	AM	3	09:19	09:38	12	BH	3	3	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	1	CA	3	3	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	2	HG	4	4	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	3	CA	1	1	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	4	HG	1	1	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	5	HG	1	1	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	6	BH	4	4	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	7	HG	3	3	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	8	HG	1	1	L		
29/09/2023	Rising type 1	AM	4	09:49	10:02	9	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	4	09:49	10:02	10	SM	5	5	L		
29/09/2023	Rising type 1	AM	4	09:49	10:02	11	MU	3	3	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	12	CA	1	1	M		
29/09/2023	Rising type 1	AM	4	09:49	10:02	13	SM	7	7	L		
29/09/2023	Rising type 1	AM	4	09:49	10:02	14	TE	1	1	L		
29/09/2023	Rising type 1	AM	5	10:19	10:30	1	BH	5	5	L		
29/09/2023	Rising type 1	AM	5	10:19	10:30	2	TT	1	1	L		
29/09/2023	Rising type 1	AM	5	10:19	10:30	3	HG	1	1	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	4	BH	5	5	L, F		
29/09/2023	Rising type 1	AM	5	10:19	10:30	5	HG	2	2	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	6	HG	1	1	L		
29/09/2023	Rising type 1	AM	5	10:19	10:30	7	CA	4	4	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	8	SA	1	1	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	9	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	5	10:19	10:30	10	HG	1	1	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	11	CA	4	4	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	12	HG	2	2	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	13	BH	2	2	M		
29/09/2023	Rising type 1	AM	5	10:19	10:30	14	GX	1	1	L		
29/09/2023	Rising type 1	AM	6	10:49	10:58	1	HG	9	9	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	2	GB	1	1	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	3	CA	1	1	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	4	CA	1	1	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	5	TT	1	1	L		
29/09/2023	Rising type 1	AM	6	10:49	10:58	6	BH	3	3	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	7	CA	1	1	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	8	CA	1	1	M		
29/09/2023	Rising type 1	AM	6	10:49	10:58	9	CA	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
29/09/2023	Rising type 1	AM	6	10:49	10:58	10	BH	1	1	L, M		

Table 7 Count data from intertidal bird surveys conducted at VP2 in October 2023

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	1	GU	1	1	M		
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	2	HG	10	10	L		
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	3	CA	1	1	F		
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	4	HG	1	1	L		
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	5	TT	5	5	F, L	Dog	Low
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	6	HG	1	1	M		
10/10/2023	Ebbing type 1	AM	1	11:19	11:29	7	BH	1	1	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	1	CA	1	1	F		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	2	BH	1	1	L		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	3	HG	1	1	L		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	4	HG	76	76	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	5	GB	1	1	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	6	GB	2	2	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	7	CA	2	2	F, M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	8	GU	1	1	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	9	HG	1	1	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	10	CA	1	1	L		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	11	BH	3	3	M		
10/10/2023	Ebbing type 1	AM	2	11:49	12:03	12	BH	7	7	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	1	HG	68	68	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	2	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	3	GB	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	4	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	5	GB	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	6	GU	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	7	HG	1	1	M		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	8	OC	1	1	L		
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	9	HG	1	1	M		
10/10/2023	Ebbing	AM	3	12:19	12:27	10	BH	7	7	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
10/10/2023	Ebbing type 1	AM	3	12:19	12:27	11	BH	4	4	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	1	HG	64	64	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	2	GB	1	1	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	3	CM	2	2	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	4	CA	2	2	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	5	RH	1	1	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	6	GU	1	1	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	7	HG	2	2	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	8	HG	2	2	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	9	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	10	CA	2	2	L		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	11	CA	1	1	F		
10/10/2023	Ebbing type 1	AM	4	12:49	12:59	12	HG	1	1	L		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	1	HG	106	106	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	2	GB	2	2	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	3	CA	1	1	F		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	4	SA	1	1	F		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	5	HG	1	1	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	6	GB	1	1	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	7	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	8	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	9	BH	1	1	M		
10/10/2023	Ebbing type 1	AM	5	13:19	13:36	10	OC	3	3	L		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	1	OC	1	1	M		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	2	TT	3	3	F		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	3a	HG	44	44	M	Dogs	Low
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	3b	BH	4	4	F	Dogs	Low
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	3c	MU	3	3	F	Dogs	Low
10/10/2023	Ebbing	AM	6	13:49	13:57	3d	GB	1	1	M	Dogs	Low

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	4	MU	1	1	M		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	5	CA	1	1	M		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	6	CA	1	1	F		
10/10/2023	Ebbing type 1	AM	6	13:49	13:57	7	MU	1	1	M		
13/10/2023	Rising type 1	AM	1	07:56	08:15	1	CA	1	1	M, F		
13/10/2023	Rising type 1	AM	1	07:56	08:15	2	OC	5	5	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	3	OC	11	11	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	4	MU	1	1	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	5a	HG	1	1	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	6	CA	1	1	L, M		
13/10/2023	Rising type 1	AM	1	07:56	08:15	7	CA	1	1	M, F		
13/10/2023	Rising type 1	AM	1	07:56	08:15	5b	HG	1	1	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	8	GB	1	1	M		
13/10/2023	Rising type 1	AM	1	07:56	08:15	9	SA	1	1	M, L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
13/10/2023	Rising type 1	AM	1	07:56	08:15	10	HG	2	2	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	11	H.	1	1	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	12	CA	1	1	L		
13/10/2023	Rising type 1	AM	1	07:56	08:15	13	GU	1	1	M		
13/10/2023	Rising type 1	AM	2	08:26	08:45	1	RP	35	35	L	Walker	Moderate
13/10/2023	Rising type 1	AM	2	08:26	08:45	2	H.	1	1	L		
13/10/2023	Rising type 1	AM	2	08:26	08:45	3	GU	1	1	M		
13/10/2023	Rising type 1	AM	2	08:26	08:45	4	CA	1	1	L		
13/10/2023	Rising type 1	AM	2	08:26	08:45	5	GX	1	1	L		
13/10/2023	Rising type 1	AM	2	08:26	08:45	6	MU	45	45	M		
13/10/2023	Rising type 1	AM	2	08:26	08:45	7	GB	1	1	L		
13/10/2023	Rising type 1	AM	2	08:26	08:45	8	SA	1	1	L, F		
13/10/2023	Rising type 1	AM	2	08:26	08:45	9	OC	2	2	L		
13/10/2023	Rising type 1	AM	2	08:26	08:45	10	CA	2	2	F		
13/10/2023	Rising	AM	2	08:26	08:45	11	CA	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
13/10/2023	Rising type 1	AM	2	08:26	08:45	12	GB	1	1	M		
13/10/2023	Rising type 1	AM	2	08:26	08:45	13	HG	2	2	L		
13/10/2023	Rising type 1	AM	3	08:56	09:06	1	SA	1	1	M		
13/10/2023	Rising type 1	AM	3	08:56	09:06	2	HG	1	1	L		
13/10/2023	Rising type 1	AM	3	08:56	09:06	3	LB	1	1	L		
13/10/2023	Rising type 1	AM	3	08:56	09:06	4	MS	3	3	L		
13/10/2023	Rising type 1	AM	3	08:56	09:06	5	CA	1	1	L		
13/10/2023	Rising type 1	AM	3	08:56	09:06	6	MU	42	42	M		
13/10/2023	Rising type 1	AM	3	08:56	09:06	7	HG	2	2	M		
13/10/2023	Rising type 1	AM	3	08:56	09:06	8	MU	2	2	M		
13/10/2023	Rising type 1	AM	3	08:56	09:06	9	SA	2	2	F		
13/10/2023	Rising type 1	AM	4	09:26	09:37	1	TT	3	3	L		
13/10/2023	Rising type 1	AM	4	09:26	09:37	2	GB	3	3	M		
13/10/2023	Rising type 1	AM	4	09:26	09:37	3	SA	2	2	F		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
13/10/2023	Rising type 1	AM	4	09:26	09:37	4	CA	3	3	M		
13/10/2023	Rising type 1	AM	4	09:26	09:37	5	HG	1	1	L		
13/10/2023	Rising type 1	AM	4	09:26	09:37	6	CA	1	1	L		
13/10/2023	Rising type 1	AM	4	09:26	09:37	7	CA	1	1	L, F		
13/10/2023	Rising type 1	AM	4	09:26	09:37	8	TT	1	1	L	Walker and dog	Moderate
13/10/2023	Rising type 1	AM	5	09:56	10:04	1	RP	2	2	L	Dogs	Low
13/10/2023	Rising type 1	AM	5	09:56	10:04	2	HG	1	1	L		
13/10/2023	Rising type 1	AM	5	09:56	10:04	3	HG	10	10	M		
13/10/2023	Rising type 1	AM	5	09:56	10:04	4	SA	1	1	M		
13/10/2023	Rising type 1	AM	5	09:56	10:04	5	CA	1	1	L		
13/10/2023	Rising type 1	AM	5	09:56	10:04	6	GX	1	1	L		
13/10/2023	Rising type 1	AM	6	10:26	10:43	1	HG	12	12	M		
13/10/2023	Rising type 1	AM	6	10:26	10:43	2	SA	1	1	F		
13/10/2023	Rising type 1	AM	6	10:26	10:43	3	GB	1	1	L, M		
13/10/2023	Rising	AM	6	10:26	10:43	4	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
13/10/2023	Rising type 1	AM	6	10:26	10:43	5	HG	1	1	L		
13/10/2023	Rising type 1	AM	6	10:26	10:43	6	BH	3	3	M		
13/10/2023	Rising type 1	AM	6	10:26	10:43	7	HG	1	1	L		
13/10/2023	Rising type 1	AM	6	10:26	10:43	8	SA	1	1	M		
13/10/2023	Rising type 1	AM	6	10:26	10:43	9	HG	1	1	M		
13/10/2023	Rising type 1	AM	6	10:26	10:43	10	SA	1	1	M		
13/10/2023	Rising type 1	AM	6	10:26	10:43	11	OC	1	1	L		
24/10/2023	Ebbing type 2	AM	1	10:04	10:11	1	MU	6	6	L, M		
24/10/2023	Ebbing type 2	AM	1	10:04	10:11	2	BH	8	8	L, M		
24/10/2023	Ebbing type 2	AM	1	10:04	10:11	3	HG	3	3	M		
24/10/2023	Ebbing type 2	AM	1	10:04	10:11	4	GB	2	2	M		
24/10/2023	Ebbing type 2	AM	2	10:34	10:46	5	HG	1	1	L		
24/10/2023	Ebbing type 2	AM	2	10:34	10:46	6	GB	1	1	M		
24/10/2023	Ebbing type 2	AM	2	10:34	10:46	7	TT	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
24/10/2023	Ebbing type 2	AM	2	10:34	10:46	8	OC	1	1	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	1	RP	24	24	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	2	CA	1	1	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	3	BH	1	1	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	4	BH	1	1	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	5	TT	1	1	L		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	6	GB	1	1	L, M		
24/10/2023	Ebbing type 2	AM	3	11:04	11:13	7	HG	1	1	L, M		
24/10/2023	Ebbing type 2	AM	4	11:34	11:40	1	TT	3	3	L		
24/10/2023	Ebbing type 2	AM	4	11:34	11:40	2	GB	1	1	M		
24/10/2023	Ebbing type 2	AM	4	11:34	11:40	3	HG	1	1	M		
24/10/2023	Ebbing type 2	AM	4	11:34	11:40	4	HG	1	1	L		
24/10/2023	Ebbing type 2	AM	4	11:34	11:40	5	OC	8	8	L		
24/10/2023	Ebbing type 2	AM	5	12:04	12:12	1	BH	1	1	L		
24/10/2023	Ebbing	AM	5	12:04	12:12	2	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
24/10/2023	Ebbing type 2	AM	5	12:04	12:12	3	BH	4	4	M		
24/10/2023	Ebbing type 2	AM	5	12:04	12:12	4a	GB	1	1	L		
24/10/2023	Ebbing type 2	AM	5	12:04	12:12	4b	HG	1	1	L		
24/10/2023	Ebbing type 2	AM	6	12:34	12:40	1	HG	1	1	L		
24/10/2023	Ebbing type 2	AM	6	12:34	12:40	2	BH	2	2	L		
24/10/2023	Ebbing type 2	AM	6	12:34	12:40	3	TT	4	4	L		
24/10/2023	Rising type 2	AM	1	15:04	15:10	1	GB	1	1	L, M		
24/10/2023	Rising type 2	AM	1	15:04	15:10	2a	HG	1	1	L		
24/10/2023	Rising type 2	AM	1	15:04	15:10	2b	BH	5	5	L		
24/10/2023	Rising type 2	AM	1	15:04	15:10	2c	MU	4	4	L		
24/10/2023	Rising type 2	AM	1	15:04	15:10	2d	OC	6	6	L		
24/10/2023	Rising type 2	AM	1	15:04	15:10	2e	TT	1	1	L		
24/10/2023	Rising type 2	AM	2	15:34	15:40	1	OC	24	24	L	Dog	High
24/10/2023	Rising type 2	AM	2	15:34	15:40	2	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
24/10/2023	Rising type 2	AM	2	15:34	15:40	3	GB	1	1	M		
24/10/2023	Rising type 2	AM	2	15:34	15:40	4	HG	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	1	HG	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	2	BH	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	3	BH	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	4	HG	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	5	CA	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	6	BH	1	1	L		
24/10/2023	Rising type 2	AM	3	16:04	16:11	7	BH	1	1	L		
24/10/2023	Rising type 2	AM	4	16:34	16:44	1	RH	1	1	M		
24/10/2023	Rising type 2	AM	4	16:34	16:44	2	HG	2	2	M		
24/10/2023	Rising type 2	AM	4	16:34	16:44	3	GB	1	1	M		
24/10/2023	Rising type 2	AM	4	16:34	16:44	4	GB	1	1	L		
24/10/2023	Rising type 2	AM	4	16:34	16:44	5	HG	1	1	L		
24/10/2023	Rising	AM	4	16:34	16:44	6	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
24/10/2023	Rising type 2	AM	4	16:34	16:44	7	HG	2	2	L		
24/10/2023	Rising type 2	AM	4	16:34	16:44	8	MU	1	1	L		
24/10/2023	Rising type 2	AM	4	16:34	16:44	9	OC	25	25	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	1	HG	12	12	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	2	HG	1	1	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	3	HG	1	1	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	4	HG	1	1	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	5	RP	10	15	L		
24/10/2023	Rising type 2	AM	5	17:04	17:13	6	OC	5	5	L		
24/10/2023	Rising type 2	AM	6	17:34	17:48	1	LB	1	1	L		
24/10/2023	Rising type 2	AM	6	17:34	17:48	2	LB	2	2	L		
24/10/2023	Rising type 2	AM	6	17:34	17:48	3	LB	1	1	L		
24/10/2023	Rising type 2	AM	6	17:34	17:48	4	HG	1	1	L		
24/10/2023	Rising type 2	AM	6	17:34	17:48	5	RP	14	14	L		

Table 8 Count data from intertidal bird surveys conducted at VP2 in November 2023

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
01/11/2023	Rising type 1	AM	1	09:26	09:33	1	GB	1	1	M		
01/11/2023	Rising type 1	AM	1	09:26	09:33	2	GB	1	1	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	3	HG	1	1	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	4	BH	2	2	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	5	MU	2	2	M		
01/11/2023	Rising type 1	AM	1	09:26	09:33	6	BH	2	2	M		
01/11/2023	Rising type 1	AM	1	09:26	09:33	7	CA	1	1	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	8	OC	4	4	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	9	CA	1	1	L		
01/11/2023	Rising type 1	AM	1	09:26	09:33	10	BH	3	3	L, M		
01/11/2023	Rising type 1	AM	1	09:26	09:33	11	BH	9	9	L, M		
01/11/2023	Rising type 1	AM	2	09:56	10:04	1	CA	1	1	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	2	OC	2	2	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	3	HG	2	2	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
01/11/2023	Rising type 1	AM	2	09:56	10:04	4	HG	1	1	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	5	GB	1	1	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	6	BH	2	2	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	7	GB	1	1	M		
01/11/2023	Rising type 1	AM	2	09:56	10:04	8	HG	1	1	L		
01/11/2023	Rising type 1	AM	2	09:56	10:04	9	TT	5	5	L		
01/11/2023	Rising type 1	AM	3	10:26	10:31	1	OC	26	26	L		
01/11/2023	Rising type 1	AM	3	10:26	10:31	2	HG	4	4	M		
01/11/2023	Rising type 1	AM	3	10:26	10:31	3	BH	4	4	L		
01/11/2023	Rising type 1	AM	3	10:26	10:31	4	BH	1	1	M		
01/11/2023	Rising type 1	AM	3	10:26	10:31	5	BH	1	1	M		
01/11/2023	Rising type 1	AM	3	10:26	10:31	6	TT	1	1	L		
01/11/2023	Rising type 1	AM	3	10:26	10:31	7	HG	1	1	L		
01/11/2023	Rising type 1	AM	3	10:26	10:31	8	HG	1	1	L		
01/11/2023	Rising	AM	4	10:56	11:03	1	BH	12	12	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
01/11/2023	Rising type 1	AM	4	10:56	11:03	2	HG	2	2	L		
01/11/2023	Rising type 1	AM	4	10:56	11:03	3	HG	7	7	L		
01/11/2023	Rising type 1	AM	4	10:56	11:03	4	HG	1	1	L		
01/11/2023	Rising type 1	AM	4	10:56	11:03	5	CA	1	1	L		
01/11/2023	Rising type 1	AM	4	10:56	11:03	6	GB	1	1	M		
01/11/2023	Rising type 1	AM	4	10:56	11:03	7	RP	20	30	L		
01/11/2023	Rising type 1	AM	4	10:56	11:03	8	OC	1	1	L		
01/11/2023	Rising type 1	AM	5	11:26	11:32	1	GB	1	1	M		
01/11/2023	Rising type 1	AM	5	11:26	11:32	2	HG	1	1	L		
01/11/2023	Rising type 1	AM	5	11:26	11:32	3	TT	2	2	L		
01/11/2023	Rising type 1	AM	5	11:26	11:32	4	CA	1	1	L		
01/11/2023	Rising type 1	AM	5	11:26	11:32	5	CA	1	1	M		
01/11/2023	Rising type 1	AM	5	11:26	11:32	6	BH	1	1	L		
01/11/2023	Rising type 1	AM	5	11:26	11:32	7	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
01/11/2023	Rising type 1	AM	5	11:26	11:32	8	HG	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	1	BH	2	2	M		
01/11/2023	Rising type 1	AM	6	11:56	12:08	2	BH	1	1	M		
01/11/2023	Rising type 1	AM	6	11:56	12:08	3	HG	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	4	BH	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	5	CA	1	1	M		
01/11/2023	Rising type 1	AM	6	11:56	12:08	6	GB	1	1	M		
01/11/2023	Rising type 1	AM	6	11:56	12:08	7	CA	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	8	CA	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	9	CA	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	10	CA	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	11	BH	1	1	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	12	OC	12	12	L		
01/11/2023	Rising type 1	AM	6	11:56	12:08	13	RP	20	25	L		
07/11/2023	Ebbing	AM	1	08:52	09:00	1	GB	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
07/11/2023	Ebbing type 2	AM	1	08:52	09:00	2	GB	1	1	L, M		
07/11/2023	Ebbing type 2	AM	1	08:52	09:00	3	HG	3	3	M		
07/11/2023	Ebbing type 2	AM	1	08:52	09:00	4	HG	6	6	M		
07/11/2023	Ebbing type 2	AM	1	08:52	09:00	5	BH	1	1	M		
07/11/2023	Ebbing type 2	AM	1	08:52	09:00	6	SA	1	1	M		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	1	BH	4	4	M		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	2	HG	3	3	M		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	3	GB	1	1	M		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	4	GB	1	1	M		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	5	SA	1	1	L		
07/11/2023	Ebbing type 2	AM	2	09:22	09:28	6	BH	6	6	M		
07/11/2023	Ebbing type 2	AM	3	09:52	10:00	1	HG	1	1	M		
07/11/2023	Ebbing type 2	AM	3	09:52	10:00	2	BH	1	1	L		
07/11/2023	Ebbing type 2	AM	3	09:52	10:00	3	CA	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
07/11/2023	Ebbing type 2	AM	3	09:52	10:00	4	CA	1	1	L		
07/11/2023	Ebbing type 2	AM	3	09:52	10:00	5	LB	1	1	L		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	6	HG	6	6	M		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	7	BH	1	1	M		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	8	GB	1	1	M		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	9	CA	1	1	M		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	10	HG	1	1	L		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	11	GB	1	1	L		
07/11/2023	Ebbing type 2	AM	4	10:22	10:28	12	GB	1	1	L		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	1	HG	20	20	M		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	2	GB	3	3	M		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	3	HG	1	1	M		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	4	HG	1	1	M		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	5	HG	2	2	M, L		
07/11/2023	Ebbing	AM	5	10:52	10:58	6	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	7	HG	1	1	L		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	8	CA	1	1	F		
07/11/2023	Ebbing type 2	AM	5	10:52	10:58	9	GB	1	1	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	1	HG	9	9	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	2	SA	1	1	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	3	GB	2	2	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	4	HG	1	1	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	5	SA	3	3	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	6	GB	1	1	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	7	SA	1	1	M		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	8	CA	1	1	F		
07/11/2023	Ebbing type 2	AM	6	11:22	11:28	9	GB	1	1	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	1a	HG	27	27	M	Dogs	Low
07/11/2023	Rising type 2	AM	1	13:45	13:58	1b	CM	5	5	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
07/11/2023	Rising type 2	AM	1	13:45	13:58	1c	BH	2	2	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	1d	GB	1	1	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	2	HG	1	1	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	3	SA	1	1	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	4	CA	2	2	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	5	HG	1	1	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	6	SA	2	2	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	7	CA	3	3	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	8	BH	1	1	L		
07/11/2023	Rising type 2	AM	1	13:45	13:58	9	OC	1	1	L, M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	10a	HG	7	7	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	10b	SA	2	2	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	10c	GU	1	1	M		
07/11/2023	Rising type 2	AM	1	13:45	13:58	11	BH	1	1	L		
07/11/2023	Rising	AM	1	13:45	13:58	12	GB	1	1	M, L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
07/11/2023	Rising type 2	AM	1	13:45	13:58	13	HG	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	1a	HG	3	3	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	2a	GU	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	1b	BH	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	2b	HG	1	1	L		
07/11/2023	Rising type 2	AM	2	14:15	14:25	3	SA	1	1	F		
07/11/2023	Rising type 2	AM	2	14:15	14:25	4	SA	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	5	BH	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	6a	HG	5	5	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	6b	CM	2	2	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	7	HG	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	8a	GB	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	8b	HG	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	9	CA	4	4	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
07/11/2023	Rising type 2	AM	2	14:15	14:25	10	CA	1	1	F		
07/11/2023	Rising type 2	AM	2	14:15	14:25	11a	CM	2	2	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	11b	BH	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	11c	HG	22	22	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	12	BH	6	6	L		
07/11/2023	Rising type 2	AM	2	14:15	14:25	13	CA	1	1	M		
07/11/2023	Rising type 2	AM	2	14:15	14:25	14	CA	1	1	M		
07/11/2023	Rising type 2	AM	3	14:45	14:53	1	CM	2	2	L		
07/11/2023	Rising type 2	AM	3	14:45	14:53	2	BH	5	5	L		
07/11/2023	Rising type 2	AM	3	14:45	14:53	3	HG	8	8	L		
07/11/2023	Rising type 2	AM	3	14:45	14:53	4	CA	1	1	L		
07/11/2023	Rising type 2	AM	3	14:45	14:53	5	CA	1	1	L, M		
07/11/2023	Rising type 2	AM	3	14:45	14:53	6a	HG	6	6	M		
07/11/2023	Rising type 2	AM	3	14:45	14:53	6b	CA	1	1	M		
07/11/2023	Rising	AM	3	14:45	14:53	6c	GU	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
07/11/2023	Rising type 2	AM	3	14:45	14:53	7	CM	1	1	M		
07/11/2023	Rising type 2	AM	3	14:45	14:53	8	CA	1	1	M		
07/11/2023	Rising type 2	AM	3	14:45	14:53	9	HG	1	1	M		
07/11/2023	Rising type 2	AM	4	15:15	15:22	10	GB	1	1	M		
07/11/2023	Rising type 2	AM	4	15:15	15:22	1	HG	1	1	M		
07/11/2023	Rising type 2	AM	4	15:15	15:22	2	BH	1	1	L		
07/11/2023	Rising type 2	AM	4	15:15	15:22	3	GB	1	1	L		
07/11/2023	Rising type 2	AM	4	15:15	15:22	4	HG	1	1	L		
07/11/2023	Rising type 2	AM	4	15:15	15:22	5	LB	1	1	L		
07/11/2023	Rising type 2	AM	4	15:15	15:22	6	GU	2	2	M		
07/11/2023	Rising type 2	AM	4	15:15	15:22	7	GB	1	1	M		
07/11/2023	Rising type 2	AM	4	15:15	15:22	8	CA	1	1	F		
07/11/2023	Rising type 2	AM	5	15:45	15:59	1	BH	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	2	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
07/11/2023	Rising type 2	AM	5	15:45	15:59	3	HG	1	1	L		
07/11/2023	Rising type 2	AM	5	15:45	15:59	4	HG	6	6	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	5	CA	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	6	HG	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	7	CA	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	8	BH	3	3	L		
07/11/2023	Rising type 2	AM	5	15:45	15:59	9	CA	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	10	GB	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	11	SA	1	1	M		
07/11/2023	Rising type 2	AM	5	15:45	15:59	12	OC	1	1	L		
07/11/2023	Rising type 2	AM	6	16:15	16:24	1	CA	1	1	F		
07/11/2023	Rising type 2	AM	6	16:15	16:24	2	CA	1	1	F		
07/11/2023	Rising type 2	AM	6	16:15	16:24	3	HG	1	1	L		
07/11/2023	Rising type 2	AM	6	16:15	16:24	4	LB	1	1	L		
07/11/2023	Rising	AM	6	16:15	16:24	5	LB	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
07/11/2023	Rising type 2	AM	6	16:15	16:24	6	HG	1	1	L		
07/11/2023	Rising type 2	AM	6	16:15	16:24	7	HG	1	1	L		
07/11/2023	Rising type 2	AM	6	16:15	16:24	8	BH	1	1	L		
07/11/2023	Rising type 2	AM	6	16:15	16:24	9	SA	1	1	L, M		
07/11/2023	Rising type 2	AM	6	16:15	16:24	10a	CA	1	1	M		
07/11/2023	Rising type 2	AM	6	16:15	16:24	10b	HG	4	4	M		
07/11/2023	Rising type 2	AM	6	16:15	16:24	10c	SA	2	2	M		
07/11/2023	Rising type 2	AM	6	16:15	16:24	11	CA	1	1	F		
07/11/2023	Rising type 2	AM	6	16:15	16:24	12	CA	1	1	F		
08/11/2023	Ebbing type 1	AM	4	10:56	U	1	CA	1	1	M		
08/11/2023	Ebbing type 1	AM	4	10:56	U	2	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	4	10:56	U	3	CA	1	1	F		
08/11/2023	Ebbing type 1	AM	4	10:56	U	4	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	5	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
08/11/2023	Ebbing type 1	AM	4	10:56	U	6	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	7	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	8	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	9	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	10	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	1	BH	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	2	CA	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	3	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	4	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	5	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	6	CA	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	7	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	8	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	9	HG	1	1	L		
08/11/2023	Ebbing	AM	6	11:56	12:01	1	HG	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	2	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	3	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	4	HG	1	1	M		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	5	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	4	10:56	U	1	CA	1	1	M		
08/11/2023	Ebbing type 1	AM	4	10:56	U	2	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	4	10:56	U	3	CA	1	1	F		
08/11/2023	Ebbing type 1	AM	4	10:56	U	4	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	5	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	6	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	7	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	8	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	9	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	4	10:56	U	10	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	1	BH	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	2	CA	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	3	BH	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	4	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	5	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	6	CA	1	1	M		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	7	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	8	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	5	11:26	11:32	9	HG	1	1	L		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	1	HG	3	3	M		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	2	GB	1	1	M		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	3	SA	1	1	F		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	4	HG	1	1	M		
08/11/2023	Ebbing type 1	AM	6	11:56	12:01	5	SA	1	1	F		

Table 9 Count data from intertidal bird surveys conducted at VP2 in December 2023

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	1	HG	1	1	M		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	2	GB	1	1	M		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	3	SA	1	1	M		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	4	RH	2	2	M		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	5	RH	1	1	M		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	6	SA	1	1	F		
11/12/2023	Ebbing type 2	AM	1	11:43	11:53	7	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	1	CA	2	2	F		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	2	GB	1	1	M		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	3	GB	1	1	M, L		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	4	SA	1	1	M		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	5	CA	1	1	F		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	6	CA	1	1	M		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	7	GB	1	1	M		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	8	SA	1	1	M		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	9	HG	2	2	L		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	10	CA	2	2	F		
11/12/2023	Ebbing type 2	AM	2	12:13	12:20	11	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	1	RP	16	20	L		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	2	HG	1	1	L	Dog	High
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	3	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	4	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	5	HG	5	5	M		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	6	GB	1	1	M		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	7	CA	2	2	M		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	8	CA	1	1	M		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	9	HG	1	1	M		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	10	RH	3	3	M		
11/12/2023	Ebbing	AM	3	12:43	12:51	11	CA	2	2	L, M		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	12	HG	7	7	L		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	13	CA	1	1	F		
11/12/2023	Ebbing type 2	AM	3	12:43	12:51	14	CA	1	1	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	1	BH	2	2	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	2	HG	8	8	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	3	CA	1	1	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	4	CA	1	1	L		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	5	HG	1	1	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	6	HG	1	1	M		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	7	SA	1	1	F		
11/12/2023	Ebbing type 2	AM	4	13:13	13:22	8	RP	23	23	L		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	1	RP	28	28	L	Walker	High
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	2	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	3	BH	29	29	M	Walkers	Low

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	4a	GB	4	4	M		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	4b	HG	6	6	M		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	5	CA	1	1	L		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	6	CA	1	1	F		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	7	CA	1	1	F		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	8	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	9	CA	2	2	F		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	10	HG	4	4	L		
11/12/2023	Ebbing type 2	AM	5	13:43	13:55	11	HG	1	1	L		
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	1	BH	6	6	L	Walkers	High
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	2a	HG	8	8	M	Walkers	High
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	3	OC	15	15	L		
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	4	BH	20	20	M	Walkers	High
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	5	BH	2	2	M	Walkers	High
11/12/2023	Ebbing	AM	6	14:13	14:19	6	HG	1	1	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	7	CA	2	2	L		
11/12/2023	Ebbing type 2	AM	6	14:13	14:19	2b	GB	3	3	M	Walkers	High
13/12/2023	Ebbing type 1	AM	1	12:28	12:34	1	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	1	12:28	12:34	2	HG	1	1	M		
13/12/2023	Ebbing type 1	AM	2	12:58	13:02	3	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	2	12:58	13:02	4	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	2	12:58	13:02	5	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	1	RP	40	40	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	2	TT	2	2	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	3	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	4	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	5	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	6	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	7	HG	1	1	M		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	8	BH	1	1	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	9	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	10	GB	1	1	M		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	11	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	3	13:28	13:39	12	HG	4	4	M		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	1	HG	4	4	M		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	2	GB	1	1	M		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	3	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	4	RP	40	40	L		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	5	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	6	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	7	HG	1	1	L, M		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	8	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	4	13:58	14:04	9	GB	1	1	L		
13/12/2023	Ebbing	AM	5	14:28	14:36	1	RP	40	40	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	2	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	3	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	4	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	5	HG	1	1	L, M		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	6	HG	2	2	L		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	7	HG	7	7	M		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	8	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	9	CA	1	1	L		
13/12/2023	Ebbing type 1	AM	5	14:28	14:36	10	HG	1	1	M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	1	HG	1	1	M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	2	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	3	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	4	GB	1	1	L, M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	5	RP	40	40	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	6	OC	8	8	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	7	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	8	HG	3	3	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	9	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	10	HG	7	7	M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	11	BH	1	1	M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	12	CA	1	1	F		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	13	GB	1	1	M		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	14	OC	20	20	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	15	BH	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	16	HG	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	17	BH	1	1	L		
13/12/2023	Ebbing type 1	AM	6	14:58	15:13	18	GB	1	1	L		
18/12/2023	Rising type 1	BP	1	11:28	11:43	1	CA	1	1	L		
18/12/2023	Rising	BP	1	11:28	11:43	2	SA	2	2	F		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
18/12/2023	Rising type 1	BP	1	11:28	11:43	3	CA	1	1	F		
18/12/2023	Rising type 1	BP	1	11:28	11:43	4	CA	1	1	L		
18/12/2023	Rising type 1	BP	1	11:28	11:43	5	GB	1	1	L		
18/12/2023	Rising type 1	BP	1	11:28	11:43	5	HG	1	1	L		
18/12/2023	Rising type 1	BP	1	11:28	11:43	6	SA	1	1	F		
18/12/2023	Rising type 1	BP	1	11:28	11:43	7	SA	1	1	F		
18/12/2023	Rising type 1	BP	1	11:28	11:43	8	SA	2	2	F		
18/12/2023	Rising type 1	BP	1	11:28	11:43	9	HG	5	5	L		
18/12/2023	Rising type 1	BP	1	11:28	11:43	10	HG	13	13	M		
18/12/2023	Rising type 1	BP	1	11:28	11:43	10	GB	2	2	M		
18/12/2023	Rising type 1	BP	1	11:28	11:43	11	OC	9	9	L	Dog	Moderate
18/12/2023	Rising type 1	BP	1	11:28	11:43	12	Grey seal	1	1	F		
18/12/2023	Rising type 1	BP	2	11:58	12:13	1	OC	9	9	M, R		
18/12/2023	Rising type 1	BP	2	11:58	12:13	2	CA	1	1	F		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
18/12/2023	Rising type 1	BP	2	11:58	12:13	3	BA	2	2	F, L		
18/12/2023	Rising type 1	BP	2	11:58	12:13	4	SA	4	4	F		
18/12/2023	Rising type 1	BP	2	11:58	12:13	5	RH	1	1	F		
18/12/2023	Rising type 1	BP	2	11:58	12:13	6	SA	1	1	M		
18/12/2023	Rising type 1	BP	2	11:58	12:13	7	SA	2	2	F		
18/12/2023	Rising type 1	BP	2	11:58	12:13	8	BH	1	1	M		
18/12/2023	Rising type 1	BP	2	11:58	12:13	9	SA	1	1	F		
18/12/2023	Rising type 1	BP	2	11:58	12:13	10	HG	7	7			
18/12/2023	Rising type 1	BP	2	11:58	12:13	10	GB	2	2			
18/12/2023	Rising type 1	BP	2	11:58	12:13	10	BH	3	3			
18/12/2023	Rising type 1	BP	2	11:58	12:13	11	BH	6	6		Dogs, walkers	
18/12/2023	Rising type 1	BP	2	11:58	12:13	11	HG	4	4			
18/12/2023	Rising type 1	BP	2	11:58	12:13	12	TT	2	2	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	1	OC	9	9	M, R		
18/12/2023	Rising	BP	3	12:28	12:43	2	BH	4	4	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
18/12/2023	Rising type 1	BP	3	12:28	12:43	3	CA	1	1	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	4	BH	1	1	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	5	Grey seal	1	1	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	6	SA	2	2	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	7	SA	1	1	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	8	SA	1	1	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	9	SA	1	1	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	10	SA	2	2	F		
18/12/2023	Rising type 1	BP	3	12:28	12:43	11	CA	1	1	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	12	HG	3	3	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	12	BH	3	3	L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	13	BH	3	3	M, L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	13	HG	10	10	M, L		
18/12/2023	Rising type 1	BP	3	12:28	12:43	13	GB	4	4	M, L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
18/12/2023	Rising type 1	BP	4	12:58	13:13	1	BH	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	2	SA	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	3	BH	4	4	L, M		
18/12/2023	Rising type 1	BP	4	12:58	13:13	4	SA	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	5	SA	3	3	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	5	GB	1	1	L		
18/12/2023	Rising type 1	BP	4	12:58	13:13	6	SA	2	2	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	7	SA	1	1	L		
18/12/2023	Rising type 1	BP	4	12:58	13:13	8	RH	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	9	SA	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	10	CA	1	1	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	11	SA	2	2	F		
18/12/2023	Rising type 1	BP	4	12:58	13:13	11	GB	1	1	L		
18/12/2023	Rising type 1	BP	4	12:58	13:13	12	BH	8	8	M, L		
18/12/2023	Rising	BP	4	12:58	13:13	12	GB	3	3	M, L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
18/12/2023	Rising type 1	BP	4	12:58	13:13	12	HG	21	21	M, L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	1	SA	1	1	F		
18/12/2023	Rising type 1	BP	5	13:28	13:43	2	SA	1	1	F		
18/12/2023	Rising type 1	BP	5	13:28	13:43	2	HG	1	1	M		
18/12/2023	Rising type 1	BP	5	13:28	13:43	3	SA	2	2	F		
18/12/2023	Rising type 1	BP	5	13:28	13:43	3	GB	1	1	L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	4	SA	1	1	L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	5	SA	1	1	L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	6	BH	4	4	L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	7	SA	2	2	F, L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	8	BH	5	5	L, M		
18/12/2023	Rising type 1	BP	5	13:28	13:43	8	MU	1	1	L		
18/12/2023	Rising type 1	BP	5	13:28	13:43	8	HG	9	9	L, M		
18/12/2023	Rising type 1	BP	5	13:28	13:43	8	GB	2	2	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
18/12/2023	Rising type 1	BP	5	13:28	13:43	9	CA	2	2	F		
18/12/2023	Rising type 1	BP	5	13:28	13:43	10	GL	1	1	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	1	CM	1	1	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	2	SA	2	2	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	3	BH	1	1	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	4	SA	1	1	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	5	SA	2	2	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	6	GB	1	1	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	7	RH	1	1	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	7	SA	1	1	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	8	BH	7	7	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	8	MU	2	2	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	9	Grey seal	1	1	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	10	SA	2	2	L		
18/12/2023	Rising	BP	6	13:58	14:13	11	SA	1	1	F		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
18/12/2023	Rising type 1	BP	6	13:58	14:13	11	BH	1	1	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	12	SA	2	2	F		
18/12/2023	Rising type 1	BP	6	13:58	14:13	13	HG	28	28	M, L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	13	MU	1	1	L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	13	BH	11	11	M, L		
18/12/2023	Rising type 1	BP	6	13:58	14:13	13	GB	2	2	M		
18/12/2023	Rising type 1	BP	6	13:58	14:13	14	SA	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	1	HG	24	24	M, L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	1	GB	1	1	L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	1	SA	14	14	M, L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	1	CA	3	3	M, L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	2	CA	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	3	HG	15	15	L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	3	GB	2	2	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/12/2023	Rising type 2	BP	1	10:39	10:54	4	GU	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	4	BH	1	1	L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	5	GB	1	1	L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	6	SA	1	1	L		
19/12/2023	Rising type 2	BP	1	10:39	10:54	7	SA	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	8	OC	8	8	R, M	Dogs and walkers	Moderate
19/12/2023	Rising type 2	BP	1	10:39	10:54	8	RP	2	2	R, M	Dogs and walkers	Moderate
19/12/2023	Rising type 2	BP	1	10:39	10:54	9	SA	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	10	Grey seal	1	1	F		
19/12/2023	Rising type 2	BP	1	10:39	10:54	10	BH	1	1	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	1	HG	24	24	L, M		
19/12/2023	Rising type 2	BP	2	11:09	11:24	1	GB	1	1	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	1	SA	15	15	L, M, F		
19/12/2023	Rising type 2	BP	2	11:09	11:24	1	CA	6	6	L, M		
19/12/2023	Rising	BP	2	11:09	11:24	2	BH	11	11	L, L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/12/2023	Rising type 2	BP	2	11:09	11:24	3	BH	5	5	L, M		
19/12/2023	Rising type 2	BP	2	11:09	11:24	4	HG	4	4	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	4	GB	2	2	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	5	HG	3	3	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	6	GB	1	1	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	6	SA	1	1	F		
19/12/2023	Rising type 2	BP	2	11:09	11:24	7	MU	1	1	L		
19/12/2023	Rising type 2	BP	2	11:09	11:24	8	CA	1	1	F		
19/12/2023	Rising type 2	BP	2	11:09	11:24	9	SA	1	1	F		
19/12/2023	Rising type 2	BP	2	11:09	11:24	10	SA	2	2	F		
19/12/2023	Rising type 2	BP	2	11:09	11:24	11	OC	7	7	M, R		
19/12/2023	Rising type 2	BP	2	11:09	11:24	12	SA	1	1	F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	1	CA	4	4	L, M		
19/12/2023	Rising type 2	BP	3	11:39	11:54	1	SA	2	2	M		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/12/2023	Rising type 2	BP	3	11:39	11:54	2	HG	15	15	L, M		
19/12/2023	Rising type 2	BP	3	11:39	11:54	3	HG	46	46	L, M		
19/12/2023	Rising type 2	BP	3	11:39	11:54	3	BH	11	11	L		
19/12/2023	Rising type 2	BP	3	11:39	11:54	3	GB	1	1	L		
19/12/2023	Rising type 2	BP	3	11:39	11:54	4	GB	1	1	L		
19/12/2023	Rising type 2	BP	3	11:39	11:54	5	SA	9	9	F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	6	SA	1	1	L		
19/12/2023	Rising type 2	BP	3	11:39	11:54	7	BH	3	3	L		
19/12/2023	Rising type 2	BP	3	11:39	11:54	8	CA	1	1	F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	8	SA	2	2	F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	9	SA	2	2	L, F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	10	SA	2	2	F, M		
19/12/2023	Rising type 2	BP	3	11:39	11:54	11	CA	3	3	L, F		
19/12/2023	Rising type 2	BP	3	11:39	11:54	12	SA	1	1	F		
19/12/2023	Rising	BP	4	12:09	12:24	1	OC	8	8	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/12/2023	Rising type 2	BP	4	12:09	12:24	2	HG	6	6	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	2	GB	1	1	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	2	CA	3	3	M, L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	2	SA	1	1	M		
19/12/2023	Rising type 2	BP	4	12:09	12:24	3	BH	13	13	M, L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	3	HG	21	21	M, L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	4	HG	16	16	L, M		
19/12/2023	Rising type 2	BP	4	12:09	12:24	4	BH	3	3	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	4	GB	2	2	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	5	HG	2	2	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	6	SA	2	2	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	6	CA	1	1	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	6	GB	2	2	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	6	HG	5	5	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/12/2023	Rising type 2	BP	4	12:09	12:24	7	CA	1	1	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	7	HG	3	3	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	8	RA	3	3	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	8	SA	3	3	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	8	BH	1	1	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	8	GU	1	1	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	9	SA	1	1	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	10	Grey seal	1	1	L		
19/12/2023	Rising type 2	BP	4	12:09	12:24	11	SA	3	3	F, M		
19/12/2023	Rising type 2	BP	4	12:09	12:24	12	HG	3	3	F		
19/12/2023	Rising type 2	BP	4	12:09	12:24	12	BH	2	2	F		
19/12/2023	Rising type 2	BP	5	12:39	12:54	1	HG	34	34	L, M		
19/12/2023	Rising type 2	BP	5	12:39	12:54	1	GB	2	2	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	1	BH	14	14	L		
19/12/2023	Rising	BP	5	12:39	12:54	2	CA	4	4	M		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/12/2023	Rising type 2	BP	5	12:39	12:54	2	HG	3	3	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	3	GB	4	4	F		
19/12/2023	Rising type 2	BP	5	12:39	12:54	4	BH	2	2	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	5	RH	1	1	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	6	HG	6	6	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	7	SA	1	1	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	8	GU	1	1	F		
19/12/2023	Rising type 2	BP	5	12:39	12:54	9	RA	1	1	M		
19/12/2023	Rising type 2	BP	5	12:39	12:54	9	SA	1	1	F		
19/12/2023	Rising type 2	BP	5	12:39	12:54	10	SA	3	3	F, M		
19/12/2023	Rising type 2	BP	5	12:39	12:54	10	BH	1	1	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	11	GB	1	1	L		
19/12/2023	Rising type 2	BP	5	12:39	12:54	11	SA	2	2	F		
19/12/2023	Rising type 2	BP	5	12:39	12:54	12	BH	1	1	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/12/2023	Rising type 2	BP	5	12:39	12:54	13	HG	1	1	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	1	BH	17	17	M, L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	1	HG	4	4	M, L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	2	HG	26	26	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	2	GB	1	1	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	3	CA	4	4	M, L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	3	SA	1	1	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	4	SA	6	6	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	4	CA	2	2	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	5	GB	1	1	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	6	RA	3	3	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	6	BH	1	1	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	6	SA	1	1	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	7	SA	6	6	F		
19/12/2023	Rising	BP	6	13:09	13:24	7	GB	1	1	L		

Date	Tidal state	Surveyor	Count No.	Count start	Count end	Flock No.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/12/2023	Rising type 2	BP	6	13:09	13:24	8	SA	1	1	F		
19/12/2023	Rising type 2	BP	6	13:09	13:24	8	GB	1	1	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	8	MU	1	1	L		
19/12/2023	Rising type 2	BP	6	13:09	13:24	8	BH	2	2	L		

Table 10 Count data from intertidal bird surveys conducted at VP2 in January 2024

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
02/01/2024	Rising type 1	AM	1	11:47	11:55	1	BH	1	1	L		
02/01/2024	Rising type 1	AM	1	11:47	11:55	2	BH	2	2	L		
02/01/2024	Rising type 1	AM	1	11:47	11:55	3	HG	1	1	L		
02/01/2024	Rising type 1	AM	1	11:47	11:55	4	HG	1	1	L		
02/01/2024	Rising type 1	AM	1	11:47	11:55	5	GB	1	1	M		
02/01/2024	Rising type 1	AM	1	11:47	11:55	5	HG	2	2	M		
02/01/2024	Rising type 1	AM	1	11:47	11:55	6	GB	1	1	L		
02/01/2024	Rising type 1	AM	2	12:17	12:23	1	OC	2	2	L		
02/01/2024	Rising type 1	AM	2	12:17	12:23	2	PB	50	50	L		
02/01/2024	Rising type 1	AM	2	12:17	12:23	3	HG	1	1	L, M		
02/01/2024	Rising type 1	AM	2	12:17	12:23	4	HG	1	1	L		
02/01/2024	Rising type 1	AM	2	12:17	12:23	5	HG	3	3	M		
02/01/2024	Rising type 1	AM	2	12:17	12:23	6	BH	1	1	M		
02/01/2024	Rising type 1	AM	3	12:47	12:54	1	HG	2	2	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
02/01/2024	Rising type 1	AM	3	12:47	12:54	2	HG	1	1	L		
02/01/2024	Rising type 1	AM	3	12:47	12:54	3	HG	1	1	L		
02/01/2024	Rising type 1	AM	3	12:47	12:54	4	BH	1	1	M		
02/01/2024	Rising type 1	AM	3	12:47	12:54	5	BH	1	1	M		
02/01/2024	Rising type 1	AM	3	12:47	12:54	6	HG	7	7	L		
02/01/2024	Rising type 1	AM	4	13:17	13:23	1	HG	4	4	M, L		
02/01/2024	Rising type 1	AM	4	13:17	13:23	2	HG	2	2	L		
02/01/2024	Rising type 1	AM	4	13:17	13:23	3	CA	1	1	F		
02/01/2024	Rising type 1	AM	5	13:47	13:54	4	BH	1	1	M		
02/01/2024	Rising type 1	AM	5	13:47	13:54	5	BH	1	1	L		
02/01/2024	Rising type 1	AM	5	13:47	13:54	6	BH	1	1	L		
02/01/2024	Rising type 1	AM	6	14:17	14:20	1	HG	2	2	L		
03/01/2024	Rising type 2	AM	1	10:46	10:54	1	HG	12	12	M		
03/01/2024	Rising type 2	AM	1	10:46	10:54	2	GB	1	1	M		
03/01/2024	Rising	AM	1	10:46	10:54	3	BH	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
03/01/2024	Rising type 2	AM	1	10:46	10:54	4	HG	1	1	L		
03/01/2024	Rising type 2	AM	1	10:46	10:54	5	HG	1	1	L		
03/01/2024	Rising type 2	AM	1	10:46	10:54	6	BH	1	1	L		
03/01/2024	Rising type 2	AM	1	10:46	10:54	7	BH	14	14	M		
03/01/2024	Rising type 2	AM	1	10:46	10:54	8	CA	1	1	F		
03/01/2024	Rising type 2	AM	1	10:46	10:54	9	CA	1	1	L		
03/01/2024	Rising type 2	AM	2	11:16	11:24	1	HG	1	1	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	2	HG	5	5	L		
03/01/2024	Rising type 2	AM	2	11:16	11:24	3	BH	1	1	L		
03/01/2024	Rising type 2	AM	2	11:16	11:24	4	HG	22	22	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	5	BH	3	3	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	6	BH	6	6	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	7	GB	1	1	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	7	SA	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
03/01/2024	Rising type 2	AM	2	11:16	11:24	8	SA	1	1	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	8	HG	1	1	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	9	CA	1	1	M		
03/01/2024	Rising type 2	AM	2	11:16	11:24	10	BH	1	1	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	1	BH	2	2	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	2	HG	10	10	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	2	GB	2	2	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	2	SA	4	4	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	3	GB	1	1	M		
03/01/2024	Rising type 2	AM	3	11:46	11:54	4	HG	1	1	L		
03/01/2024	Rising type 2	AM	3	11:46	11:54	5	SA	2	2	F		
03/01/2024	Rising type 2	AM	3	11:46	11:54	6	CA	1	1	L		
03/01/2024	Rising type 2	AM	3	11:46	11:54	7	CA	1	1	L		
03/01/2024	Rising type 2	AM	4	12:16	12:25	1	BH	1	1	M		
03/01/2024	Rising	AM	4	12:16	12:25	2	BH	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
03/01/2024	Rising type 2	AM	4	12:16	12:25	3	HG	3	3	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	3	SA	1	1	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	4	BH	1	1	L		
03/01/2024	Rising type 2	AM	4	12:16	12:25	5	HG	4	4	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	5	GB	1	1	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	6	BH	4	4	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	7	SA	2	2	F		
03/01/2024	Rising type 2	AM	4	12:16	12:25	8	BH	1	1	M		
03/01/2024	Rising type 2	AM	4	12:16	12:25	9	BH	1	1	M		
03/01/2024	Rising type 2	AM	5	12:46	12:55	1	HG	1	1	L		
03/01/2024	Rising type 2	AM	5	12:46	12:55	2	CA	1	1	F		
03/01/2024	Rising type 2	AM	5	12:46	12:55	3	SA	1	1	F		
03/01/2024	Rising type 2	AM	5	12:46	12:55	4	HG	1	1	M		
03/01/2024	Rising type 2	AM	5	12:46	12:55	5	CA	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
03/01/2024	Rising type 2	AM	5	12:46	12:55	6	BH	3	3	M		
03/01/2024	Rising type 2	AM	5	12:46	12:55	6	CA	1	1	F		
03/01/2024	Rising type 2	AM	5	12:46	12:55	7	RP	4	4	L		
03/01/2024	Rising type 2	AM	6	13:16	13:21	1	BH	4	4	M		
03/01/2024	Rising type 2	AM	6	13:16	13:21	1	SA	2	2	F		
03/01/2024	Rising type 2	AM	6	13:16	13:21	2	HG	10	10	L, M		
03/01/2024	Rising type 2	AM	6	13:16	13:21	3	CA	1	1	L		
03/01/2024	Rising type 2	AM	6	13:16	13:21	4	SA	1	1	F		
09/01/2024	Ebbing type 2	AM	1	11:15	11:21	1	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	1	11:15	11:21	2	GB	1	1	L		
09/01/2024	Ebbing type 2	AM	1	11:15	11:21	3	BH	2	2	L		
09/01/2024	Ebbing type 2	AM	2	11:46	11:51	4	HG	4	4	M, L		
09/01/2024	Ebbing type 2	AM	2	11:46	11:51	5	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	2	11:46	11:51	6	TT	1	1	U		
09/01/2024	Ebbing	AM	3	12:16	12:23	1	PB	12	12	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	2	HG	1	1	M		
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	3	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	4	BH	1	1	L		
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	5	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	6	HG	3	3	L		
09/01/2024	Ebbing type 2	AM	3	12:16	12:23	7	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	4	12:46	12:52	1	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	4	12:46	12:52	2	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	4	12:46	12:52	3	GB	1	1	L		
09/01/2024	Ebbing type 2	AM	4	12:46	12:52	4	BH	1	1	L		
09/01/2024	Ebbing type 2	AM	5	13:16	13:23	1	HG	10	10	L		
09/01/2024	Ebbing type 2	AM	5	13:16	13:23	2	HG	6	6	L		
09/01/2024	Ebbing type 2	AM	5	13:16	13:23	3	BH	1	1	L		
09/01/2024	Ebbing type 2	AM	5	13:16	13:23	4	HG	10	10	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
09/01/2024	Ebbing type 2	AM	5	13:16	13:23	4	BH	11	11	L		
09/01/2024	Ebbing type 2	AM	6	13:46	13:52	1	HG	1	1	L		
09/01/2024	Ebbing type 2	AM	6	13:46	13:52	2	HG	4	4	L		
09/01/2024	Ebbing type 2	AM	6	13:46	13:52	3	BH	5	5	L		
09/01/2024	Ebbing type 2	AM	6	13:46	13:52	3	HG	3	3	L		
09/01/2024	Ebbing type 2	AM	6	13:46	13:52	4	GB	1	1	L		
10/01/2024	Ebbing type 1	AM	1	11:21	11:25	1	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	1	11:21	11:25	2	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	1	11:21	11:25	3	SA	1	1	M		
10/01/2024	Ebbing type 1	AM	1	11:21	11:25	4	BH	2	2	L		
10/01/2024	Ebbing type 1	AM	1	11:21	11:25	5	CA	1	1	L		
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	1	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	2	HG	2	2	L		
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	3	HG	2	2	L		
10/01/2024	Ebbing	AM	2	11:51	11:56	4	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	5	BH	1	1	L		
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	6	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	2	11:51	11:56	7	HG	5	5	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	1	HG	2	2	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	2	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	3	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	4	HG	4	4	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	5	HG	19	19	L		
10/01/2024	Ebbing type 1	AM	3	12:21	12:27	5	GB	4	4	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	1	HG	3	3	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	2	HG	4	4	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	3	HG	18	18	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	4	BH	1	1	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	5	SA	1	1	F		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	6	SA	1	1	M		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	7	GB	1	1	L		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	8	GB	1	1	M		
10/01/2024	Ebbing type 1	AM	4	12:51	12:57	9	K.	1	1	L		
10/01/2024	Ebbing type 1	AM	5	13:21	13:29	1	HG	7	7	L		
10/01/2024	Ebbing type 1	AM	5	13:21	13:29	2	BH	20	20	L	Dogs	High
10/01/2024	Ebbing type 1	AM	5	13:21	13:29	2	MU	4	4	L	Dogs	High
10/01/2024	Ebbing type 1	AM	5	13:21	13:29	3	SA	1	1	F		
10/01/2024	Ebbing type 1	AM	5	13:21	13:29	4	OC	1	1	L	Walker	High
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	1	HG	3	3	L		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	2	HG	1	1	L		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	3	OC	25	30	L		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	4	HG	4	4	L		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	5	HG	1	1	L		
10/01/2024	Ebbing	AM	6	13:51	13:59	6	HG	4	4	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	6	BH	1	1	L		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	7	SA	1	1	F		
10/01/2024	Ebbing type 1	AM	6	13:51	13:59	8	OC	2	2	L		

Table 11 Count data from intertidal bird surveys conducted at VP2 in February 2024

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Rising type 1	AM	1	09:04	09:23	1	HG	49	49	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	2	HG	2	2	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	3	BH	2	2	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	4	CA	1	1	F		
12/02/2024	Rising type 1	AM	1	09:04	09:23	5	OC	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	6	BH	14	14	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	7	BH	6	6	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	8	HG	1	1	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	9	CA	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	10	CA	1	1	F		
12/02/2024	Rising type 1	AM	1	09:04	09:23	11	SA	1	1	F		
12/02/2024	Rising type 1	AM	1	09:04	09:23	12	HG	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	13	CA	2	2	L, F		
12/02/2024	Rising type 1	AM	1	09:04	09:23	14	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Rising type 1	AM	1	09:04	09:23	15	HG	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	16	HG	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	17	CA	1	1	L		
12/02/2024	Rising type 1	AM	1	09:04	09:23	18	SA	1	1	M		
12/02/2024	Rising type 1	AM	1	09:04	09:23	19	RH	1	1	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	1	SA	1	1	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	2	HG	1	1	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	3	HG	16	16	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	3	MU	1	1	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	3	BH	16	16	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	4	HG	2	2	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	5	CA	1	1	F		
12/02/2024	Rising type 1	AM	2	09:34	09:44	6	CA	1	1	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	7	SA	1	1	M		
12/02/2024	Rising	AM	2	09:34	09:44	8	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
12/02/2024	Rising type 1	AM	2	09:34	09:44	9	RH	1	1	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	10	CA	3	3	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	11	SA	1	1	M		
12/02/2024	Rising type 1	AM	2	09:34	09:44	12	OC	6	6	L		
12/02/2024	Rising type 1	AM	2	09:34	09:44	13	BH	2	2	L		
12/02/2024	Rising type 1	AM	3	10:04	10:14	1	BH	7	7	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	2	MU	1	1	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	3	HG	17	17	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	4	HG	10	10	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	5	SA	1	1	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	6	HG	1	1	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	7	SA	1	1	M		
12/02/2024	Rising type 1	AM	3	10:04	10:14	8	CA	1	1	F		
12/02/2024	Rising type 1	AM	3	10:04	10:14	9	CA	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Rising type 1	AM	3	10:04	10:14	10	CA	1	1	L		
12/02/2024	Rising type 1	AM	3	10:04	10:14	11	CA	3	3	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	1	MU	1	1	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	1	BH	2	2	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	1	HG	2	2	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	2	HG	4	4	M, L		
12/02/2024	Rising type 1	AM	4	10:34	10:44	3	HG	2	2	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	4	HG	1	1	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	5	CA	3	3	M		
12/02/2024	Rising type 1	AM	4	10:34	10:44	6	HG	3	3	M, L		
12/02/2024	Rising type 1	AM	4	10:34	10:44	7	CA	2	2	F		
12/02/2024	Rising type 1	AM	4	10:34	10:44	8	SA	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	1	HG	2	2	L		
12/02/2024	Rising type 1	AM	5	11:04	11:13	2	BH	2	2	M		
12/02/2024	Rising	AM	5	11:04	11:13	3	CA	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
12/02/2024	Rising type 1	AM	5	11:04	11:13	4	RA	2	2	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	5	HG	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	6	CA	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	7	SA	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	8	HG	9	9	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	9	GB	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	10	HG	1	1	L		
12/02/2024	Rising type 1	AM	5	11:04	11:13	11	CA	1	1	L		
12/02/2024	Rising type 1	AM	5	11:04	11:13	12	CA	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	13	HG	1	1	M		
12/02/2024	Rising type 1	AM	5	11:04	11:13	14	HG	1	1	L		
12/02/2024	Rising type 1	AM	6	11:34	11:40	1	SA	2	2	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	2	HG	3	3	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	3	HG	3	3	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Rising type 1	AM	6	11:34	11:40	4	HG	1	1	L		
12/02/2024	Rising type 1	AM	6	11:34	11:40	5	HG	1	1	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	6	HG	2	2	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	7	SA	1	1	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	8	HG	2	2	M		
12/02/2024	Rising type 1	AM	6	11:34	11:40	9	HG	1	1	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	1	HG	1	1	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	2	HG	1	1	L		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	3	HG	2	2	L		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	4	HG	2	2	L		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	5	SA	1	1	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	6	SA	2	2	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	7	SA	4	4	F		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	8	CA	1	1	F		
12/02/2024	Ebbing	AM	1	14:04	14:19	9	HG	19	19	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	9	GB	1	1	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	9	BH	4	4	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	10	RA	1	1	M		
12/02/2024	Ebbing type 1	AM	1	14:04	14:19	11	HG	7	7	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	1	SA	2	2	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	2	HG	1	1	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	3	BH	1	1	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	4	SA	4	4	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	5	SA	1	1	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	6	HG	3	3	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	7	HG	6	6	M, L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	8	HG	27	27	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	8	MU	2	2	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	8	BH	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	9	BH	1	1	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	10	BH	2	2	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	11	BH	4	4	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	12	CA	1	1	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	13	CA	1	1	M		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	14	OC	4	4	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	15	OC	12	12	L		
12/02/2024	Ebbing type 1	AM	2	14:34	14:48	16	RP	12	14	L		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	1	BH	1	1	M		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	2	BH	9	9	M, F		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	3	BH	6	6	M, F		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	4	HG	3	3	M, F		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	5	SA	1	1	F		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	6	BH	1	1	L		
12/02/2024	Ebbing	AM	3	15:04	15:14	7	BH	1	1	L, M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	8	HG	1	1	L		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	7	HG	22	22	M		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	9	HG	4	4	M		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	10	CA	2	2	F		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	11	CA	1	1	L		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	12	SA	2	2	M		
12/02/2024	Ebbing type 1	AM	3	15:04	15:14	13	SA	1	1	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	1	SA	2	2	F		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	2	SA	1	1	F		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	3	BH	3	3	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	4	BH	1	1	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	5	BH	21	21	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	6	BH	3	3	L		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	7	HG	20	20	M	Walker	Low

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	7	BH	15	15	M	Walker	Low
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	8	HG	2	2	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	8	SA	1	1	F		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	8	BH	1	1	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	9	SA	1	1	M		
12/02/2024	Ebbing type 1	AM	4	15:34	15:43	10	RA	1	1	F		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	1	BH	10	10	M, L		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	2	SA	1	1	M		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	3	RP	1	1	L	Walker and dog	Low
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	4	BH	6	6	L, F		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	5	OC	12	12	L	Walker	High
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	6	BH	7	7	M		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	7	HG	12	12	M		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	8	CA	3	3	L, M		
12/02/2024	Ebbing	AM	5	16:04	16:14	9	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	10	BH	11	11	U		
12/02/2024	Ebbing type 1	AM	5	16:04	16:14	1	BH	1	1	M		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	2	CA	1	1	L		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	3	BH	8	8	M		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	4	BH	4	4	M		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	5	GB	1	1	M		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	6	BH	1	1	L		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	7	CA	1	1	F		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	8	CA	1	1	M		
12/02/2024	Ebbing type 1	AM	6	16:34	16:42	3	HG	3	3	L, M		
19/02/2024	Rising type 2	AM	1	16:34	16:42	1	CA	2	2	F		
19/02/2024	Rising type 2	AM	1	14:29	14:44	2	HG	1	1	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	3	MU	7	7	L, M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	4	CA	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/02/2024	Rising type 2	AM	1	14:29	14:44	5	HG	1	1	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	6	BH	11	11	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	6	HG	52	52	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	6	GB	2	2	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	6	OC	5	5	F		
19/02/2024	Rising type 2	AM	1	14:29	14:44	7	CA	1	1	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	8	HG	13	13	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	8	CA	2	2	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	9	GB	1	1	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	10	GB	1	1	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	10	HG	2	2	L		
19/02/2024	Rising type 2	AM	1	14:29	14:44	11	TY	14	14	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	12	CA	1	1	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	13	CA	1	1	M		
19/02/2024	Rising	AM	1	14:29	14:44	14	CA	5	5	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/02/2024	Rising type 2	AM	1	14:29	14:44	15	SA	1	1	M		
19/02/2024	Rising type 2	AM	1	14:29	14:44	16	SA	2	2	U		
19/02/2024	Rising type 2	AM	1	14:29	14:44	17	HG	1	1	U		
19/02/2024	Rising type 2	AM	1	14:29	14:44	17	TY	1	1	U		
19/02/2024	Rising type 2	AM	1	14:29	14:44	18	SA	1	1	U		
19/02/2024	Rising type 2	AM	2	14:59	15:17	1	SA	2	2	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	2	HG	1	1	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	3	CA	3	3	F		
19/02/2024	Rising type 2	AM	2	14:59	15:17	3	SA	1	1	F		
19/02/2024	Rising type 2	AM	2	14:59	15:17	4	BH	8	8	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	4	HG	71	71	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	4	GB	3	3	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	4	OC	6	6	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	5	CA	4	4	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/02/2024	Rising type 2	AM	2	14:59	15:17	6	SA	1	1	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	7	BH	7	7	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	8	MU	2	2	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	9	HG	1	1	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	10	CA	1	1	F		
19/02/2024	Rising type 2	AM	2	14:59	15:17	11	SA	1	1	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	12	GB	1	1	L		
19/02/2024	Rising type 2	AM	2	14:59	15:17	13	CA	1	1	F		
19/02/2024	Rising type 2	AM	2	14:59	15:17	14	TY	8	8	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	14	HG	1	1	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	15	TY	2	2	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	15	HG	2	2	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	16	TY	2	2	M		
19/02/2024	Rising type 2	AM	2	14:59	15:17	17	SA	1	1	F		
19/02/2024	Rising	AM	2	14:59	15:17	17	RA	2	2	F		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/02/2024	Rising type 2	AM	2	14:59	15:17	18	TT	2	2	L		
19/02/2024	Rising type 2	AM	3	15:29	15:41	1	CA	5	5	F		
19/02/2024	Rising type 2	AM	3	15:29	15:41	2	HG	1	1	L		
19/02/2024	Rising type 2	AM	3	15:29	15:41	3	HG	23	23	M	Walkers	Low
19/02/2024	Rising type 2	AM	3	15:29	15:41	3	GB	3	3	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	4	HG	13	13	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	4	CA	3	3	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	5	OC	1	1	L		
19/02/2024	Rising type 2	AM	3	15:29	15:41	4	SA	3	3	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	4	GB	1	1	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	6	HG	2	2	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	7	GB	1	1	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	8	SA	3	3	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	9	TY	5	5	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/02/2024	Rising type 2	AM	3	15:29	15:41	10	CA	1	1	M		
19/02/2024	Rising type 2	AM	3	15:29	15:41	11	CA	1	1	F		
19/02/2024	Rising type 2	AM	3	15:29	15:41	12	HG	2	2	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	1	HG	1	1	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	2	HG	7	7	M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	3	GB	3	3	M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	4	CA	1	1	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	5	CA	1	1	F		
19/02/2024	Rising type 2	AM	4	15:59	16:12	6	CA	3	3	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	6	SA	1	1	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	7	SA	2	2	F		
19/02/2024	Rising type 2	AM	4	15:59	16:12	8	CA	1	1	L, M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	9	HG	1	1	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	10	HG	1	1	M		
19/02/2024	Rising	AM	4	15:59	16:12	11	CA	1	1	F		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/02/2024	Rising type 2	AM	4	15:59	16:12	12	CA	1	1	L		
19/02/2024	Rising type 2	AM	4	15:59	16:12	13	CA	1	1	F		
19/02/2024	Rising type 2	AM	4	15:59	16:12	14	TY	5	5	M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	15	HG	3	3	M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	16	GB	1	1	M		
19/02/2024	Rising type 2	AM	4	15:59	16:12	17	SA	1	1	F		
19/02/2024	Rising type 2	AM	4	15:59	16:12	18	SA	1	1	F		
19/02/2024	Rising type 2	AM	4	15:59	16:12	19	SA	1	1	F		
19/02/2024	Rising type 2	AM	5	16:29	16:42	1	SA	1	1	F		
19/02/2024	Rising type 2	AM	5	16:29	16:42	2	CA	1	1	L		
19/02/2024	Rising type 2	AM	5	16:29	16:42	3	SA	1	1	F		
19/02/2024	Rising type 2	AM	5	16:29	16:42	4	HG	4	4	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	5	CA	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	6	BH	2	2	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
19/02/2024	Rising type 2	AM	5	16:29	16:42	7	CA	1	1	L		
19/02/2024	Rising type 2	AM	5	16:29	16:42	8	HG	1	1	L		
19/02/2024	Rising type 2	AM	5	16:29	16:42	9	HG	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	10	CA	1	1	F		
19/02/2024	Rising type 2	AM	5	16:29	16:42	11	TY	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	12	SA	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	12	TY	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	13	GB	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	13	SA	3	3	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	14	TY	2	2	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	15	TY	11	11	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	16	SA	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	17	GB	1	1	M		
19/02/2024	Rising type 2	AM	5	16:29	16:42	18	HG	2	2	L		
19/02/2024	Rising	AM	5	16:29	16:42	19	HG	3	3	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
19/02/2024	Rising type 2	AM	6	16:59	17:07	1	SA	1	1	F		
19/02/2024	Rising type 2	AM	6	16:59	17:07	2	SA	1	1	F		
19/02/2024	Rising type 2	AM	6	16:59	17:07	3	HG	1	1	L		
19/02/2024	Rising type 2	AM	6	16:59	17:07	4	CA	1	1	L		
19/02/2024	Rising type 2	AM	6	16:59	17:07	5	HG	2	2	L		
19/02/2024	Rising type 2	AM	6	16:59	17:07	6	MU	9	9	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	7	MU	1	1	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	8	TY	9	9	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	9	HG	1	1	L		
19/02/2024	Rising type 2	AM	6	16:59	17:07	10	TY	4	4	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	11	GB	1	1	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	12	SA	1	1	M		
19/02/2024	Rising type 2	AM	6	16:59	17:07	13	HG	1	1	L		
19/02/2024	Rising type 2	AM	6	16:59	17:07	14	GB	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	1	HG	1	1	L		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	2	HG	2	2	L		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	3	HG	3	3	L		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	4	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	5	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	6	HG	27	27	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	6	BH	4	4	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	7	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	8	CA	1	1	L		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	9	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	10	HG	5	5	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	11	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	12	BH	2	2	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	13	SA	1	1	M		
22/02/2024	Ebbing	AM	1	12:28	12:44	14	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	15	MU	28	28	M		
22/02/2024	Ebbing type 2	AM	1	12:28	12:44	16	HG	1	1	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	1	MU	19	19	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	2	MU	2	2	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	3	MU	5	5	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	4	MU	7	7	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	5	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	6	MU	2	2	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	6	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	7	HG	23	23	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	7	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	8	GB	1	1	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	9	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	10	HG	3	3	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	11	CA	3	3	M		
22/02/2024	Ebbing type 2	AM	2	12:58	13:07	12	HG	4	4	U		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	1	BH	1	1	L		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	2	SA	1	1	L		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	3	MU	10	10	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	3	HG	1	1	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	4	MU	13	13	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	4	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	5	HG	6	6	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	6	GB	1	1	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	7	MU	4	4	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	8	HG	22	22	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	9	BH	1	1	L		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	11	SA	2	2	L		
22/02/2024	Ebbing	AM	3	13:28	13:47	10	BH	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	12	CA	1	1	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	13	SA	1	1	M		
22/02/2024	Ebbing type 2	AM	3	13:28	13:47	10	GB	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	1	HG	41	41	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	1	GB	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	2	OC	4	4	L		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	3	MU	12	12	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	4	CA	1	1	F		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	5	MU	25	25	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	6	HG	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	8	MU	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	7	MU	3	3	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	9	MU	6	6	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	10	SA	1	1	F		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	11	CA	2	2	L		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	11	HG	2	2	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	11	GB	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	11	SA	2	2	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	12	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	13	OC	2	2	L		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	14	HG	2	2	M		
22/02/2024	Ebbing type 2	AM	4	13:58	14:13	15	CA	1	1	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	1	HG	1	1	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	2	MU	8	8	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	3	GB	1	1	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	4	SA	1	1	F		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	5	CM	1	1	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	6	HG	21	21	L, M		
22/02/2024	Ebbing	AM	5	14:28	14:39	6	OC	23	23	L	Dog	High/low

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	7	HG	2	2	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	8	BH	2	2	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	9	OC	2	2	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	10	HG	9	9	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	11	HG	5	5	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	10	CA	3	3	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	10	GB	1	1	L		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	12	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	5	14:28	14:39	13	HG	3	3	M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	1	CA	1	1	F		
22/02/2024	Ebbing type 2	AM	6	14:58	U	2	HG	1	1	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	2	MU	5	5	M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	2	OC	7	7	L	Dog	High
22/02/2024	Ebbing type 2	AM	6	14:58	U	3	OC	5	5	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
22/02/2024	Ebbing type 2	AM	6	14:58	U	3	MU	7	7	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	3	BH	25	25	F, M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	4	HG	40	40	M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	5	BH	1	1	M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	3	GB	2	2	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	6	CA	6	6	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	7	HG	13	13	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	8	GB	1	1	L		
22/02/2024	Ebbing type 2	AM	6	14:58	U	6	SA	2	2	M		
22/02/2024	Ebbing type 2	AM	6	14:58	U	9	SA	4	4	F		
22/02/2024	Ebbing type 2	AM	6	14:58	U	10	BH	18	18	L		

Table 12 Count data from intertidal bird surveys conducted at VP2 in March 2024

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
04/03/2024	Rising type 1	AM	1	14:02	14:05	1	HG	1	1	L		
04/03/2024	Rising type 1	AM	2	14:32	14:25	2	LB	2	2	L		
04/03/2024	Rising type 1	AM	2	14:32	14:25	3	HG	3	3	L		
04/03/2024	Rising type 1	AM	2	14:32	14:25	4	BH	3	3	L		
04/03/2024	Rising type 1	AM	2	14:32	14:25	5	BH	1	1	L		
06/03/2024	Ebbing type 2	AM	1	09:50	10:00	1	HG	3	3	L, M		
06/03/2024	Ebbing type 2	AM	1	09:50	10:00	2	CA	1	1	F		
06/03/2024	Ebbing type 2	AM	1	09:50	10:00	3	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	1	09:50	10:00	4	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	5	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	6	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	7	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	8	GB	1	1	L		
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	9	HG	5	5	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
06/03/2024	Ebbing type 2	AM	2	10:20	10:28	10	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	1	PB	200	220	L		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	2	HG	3	3	L		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	3	HG	7	7	M		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	3	BH	4	4	M		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	4	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	3	10:48	10:54	5	HG	4	4	L		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	1	BH	23	23	M		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	1	HG	6	6	M		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	2	OC	4	4	L		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	3	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	4	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	4	11:20	11:24	5	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	1	GB	1	1	M		
06/03/2024	Ebbing	AM	5	11:50	11:54	1	HG	5	5	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	2	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	3	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	4	HG	1	1	L		
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	5	HG	1	1	M		
06/03/2024	Ebbing type 2	AM	5	11:50	11:54	6	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	6	12:20	12:24	1	HG	27	27	M		
06/03/2024	Ebbing type 2	AM	6	12:20	12:24	2	HG	2	2	L		
06/03/2024	Ebbing type 2	AM	6	12:20	12:24	3	HG	1	1	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	1	BH	18	18	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	1	HG	2	2	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	2	HG	1	1	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	3	HG	1	1	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	4	GB	2	2	M		
06/03/2024	Rising type 2	AM	1	14:44	14:57	5	CA	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
06/03/2024	Rising type 2	AM	1	14:44	14:57	5	GB	1	1	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	5	HG	3	3	L		
06/03/2024	Rising type 2	AM	1	14:44	14:57	6	HG	5	5	M		
06/03/2024	Rising type 2	AM	1	14:44	14:57	7	CA	1	1	F		
06/03/2024	Rising type 2	AM	1	14:44	14:57	8	CA	1	1	F		
06/03/2024	Rising type 2	AM	1	14:44	14:57	9	HG	2	2	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	1	HG	5	5	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	1	BH	2	2	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	2	HG	2	2	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	3	HG	1	1	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	4	BH	14	14	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	5	BH	5	5	M		
06/03/2024	Rising type 2	AM	2	15:14	15:23	6	GB	1	1	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	7	HG	2	2	L		
06/03/2024	Rising	AM	2	15:14	15:23	8	OC	3	3	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
06/03/2024	Rising type 2	AM	2	15:14	15:23	9	BH	9	9	L		
06/03/2024	Rising type 2	AM	2	15:14	15:23	10	OC	15	20	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	1	HG	3	3	M		
06/03/2024	Rising type 2	AM	3	15:44	15:52	1	BH	7	7	M		
06/03/2024	Rising type 2	AM	3	15:44	15:52	1	MU	5	5	M		
06/03/2024	Rising type 2	AM	3	15:44	15:52	2	HG	2	2	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	3	BH	1	1	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	4	HG	1	1	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	5	BH	3	3	M		
06/03/2024	Rising type 2	AM	3	15:44	15:52	6	GB	1	1	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	6	HG	1	1	L		
06/03/2024	Rising type 2	AM	3	15:44	15:52	7	BH	3	3	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	1	HG	3	3	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	2	MU	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
06/03/2024	Rising type 2	AM	4	16:14	16:24	3	MU	1	1	M		
06/03/2024	Rising type 2	AM	4	16:14	16:24	4	MA	1	1	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	5	HG	1	1	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	6	CA	1	1	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	7	BH	1	1	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	8	HG	3	3	L		
06/03/2024	Rising type 2	AM	4	16:14	16:24	9	HG	3	3	M		
06/03/2024	Rising type 2	AM	4	16:14	16:24	10	MU	2	2	M		
06/03/2024	Rising type 2	AM	4	16:14	16:24	11	HG	1	1	M		
06/03/2024	Rising type 2	AM	4	16:14	16:24	12	BH	10	10	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	1	HG	5	5	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	2	MU	1	1	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	3	HG	1	1	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	4	HG	7	7	L		
06/03/2024	Rising	AM	5	16:44	16:53	5	HG	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 2											
06/03/2024	Rising type 2	AM	5	16:44	16:53	6	GB	1	1	M		
06/03/2024	Rising type 2	AM	5	16:44	16:53	7	HG	2	2	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	8	HG	1	1	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	9	MU	1	1	M		
06/03/2024	Rising type 2	AM	5	16:44	16:53	10	HG	1	1	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	11	HG	1	1	L		
06/03/2024	Rising type 2	AM	5	16:44	16:53	12	CA	1	1	L		
06/03/2024	Rising type 2	AM	6	17:14	17:23	1	HG	4	4	L		
06/03/2024	Rising type 2	AM	6	17:14	17:23	2	BH	15	15	L		
06/03/2024	Rising type 2	AM	6	17:14	17:23	3	HG	1	1	L		
06/03/2024	Rising type 2	AM	6	17:14	17:23	4	CA	1	1	L		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	1	HG	4	4	L		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	2	HG	11	11	M		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	3	SA	2	2	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	4	HG	9	9	L		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	5	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	6	CU	3	3	M		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	7	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	8	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	1	14:14	14:26	9	SA	1	1	F		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	1	HG	1	1	L		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	2	HG	6	6	L		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	3	HG	6	6	M		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	4	SA	1	1	F		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	5	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	6	GU	2	2	M		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	7	GB	2	2	M		
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	8	GU	1	1	M		
28/03/2024	Ebbing	AM	2	14:44	14:50	9	HG	1	1	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
28/03/2024	Ebbing type 1	AM	2	14:44	14:50	10	HG	2	2	L		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	1	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	2	HG	2	2	L		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	3	HG	1	1	L		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	4	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	5	HG	4	4	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	6	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	7	GU	1	1	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	8	GU	1	1	M		
28/03/2024	Ebbing type 1	AM	3	15:14	15:23	9	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	1	HG	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	2	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	3	HG	4	4	L		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	4	HG	5	5	L		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	5	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	6	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	7	HG	1	1	L		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	8	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	9	HG	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	10	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	11	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	4	15:44	15:55	12	CA	1	1	L		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	1	SA	2	2	F		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	2	GU	1	1	M		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	3	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	4	HG	35	35	L		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	5	CA	1	1	L		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	6	SA	1	1	F		
28/03/2024	Ebbing	AM	5	16:14	16:25	7	GB	1	1	M		

Date	Tidal state	Surveyor	Count no.	Count start	Count end	Flock no.	Species	Minimum count	Maximum count	Behaviour	Disturbance	Disturbance response
	type 1											
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	8	CA	1	1	L		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	9	GB	1	1	L, M		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	10	GB	1	1	M		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	11	SA	1	1	M		
28/03/2024	Ebbing type 1	AM	5	16:14	16:25	12	HG	1	1	L		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	1	HG	8	8	L		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	2	HG	1	1	L		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	3	SA	2	2	F		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	4	SA	1	1	F		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	5	SA	2	2	F		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	6	GU	1	1	L		
28/03/2024	Ebbing type 1	AM	6	16:44	16:51	7	GB	1	1	L, M		

Table 13 Weather data collected during intertidal bird surveys conducted at VP2

Date	Tidal state	Surveyor	Start time	End time	Hour	Wind speed	Wind direction	Rain	Cloud Cover	Visibility	Snow	Frost
25/09/2023	Ebbing type 1	AM	09:46	12:46	1	3	S	0	3	3/4	0	0
25/09/2023	Ebbing type 1	AM	09:46	12:46	2	3	S	0	2	3/4	0	0
25/09/2023	Ebbing type 1	AM	09:46	12:46	3	3	SW	0	4	3/4	0	0
25/09/2023	Rising type 2	AM	15:23	18:23	1	4	SW	0	6	3/4	0	0
25/09/2023	Rising type 2	AM	15:23	18:23	2	4	SW	0	4	3/4	0	0
25/09/2023	Rising type 2	AM	15:23	18:23	3	4	S	0	3	3/4	0	0
28/09/2023	Ebbing type 2	AM	12:56	15:56	1	4	S	0	8	3/4	0	0
28/09/2023	Ebbing type 2	AM	12:56	15:56	2	4	S	0	8	3/4	0	0
28/09/2023	Ebbing type 2	AM	12:56	15:56	3	4	S	0	8	3/4	0	0
29/09/2023	Rising type 1	AM	08:19	11:19	1	4	W	0	2	3/4	0	0
29/09/2023	Rising type 1	AM	08:19	11:19	2	4	W	0	2	3/4	0	0
29/09/2023	Rising type 1	AM	08:19	11:19	3	4	W	0	2	3/4	0	0
10/10/2023	Ebbing type 1	AM	11:19	14:19	1	3	SW	0	8	3/4	0	0
10/10/2023	Ebbing type 1	AM	11:19	14:19	2	3	SW	0	8	3/4	0	0
10/10/2023	Ebbing type 1	AM	11:19	14:19	3	3	SW	0	8	3/4	0	0
13/10/2023	Rising type 1	AM	07:56	10:56	1	4	NW	0	8	3/4	0	0
13/10/2023	Rising type 1	AM	07:56	10:56	2	4	W	0	8	3/4	0	0
13/10/2023	Rising type 1	AM	07:56	10:56	3	4	W	0	7	3/4	0	0
24/10/2023	Ebbing type 2	AM	10:04	13:04	1	3	SE	2	8	3/4	0	0
24/10/2023	Ebbing type 2	AM	10:04	13:04	2	3	SE	2	8	3/4	0	0
24/10/2023	Ebbing type 2	AM	10:04	13:04	3	3	SE	2	8	3/4	0	0
24/10/2023	Rising type 2	AM	15:04	18:04	1	3	SE	2	7	3/4	0	0
24/10/2023	Rising type 2	AM	15:04	18:04	2	3	SE	0	6	3/4	0	0
24/10/2023	Rising type 2	AM	15:04	18:04	3	3	SE	0	4	3/4	0	0
01/11/2023	Rising type 1	AM	09:26	12:26	1	3	SE	2	7	3/4	0	0
01/11/2023	Rising type 1	AM	09:26	12:26	2	3	S	0	4	3/4	0	0
01/11/2023	Rising type 1	AM	09:26	12:26	3	5	W	0	7	3/4	0	0

Date	Tidal state	Surveyor	Start time	End time	Hour	Wind speed	Wind direction	Rain	Cloud Cover	Visibility	Snow	Frost
07/11/2023	Ebbing type 2	AM	08:52	11:52	1	4	W	0	1	3/4	0	0
07/11/2023	Ebbing type 2	AM	08:52	11:52	2	4	W	0	1	3/4	0	0
07/11/2023	Ebbing type 2	AM	08:52	11:52	3	4	W	0	1	3/4	0	0
07/11/2023	Rising type 2	AM	13:45	16:45	1	4	W	0	1	3/4	0	0
07/11/2023	Rising type 2	AM	13:45	16:45	2	4	W	0	1	3/4	0	0
07/11/2023	Rising type 2	AM	13:45	16:45	3	3	W	0	2	3/4	0	0
08/11/2023	Ebbing type 1	AM	09:26	12:26	1	4	W	0	8	3/4	0	0
08/11/2023	Ebbing type 1	AM	09:26	12:26	2	4	W	0	6	3/4	0	0
08/11/2023	Ebbing type 1	AM	09:26	12:26	3	4	SW	0	4	3/4	0	0
11/12/2023	Ebbing type 2	AM	11:43	14:43	1	1	SW	0	1	3/4	0	0
11/12/2023	Ebbing type 2	AM	11:43	14:43	2	2	SW	0	1	3/4	0	0
11/12/2023	Ebbing type 2	AM	11:43	14:43	3	2	SE	0	2	3/4	0	0
13/12/2023	Ebbing type 1	AM	12:28	15:28	1	3	NW	0	1	3/4	0	0
13/12/2023	Ebbing type 1	AM	12:28	15:28	2	3	NW	0	1	3/4	0	0
13/12/2023	Ebbing type 1	AM	12:28	15:28	3	3	NW	0	1	3/4	0	0
18/12/2023	Rising type 1	BP	11:28	14:28	1	2	SW	0	8	4	0	0
18/12/2023	Rising type 1	BP	11:28	14:28	2	3	SW	0	8	4	0	0
18/12/2023	Rising type 1	BP	11:28	14:28	3	3	SW	0-1	8	4	0	0
19/12/2023	Rising type 2	BP	10:39	13:39	1	3	W	0	0	4	0	0
19/12/2023	Rising type 2	BP	10:39	13:39	2	4	W	0	0	4	0	0
19/12/2023	Rising type 2	BP	10:39	13:39	3	4	W	0	1	4	0	0
02/01/2024	Rising type 1	AM	11:47	14:47	1	2	W	2	8	3	0	0
02/01/2024	Rising type 1	AM	11:47	14:47	2	2	W	2	8	3	0	0
02/01/2024	Rising type 1	AM	11:47	14:47	3	2	W	2	8	3	0	0
03/01/2024	Rising type 2	AM	10:46	13:46	1	3	W	0	7	4	0	0
03/01/2024	Rising type 2	AM	10:46	13:46	2	3	W	0	7	4	0	0
03/01/2024	Rising type 2	AM	10:46	13:46	3	3	W	0	6	4	0	0
09/01/2024	Ebbing type 2	AM	11:16	14:16	1	5	E	0	3	4	0	0

Date	Tidal state	Surveyor	Start time	End time	Hour	Wind speed	Wind direction	Rain	Cloud Cover	Visibility	Snow	Frost
09/01/2024	Ebbing type 2	AM	11:16	14:16	2	5	E	0	4	4	0	0
09/01/2024	Ebbing type 2	AM	11:16	14:16	3	5	E	0	3	4	0	0
10/01/2024	Ebbing type 1	AM	11:21	14:21	1	4	E	2	8	4	0	0
10/01/2024	Ebbing type 1	AM	11:21	14:21	2	4	E	1	8	4	0	0
10/01/2024	Ebbing type 1	AM	11:21	14:21	3	4	E	0	8	4	0	0
12/02/2024	Rising type 1	AM	09:04	12:04	1	4	SW	0	1	4	0	0
12/02/2024	Rising type 1	AM	09:04	12:04	2	4	SW	0	1	4	0	0
12/02/2024	Rising type 1	AM	09:04	12:04	3	4	SW	0	1	4	0	0
12/02/2024	Ebbing type 1	AM	14:04	17:04	1	4	SW	0	7	4	0	0
12/02/2024	Ebbing type 1	AM	14:04	17:04	2	4	SW	0	4	4	0	0
12/02/2024	Ebbing type 1	AM	14:04	17:04	3	4	SW	0	6	4	0	0
19/02/2024	Rising type 2	AM	14:29	17:29	1	4	W	0	8	4	0	0
19/02/2024	Rising type 2	AM	14:29	17:29	2	3	W	0	8	4	0	0
19/02/2024	Rising type 2	AM	14:29	17:29	3	3	W	0	7	4	0	0
22/02/2024	Ebbing type 2	AM	12:28	15:28	1	4	W	0	7	4	0	0
22/02/2024	Ebbing type 2	AM	12:28	15:28	2	4	W	0	5	4	0	0
22/02/2024	Ebbing type 2	AM	12:28	15:28	3	4	W	0	3	4	0	0
04/03/2024	Rising type 1	AM	14:02	14:54	1	6	SE	3	8	2	0	0
06/03/2024	Ebbing type 2	AM	09:50	12:50	1	4	SE	0	2	4	0	0
06/03/2024	Ebbing type 2	AM	09:50	12:50	2	4	SE	0	4	4	0	0
06/03/2024	Ebbing type 2	AM	09:50	12:50	3	4	SE	0	5	4	0	0
06/03/2024	Rising type 2	AM	14:44	17:44	1	5	SE	0	7	4	0	0
06/03/2024	Rising type 2	AM	14:44	17:44	2	5	SE	0	7	4	0	0
06/03/2024	Rising type 2	AM	14:44	17:44	3	4	SE	1	7	4	0	0
28/03/2024	Ebbing type 1	AM	14:14	17:14	1	3	NE	0	5	4	0	0
28/03/2024	Ebbing type 1	AM	14:14	17:14	2	3	NE	0	7	4	0	0
28/03/2024	Ebbing type 1	AM	14:14	17:14	3	3	NE	0	4	4	0	0

Appendix 4 British Trust of Ornithology (BTO) Species Codes

Table 14 BTO species codes

Species code	Species	Species code	Species	Species code	Species	Species code	Species
MS	Mute Swan (<i>Cygnus olor</i>)	H.	Grey Heron (<i>Ardea cinerea</i>)	CN	Common Tern (<i>Sterna hirundo</i>)	RX	Red-necked Grebe (<i>Podiceps grisegena</i>)
BS	Bewick's Swan (<i>Cygnus columbianus</i>)	WA	Water Rail (<i>Rallus aquaticus</i>)	AE	Arctic Tern (<i>Sterna paradisaea</i>)	SZ	Slavonian Grebe (<i>Podiceps auritus</i>)
WS	Whooper Swan (<i>Cygnus cygnus</i>)	MH	Moorhen (<i>Gallinula chloropus</i>)	AF	Little Tern (<i>Sterna albifrons</i>)	BN	Black-necked Grebe (<i>Podiceps nigricollis</i>)
NW	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	CO	Coot (<i>Fulica atra</i>)	KF	Kingfisher (<i>Alcedo atthis</i>)	SA	Shag (<i>Phalacrocorax aristotelis</i>)
GJ	Greylag Goose (<i>Anser anser</i>)	OC	Oystercatcher (<i>Haematopus ostralegus</i>)	UL	Unident. diver (<i>Gavia</i> sp.)	BI	Bittern (<i>Botaurus stellaris</i>)
CG	Canada Goose (<i>Branta canadensis</i>)	RP	Ringed Plover (<i>Charadrius hiaticula</i>)	UV	Unident. grebe (<i>Podiceps</i> sp.)	EC	Cattle Egret (<i>Bubulcus ibis</i>)
BY	Barnacle Goose (<i>Branta leucopsis</i>)	GP	Golden Plover (<i>Pluvialis apricaria</i>)	XU	Unident. Cormorant/Shag (<i>Phalacrocorax</i> sp.)	HW	HW Great White Egret (<i>Ardea alba</i>)
PB	Brent Goose (light-bellied) (<i>Branta bernicla hrota</i>)	GV	Grey Plover (<i>Pluvialis squatarola</i>)	UF	Unident. yellow-billed swan (<i>Cygnus</i> sp.)	NB	Spoonbill (<i>Platalea leucorodia</i>)
SU	Shelduck (<i>Tadorna tadorna</i>)	L.	Lapwing (<i>Vanellus vanellus</i>)	UO	Unident. (<i>Anser</i> sp.)	AV	Avocet (<i>Recurvirostra avosetta</i>)

Species code	Species	Species code	Species	Species code	Species	Species code	Species
WN	Wigeon (<i>Anas penelope</i>)	KN	Knot (<i>Calidris canutus</i>)	ZF	Feral/hybrid Mallard type	LP	Little Ringed Plover (<i>Charadrius dubius</i>)
GA	Gadwall (<i>Anas strepera</i>)	SS	Sanderling (<i>Calidris alba</i>)	ZD	Tufted/Pochard hybrid (<i>Aythya sp.</i>)	ID	American Golden Plover (<i>Pluvialis dominica</i>)
T.	Teal (<i>Anas crecca</i>)	PS	Purple Sandpiper (<i>Calidris maritima</i>)	UX	Unident. scoter sp. (<i>Melanitta sp.</i>)	LX	Little Stint (<i>Calidris minuta</i>)
MA	Mallard (<i>Anas platyrhynchos</i>)	DN	Dunlin (<i>Calidris alpina</i>)	UM	Unident. duck (<i>Anas sp.</i>)	PP	Pectoral Sandpiper (<i>Calidris melanotos</i>)
PT	Pintail (<i>Anas acuta</i>)	RU	Ruff (<i>Philomachus pugnax</i>)	U.	Unident. wader sp.	CV	Curlew Sandpiper (<i>Calidris ferruginea</i>)
SV	Shoveler (<i>Anas clypeata</i>)	JS	Jack Snipe (<i>Lymnocyrtus minimus</i>)	ZU	Hybrid Glaucous/Herring Gull	BQ	Buff-breasted Sandpiper (<i>Tryngites subruficollis</i>)
PO	Pochard (<i>Aythya ferina</i>)	SN	Snipe (<i>Gallinago gallinago</i>)	UU	Unident. gull (<i>Larus sp.</i>)	LD	Long-billed Dowitcher (<i>Limnodromus scolopaceus</i>)
TU	Tufted Duck (<i>Aythya fuligula</i>)	WK	Woodcock (<i>Scolopax rusticola</i>)	UT	Unident. tern (<i>Sterna sp.</i>)	CS	Common Sandpiper (<i>Actitis hypoleucos</i>)
SP	Scaup (<i>Aythya marila</i>)	BW	Black-tailed Godwit (<i>Limosa limosa</i>)	ZL	Feral/hybrid goose (<i>Anser sp.</i>)	GE	Green Sandpiper (<i>Tringa ochropus</i>)

Species code	Species	Species code	Species	Species code	Species	Species code	Species
LN	Long-tailed Duck (<i>Clangula hyemalis</i>)	BA	Bar-tailed Godwit (<i>Limosa lapponica</i>)	AS	Black Swan (<i>Cygnus atratus</i>)	DR	Spotted Redshank (<i>Tringa erythropus</i>)
E.	Eider (<i>Somateria mollissima</i>)	WM	Whimbrel (<i>Numenius phaeopus</i>)	BE	Bean Goose (<i>Anser fabalis</i>)	OD	Wood Sandpiper (<i>Tringa glareola</i>)
CX	Common Scoter (<i>Melanitta nigra</i>)	CU	Curlew (<i>Numenius Arquata</i>)	PG	Pink-footed Goose (<i>Anser brachyrhynchus</i>)	PL	Grey Phalarope (<i>Phalaropus fulicarius</i>)
GN	Goldeneye (<i>Bucephala clangula</i>)	GK	Greenshank (<i>Tringa nebularia</i>)	EW	European White-fronted Goose (<i>Anser a. albifrons</i>)	NX	Great Skua (<i>Catharacta skua</i>)
SY	Smew (<i>Mergellus albellus</i>)	RK	Redshank (<i>Tringa tetanus</i>)	SJ	Snow Goose (<i>Anser caerulescens</i>)	LU	Little Gull (<i>Hydrocoloeus minutus</i>)
RM	Red-breasted Merganser (<i>Mergus serrator</i>)	TT	Turnstone (<i>Arenaria interpres</i>)	DB	Brent Goose (dark-bellied) (<i>Branta bernicla bernicla</i>)	AB	Sabine's Gull (<i>Larus sabini</i>)
RH	Red-throated Diver (<i>Gavia stellata</i>)	BH	Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	BB	Black Brant (<i>Branta bernicla nigricans</i>)	IN	Ring-billed Gull (<i>Larus delawarensis</i>)
BV	Black-throated Diver (<i>Gavia arctica</i>)	MU	Mediterranean Gull (<i>Larus melanocephalus</i>)	AW	American Wigeon (<i>Anas americana</i>)	YG	Yellow-legged Gull (<i>Larus michahellis</i>)
ND	Great Northern Diver (<i>Gavia immer</i>)	CM	Common Gull (<i>Larus canus</i>)	TA	Green-winged Teal (<i>Anas carolinensis</i>)	IG	Iceland Gull (<i>Larus glaucoides</i>)

Species code	Species	Species code	Species	Species code	Species	Species code	Species
LG	Little Grebe (<i>Tachybaptus ruficollis</i>)	LB	Lesser Black-backed Gull (<i>Larus fuscus</i>)	NG	Ring-necked Duck (<i>Aythya collaris</i>)	GZ	Glaucous Gull (<i>Larus hyperboreus</i>)
GG	Great Crested Grebe (<i>Podiceps cristatus</i>)	HG	Herring Gull (<i>Larus argentatus</i>)	FS	Surf Scoter <i>Melanitta perspicillata</i>	FO	Forster's Tern (<i>Sterna forsteri</i>)
CA	Cormorant (<i>Phalacrocorax carbo</i>)	GB	Great Black-backed Gull (<i>Larus marinus</i>)	VS	Velvet Scoter (<i>Melanitta fusca</i>)	BJ	Black Tern (<i>Chlidonias niger</i>)
SA	Shag (<i>Phalacrocorax aristotelis</i>)	TE	Sandwich Tern (<i>Sterna sandvicensis</i>)	GD	Goosander (<i>Mergus merganser</i>)	WJ	White-winged Black Tern (<i>Chlidonias leucopterus</i>)
ET	Little Egret (<i>Egretta garzetta</i>)	RS	Roseate Tern (<i>Sterna dougallii</i>)	RY	Ruddy Duck (<i>Oxyura jamaicensis</i>)		



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