

## **An Bord Pleanála Oral Hearing**

**Irish Water**

**Greater Dublin Drainage**

**Response to Inspector's Questions**

**Biodiversity (Marine & Terrestrial Ornithology) – Simon Zisman**



**GDD Oral Hearing  
Response to Inspector's Questions**

**Biodiversity (Marine & Terrestrial Ornithology)**

**Bird Survey Raw Data – Terrestrial**

The following Appendices provide the raw terrestrial bird data collected for the Greater Dublin Drainage Project. The data should be considered in conjunction with EIAR Chapter 11, which provides supplementary information on survey method and other background information.

A key to help interpret the data is also provided, extracted from Bibby et al<sup>1</sup>. (2000) (see Appendix 1).

The terrestrial bird data were collected between January 2015 and November 2017, and comprise:

- Winter surveys (for late winter 2014/15, early winter 2015/2016, late winter 2016/2017 and early winter 2017/2018); and
- Summer surveys (for 2015 and 2017).

The data is provided in the following format:

- Appendix 1 - Key from Bibby et al (2000);
- Appendix 2 – Winter 2015 (January and February);
- Appendix 3 – Winter 2015 (November);
- Appendix 4 – Winter 2017 (March);
- Appendix 5 – Winter 2017 (November);
- Appendix 6 – Summer 2015 (April and June); and
- Appendix 7 – Summer 2017 (May and June).

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<sup>1</sup> Bibby, C., N. Burgess, D. Hill, and S. Mustoe (2000) Bird Census Techniques. Academic Press. Elsevier. ISBN: 9780120958313



## **APPENDIX 1                      KEY FROM BIBBY ET AL (2000)**

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The information below is taken from Bibby et al. (2000). It gives the standard notation for activity codes for birds and it provides the standard two-letter codes that are for recording birds and their behaviour.

# BTO SPECIES CODES

|    |                           |    |                           |    |                        |    |                     |
|----|---------------------------|----|---------------------------|----|------------------------|----|---------------------|
| AC | Arctic Skua               | GA | Gadwall                   | LE | Long-eared Owl         | SM | Sand Martin         |
| AE | Arctic Tern               | GX | Gannet                    | LT | Long-tailed Tit        | SS | Sanderling          |
| AV | Avocet                    | GW | Garden Warbler            | MG | Magpie                 | TE | Sandwich Tern       |
| BO | Barn Owl                  | GY | Garganey                  | MA | Mallard                | VI | Savi's Warbler      |
| BY | Barnacle Goose            | GC | Goldcrest                 | MN | Mandarin Duck          | SQ | Scarlet Rosefinch   |
| BA | Bar-tailed Godwit         | EA | Golden Eagle              | MX | Manx Shearwater        | SP | Scaup               |
| BR | Bearded Tit               | OL | Golden Oriole             | MR | Marsh Harrier          | CY | Scottish Crossbill  |
| BS | Berwick's Swan            | GF | Golden Pheasant           | MT | Marsh Tit              | SW | Sedge Warbler       |
| BI | Bittern                   | GP | Golden Plover             | MW | Marsh Warbler          | NS | Serin               |
| BK | Black Grouse              | GN | Goldeneye                 | MP | Meadow Pipit           | SA | Shag                |
| TY | Black Guillemot           | GO | Goldfinch                 | MU | Mediterranean Gull     | SU | Shelduck            |
| BX | Black Redstart            | GD | Goosander                 | ML | Merlin                 | SX | Shorelark           |
| BJ | Black Tern                | GI | Goshawk                   | M. | Mistle Thrush          | SE | Short-eared Owl     |
| B. | Blackbird                 | GH | Grasshopper Warbler       | MO | Montagu's Harrier      | SV | Shoveler            |
| BC | Blackcap                  | GB | Great Black-backed Gull   | MH | Moorhen                | SK | Siskin              |
| BH | Black-headed Gull         | GG | Great Crested Grebe       | MS | Mute Swan              | S. | Skylark             |
| BN | Black-necked Grebe        | ND | Great Northern Diver      | N. | Nightingale            | SZ | Slavonian Grebe     |
| BW | Black-tailed Godwit       | NX | Great Skua                | NU | Nightjar               | SN | Snipe               |
| BV | Black-throated Diver      | GS | Great Spotted Woodpecker  | NH | Nuthatch               | SB | Snow Bunting        |
| BT | Blue Tit                  | GT | Great Tit                 | OP | Osprey                 | ST | Song Thrush         |
| BU | Bluethroat                | GE | Green Sandpiper           | OC | Oystercatcher          | SH | Sparrowhawk         |
| BL | Brambling                 | G. | Green Woodpecker          | PX | Peafowl/Peacock        | AK | Spotted Crake       |
| BG | Brent Goose               | GR | Greenfinch                | PE | Peregrine              | SF | Spotted Flycatcher  |
| BF | Bullfinch                 | GK | Greenshank                | PH | Pheasant               | DR | Spotted Redshank    |
| BZ | Buzzard                   | H. | Grey Heron                | PF | Pied Flycatcher        | SG | Starling            |
| CG | Canada Goose              | P. | Grey Partridge            | PW | Pied Wagtail           | SD | Stock Dove          |
| CP | Capercaillie              | GV | Grey Plover               | PG | Pink-footed Goose      | SC | Stonechat           |
| C. | Carrian Crow              | GL | Grey Wagtail              | PT | Pintail                | TN | Stone-curlew        |
| CW | Cetti's Warbler           | GJ | Greylag Goose             | PO | Pochard                | TM | Storm Petrel        |
| CH | Chaffinch                 | GU | Guillemot                 | PM | Ptarmigan              | SL | Swallow             |
| CC | Chiffchaff                | FW | Guineafowl (Helmeted)     | PU | Puffin                 | SI | Swift               |
| CF | Chough                    | HF | Hawfinch                  | PS | Purple Sandpiper       | TO | Tawny Owl           |
| CL | Cirl Bunting              | HH | Hen Harrier               | Q. | Quail                  | T. | Teal                |
| CT | Coal Tit                  | HG | Herring Gull              | RN | Raven                  | TK | Temminck's Stint    |
| CD | Collared Dove             | HY | Hobby                     | RA | Razorbill              | TP | Tree Pipit          |
| CM | Common Gull               | HZ | Honey Buzzard             | RG | Red Grouse             | TS | Tree Sparrow        |
| CS | Common Sandpiper          | HC | Hooded Crow               | KT | Red Kite               | TC | Treecreeper         |
| CX | Common Scoter             | HP | Hoopoe                    | ED | Red-backed Shrike      | TU | Tufted Duck         |
| CN | Common Tern               | HM | House Martin              | RM | Red-breasted Merganser | TT | Turnstone           |
| CO | Coot                      | HS | House Sparrow             | RQ | Red-crested Pochard    | TD | Turtle Dove         |
| CA | Cormorant                 | JD | Jackdaw                   | FV | Red-footed Falcon      | TW | Twite               |
| CB | Corn Bunting              | J. | Jay                       | RL | Red-legged Partridge   | WA | Water Rail          |
| CE | Corncrake                 | K. | Kestrel                   | NK | Red-necked Phalarope   | W. | Wheatear            |
| CI | Crested Tit               | KF | Kingfisher                | LR | Redpoll (Lesser)       | WM | Whimbrel            |
| CR | Crossbill (Common)        | KI | Kittiwake                 | RK | Redshank               | WC | Whinchat            |
| CK | Cuckoo                    | KN | Knot                      | RT | Redstart               | WG | White-fronted Goose |
| CU | Curlew                    | LM | Lady Amherst's Pheasant   | RH | Red-throated Diver     | WH | Whitethroat         |
| DW | Darford Warbler           | LA | Lapland Bunting           | RE | Redwing                | WS | Whooper Swan        |
| DI | Dipper                    | L. | Lapwing                   | RB | Reed Bunting           | WN | Wigeon              |
| DO | Dotterel                  | TL | Leach's Petrel            | RW | Reed Warbler           | WT | Willow Tit          |
| DN | Dunlin                    | LB | Lesser Black-backed Gull  | RZ | Ring Ouzel             | WW | Willow Warbler      |
| D. | Duncock                   | LS | Lesser Spotted Woodpecker | RP | Ringed Plover          | OD | Wood Sandpiper      |
| EG | Egyptian Goose            | LW | Lesser Whitethroat        | RI | Ring-necked Parakeet   | WO | Wood Warbler        |
| E. | Eider                     | LI | Linnet                    | R. | Robin                  | WK | Woodcock            |
| FP | Feral Pigeon              | ET | Little Egret              | DV | Rock Dove (not feral)  | WL | Woodlark            |
| ZL | Feral/hybrid goose        | LG | Little Grebe              | RC | Rock Pipit             | WP | Woodpigeon          |
| ZF | Feral/hybrid mallard type | LU | Little Gull               | RO | Rook                   | WR | Wren                |
| FF | Fieldfare                 | LO | Little Owl                | RS | Roseate Tern           | WY | Wryneck             |
| FC | Firecrest                 | LP | Little Ringed Plover      | RY | Ruddy Duck             | YW | Yellow Wagtail      |
| F. | Fulmar                    | AF | Little Tern               | RU | Ruff                   | Y. | Yellowhammer        |

If you are not submitting your data electronically using BBS-Online, please return your Field Recording Sheets to your Regional Organiser with your other BBS forms. If you would like to submit your results on BBS-Online, please inform your RO, then visit [www.bto.org/bbs](http://www.bto.org/bbs).

Figure 3.2

Standard codes for mapping birds

|    |                          |    |              |
|----|--------------------------|----|--------------|
| SD | Stock Dove               | MT | Marsh Tit    |
| GS | Great Spotted Woodpecker | WT | Willow Tit   |
| S  | Skylark                  | CT | Coal Tit     |
| TP | Tree Pipit               | BT | Blue Tit     |
| WR | Wren                     | GT | Great Tit    |
| R  | Robin                    | NH | Nuthatch     |
| N  | Nightingale              | TC | Treecreeper  |
| SC | Stonechat                | MG | Maggie       |
| B  | Blackbird                | RO | Rock         |
| ST | Song Thrush              | C  | Carion Crow  |
| SW | Sedge Warbler            | RN | Raven        |
| RW | Reed Warbler             | SG | Starling     |
| LW | Lesser Whitethroat       | CH | Chaffinch    |
| WH | Whitethroat              | GR | Greenfinch   |
| GW | Garden Warbler           | GO | Goldfinch    |
| BC | Blackcap                 | LI | Linnit       |
| WO | Wood Warbler             | LR | Redpoll      |
| CC | Chiffchaff               | BF | Bullfinch    |
| GC | Goldcrest                | Y  | Yellowhammer |
| PF | Pied Flycatcher          | RB | Reed Bunting |
| LT | Long-tailed Tit          | CB | Corn Bunting |

A selection of standard species codes developed by the British Trust for Ornithology for British passerine species commonly recorded on Common Bird Census plots. The full list (British Birds 1984) can be used for any kind of bird recording in all habitats and conditions throughout the Western Palearctic.

### 3. Bird recording

The identity and activity of all birds are mapped with small and tidy writing in pencil or ball-point pen. If the map gets wet, some inks run; ball-points do not work on a wet map but pencils still do. It is helpful to use a standard list of codes for bird species. Codes for some British birds are shown in Fig. 3.2. Activities are also given standard codes (Fig. 3.3). Care should be taken to record as much detail as possible such as the sex and age of the bird. It is often critical in analysis to know whether a multiple observation was a party of juveniles. Were two different birds nearby a) the male and female of a pair, or b) of the same sex and thus presumably near a territory boundary?

The most useful point to concentrate on is the location of individuals of the same species that can be seen or heard simultaneously. A key feature of analysis is the assumption that territory boundaries fall between such records. For uniformly distributed species, it is difficult to analyse the results without reference to simultaneous registrations. It may not be clear if a singing bird is different from one seen earlier, a short distance away. Such ambiguous registrations must be joined by a line with a question mark to indicate that the observer is not sure whether they are the same bird or not. They are quite likely to be the same bird. If they really are different, the chances are that both will appear simultaneously on a different visit.

Figure 3.3

Standard symbols for bird activities

|                                       |                                                                                                                                |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| CH, CH <sup>o</sup> , CH <sup>g</sup> | Chaffinch sight records, with age, sex or number of birds if appropriate. CH indicates one pair, 2CH means two pairs together. |
| 3CH juvs, CH <sup>o</sup> 1g          |                                                                                                                                |
| R fam                                 | Juvenile Robins with parents(s) in attendance.                                                                                 |
| R                                     | A calling Robin.                                                                                                               |
| R                                     | A Robin repeatedly giving alarm calls or other vocalisations (not song) thought to have strong territorial significance.       |
| R                                     | A Robin in song.                                                                                                               |
| R R                                   | An aggressive encounter between two Robins.                                                                                    |
| * R                                   | An occupied nest of Robins: do not mark unoccupied nests, which are of no territorial significance by themselves.              |
| [R] BT                                | Blue Tits nesting in a specially provided site (e.g. nestbox).                                                                 |
| * PW on                               | Pied Wagtail nest with an adult sitting.                                                                                       |
| PW mat                                | Pied Wagtail carrying nest material.                                                                                           |
| PW food                               | Pied Wagtail carrying food.                                                                                                    |

Movements of birds can be indicated using the following conventions:

|        |                                                                |
|--------|----------------------------------------------------------------|
| - GR → | A calling Greenfinch flying over (seen only in flight).        |
| ⑤ →    | A singing Dunnock perched then flying away (not seen to land). |
| → B♂   | A male Blackbird flying in and landing (first seen in flight). |

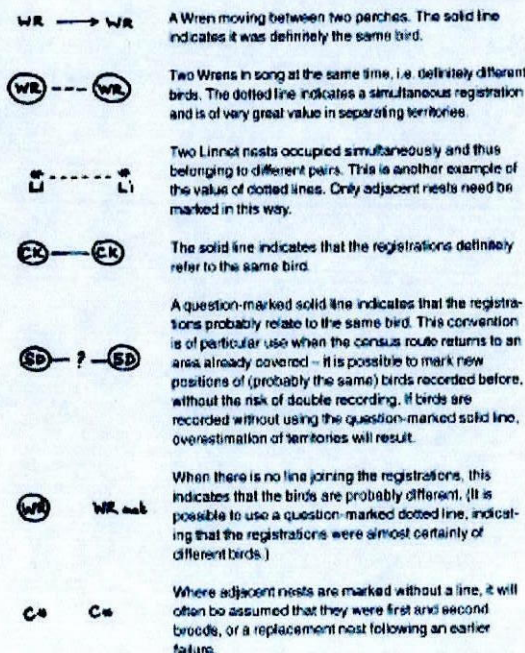
(continued)

The standard BTO list of conventions is shown. These are designed for clear and unambiguous recording. Symbols can be combined where necessary. Additional activities of territorial significance, such as displaying or mating, should be noted using an appropriate clear abbreviation.



Figure 3.3

(continued)



The above conventions indicate when registrations relate to different birds, and when to the same bird. Their proper use is essential for the accurate assessment of clusters.

In all cases the standard BTO codes for British birds should be used.

Some territories will overlap the plot boundary and several ways of dealing with these are considered below. Normally it is necessary to map records outside the plot. In the field, this may be accomplished by recording everything detected from the boundary without walking outside the plot. The field maps therefore need to extend by about 100 m in all directions to include these observations.

#### 4. Habitat recording

To interpret the reasons behind the distribution of birds on a plot, it may be necessary to describe its vegetation in some way (Chapter 11). Since the bird data are mapped, it is ideal also to map the vegetation to analyse habitat utilisation by birds. If the plots are each relatively uniform and there are several of them that differ from one another, it might be sufficient to describe or measure the vegetation without mapping it.

#### Variations of the method

Up until now, we have concentrated on the BTO's Common Bird Census, where it is important that the method does not vary. For other surveys it may be useful to vary the method in the following ways:

##### 1. Restricting the list of species covered

The CBC and bird community studies include all species, or at least as many as can possibly be recorded. If the purpose of the study is more restricted, the first variation is to map fewer species. This helps to concentrate time and effort in the required direction. The purpose of making ten visits is to gather enough data to register territories of species differing in their breeding and singing seasons. If only one species is being studied, five visits at the most appropriate season and time of day would suffice.

Recognising the boundaries between territories of birds of the same species is the single most important aim of territory mapping. In a study aimed at a particular species, more effort can be put into finding neighbours singing at each other or fighting. The species map could be updated after each field visit. In this way, it would be obvious if there were any areas where it was going to be difficult to resolve the number and pattern of clusters. Extra field effort could be made in these places on subsequent visits.

##### 2. Eliciting responses

The observer can increase the chance of finding birds and obtaining simultaneous registrations by using a tape to play snatches of song of the target species and recording any responses. If a tape is played in places that may be territory boundaries, it might help to see whether or not there is a response from both birds. Owners of isolated territories often sing less than where the neighbours are close. A tape recorder could increase the chance of getting sufficient records for a cluster. Many migrants only sing early in the breeding season, but a tape recorder can get a response while birds are nesting and have largely stopped singing. Thought should be given, however, to the risk of disturbance caused by this method.

For some elusive birds, dogs can be used to increase the chance of obtaining registrations. Dogs are regularly used in counting gamebirds and for finding nests of ducks or waders. It goes without saying that a suitable and well-trained dog and handler are needed if this method is to do more good for the census than harm to the birds.

## **APPENDIX 2                      WINTER 2015 (JANUARY AND FEBRUARY)**

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The data from the January and February 2015 winter walkover surveys were collected as species counts and are enclosed as an Excel spreadsheet that give the numbers recorded along various sections of the Proposed Project.



|                         |          | BIRDS USING SITE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |    |     |   |
|-------------------------|----------|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|-----|---|
| SURVEY SECTION          | DATE     | B.               | BF | BH | BT | BZ | CD | CH | CM | CT | D. | DI | ET | FF | GC | GL | GO | GP | GT | GR | H | HC | HG | HS | JD | K. | L. | LI | LT | M. | MA | MG | MP  | MS | PH | PW | R. | RB | RE | RO | RP | S. | SD  |   |
| The Grange - N3/M50 JCT | 04/02/15 | 14               |    | 28 | 35 |    |    | 10 | 1  | 5  |    | 1  |    |    | 2  | 1  | 19 |    | 13 |    |   | 5  | 2  |    | 5  | 1  |    |    | 4  | 1  | 8  | 9  |     | 9  |    |    | 21 |    |    |    |    |    |     |   |
| N3/M50 JCT - Cappagh Rd | 04/02/15 | 10               |    |    | 9  | 2  |    |    |    | 2  | 8  |    |    |    |    |    | 5  |    | 6  |    |   | 4  |    | 4  | 3  | 1  |    |    | 5  | 6  |    | 16 | 9   |    |    |    | 16 | 1  | 10 | 1  |    |    |     |   |
| Cappagh Rd - M2         | 04/02/15 | 35               | 3  |    | 13 | 1  |    | 1  |    | 1  | 4  | 3  |    | 57 | 1  |    | 2  | 34 | 7  |    | 1 | 6  |    | 2  | 4  |    | 33 | 4  |    | 1  |    | 9  | 1   |    |    | 1  | 20 | 3  | 63 | 22 | 2  |    |     | 4 |
| M2 - R108               | 03/02/15 | 63               | 7  |    | 23 | 3  |    | 12 |    | 5  | 12 |    | 1  | 12 | 1  | 1  | 6  |    | 2  | 2  |   | 7  |    | 2  | 4  |    |    | 65 | 7  | 2  |    | 22 | 13  |    |    |    | 11 | 17 | 55 |    |    |    | 164 |   |
| R108 - M1               | 03/02/15 | 16               | 3  |    | 13 | 3  |    | 3  |    | 7  | 6  |    |    |    |    |    | 4  | 10 | 5  | 1  |   | 13 |    | 2  | 2  |    |    |    |    |    | 4  | 34 |     |    | 1  | 24 |    |    | 23 |    |    | 2  |     |   |
| M1 - WWTW               | 30/01/15 | 18               |    | 7  | 3  |    |    | 1  |    |    |    |    |    |    |    | 2  | 6  |    | 5  |    |   | 1  | 2  | 4  | 2  |    |    | 50 | 3  |    |    | 4  | 240 |    | 2  | 11 | 7  | 2  |    |    |    |    |     |   |
| WWTW                    | 30/01/15 | 10               | 2  | 22 | 2  | 3  |    | 4  | 32 |    | 1  |    |    |    |    |    |    |    | 1  |    |   | 7  | 40 |    | 14 |    |    |    |    |    |    | 14 | 15  |    |    |    |    | 4  | 6  |    |    |    | 1   |   |
| WWTW - R107             | 30/01/15 | 21               | 2  |    | 12 | 1  | 2  | 6  |    | 1  | 2  |    |    | 10 |    |    | 4  |    | 3  | 1  |   | 2  |    | 6  | 8  |    |    |    |    | 6  |    | 9  | 45  |    |    |    | 16 | 3  | 32 |    |    |    | 20  |   |
| R107 - Railway          | 30/01/15 | 28               |    |    |    | 1  |    | 4  |    | 2  | 3  |    |    |    |    |    | 72 |    | 6  |    |   | 7  | 2  |    | 7  |    |    |    | 2  | 3  |    | 11 |     |    | 1  | 10 |    | 11 |    |    |    |    | 27  |   |
| Railway - R106          | 30/01/15 | 6                |    |    |    |    |    |    |    |    | 2  |    |    | 2  |    |    | 1  |    |    |    |   |    |    |    |    |    |    |    |    |    |    |    | 2   |    |    |    | 3  |    | 8  |    |    |    | 4   |   |



BIRDS IN FLIGHT ONLY

| SG  | SH | SN | ST | TS | WP  | WR | Y. | B. | BF | BH | BT | BZ | CH | CM | CT | D. | FF | GC | GO | GP | GT | GR | H | HC | HG | HS | JD | L  | LI | LT | M. | MG | MP | MS | PW | R. | RB | RE | RN | RO | S  | SG | SH | SN | ST | TS | WP | WR | Y. |  |  |
|-----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| 2   |    |    | 5  |    | 22  | 4  |    |    |    |    |    |    |    | 2  |    |    |    |    | 3  |    |    |    |   |    | 1  |    | 2  |    |    |    |    | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 6  |    |  |  |
| 12  |    | 1  | 12 |    | 26  | 14 |    |    |    |    |    | 7  |    |    |    |    |    |    |    |    |    |    |   | 2  | 1  |    | 10 |    |    |    |    | 4  |    | 4  |    |    |    |    |    |    | 12 |    |    |    |    |    | 2  |    |    |  |  |
| 141 |    |    | 6  |    | 63  | 5  | 9  |    |    |    |    |    | 2  |    |    |    |    |    |    | 3  |    |    |   | 1  |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    | 20 |    | 10 | 1  | 2  |    |    | 2  |    |    |  |  |
| 14  | 1  |    | 11 |    | 44  | 25 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1 | 5  |    |    |    | 10 |    |    |    | 5  | 10 |    |    |    |    |    |    |    | 20 |    |    |    |    |    | 4  |    |    |  |  |
| 1   |    |    |    |    | 42  | 11 |    |    |    | 2  |    |    |    | 2  |    |    |    |    | 4  |    |    |    |   | 3  | 4  |    | 7  |    |    |    |    | 1  | 1  |    |    |    |    |    |    | 9  | 3  |    |    |    |    | 6  |    |    |    |  |  |
|     | 1  |    | 2  |    | 13  | 7  | 4  |    |    | 3  |    |    |    | 4  |    |    |    |    | 1  |    |    |    |   | 1  | 1  |    | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 25 |    |    |    | 8  |    |  |  |
| 10  |    |    |    | 3  | 111 | 7  | 5  |    |    |    |    | 1  | 1  |    |    |    |    |    |    |    |    |    |   | 1  |    |    |    |    |    |    |    |    | 10 |    |    |    |    |    |    | 1  | 31 | 11 |    |    |    |    | 70 |    |    |  |  |
| 80  |    | 3  | 5  |    | 14  | 3  |    |    |    | 3  |    |    | 1  |    |    |    |    |    | 1  |    |    |    |   | 1  | 1  |    | 6  |    |    |    |    | 4  |    |    |    |    |    |    |    |    | 1  |    | 31 |    |    |    | 3  |    |    |  |  |
| 16  | 1  |    | 5  |    | 40  | 6  | 1  |    |    |    |    | 2  |    |    |    |    |    |    | 2  |    |    |    |   |    | 2  |    | 11 |    |    |    |    | 4  | 5  | 10 |    |    |    |    |    |    |    | 2  |    | 1  |    |    |    |    | 32 |  |  |
|     |    |    |    |    | 10  | 3  |    | 1  |    |    |    | 1  |    | 14 |    |    |    |    |    |    |    |    |   |    | 14 |    |    |    |    |    |    |    | 4  |    |    |    |    |    |    |    |    | 2  | 20 |    |    |    |    |    | 2  |  |  |

## **APPENDIX 3      WINTER 2015 (NOVEMBER)**

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The data from the November 2015 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).

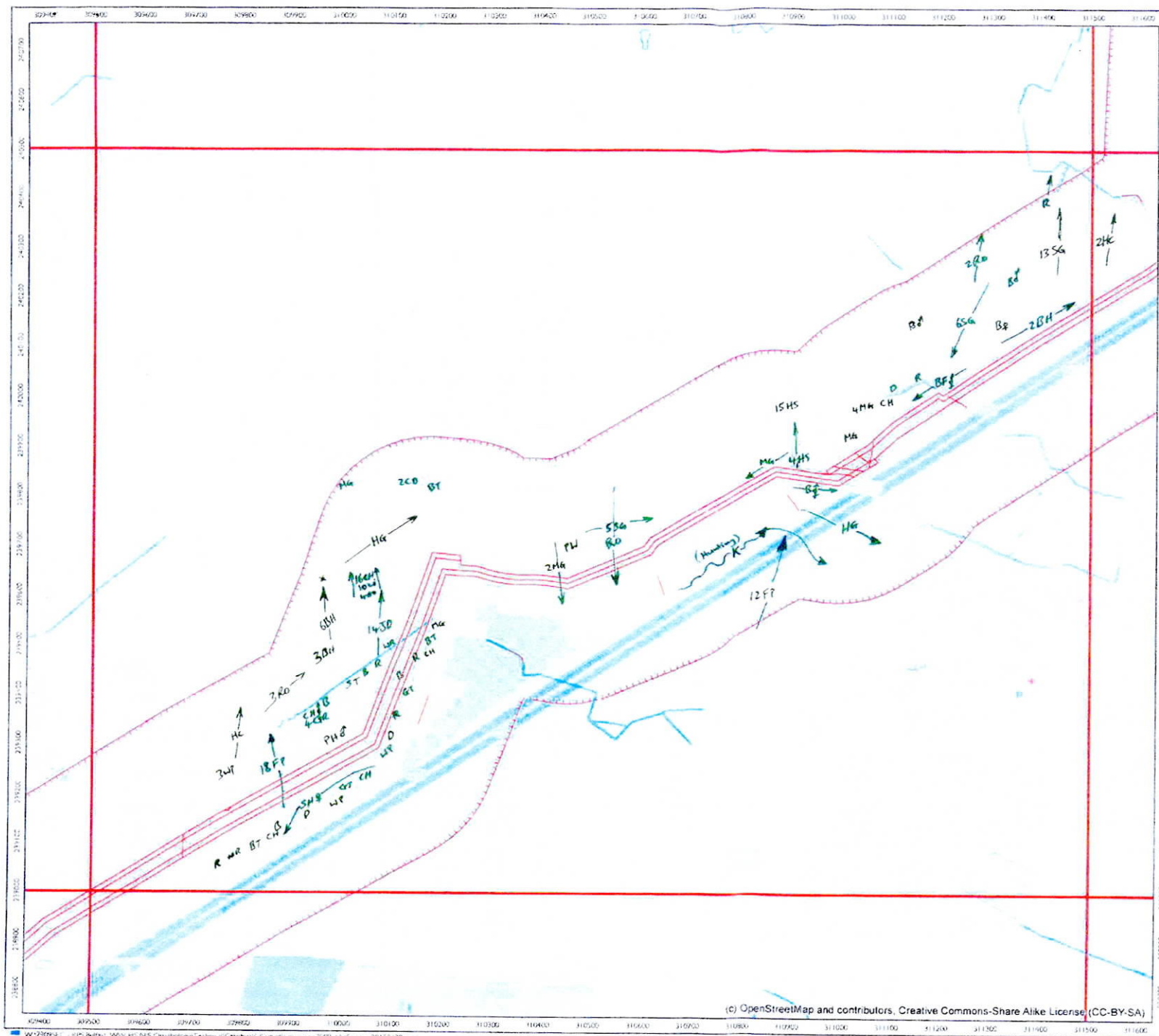
| RPS                                                                                                                                                                                |            | Weather Sheet  |                  | Wind Speed  |                    |                              | Direction     | Rain/Snow |                         | Cloud Cover | Cloud Height  | Visibility |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|------------------|-------------|--------------------|------------------------------|---------------|-----------|-------------------------|-------------|---------------|------------|
| Site                                                                                                                                                                               | Date       | Survey         | Observer         | Start Time  | Finish Time        | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph       |                         |             |               |            |
| GDD                                                                                                                                                                                | 16/11/2015 | Winter W.O.    | N. Veale         | 08:30       | 15:30              |                              | Calm          | 0         | >1                      | N           | None          | 0          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light air     | 1         | 1-3                     | NE          | Drizzle/Mist  | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light breeze  | 2         | 4-7                     | E           | Light showers | 2          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Gentle breeze | 3         | 8-12                    | SE          | Heavy showers | 3          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. breeze   | 4         | 13-18                   | S           | Heavy rain    | 4          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh breeze  | 5         | 19-24                   | SW          | Lying Snow    |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong breeze | 6         | 25-31                   | W           | Frost         |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. gale     | 7         | 32-38                   | NW          | None          | 0          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh gale    | 8         | 39-46                   |             | On site       | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong gale   | 9         | 47-54                   |             | Ground        | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Whole gale    | 10        | 55-63                   |             | All day       | 2          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Storm         | 11        | 64-72                   |             |               |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Hurricane     | 12        | 73+                     |             |               |            |
| Height of cloud above average height of viewshed<br><150m 0<br>150-500m 1<br>>500m 2                                                                                               |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| Weather                                                                                                                                                                            | Wind speed | Wind direction | Rain             | Cloud cover | Cloud height       | Visibility                   | Frost         | Snow      | Notes(e.g. temperature) |             |               |            |
| Hr 18:30                                                                                                                                                                           | 3          | SW             | 0                | 6/8         | 2                  | 2                            | —             | —         | 7°C                     |             |               |            |
| Hr 29:30                                                                                                                                                                           | 3          | SW             | 0                | 6/8         | 2                  | 2                            | —             | —         | 8°C                     |             |               |            |
| Hr 30:30                                                                                                                                                                           | 4          | SW             | 0                | 6/8         | 2                  | 2                            | —             | —         | 8°C                     |             |               |            |
| Hr 411:30                                                                                                                                                                          | 3          | SW             | 2                | 6/8         | 1                  | 2                            | —             | —         | 9°C                     |             |               |            |
| Hr 512:30                                                                                                                                                                          | 3          | SW             | 1                | 7/8         | 1                  | 1                            | —             | —         | 9°C                     |             |               |            |
| Hr 613:30                                                                                                                                                                          | 4          | SW             | 2                | 8/8         | 1                  | 2                            | —             | —         | 8°C                     |             |               |            |
| Hr 714:30                                                                                                                                                                          | 4          | SW             | 2                | 8/8         | 1                  | 2                            | —             | —         | 8°C                     |             |               |            |
| Hr 8                                                                                                                                                                               |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| Field Notes:<br>Maps attached                                                                                                                                                      |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| For office use only. NB- Initial AND date ALL boxes.                                                                                                                               |            | Logged         | Database Entered |             | Database Validated |                              | GIS Entered   |           | GIS Validated           |             |               |            |





| RPS                                                        |             | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                                     | Cloud Cover            | Cloud Height                                              | Visibility                                           |
|------------------------------------------------------------|-------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDD         |                |                  | Calm          | 0                  | >1         | N           | None          | 0                                   | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 17/11/2015  |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                                   |                        |                                                           |                                                      |
| Survey                                                     | Winter W.O. |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                                   |                        |                                                           |                                                      |
| Observer                                                   | Nick Vede   |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                                   |                        |                                                           |                                                      |
| Start Time                                                 | 08:45       |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                                   |                        |                                                           |                                                      |
| Finish Time                                                | 14:05       |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                                     | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |             |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                                   | None                   | 0                                                         |                                                      |
|                                                            |             |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                                   | Ground                 | 1                                                         |                                                      |
|                                                            |             |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                                   | All day                | 2                                                         |                                                      |
|                                                            |             |                |                  | Strong gale   | 9                  | 47-54      |             |               |                                     |                        |                                                           |                                                      |
|                                                            |             |                |                  | Whole gale    | 10                 | 55-63      |             |               |                                     |                        |                                                           |                                                      |
|                                                            |             |                |                  | Storm         | 11                 | 64-72      |             |               |                                     |                        |                                                           |                                                      |
|                                                            |             |                |                  | Hurricane     | 12                 | 73+        |             |               |                                     |                        |                                                           |                                                      |
| Weather                                                    | Wind speed  | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature)             |                        |                                                           |                                                      |
| Hr 1 08:45                                                 | 2           | E              | 0                | 8/8           | 2                  | 2          | —           |               | 7°C                                 |                        |                                                           |                                                      |
| Hr 2 9:45                                                  | 3           | SE             | 2                | 8/8           | 2                  | 2          | —           |               | 8°C                                 |                        |                                                           |                                                      |
| Hr 3 10:45                                                 | 3           | SE             | 2                | 8/8           | 2                  | 2          | —           |               | 9°C                                 |                        |                                                           |                                                      |
| Hr 4 11:45                                                 | 3           | SE             | 2                | 8/8           | 1                  | 1          | —           |               | 10°C                                |                        |                                                           |                                                      |
| Hr 5 12:45                                                 | 4           | S              | 2                | 8/8           | 1                  | 2          | —           |               | 13°C                                |                        |                                                           |                                                      |
| Hr 6 13:45                                                 | 4           | SW             | 2                | 8/8           | 1                  | 2          | —           |               | Survey stopped at 14:05, High Winds |                        |                                                           |                                                      |
| Hr 7 14:45                                                 | 6-8         | SW             | Surf view        | Stopped       |                    |            | —           |               | Gale force winds from SW            |                        |                                                           |                                                      |
| Hr 8                                                       |             |                |                  |               |                    |            |             |               |                                     |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |             |                |                  |               |                    |            |             |               |                                     |                        |                                                           |                                                      |
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RPS

## Winter Walkover

Surveyor: N. Veale

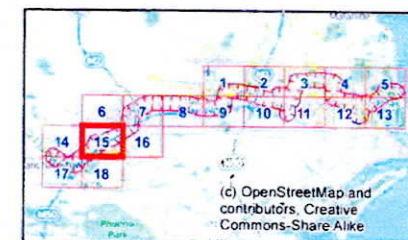
Date: 17/11/2015

Start time: 08:45

End time: 14:05

\*Please attach weather sheet

Notes:



Legend

 BBS/WWO survey boundary (250 m buffer; supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

### Greater Dublin Drainage

Breeding/winter bird survey

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Scale 1:7,500 @A3

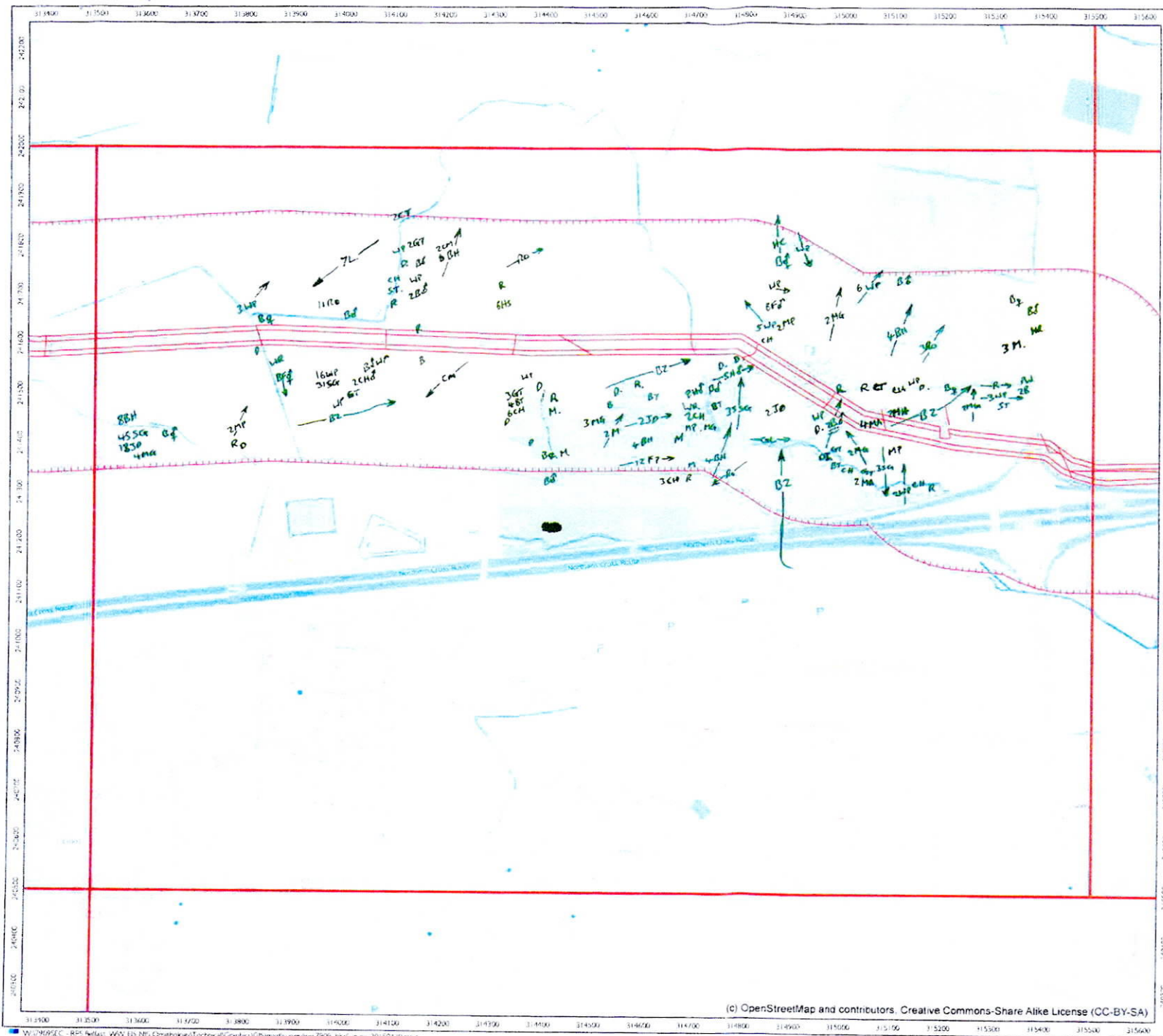
Date: 20/10/2015    Job No: SEC.7909    Rev: b

Drawn: CH      Checked: DRAFT      Approved: DRAFT

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| RPS                                                                      |             | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     | Cloud Cover                               | Cloud Height           | Visibility                                                |                                                      |
|--------------------------------------------------------------------------|-------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                                     | GDD         |                |                  | Calm          | 0                  | >1         | N           | None          | 0                                         | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                                     | 20/11/2015  |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                                         |                        |                                                           |                                                      |
| Survey                                                                   | Winter W.O. |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                                         |                        |                                                           |                                                      |
| Observer                                                                 | N. Veale    |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                                         |                        |                                                           |                                                      |
| Start Time                                                               | 8.00        |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                                         |                        |                                                           |                                                      |
| Finish Time                                                              | 14.15       |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                                           | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                                             |             |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                                         | None                   | 0                                                         |                                                      |
|                                                                          |             |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                                         | Ground                 | 1                                                         |                                                      |
|                                                                          |             |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                                         | All day                | 2                                                         |                                                      |
|                                                                          |             |                |                  | Strong gale   | 9                  | 47-54      |             |               |                                           |                        |                                                           |                                                      |
|                                                                          |             |                |                  | Whole gale    | 10                 | 55-63      |             |               |                                           |                        |                                                           |                                                      |
|                                                                          |             |                |                  | Storm         | 11                 | 64-72      |             |               |                                           |                        |                                                           |                                                      |
|                                                                          |             |                |                  | Hurricane     | 12                 | 73+        |             |               |                                           |                        |                                                           |                                                      |
| Weather                                                                  | Wind speed  | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature)                   |                        |                                                           |                                                      |
| Hr 1 8.00                                                                | 3           | SW             | 0                | 4/8           | 2                  | 1          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 2 9.00                                                                | 4           | SW             | 0                | 5/8           | 2                  | 2          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 3 10.00                                                               | 4           | W              | 0                | 8/8           | 2                  | 2          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 4 11.00                                                               | 4           | W              | 0                | 8/8           | 2                  | 2          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 5 12.00                                                               | 4           | W              | 0                | 8/8           | 2                  | 2          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 6 13.00                                                               | 4           | NW             | 3                | 8/8           | 1                  | 1          | —           | —             |                                           |                        |                                                           |                                                      |
| Hr 7 14.00                                                               | 4           | NW             | 3                | 8/8           | 1                  | 1          | —           | —             | *Gale force Gusts Survey stopped at 14.15 |                        |                                                           |                                                      |
| Hr 8                                                                     |             |                |                  |               |                    |            |             |               |                                           |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                                            |             |                |                  |               |                    |            |             |               |                                           |                        |                                                           |                                                      |
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RPS

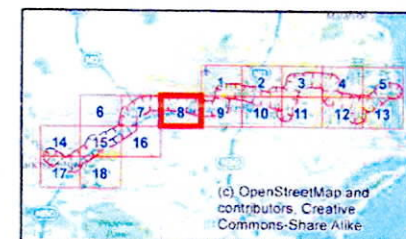
Surveyor: N. Vede

Date: 20/11/2015

Start time: 8:00 End time: 14:15

\*Please attach weather sheet

Notes:



Legend

BBS/WWO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 8 of 18

0 200 m

Scale: 1:7,500 @A3

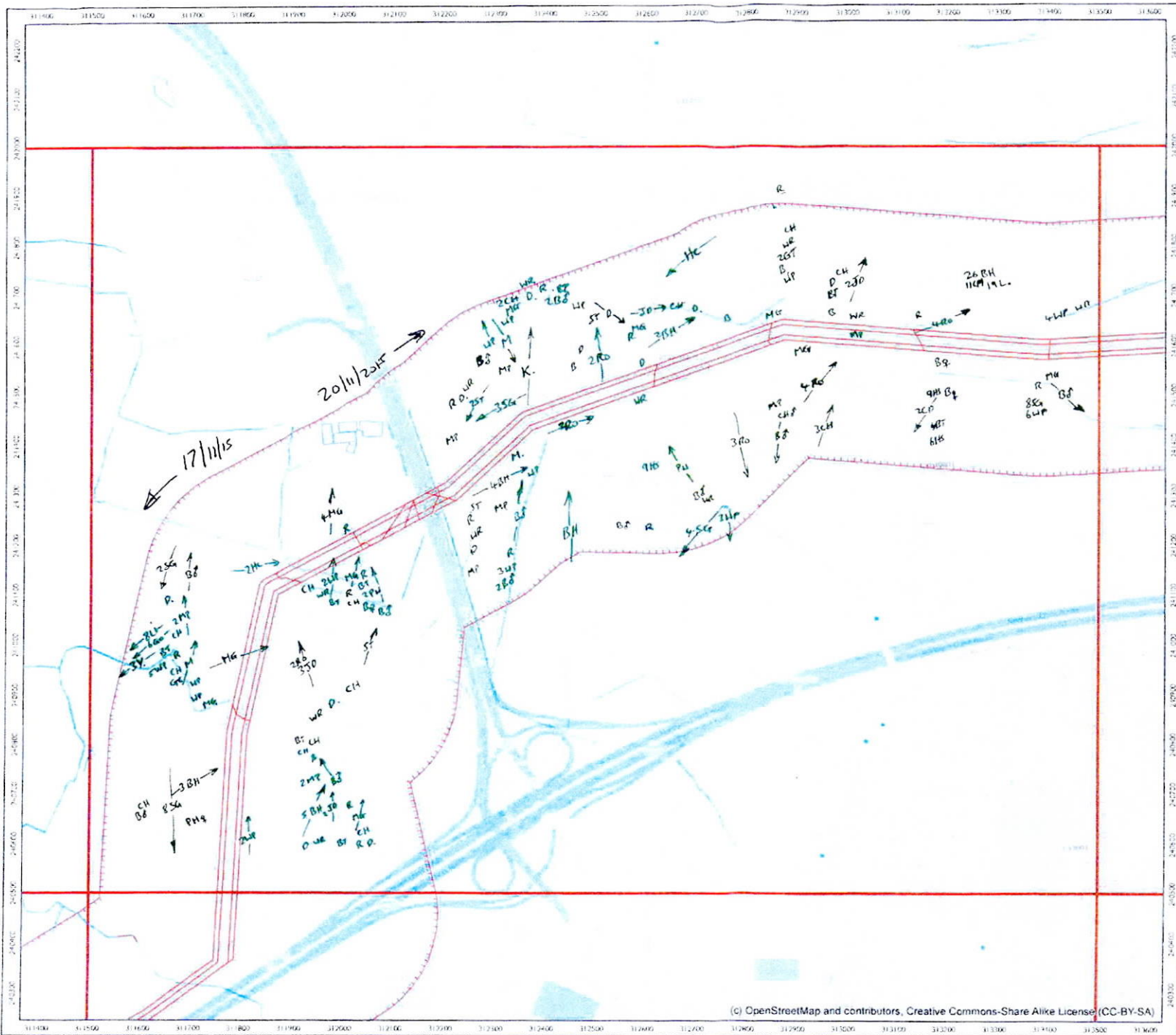
Date: 20/10/2015 Job No: SEC7909 Rev: b

Drawn: CH Checked: DRAFT Approved: DRAFT

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RPS

Surveyor: N. Vede

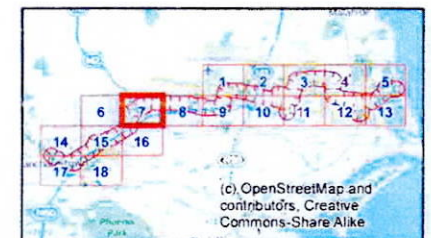
Date: 17/11/2015 + 20/11/2015

Start time:

End time:

\*Please attach weather sheet

Notes:



Legend

BBS/WVO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

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0 250 m

Scale: 1:7,500 @A3

Date: 20/10/2015 Job No: SEC7909 Rev. b

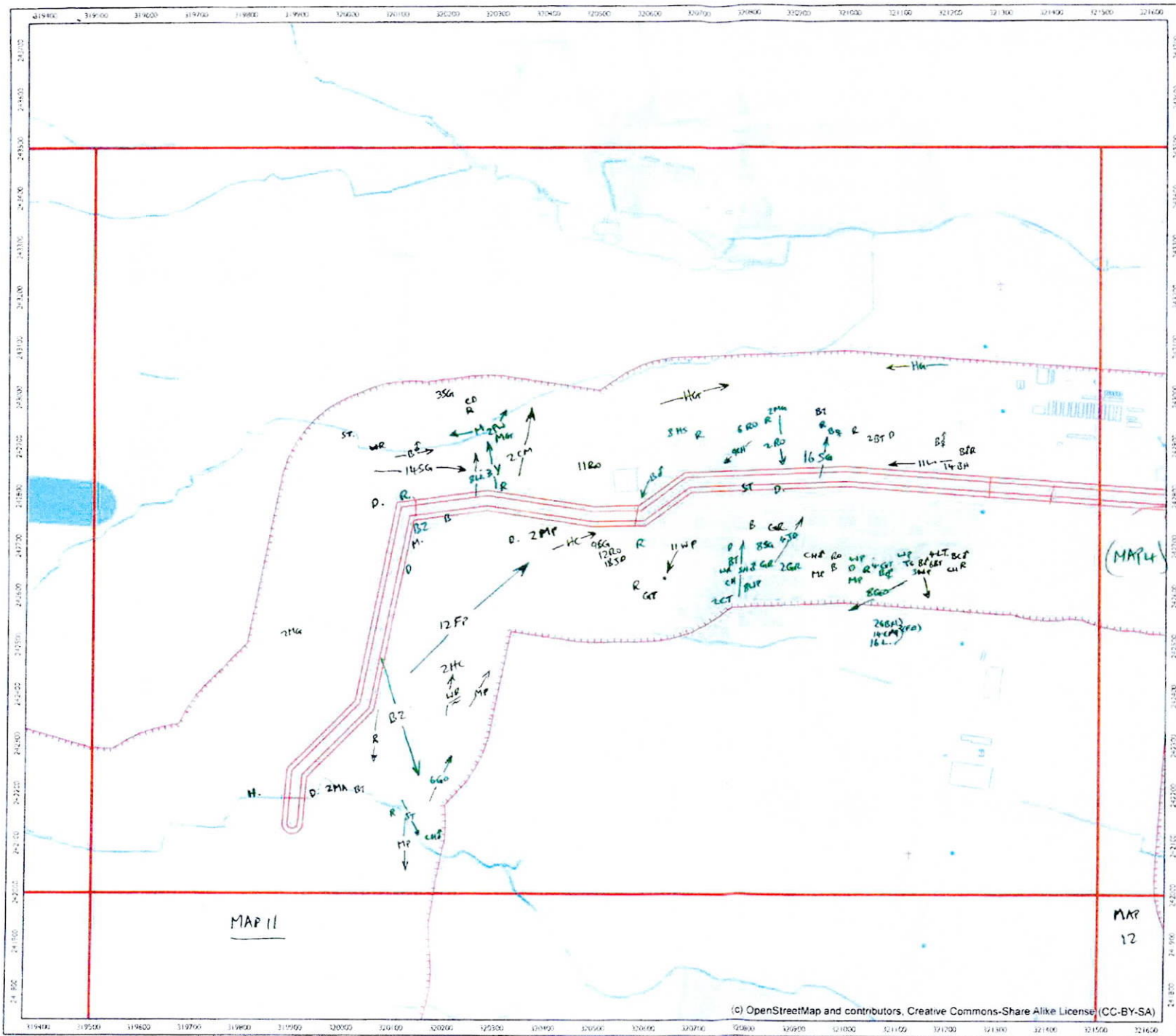
Drawn: CH Checked: DRAFT Approved: DRAFT

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| RPS                                                  |            | Weather Sheet    |          |                    |              |                              |       | Wind Speed    |                         |              | Direction     |             | Rain/Snow    |               | Cloud Cover |            | Cloud Height |            | Visibility |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
|------------------------------------------------------|------------|------------------|----------|--------------------|--------------|------------------------------|-------|---------------|-------------------------|--------------|---------------|-------------|--------------|---------------|-------------|------------|--------------|------------|------------|-----------|----|------------|---------|-------------|-------|-------|-------|-------|--------|--------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------------------------|--------------------------------------------------|-------------|------------------|-------------|----------|-------|----------|-------|---|---|---|
| Site                                                 | Date       | Survey           | Observer | Start Time         | Finish Time  | Sheet 1/ & [ ] Maps attached |       | Calm          | Light air               | Light breeze | Gentle breeze | Mod. breeze | Fresh breeze | Strong breeze | Mod. gale   | Fresh gale | Strong gale  | Whole gale | Storm      | Hurricane | N  | NE         | E       | SE          | S     | SW    | W     | NW    | None   | Drizzle/Mist | Light showers | Heavy showers                                                                                                                                                                      | Heavy rain | None | In eighths<br>e.g. 3/8 | Height of cloud above average height of viewshed | Poor (<1km) | Moderate (1-3km) | Good (>3km) |          |       |          |       |   |   |   |
| G00                                                  | 24/11/2015 | Winter W.O.      | N. Veck  | 8:20               | 15:20        |                              |       | 0             | 1                       | 2            | 3             | 4           | 5            | 6             | 7           | 8          | 9            | 10         | 11         | 12        | >1 | 1-3        | 4-7     | 8-12        | 13-18 | 19-24 | 25-31 | 32-38 | 39-46  | 47-54        | 55-63         | 64-72                                                                                                                                                                              | 73+        | 0    | 1                      | 2                                                | 3           | 4                | 0           | e.g. 3/8 | <150m | 150-500m | >500m | 0 | 1 | 2 |
|                                                      |            |                  |          |                    |              |                              |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    | Lying Snow | Frost   |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
|                                                      |            |                  |          |                    |              |                              |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    | None       | On site | High ground | 0     | 1     | 2     | None  | Ground | All day      | 0             | 1                                                                                                                                                                                  | 2          |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
|                                                      |            |                  |          |                    |              |                              |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               | Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Weather                                              | Wind speed | Wind direction   | Rain     | Cloud cover        | Cloud height | Visibility                   | Frost | Snow          | Notes(e.g. temperature) |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 1 8:20                                            | 3          | SW               | 0        | 6/8                | 2            | 2                            |       |               | 7°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 2 9:20                                            | 4          | W                | 1        | 7/8                | 1            | 1                            |       |               | 7°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 3 10:20                                           | 4          | W                | 2        | 8/8                | 1            | 1                            |       |               | 7°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 4 11:20                                           | 4          | W                | 2        | 8/8                | 1            | 1                            |       |               | 8°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 5 12:20                                           | 4          | W                | 1        | 8/8                | 1            | 1                            |       |               | 8°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 6 13:20                                           | 4          | W                | 1        | 8/8                | 1            | 1                            |       |               | 8°C                     |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 7 14:20                                           | 4          | W                | 2        | 8/8                | 1            | 1                            |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Hr 8                                                 |            |                  |          |                    |              |                              |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
| Field Notes:<br>Maps attached                        |            |                  |          |                    |              |                              |       |               |                         |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |
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| Logged                                               |            | Database Entered |          | Database Validated |              | GIS Entered                  |       | GIS Validated |                         |              |               |             |              |               |             |            |              |            |            |           |    |            |         |             |       |       |       |       |        |              |               |                                                                                                                                                                                    |            |      |                        |                                                  |             |                  |             |          |       |          |       |   |   |   |



RPS

Surveyor: N. Vede

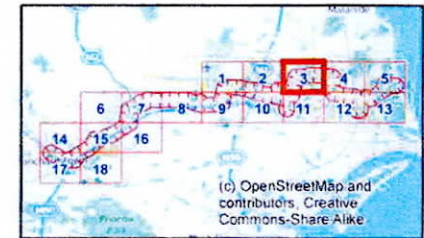
Date: 24/11/2015

Start time: 8:20

End time: 15:20

\*Please attach weather sheet

Notes:



Legend

B85/WVO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 3 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 20/10/2015 Job No: SEC7909 Rev: b  
Drawn: CH Checked: DRAFT Approved: DRAFT

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| RPS  |            | Weather Sheet |          | Wind Speed |             | Direction                    | Rain/Snow     |     | Cloud Cover | Cloud Height |               | Visibility |                        |                                                  |                                                                                                                                                                                    |   |
|------|------------|---------------|----------|------------|-------------|------------------------------|---------------|-----|-------------|--------------|---------------|------------|------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Site | Date       | Survey        | Observer | Start Time | Finish Time | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph |             |              |               |            |                        |                                                  |                                                                                                                                                                                    |   |
| GDD  | 26/11/2015 | Winter W.O.   | N. Veale | 8:30       | 15:30       |                              | Calm          | 0   | >1          | N            | None          | 0          | In eighths<br>e.g. 3/8 | Height of cloud above average height of viewshed | Poor (<1km)                                                                                                                                                                        | 0 |
|      |            |               |          |            |             |                              | Light air     | 1   | 1-3         | NE           | Drizzle/Mist  | 1          |                        |                                                  | Moderate (1-3km)                                                                                                                                                                   | 1 |
|      |            |               |          |            |             |                              | Light breeze  | 2   | 4-7         | E            | Light showers | 2          |                        |                                                  | Good (>3km)                                                                                                                                                                        | 2 |
|      |            |               |          |            |             |                              | Gentle breeze | 3   | 8-12        | SE           | Heavy showers | 3          |                        |                                                  |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Mod. breeze   | 4   | 13-18       | S            | Heavy rain    | 4          |                        |                                                  |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Fresh breeze  | 5   | 19-24       | SW           | Lying Snow    |            | Frost                  |                                                  |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Strong breeze | 6   | 25-31       | W            | None          | 0          | None                   | 0                                                |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Mod. gale     | 7   | 32-38       | NW           | On site       | 1          | Ground                 | 1                                                |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Fresh gale    | 8   | 39-46       |              | High ground   | 2          | All day                | 2                                                |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Strong gale   | 9   | 47-54       |              |               |            |                        |                                                  | Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |   |
|      |            |               |          |            |             |                              | Whole gale    | 10  | 55-63       |              |               |            |                        |                                                  |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Storm         | 11  | 64-72       |              |               |            |                        |                                                  |                                                                                                                                                                                    |   |
|      |            |               |          |            |             |                              | Hurricane     | 12  | 73+         |              |               |            |                        |                                                  |                                                                                                                                                                                    |   |

| Weather    | Wind speed | Wind direction | Rain | Cloud cover | Cloud height | Visibility | Frost | Snow | Notes(e.g. temperature) |
|------------|------------|----------------|------|-------------|--------------|------------|-------|------|-------------------------|
| Hr 1 8:30  | 2          | W              | 1    | 6/8         | 1            | 1          | —     | —    | 10°C Drizzle            |
| Hr 2 9:30  | 2          | W              | 1    | 7/8         | 1            | 1          | —     | —    | 10°C Drizzle            |
| Hr 3 10:30 | 3          | W              | 0    | 8/8         | 1            | 1          | —     | —    | 12°C                    |
| Hr 4 11:30 | 2          | SW             | 1    | 7/8         | 1            | 1          | —     | —    | 12°C Drizzle            |
| Hr 5 12:30 | 3          | SW             | 1    | 8/8         | 1            | 1          | —     | —    | 12°C Drizzle            |
| Hr 6 13:30 | 3          | SW             | 2    | 8/8         | 1            | 1          | —     | —    | RAIN SHOWERS            |
| Hr 7 14:30 | 3          | SW             | 2    | 8/8         | 1            | 1          | —     | —    | Continuous Rain         |
| Hr 8       |            |                |      |             |              |            |       |      |                         |

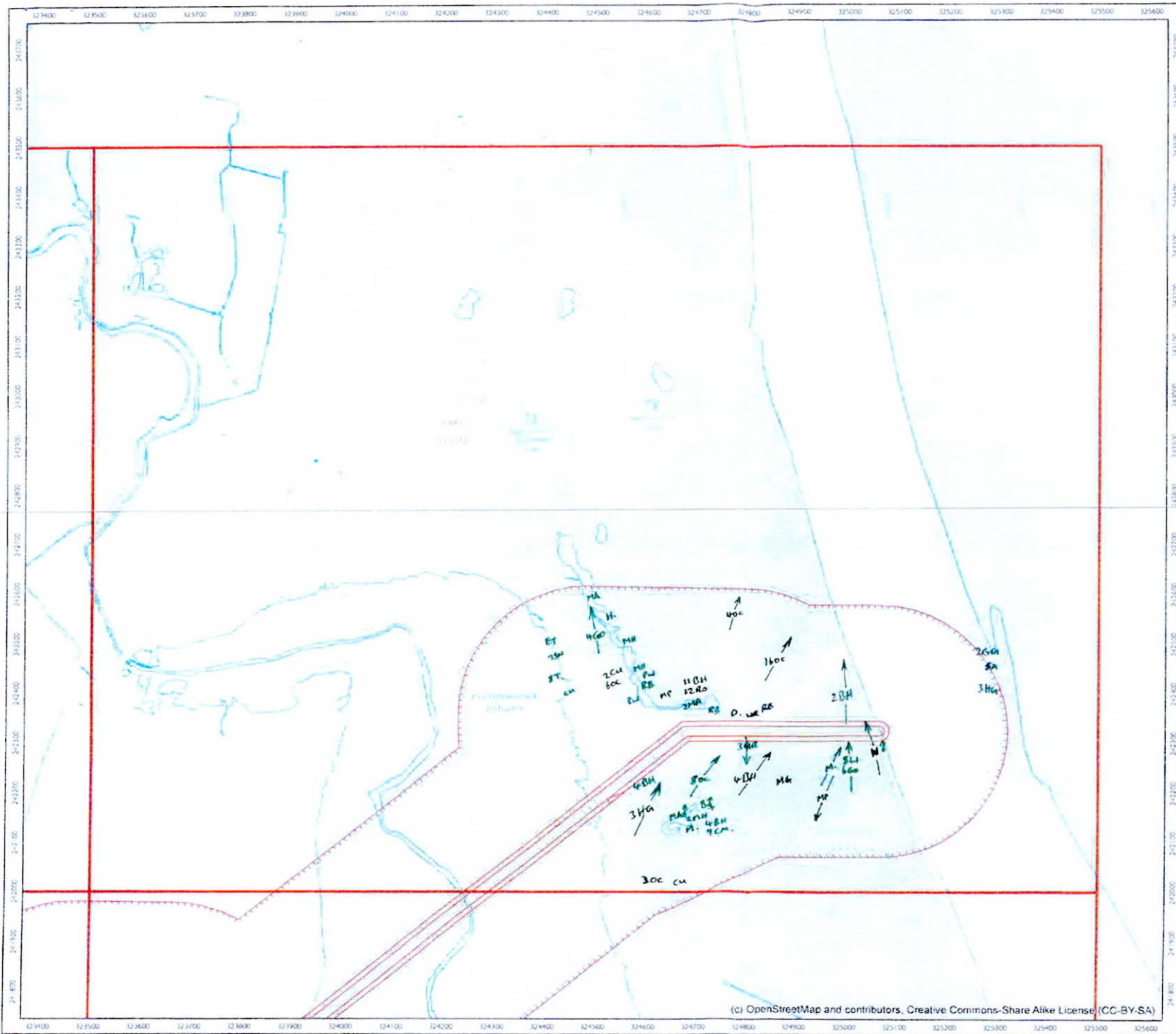
Field Notes:

Maps attached

| For office use only. NB- Initial AND date ALL boxes. | Logged | Database Entered | Database Validated | GIS Entered | GIS Validated |
|------------------------------------------------------|--------|------------------|--------------------|-------------|---------------|
|                                                      |        |                  |                    |             |               |







RPS

Surveyor: N. Veale

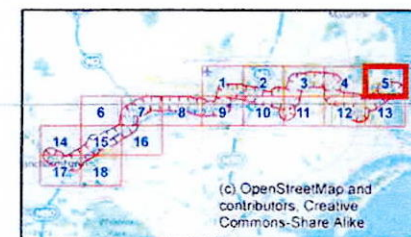
Date: 26/11/2015

Start time: 8:30

End time: 15:30

\*Please attach weather sheet

Notes:



Legend

BBS/WVO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 5 of 18

0 200 m

Scale 1:7,500 @A3

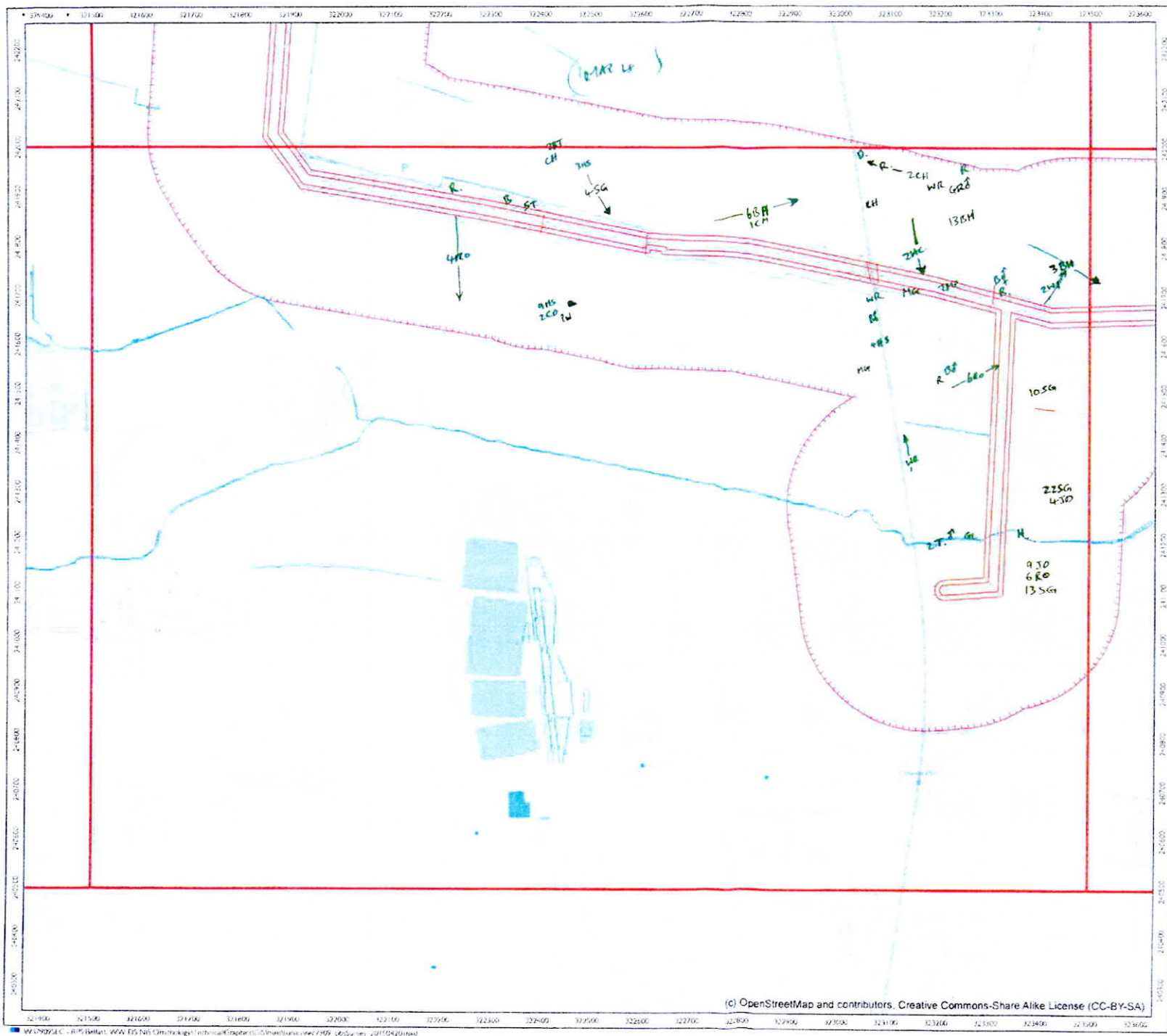
Date: 20/10/2015 Job No: SEC7909 Rev: 0

Drawn: CH Checked: DRAFT Approved: DRAFT

Irish Natural Grid, EPSG: 29902  
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RPS

Surveyor: Nick Veele

Date: 26/11/2015

Start time: 08:30

End time: 15:30

\*Please attach weather sheet

Notes:



Legend

BBS/WWO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 12 of 18

0 200 m

Scale: 1:7500 @A3

Date: 2010/2015

Job No: SEC7909

Rev: b

Drawn: CH

Checked: DRAFT

Approved: DRAFT

Irish National Grid, EPSG: 29902  
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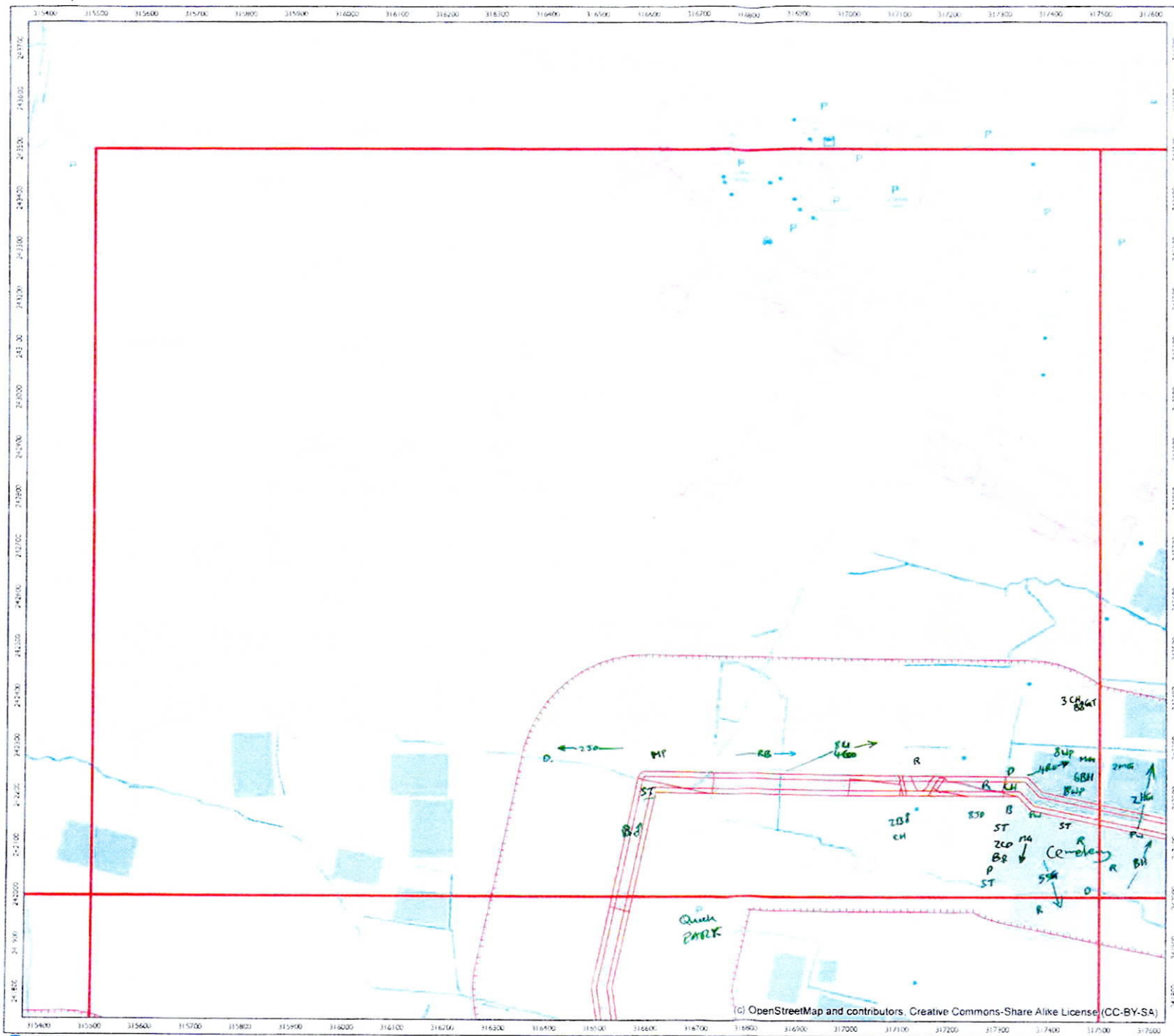




| RPS                                                                                                                                                                                |            | Weather Sheet  |           | Wind Speed       |              |                              | Direction     | Rain/Snow   |                                                     | Cloud Cover   | Cloud Height  | Visibility |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-----------|------------------|--------------|------------------------------|---------------|-------------|-----------------------------------------------------|---------------|---------------|------------|
| Site                                                                                                                                                                               | Date       | Survey         | Observer  | Start Time       | Finish Time  | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph         |                                                     |               |               |            |
| G.B.B.                                                                                                                                                                             | 27/11/2015 | Winter W.O.    | Mark Wade | 08:30            | 14:50        |                              | Calm          | 0           | >1                                                  | N             | None          | 0          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Light air     | 1           | 1-3                                                 | NE            | Drizzle/Mist  | 1          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Light breeze  | 2           | 4-7                                                 | E             | Light showers | 2          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Gentle breeze | 3           | 8-12                                                | SE            | Heavy showers | 3          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Mod. breeze   | 4           | 13-18                                               | S             | Heavy rain    | 4          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Fresh breeze  | 5           | 19-24                                               | SW            | Lying Snow    |            |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Strong breeze | 6           | 25-31                                               | W             | Frost         |            |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Mod. gale     | 7           | 32-38                                               | NW            | None          | 0          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Fresh gale    | 8           | 39-46                                               |               | On site       | 1          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Strong gale   | 9           | 47-54                                               |               | Ground        | 1          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Whole gale    | 10          | 55-63                                               |               | All day       | 2          |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Storm         | 11          | 64-72                                               |               |               |            |
|                                                                                                                                                                                    |            |                |           |                  |              |                              | Hurricane     | 12          | 73+                                                 |               |               |            |
| Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |            |                |           |                  |              |                              |               |             |                                                     |               |               |            |
| Weather                                                                                                                                                                            | Wind speed | Wind direction | Rain      | Cloud cover      | Cloud height | Visibility                   | Frost         | Snow        | Notes(e.g. temperature)                             |               |               |            |
| Hr 1 8:30                                                                                                                                                                          | 4          | SW             | 0         | 6/8              | 2            | 2                            |               |             |                                                     |               |               |            |
| Hr 2 9:30                                                                                                                                                                          | 4          | SW             | 0         | 7/8              | 2            | 2                            |               |             |                                                     |               |               |            |
| Hr 3 10:30                                                                                                                                                                         | 5          | SW             | 1         | 8/8              | 2            | 1                            |               |             |                                                     |               |               |            |
| Hr 4 11:30                                                                                                                                                                         | 5          | W              | 1         | 8/8              | 1            | 1                            |               |             | Gusty Winds up to force 7 Survey postponed at 12:00 |               |               |            |
| Hr 5 12:30                                                                                                                                                                         | No SURVEY  |                |           | High Winds       |              |                              |               |             |                                                     |               |               |            |
| Hr 6 13:30                                                                                                                                                                         | 4          | W              | 2         | 7/8              | 1            | 1                            |               |             | Survey CONT... at 13:45 as Wind eased               |               |               |            |
| Hr 7 14:30                                                                                                                                                                         | 5          | NW             | 2         | 8/8              | 1            | 1                            |               |             | Survey Stopped at 14:50, Increasing Winds           |               |               |            |
| Hr 8                                                                                                                                                                               |            |                |           |                  |              |                              |               |             |                                                     |               |               |            |
| Field Notes:<br>Maps attached                                                                                                                                                      |            |                |           |                  |              |                              |               |             |                                                     |               |               |            |
| For office use only. NB- Initial AND date ALL boxes.                                                                                                                               |            |                | Logged    | Database Entered |              | Database Validated           |               | GIS Entered |                                                     | GIS Validated |               |            |







RPS

Surveyor: N. Veale

Date: 27/11/2015

Start time: 08:30

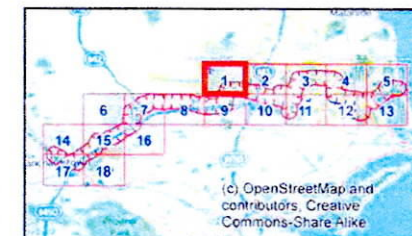
End time: 14:50

\*Please attach weather sheet

Notes:

Transverse cross maps

(1, 2, + 9)



#### Legend

BBS/WWO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 1 of 18

0 200 m

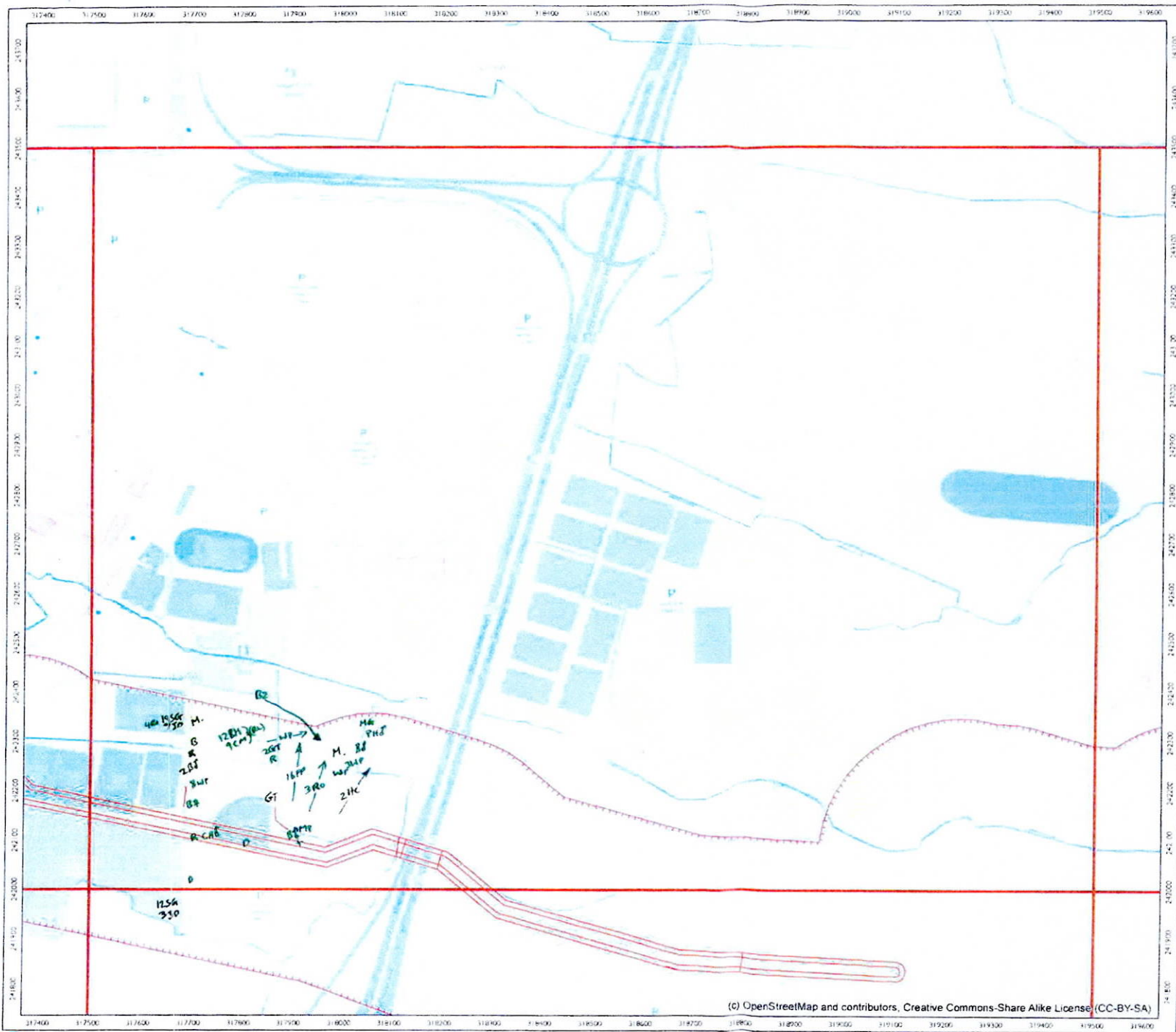
Scale: 1:7,500 @A3

Date: 20/10/2015 Job No: SEC7909 Rev: 0

Drawn: CH Checked: DRAFT Approved: DRAFT

Irish National Grid: EMD: 29902  
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RPS

Surveyor: Nick Veda

Date: 27/11/2015

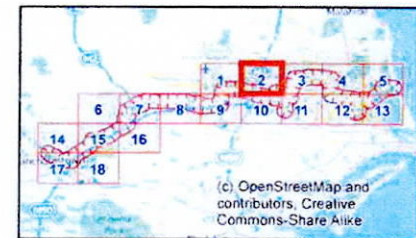
Start time: 0830

End time: 14:50

\*Please attach weather sheet

Notes:

Transsects split over Maps  
1, 2, + 9



Legend

BBS/WVO survey boundary (250 m buffer, supplied 20140420, plus 250 m buffer of protruding access track supplied 20150917)

Greater Dublin Drainage

Breeding/winter bird survey

Page 2 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 20/10/2015 Job No: SEC7909 Rev: 5  
Drawn: CH Checked: DRAFT Approved: DRAFT

Irish National Grid EPSG: 29902  
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## **APPENDIX 4                  WINTER 2017 (MARCH)**

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The data from the March 2017 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).



| RPS                                                        |                     | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|------------------------------------------------------------|---------------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | G00                 |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 30/03/2017          |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | Winter W.O          |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | N. Veale            |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 07:15               |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 15:00               |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         |                        |                                                           |                                                      |
| Sheet 1/                                                   | & [ ] Maps attached |                |                  | Strong breeze | 6                  | 25-31      | W           | Frost         |                         |                        |                                                           |                                                      |
|                                                            |                     |                |                  | Mod. gale     | 7                  | 32-38      | NW          | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |                     |                |                  | Fresh gale    | 8                  | 39-46      |             | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |                     |                |                  | Strong gale   | 9                  | 47-54      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |                     |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |                     |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |                     |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed          | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1 7:15                                                  | 3                   | SE             | 0                | 6/8           | 2                  | 2          |             |               | 10°C                    |                        |                                                           |                                                      |
| Hr 2 8:15                                                  | 2                   | SE             | 0                | 8/8           | 2                  | 2          |             |               | light drizzle           |                        |                                                           |                                                      |
| Hr 3 9:15                                                  | 3                   | SE             | 0                | 8/8           | 2                  | 2          |             |               | light drizzle           |                        |                                                           |                                                      |
| Hr 4 10:15                                                 | 3                   | SE             | 0                | 8/8           | 2                  | 2          |             |               | 12°C                    |                        |                                                           |                                                      |
| Hr 5 11:15                                                 | 3                   | SE             | 0                | 1/8           | 2                  | 2          |             |               | 12°C                    |                        |                                                           |                                                      |
| Hr 6 12:15                                                 | 3                   | SE             | 0                | 2/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 7 13:15                                                 | 3                   | SE             | 0                | 1/8           | 2                  | 2          |             |               | 14°C                    |                        |                                                           |                                                      |
| Hr 8 14:15                                                 | 4                   | SE             | 0                | 2/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |                     |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |                     | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |

| RPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Weather Sheet  |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|------------------|--------------------|--------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|-------------------------|-------------|--------------|------------|--|----------|-----|--|--|------------------------|-----------------------------------------------------------|------------------------------------------------------|------|---|----|---|------|---|--|---------|--|-----------|---|-----|----|--------------|---|--|------------|--|--------------|---|-----|---|---------------|---|--|---------|--|---------------|---|------|----|---------------|---|--|--|--|-------------|---|-------|---|------------|---|--|--|--|--------------|---|-------|----|------------|--|-------|--|--|---------------|---|-------|---|------|---|------|---|--|-----------|---|-------|----|---------|---|--------|---|--|------------|---|-------|--|-------------|---|---------|---|--|-------------|---|-------|--|--|--|--|--|--|------------|----|-------|--|--|--|--|--|--|-------|----|-------|--|--|--|--|--|--|-----------|----|-----|--|--|--|--|--|--|
| Site                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | GDD        |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 27/03/2017 |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Survey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Vine WO.   |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Observer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nick Veech |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Start Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10:00      |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Finish Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 10:15      |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Sheet 1/ & [ ] Maps attached                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| <table border="1"> <thead> <tr> <th colspan="3">Wind Speed</th> <th rowspan="2">Direction</th> <th colspan="2">Rain/Snow</th> <th>Cloud Cover</th> <th>Cloud Height</th> <th>Visibility</th> </tr> <tr> <th></th> <th>Beaufort</th> <th>Mph</th> <th></th> <th></th> <th>In eighths<br/>e.g. 3/8</th> <th>Height of cloud<br/>above average<br/>height of<br/>viewshed</th> <th>Poor (&lt;1km) 0<br/>Moderate (1-3km) 1<br/>Good (&gt;3km) 2</th> </tr> </thead> <tbody> <tr> <td>Calm</td> <td>0</td> <td>&gt;1</td> <td>N</td> <td>None</td> <td>0</td> <td></td> <td>&lt;150m 0</td> <td></td> </tr> <tr> <td>Light air</td> <td>1</td> <td>1-3</td> <td>NE</td> <td>Drizzle/Mist</td> <td>1</td> <td></td> <td>150-500m 1</td> <td></td> </tr> <tr> <td>Light breeze</td> <td>2</td> <td>4-7</td> <td>E</td> <td>Light showers</td> <td>2</td> <td></td> <td>&gt;500m 2</td> <td></td> </tr> <tr> <td>Gentle breeze</td> <td>3</td> <td>8-12</td> <td>SE</td> <td>Heavy showers</td> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mod. breeze</td> <td>4</td> <td>13-18</td> <td>S</td> <td>Heavy rain</td> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fresh breeze</td> <td>5</td> <td>19-24</td> <td>SW</td> <td>Lying Snow</td> <td></td> <td>Frost</td> <td></td> <td></td> </tr> <tr> <td>Strong breeze</td> <td>6</td> <td>25-31</td> <td>W</td> <td>None</td> <td>0</td> <td>None</td> <td>0</td> <td></td> </tr> <tr> <td>Mod. gale</td> <td>7</td> <td>32-38</td> <td>NW</td> <td>On site</td> <td>1</td> <td>Ground</td> <td>1</td> <td></td> </tr> <tr> <td>Fresh gale</td> <td>8</td> <td>39-46</td> <td></td> <td>High ground</td> <td>2</td> <td>All day</td> <td>2</td> <td></td> </tr> <tr> <td>Strong gale</td> <td>9</td> <td>47-54</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Whole gale</td> <td>10</td> <td>55-63</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Storm</td> <td>11</td> <td>64-72</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hurricane</td> <td>12</td> <td>73+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |            |                |                  | Wind Speed         |              |                        | Direction                                                 | Rain/Snow                                            |                         | Cloud Cover | Cloud Height | Visibility |  | Beaufort | Mph |  |  | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 | Calm | 0 | >1 | N | None | 0 |  | <150m 0 |  | Light air | 1 | 1-3 | NE | Drizzle/Mist | 1 |  | 150-500m 1 |  | Light breeze | 2 | 4-7 | E | Light showers | 2 |  | >500m 2 |  | Gentle breeze | 3 | 8-12 | SE | Heavy showers | 3 |  |  |  | Mod. breeze | 4 | 13-18 | S | Heavy rain | 4 |  |  |  | Fresh breeze | 5 | 19-24 | SW | Lying Snow |  | Frost |  |  | Strong breeze | 6 | 25-31 | W | None | 0 | None | 0 |  | Mod. gale | 7 | 32-38 | NW | On site | 1 | Ground | 1 |  | Fresh gale | 8 | 39-46 |  | High ground | 2 | All day | 2 |  | Strong gale | 9 | 47-54 |  |  |  |  |  |  | Whole gale | 10 | 55-63 |  |  |  |  |  |  | Storm | 11 | 64-72 |  |  |  |  |  |  | Hurricane | 12 | 73+ |  |  |  |  |  |  |
| Wind Speed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                | Direction        | Rain/Snow          |              | Cloud Cover            |                                                           | Cloud Height                                         | Visibility              |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Beaufort   | Mph            |                  |                    |              | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Calm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0          | >1             | N                | None               | 0            |                        | <150m 0                                                   |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Light air                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1          | 1-3            | NE               | Drizzle/Mist       | 1            |                        | 150-500m 1                                                |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Light breeze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2          | 4-7            | E                | Light showers      | 2            |                        | >500m 2                                                   |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Gentle breeze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3          | 8-12           | SE               | Heavy showers      | 3            |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Mod. breeze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4          | 13-18          | S                | Heavy rain         | 4            |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Fresh breeze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5          | 19-24          | SW               | Lying Snow         |              | Frost                  |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Strong breeze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6          | 25-31          | W                | None               | 0            | None                   | 0                                                         |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Mod. gale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7          | 32-38          | NW               | On site            | 1            | Ground                 | 1                                                         |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Fresh gale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 8          | 39-46          |                  | High ground        | 2            | All day                | 2                                                         |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Strong gale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9          | 47-54          |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Whole gale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10         | 55-63          |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Storm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11         | 64-72          |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hurricane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12         | 73+            |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Weather                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Wind speed | Wind direction | Rain             | Cloud cover        | Cloud height | Visibility             | Frost                                                     | Snow                                                 | Notes(e.g. temperature) |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 1 10:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2          | ENE            | 0                | 4/8                | 2            | 2                      | ---                                                       | ---                                                  | 10°C                    |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 2 11:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2          | E              | 0                | 3/8                | 2            | 2                      | ---                                                       | ---                                                  |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 3 12:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2          | E              | 0                | 3/8                | 2            | 2                      | ---                                                       | ---                                                  |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 4 13:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3          | E              | 0                | 3/8                | 2            | 2                      | ---                                                       | ---                                                  | 12°C                    |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 5 14:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3          | ENE            | 0                | 2/8                | 2            | 2                      | ---                                                       | ---                                                  |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 6 15:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3          | NE             | 0                | 4/8                | 2            | 2                      | ---                                                       | ---                                                  | 12°C                    |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 7 16:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3          | NE             | 0                | 4/8                | 2            | 2                      | ---                                                       | ---                                                  | 11°C                    |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| Hr 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| <b>Field Notes:</b><br>Maps attached                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                |                  |                    |              |                        |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |
| For office use only. NB- Initial <u>AND</u> date <u>ALL</u> boxes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | Logged         | Database Entered | Database Validated | GIS Entered  | GIS Validated          |                                                           |                                                      |                         |             |              |            |  |          |     |  |  |                        |                                                           |                                                      |      |   |    |   |      |   |  |         |  |           |   |     |    |              |   |  |            |  |              |   |     |   |               |   |  |         |  |               |   |      |    |               |   |  |  |  |             |   |       |   |            |   |  |  |  |              |   |       |    |            |  |       |  |  |               |   |       |   |      |   |      |   |  |           |   |       |    |         |   |        |   |  |            |   |       |  |             |   |         |   |  |             |   |       |  |  |  |  |  |  |            |    |       |  |  |  |  |  |  |       |    |       |  |  |  |  |  |  |           |    |     |  |  |  |  |  |  |



| RPS                                                 |             | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|-----------------------------------------------------|-------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                | GDD         |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                | 23/03/2017  |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                              | Winter W.O. |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                            | N. Verdu    |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                          | 11:15       |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                         | 18:00       |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                        |             |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                     |             |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                     |             |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                     |             |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                             | Wind speed  | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1 11:15                                          | 3           | ENE            | 2                | 8/8           | 2                  | 2          | ---         | ---           | 8°C                     |                        |                                                           |                                                      |
| Hr 2 12:15                                          | 3           | ENE            | 0                | "             | "                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 3 13:15                                          | 3           | E              | 0                | "             | "                  | 2          | ---         | ---           | 10°C                    |                        |                                                           |                                                      |
| Hr 4 14:15                                          | 3           | E              | 1                | 7/8           | "                  | 1          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 5 15:15                                          | 3           | NRE            | 0                | 7/8           | "                  | 2          | ---         | ---           | 10°C                    |                        |                                                           |                                                      |
| Hr 6 16:15                                          | 3           | E              | 0                | 7/8           | "                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 7 17:15                                          | 3           | E              | 0                | 6/8           | "                  | 2          | ---         | ---           | 11°C                    |                        |                                                           |                                                      |
| Hr 8                                                | 3           | E              |                  | 6/8           | "                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                       |             |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-Initial AND date ALL boxes. |             | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |

| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 22/03/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | Winter W.O |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | N. Verbeke |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 06:20      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 14:20      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1 6:20                                                  | 4          | N              | 0                | 7/8           | 2                  | 1          | 1           | 0             | 10°C                    |                        |                                                           |                                                      |
| Hr 2 7:20                                                  | 4          | N              | 1                | 8/8           | 2                  | 1          | 0           | 0             | 20°C                    |                        |                                                           |                                                      |
| Hr 3 8:20                                                  | 4          | NE             | 1                | "             | 2                  | 1          | 0           | 0             | 40°C                    |                        |                                                           |                                                      |
| Hr 4 9:20                                                  | 4          | NE             | 2                | "             | 2                  | 1          | 0           | 0             | 40°C                    |                        |                                                           |                                                      |
| Hr 5 10:20                                                 | 3          | NE             | 3                | "             | 2                  | 1          | 0           | 0             | 50°C                    |                        |                                                           |                                                      |
| Hr 6 11:20                                                 | 3          | NE             | 2                | "             | 2                  | 1          | 0           | 0             | 50°C                    |                        |                                                           |                                                      |
| Hr 7 12:20                                                 | 4          | NE             | 2                | "             | 2                  | 1          | 0           | 0             | 50°C                    |                        |                                                           |                                                      |
| Hr 8 13:20                                                 | 4          | NE             | 3                | "             | 2                  | 1          | 0           | 0             | 50°C                    |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |



| RPS                                                  |            | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                 | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                 | 21/03/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                               | Winter W.O |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                             | Nick Vack  |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                           | 07:50      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                          | 14:30      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                         |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                      |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                      |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                      |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                              | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1 07:50                                           | 3          | W              | 0                | 6/8           | 2                  | 1          | 1           | 1             | -1°C                    |                        |                                                           |                                                      |
| Hr 2 08:50                                           | 4          | W              | 2                | 7/8           | 2                  | 1          | 1           | 1             | -1°C SNOW SHOWERS       |                        |                                                           |                                                      |
| Hr 3 09:50                                           | 4          | W              | 0                | 7/8           | 2                  | 1          | 0           | 0             | 0°C                     |                        |                                                           |                                                      |
| Hr 4 10:50                                           | 4          | W              | 0                | 6/8           | 2                  | 2          | 0           | 0             | 2°C                     |                        |                                                           |                                                      |
| Hr 5 11:50                                           | 4          | W              | 2                | 7/8           | 2                  | 1          | 0           | 0             | 2°C (Sleet)             |                        |                                                           |                                                      |
| Hr 6 12:50                                           | 3          | SW             | 0                | 5/8           | 2                  | 2          | 0           | 0             |                         |                        |                                                           |                                                      |
| Hr 7 13:50                                           | 3          | SW             | 0                | 5/8           | 2                  | 2          | 0           | 0             | 4°C                     |                        |                                                           |                                                      |
| Hr 8                                                 | 3          | SW             | 0                | 5/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                        |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB- Initial AND date ALL boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |

| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                         | Cloud Cover            | Cloud Height                                              | Visibility                                           |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 20/03/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | Winter W.O |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | N. Verbe   |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 07:30      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 15:30      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 17:30                                                   | 4          | W              | 0                | 7/8           | 2                  | 2          | ---         | ---           | 7°C                     |                        |                                                           |                                                      |
| Hr 28:30                                                   | 4          | W              | 0                | 8/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 39:30                                                   | 4          | W              | 2                | 8/8           | 2                  | 1          | ---         | ---           | 9°C                     |                        |                                                           |                                                      |
| Hr 410:30                                                  | 4          | W              | 0                | 8/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 511:30                                                  | 4          | W              | 0                | 8/8           | 2                  | 2          | ---         | ---           | 10°C                    |                        |                                                           |                                                      |
| Hr 612:30                                                  | 4          | SW             | 0                | 8/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 713:30                                                  | 4          | SW             | 2                | 8/8           | 2                  | 1          | ---         | ---           | 10°C                    |                        |                                                           |                                                      |
| Hr 814:30                                                  | 4          | SW             | 2                | 8/8           | 2                  | 1          | ---         | ---           |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |



# LEGEND

Map Scale 1:10,000 at A4



--- Pipeline buffer (100m) (250m)

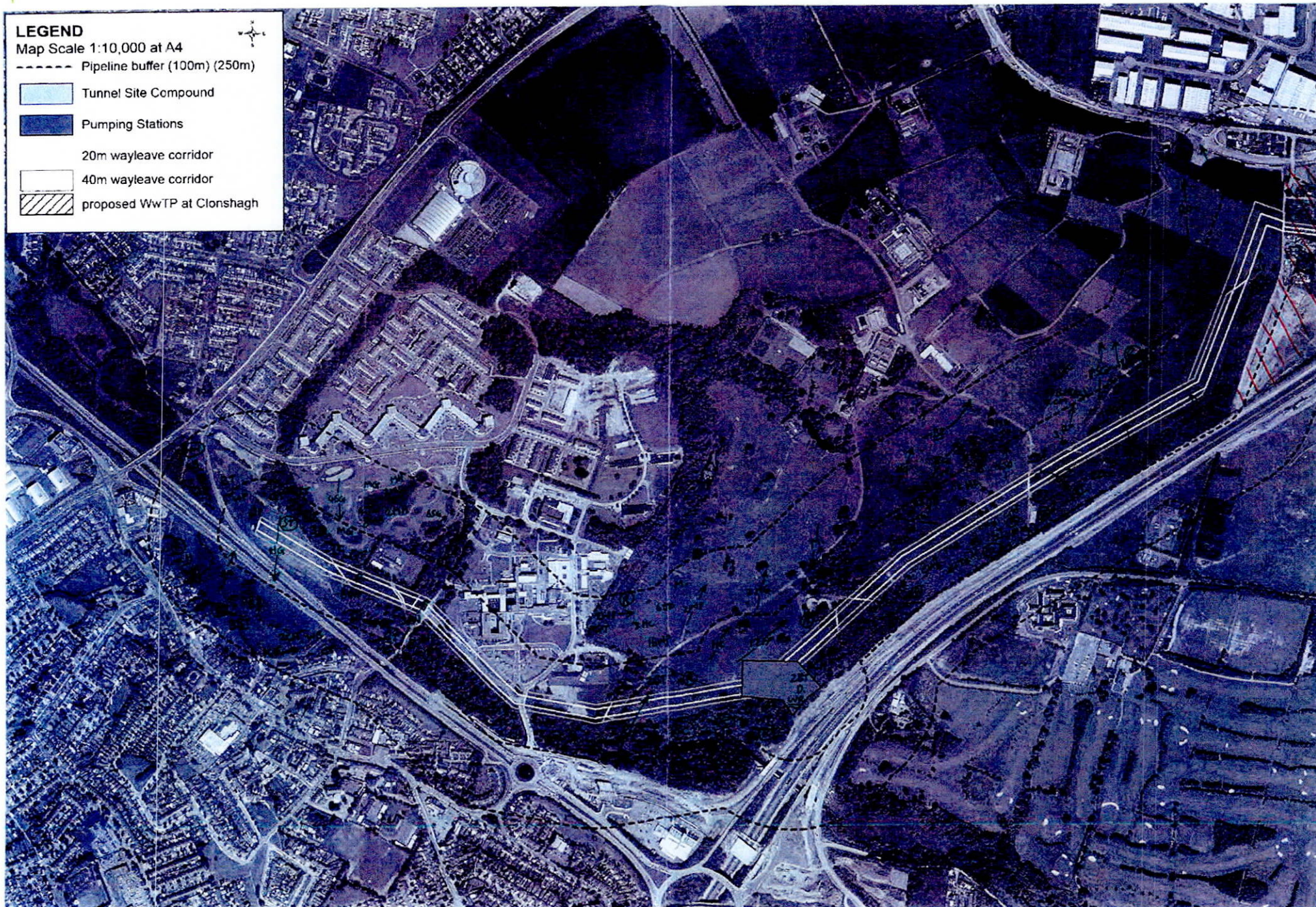
 Tunnel Site Compound

 Pumping Stations

20m wayleave corridor

 40m wayleave corridor

 proposed WwTP at Clonshagh





Map Scale 1:10,000 at A4

----- Pipeline buffer (100m) (250m)

 Tunnel Site Compound Pumping Stations

20m wayleave corridor

40m wayleave corridor

 proposed WwTP at Clonslash

NO ACCESS  
(TRAVELER SITE)



# LEGEND

Map Scale 1:10,000 at A4



----- Pipeline buffer (100m) (250m)



Tunnel Site Compound



Pumping Stations

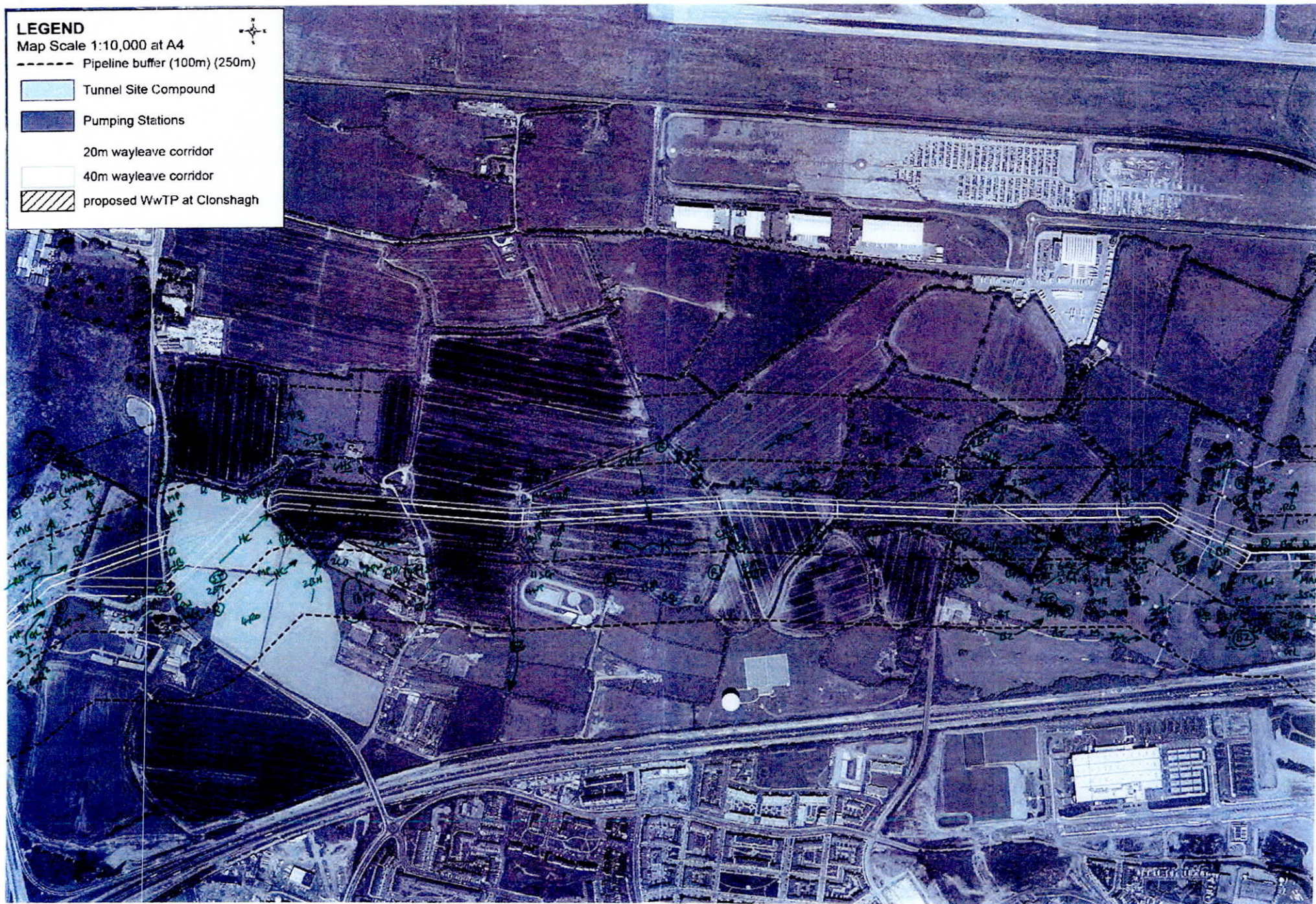
20m wayleave corridor



40m wayleave corridor



proposed WwTP at Clonshagh





WL0032  
No Access  
RED

**LEGEND**  
Map Scale 1:10,000 at A4

----- Pipeline buffer (100m) (250m)

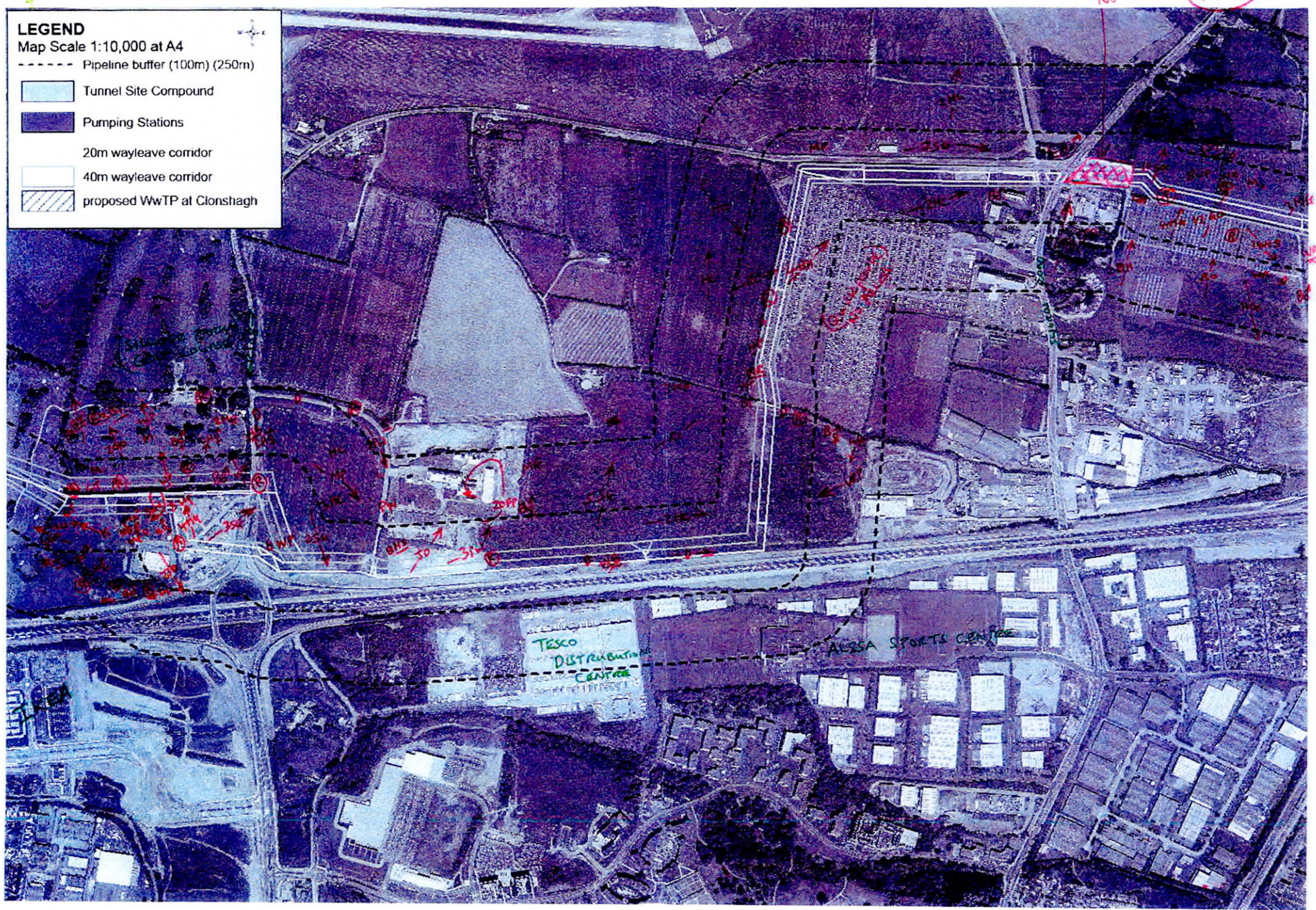
 Tunnel Site Compound

 Pumping Stations

20m wayleave corridor

 40m wayleave corridor

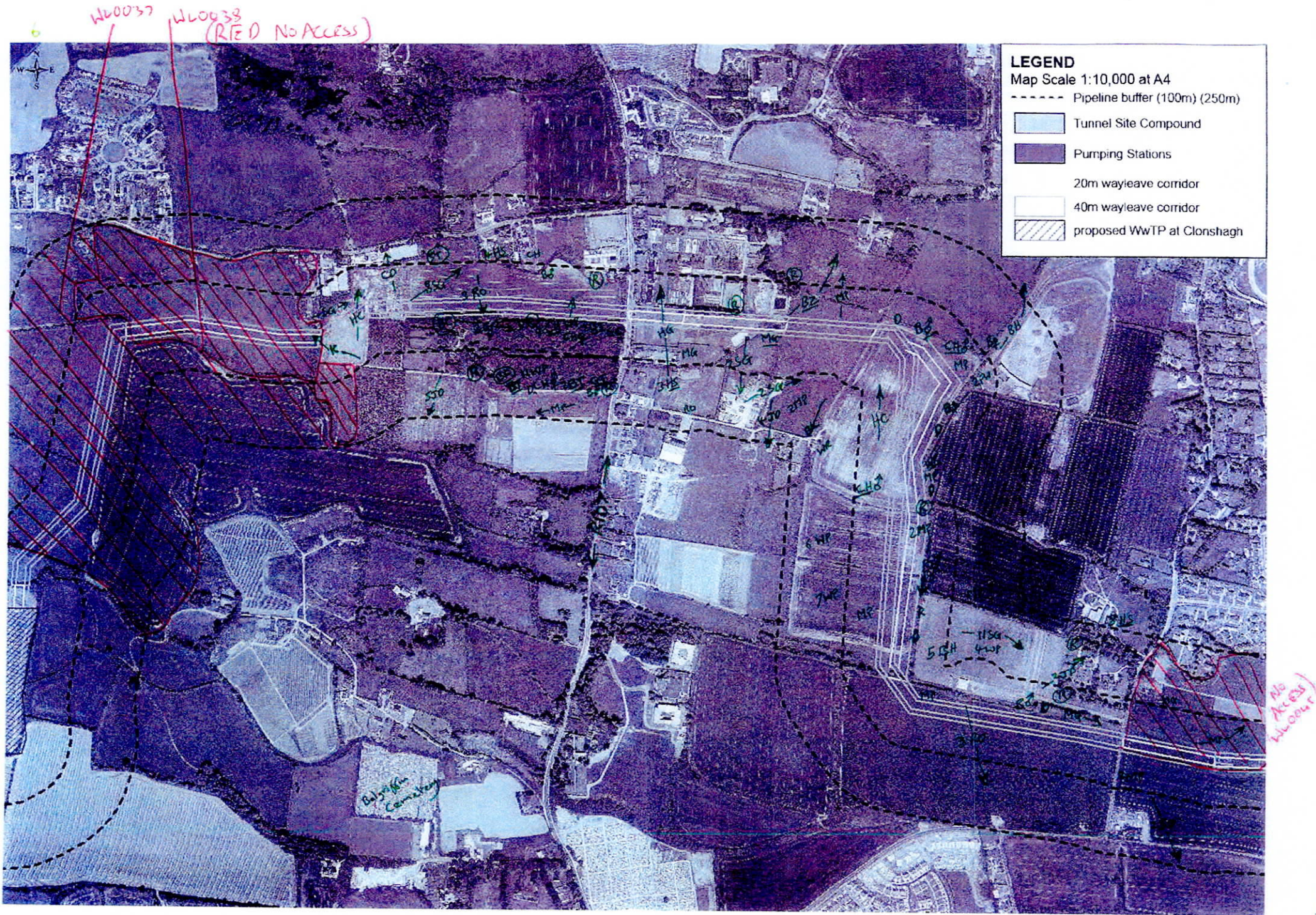
 proposed WwTP at Clonslough













7

**LEGEND**

Map Scale 1:10,000 at A4

----- Pipeline buffer (100m) (250m)

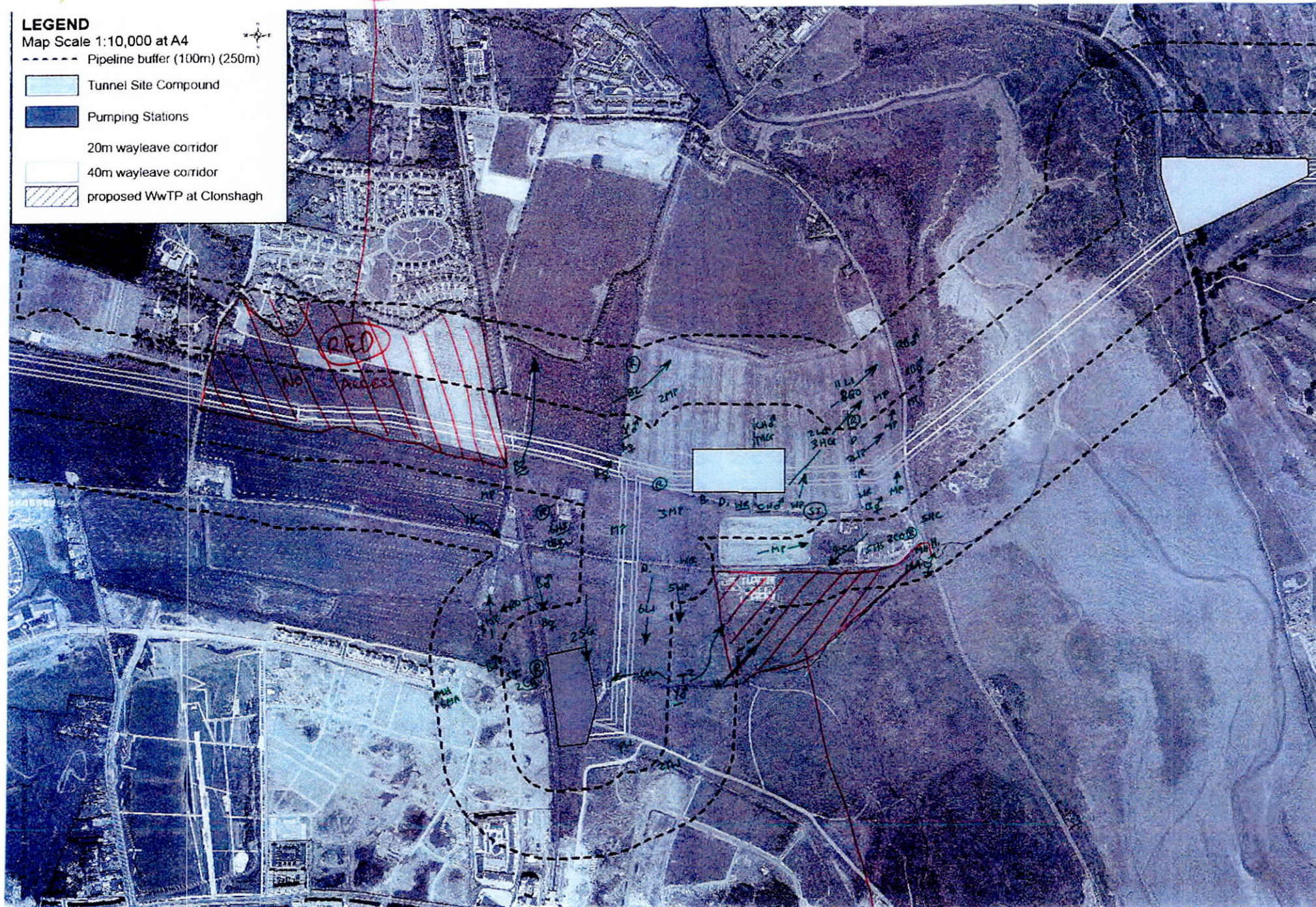
 Tunnel Site Compound

 Pumping Stations

20m wayleave corridor

 40m wayleave corridor

 proposed WwTP at Clonshagh





# LEGEND

Map Scale 1:10,000 at A4

----- Pipeline buffer (100m) (250m)

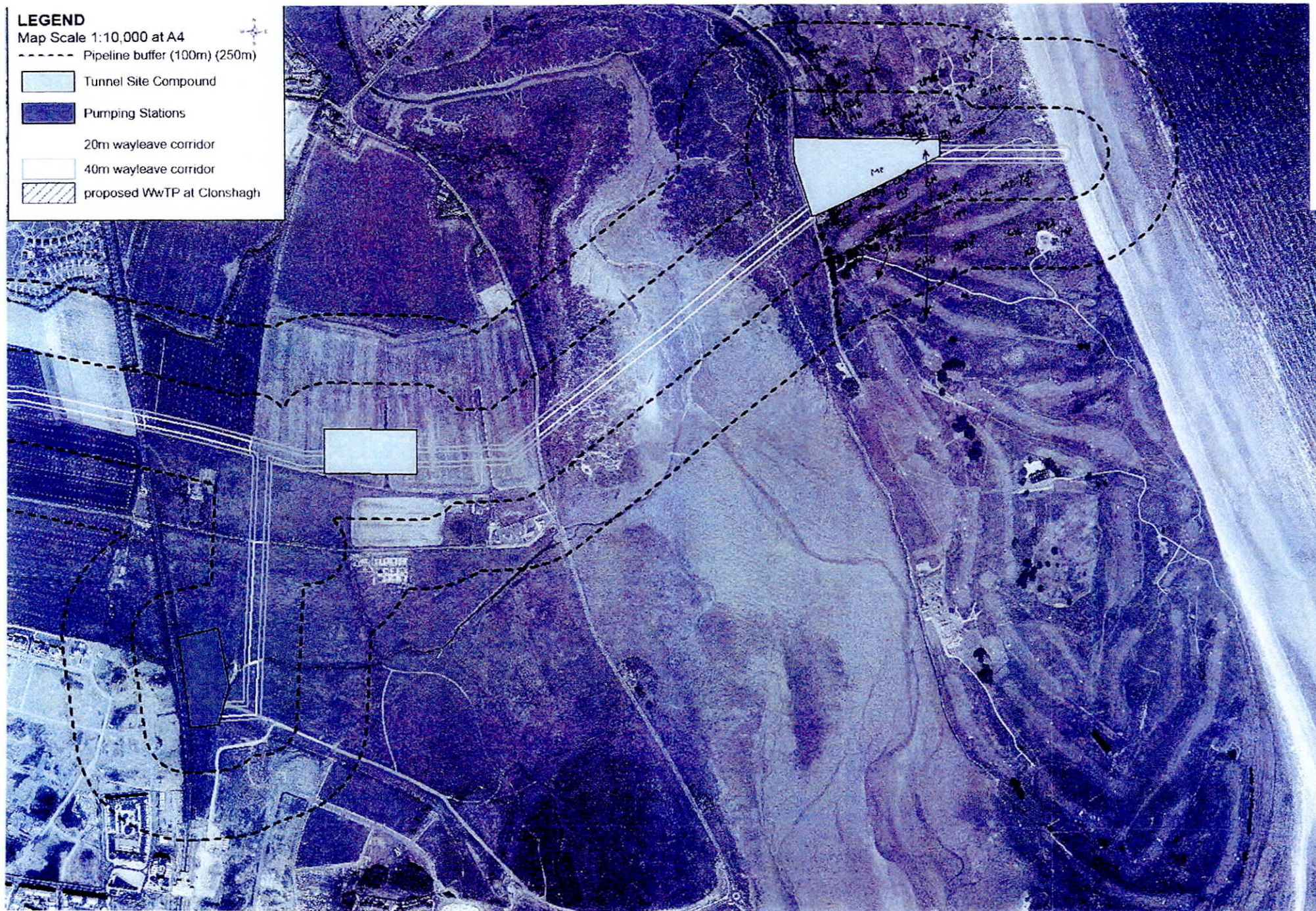
□ Tunnel Site Compound

■ Pumping Stations

20m wayleave corridor

40m wayleave corridor

▨ proposed WwTP at Clonsagh





## **APPENDIX 5      WINTER 2017 (NOVEMBER)**

---

The data from the November 2017 winter walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).



|                                                      |                   |                       |                  |                    |                     |                   |                  |                   |                                |                        |                                                           |
|------------------------------------------------------|-------------------|-----------------------|------------------|--------------------|---------------------|-------------------|------------------|-------------------|--------------------------------|------------------------|-----------------------------------------------------------|
| <b>RPS</b>                                           |                   | <b>Weather Sheet</b>  |                  | <b>Wind Speed</b>  |                     | <b>Direction</b>  | <b>Rain/Snow</b> |                   | <b>Cloud Cover</b>             | <b>Cloud Height</b>    | <b>Visibility</b>                                         |
| <b>Site</b>                                          | GOD               |                       |                  | Calm               | 0                   | >1                | N                | None              | 0                              | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed |
| <b>Date</b>                                          | 8/11/17           |                       |                  | Light air          | 1                   | 1-3               | NE               | Drizzle/Mist      | 1                              |                        | Poor (<1km) 0                                             |
| <b>Survey</b>                                        | WID               |                       |                  | Light breeze       | 2                   | 4-7               | E                | Light showers     | 2                              |                        | Moderate (1-3km) 1                                        |
| <b>Observer</b>                                      | N. Veale          |                       |                  | Gentle breeze      | 3                   | 8-12              | SE               | Heavy showers     | 3                              |                        | Good (>3km) 2                                             |
| <b>Start Time</b>                                    | 08:10             |                       |                  | Mod. breeze        | 4                   | 13-18             | S                | Heavy rain        | 4                              |                        |                                                           |
| <b>Finish Time</b>                                   | 15:20             |                       |                  | Fresh breeze       | 5                   | 19-24             | SW               | <b>Lying Snow</b> |                                | <b>Frost</b>           |                                                           |
| <b>Sheet 1/ &amp; [ ] Maps attached</b>              |                   |                       |                  | Strong breeze      | 6                   | 25-31             | W                | None              | 0                              | None                   | 0                                                         |
|                                                      |                   |                       |                  | Mod. gale          | 7                   | 32-38             | NW               | On site           | 1                              | Ground                 | 1                                                         |
|                                                      |                   |                       |                  | Fresh gale         | 8                   | 39-46             |                  | High ground       | 2                              | All day                | 2                                                         |
|                                                      |                   |                       |                  | Strong gale        | 9                   | 47-54             |                  |                   |                                |                        |                                                           |
|                                                      |                   |                       |                  | Whole gale         | 10                  | 55-63             |                  |                   |                                |                        |                                                           |
|                                                      |                   |                       |                  | Storm              | 11                  | 64-72             |                  |                   |                                |                        |                                                           |
|                                                      |                   |                       |                  | Hurricane          | 12                  | 73+               |                  |                   |                                |                        |                                                           |
| <b>Weather</b>                                       | <b>Wind speed</b> | <b>Wind direction</b> | <b>Rain</b>      | <b>Cloud cover</b> | <b>Cloud height</b> | <b>Visibility</b> | <b>Frost</b>     | <b>Snow</b>       | <b>Notes(e.g. temperature)</b> |                        |                                                           |
| Hr 1                                                 | 4                 | SW                    | 0                | 5/8                | 2                   | 2                 | 1                | —                 | 2°C                            |                        |                                                           |
| Hr 2                                                 | 4                 | SW                    | 0                | 4/8                | 2                   | 2                 | 0                | —                 |                                |                        |                                                           |
| Hr 3                                                 | 3                 | SW                    | 0                | 6/8                | 2                   | 2                 | 0                | —                 |                                |                        |                                                           |
| Hr 4                                                 | 3                 | SW                    | 0                | 6/8                | 2                   | 2                 | 0                | —                 | 4°C                            |                        |                                                           |
| Hr 5                                                 | 4                 | SW                    | 2                | 6/8                | 1                   | 2                 | 0                | —                 |                                |                        |                                                           |
| Hr 6                                                 | 4                 | SW                    | 2                | 5/8                | 2                   | 2                 | 0                | —                 |                                |                        |                                                           |
| Hr 7                                                 | 3                 | SW                    | 2                | 6/8                | 1                   | 2                 | 0                | —                 |                                |                        |                                                           |
| Hr 8                                                 | 4                 | SW                    | 0                | 5/8                | 2                   | 2                 | 0                | —                 | 9°C                            |                        |                                                           |
| <b>Field Notes:</b><br>Maps attached                 |                   |                       |                  |                    |                     |                   |                  |                   |                                |                        |                                                           |
| For office use only. NB- Initial AND date ALL boxes. |                   | Logged                | Database Entered |                    | Database Validated  |                   | GIS Entered      |                   | GIS Validated                  |                        |                                                           |



Surveyor: Nich Vede

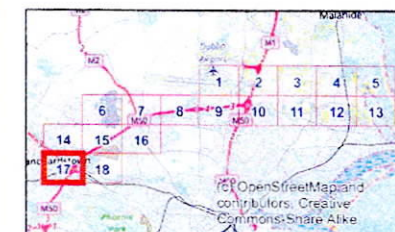
Date: 08/11/2017

Start time:

End time:

\*Please attach weather sheet

Notes:



Legend

- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

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0 200 m

Scale: 1:7,500 @A3

Date: 08/04/2017 Job No: SEC7909 Rev: c

Drawn: CH

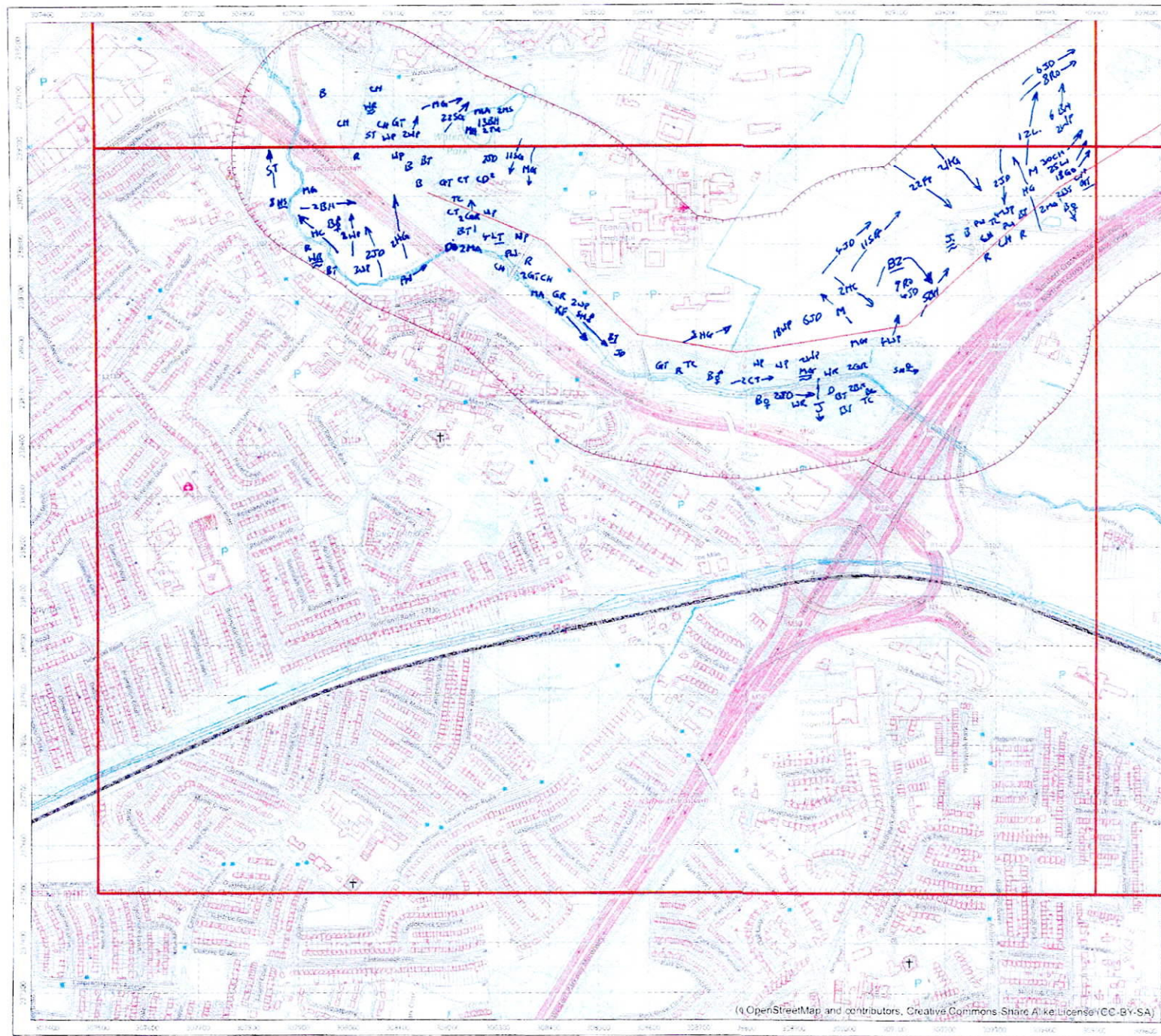
Checked: DRAFT

Approved: DRAFT

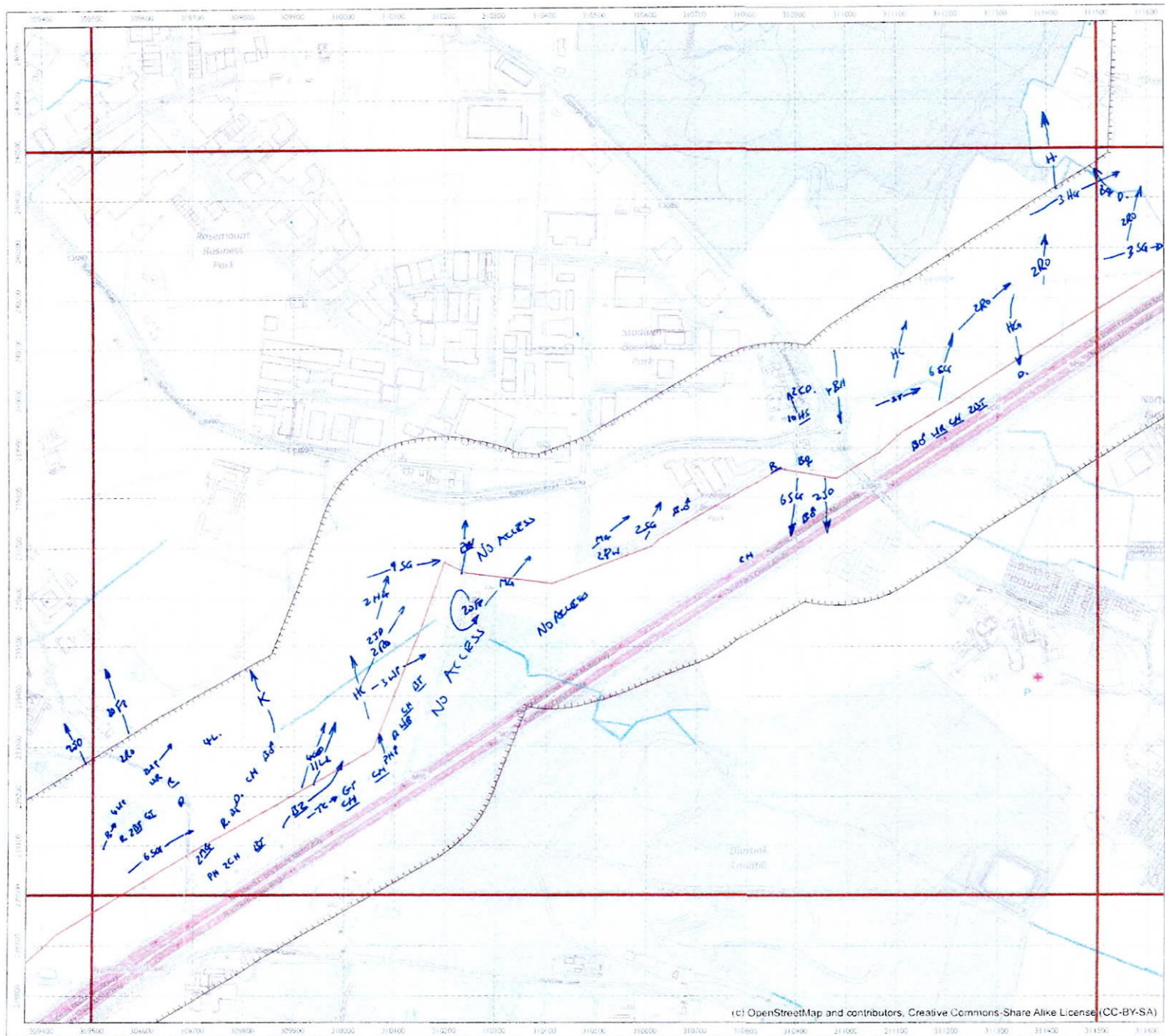
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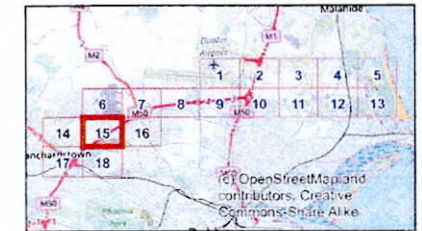




| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 9/11/17    |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | WLO        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | Nick Veale |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 08:30      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 15:30      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                       | 5          | NW             | 1                | 8/8           | 1                  | 2          | —           |               | 8°C                     |                        |                                                           |                                                      |
| Hr 2                                                       | 4          | W              | 1                | 8/8           | 1                  | 2          | —           |               |                         |                        |                                                           |                                                      |
| Hr 3                                                       | 4          | W              | 0                | 6/8           | 1                  | 2          | —           |               |                         |                        |                                                           |                                                      |
| Hr 4                                                       | 4          | NW             | 0                | 6/8           | 2                  | 2          | —           |               | 11°C                    |                        |                                                           |                                                      |
| Hr 5                                                       | 4          | NW             | 0                | 6/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                                                      |
| Hr 6                                                       | 4          | NW             | 0                | 5/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                                                      |
| Hr 7                                                       | 5          | W              | 0                | 3/8           | 2                  | 2          | —           |               | 11°C                    |                        |                                                           |                                                      |
| Hr 8                                                       | 5          | W              | 0                | 3/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |



Notes:



 BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

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|                  |                 |                 |
|------------------|-----------------|-----------------|
| Date: 06/04/2017 | Job No: SEC7939 | Rev: c          |
| Drawn: CH        | Checked: DRAFT  | Approved: DRAFT |

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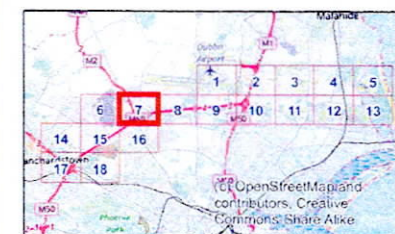
Surveyor: Nir Veen

Date: 9/11/2017

|             |           |
|-------------|-----------|
| Start time: | End time: |
|-------------|-----------|

\*Please attach weather sheet

Notes:



Legend

-  88S/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

### Greater Dublin Drainage

Breeding/winter bird survey

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|                  |                 |                 |
|------------------|-----------------|-----------------|
| Date: 06/04/2017 | Job No: SEC7909 | Rev: 1          |
| Drawn: CH        | Checked: DRAFT  | Approved: DRAFT |

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Notes:

Notes:

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| Start time: |  |
| End time:   |  |

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| Start time: |  |
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pu

BBSWWO survey boundary (250 m  
buffer of route supplied 20170405  
appended to previous boundary)  
Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

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1000 0

Scale 17.500 (MA3)



Date: 06/04/2017 Job No: 58C7909 Rev: C

Drawn: CH  
Checked: DRAFT

Drawn CH      Checked DRAFT      Approved DRAFT

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| RPS                                                  |            | Weather Sheet                                                                                                                                                                                                                                                                                     |                  | Wind Speed  |                                          |                                                                                | Direction                                          | Rain/Snow                                                                            |                                                                                                                                                                                          | Cloud Cover | Cloud Height | Visibility |
|------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------|------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|------------|
| Site                                                 | GDD        | Beaufort Mph<br>Calm 0 >1<br>Light air 1 1-3<br>Light breeze 2 4-7<br>Gentle breeze 3 8-12<br>Mod. breeze 4 13-18<br>Fresh breeze 5 19-24<br>Strong breeze 6 25-31<br>Mod. gale 7 32-38<br>Fresh gale 8 39-46<br>Strong gale 9 47-54<br>Whole gale 10 55-63<br>Storm 11 64-72<br>Hurricane 12 73+ |                  |             | N<br>NE<br>E<br>SE<br>S<br>SW<br>W<br>NW | None 0<br>Drizzle/Mist 1<br>Light showers 2<br>Heavy showers 3<br>Heavy rain 4 | In eighths<br>e.g. 3/8                             | Height of cloud above average height of viewshed<br><150m 0<br>150-500m 1<br>>500m 2 | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2                                                                                                                                     |             |              |            |
| Date                                                 | 13/11/17   |                                                                                                                                                                                                                                                                                                   |                  |             |                                          |                                                                                | Lying Snow<br>None 0<br>On site 1<br>High ground 2 | Frost<br>None 0<br>Ground 1<br>All day 2                                             | Please be as accurate as possible, with weather details, entering only one figure, not a range, e.g. WS - 5, not 5-6.<br>Use notes for extra info.<br>E.g. WS - 5, gusting 6 [in notes]. |             |              |            |
| Survey                                               | WJO        | Sheet 1/ & [ ] Maps attached                                                                                                                                                                                                                                                                      |                  |             |                                          |                                                                                |                                                    |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Observer                                             | N. Vede    |                                                                                                                                                                                                                                                                                                   |                  |             |                                          |                                                                                |                                                    |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Start Time                                           | 08:40      |                                                                                                                                                                                                                                                                                                   |                  |             |                                          |                                                                                |                                                    |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Finish Time                                          | 15:40      |                                                                                                                                                                                                                                                                                                   |                  |             |                                          |                                                                                |                                                    |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Weather                                              | Wind speed | Wind direction                                                                                                                                                                                                                                                                                    | Rain             | Cloud cover | Cloud height                             | Visibility                                                                     | Frost                                              | Snow                                                                                 | Notes(e.g. temperature)                                                                                                                                                                  |             |              |            |
| Hr 1                                                 | 3          | W                                                                                                                                                                                                                                                                                                 | 0                | 6/8         | 2                                        | 2                                                                              | 1                                                  |                                                                                      | 10°C                                                                                                                                                                                     |             |              |            |
| Hr 2                                                 | 4          | W                                                                                                                                                                                                                                                                                                 | 0                | 5/8         | 2                                        | 2                                                                              | 0                                                  |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Hr 3                                                 | 3          | SW                                                                                                                                                                                                                                                                                                | 0                | 7/8         | 2                                        | 2                                                                              | 0                                                  |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Hr 4                                                 | 3          | SW                                                                                                                                                                                                                                                                                                | 0                | 6/8         | 2                                        | 2                                                                              | 0                                                  |                                                                                      | 50°C                                                                                                                                                                                     |             |              |            |
| Hr 5                                                 | 3          | SW                                                                                                                                                                                                                                                                                                | 2                | 7/8         | 2                                        | 2                                                                              | 0                                                  |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Hr 6                                                 | 3          | SW                                                                                                                                                                                                                                                                                                | 2                | 7/8         | 2                                        | 2                                                                              | 0                                                  |                                                                                      |                                                                                                                                                                                          |             |              |            |
| Hr 7                                                 | 4          | SW                                                                                                                                                                                                                                                                                                | 2                | 8/8         | 1                                        | 2                                                                              | 0                                                  |                                                                                      | 7°C                                                                                                                                                                                      |             |              |            |
| Hr 8                                                 | 4          | SW                                                                                                                                                                                                                                                                                                | 2                | 8/8         | 1                                        | 2                                                                              | 0                                                  |                                                                                      | 7°C                                                                                                                                                                                      |             |              |            |
| Field Notes:<br>Maps attached                        |            |                                                                                                                                                                                                                                                                                                   |                  |             |                                          |                                                                                |                                                    |                                                                                      |                                                                                                                                                                                          |             |              |            |
| For office use only. NB- Initial AND date ALL boxes. |            | Logged                                                                                                                                                                                                                                                                                            | Database Entered |             | Database Validated                       |                                                                                | GIS Entered                                        |                                                                                      | GIS Validated                                                                                                                                                                            |             |              |            |







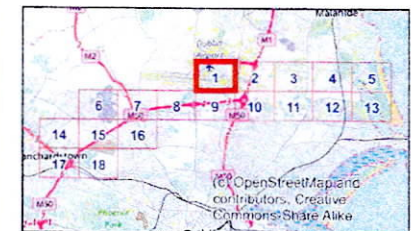
Surveyor: N. Verbe

Date: 13/11/17

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|-------------|-----------|
| Start time: | End time: |
|-------------|-----------|

\*Please attach weather sheet.

Notes:



Legend

 BBS/VVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

— Pipe route (supplied 20170405)

### Greater Dublin Drainage

Breeding/winter bird survey

Page 1 of 18



Scale 17.500 @ 2A3

Date: 06/04/2017

Job No: SEC7909

Rev. c

Drawn: G-

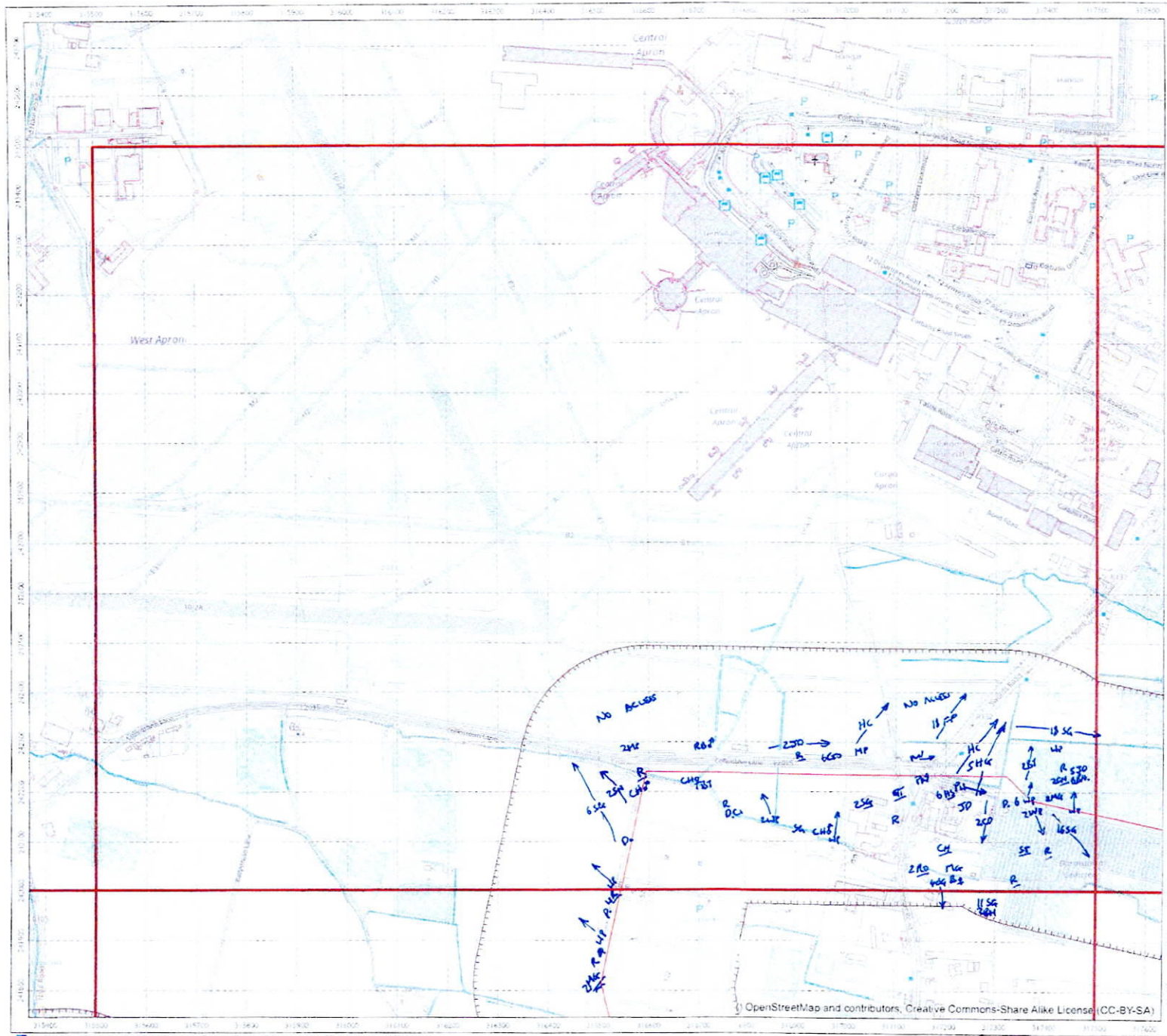
Checked: DRAFT

Approved: DRAFT

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<sup>5</sup> OpenStreetMap contributors. Reproduced from: The OpenStreetMap Foundation. OpenStreetMap data. Version 2019.08.01. Reproduced from: <https://www.openstreetmap.org>.

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Surveyor: N. in Veale

Date: 13/11/17

Start time:

\*Please attach weather sheet

Notes:



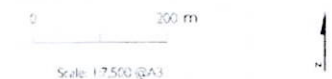
Legend

-  BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

### Greater Dublin Drainage

Breeding/winter bird survey

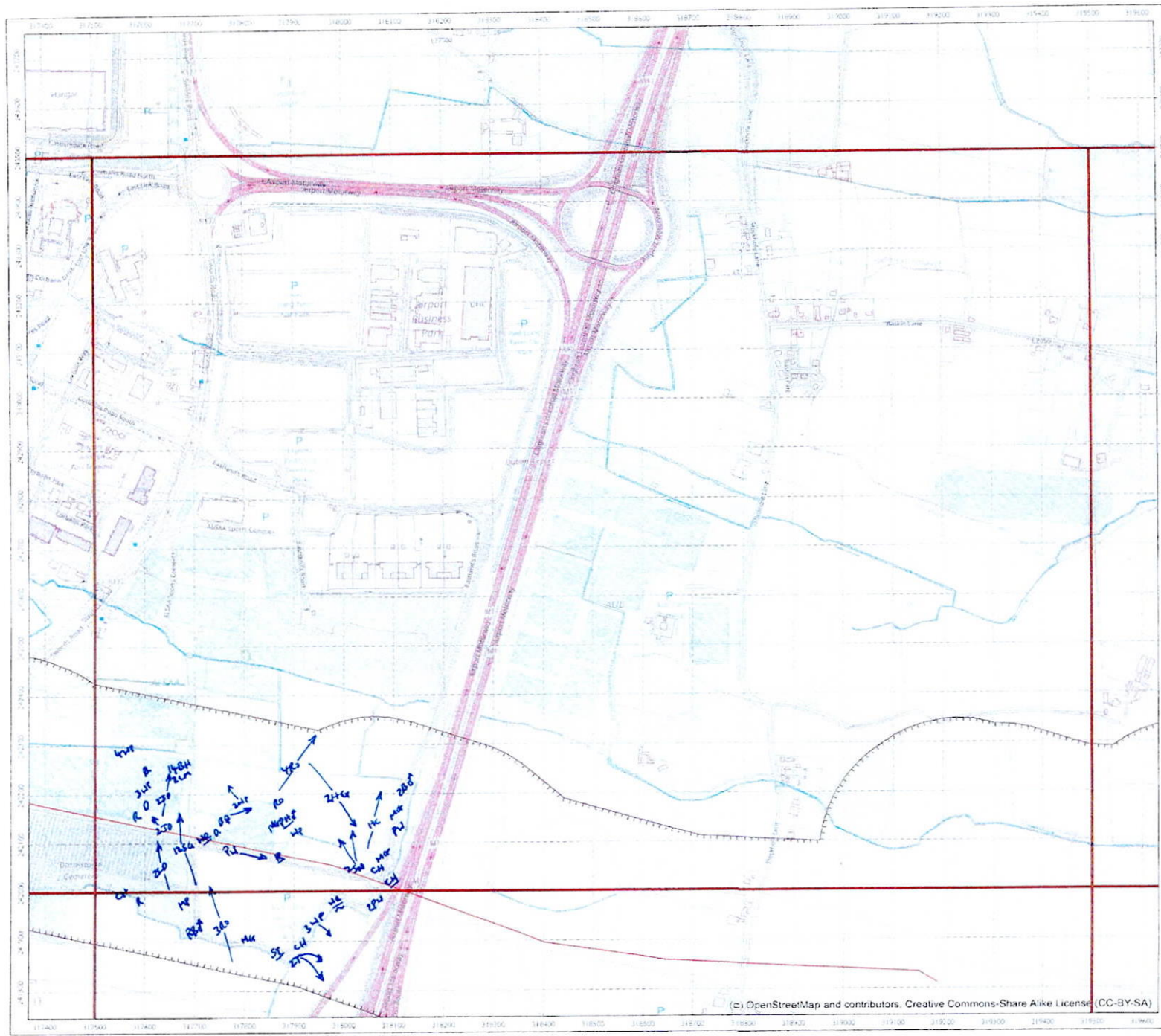
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|------------------|-----------------|-----------------|
| Date: 06/04/2017 | Job No: SEC7909 | Rev: c          |
| Drawn: CH        | Checked: DRAFT  | Approved: DRAFT |

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| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                    |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|--------------------|
| Site                                                       | GOD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0      |
| Date                                                       | 14/11/17   |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           | Moderate (1-3km) 1 |
| Survey                                                     | WLO        |                |                  | Gentle breeze | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           | Good (>3km) 2      |
| Observer                                                   | Nick Veale |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                    |
| Start Time                                                 | 09:00      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                    |
| Finish Time                                                | 16:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                    |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                    |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                    |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                    |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                    |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                    |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                    |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                    |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                    |
| Hr 1                                                       | 4          | W              | 1                | 8/8           | 1                  | 1          | —           |               | 10°C                    |                        |                                                           |                    |
| Hr 2                                                       | 5          | W              | 0                | 8/8           | 1                  | 2          | —           |               |                         |                        |                                                           |                    |
| Hr 3                                                       | 5          | SW             | 0                | 5/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                    |
| Hr 4                                                       | 4          | SW             | 0                | 6/8           | 2                  | 2          | —           |               | 11°C                    |                        |                                                           |                    |
| Hr 5                                                       | 4          | W              | 0                | 6/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                    |
| Hr 6                                                       | 4          | SW             | 0                | 6/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                    |
| Hr 7                                                       | 4          | SW             | 0                | 5/8           | 2                  | 2          | —           |               | 12°C                    |                        |                                                           |                    |
| Hr 8                                                       | 5          | SW             | 0                | 4/8           | 2                  | 2          | —           |               |                         |                        |                                                           |                    |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                    |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                    |



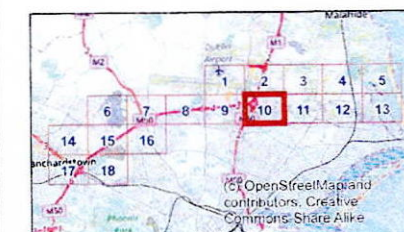
Surveyor: N. Veda

Date: 14/11/17

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| Start time: | End time: |
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\*Please attach weather sheet

Notes:



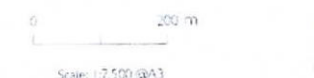
Legend

-  BBS/VVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

### Greater Dublin Drainage

Breeding/winter bird survey

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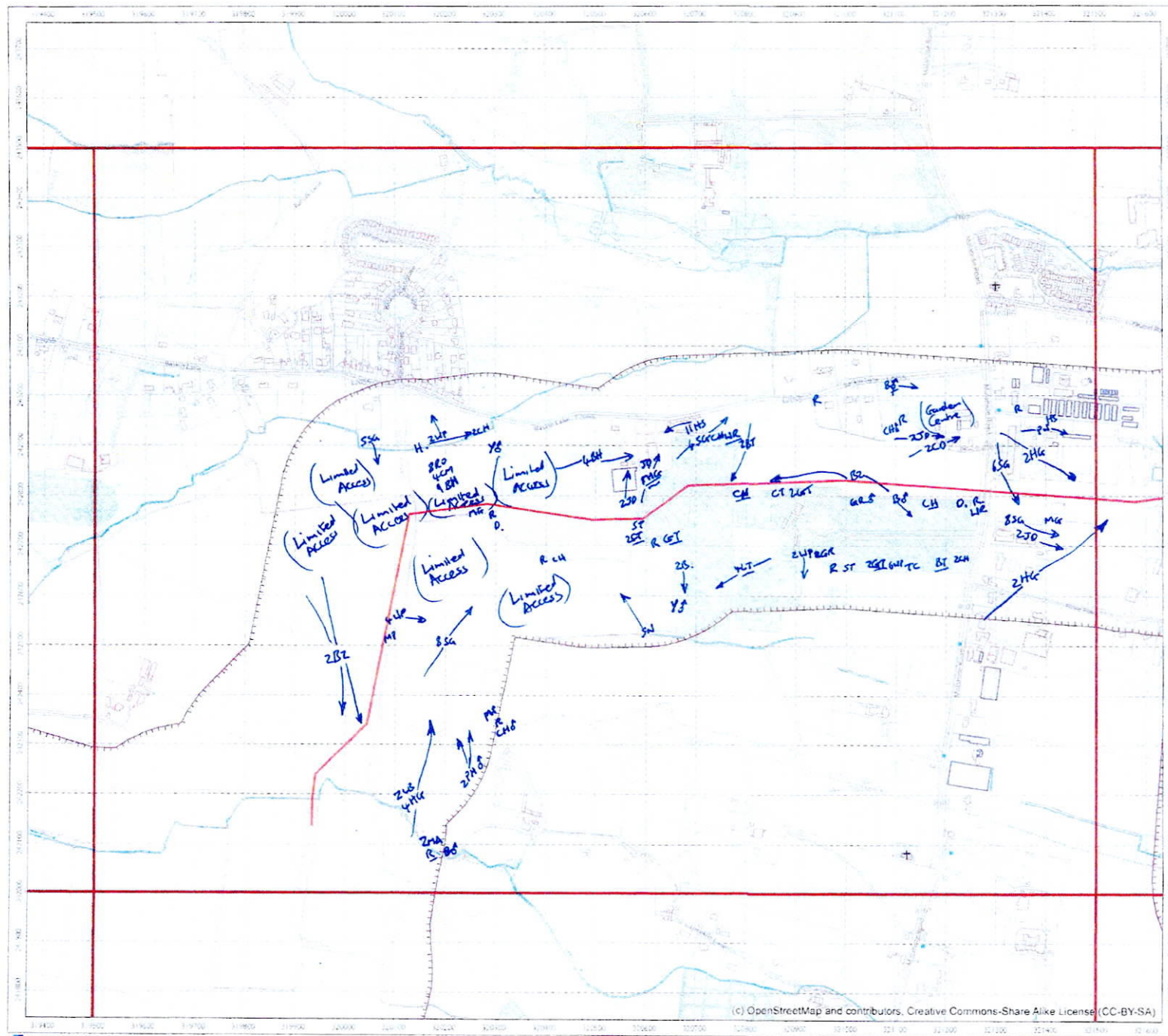


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| Date: 06/04/2017 | Job No: SEC7909 | Rev: 1          |
| Drawn: CH        | Checked: DRAFT  | Approved: DRAFT |

Int. J. Environ. Res. Public Health 2020, 17, 2190

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RPS

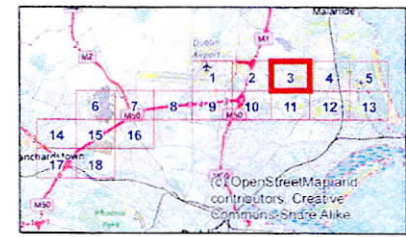
Surveyor: Nick Veale

Date: 14/11/2017

Start time: \_\_\_\_\_ End time: \_\_\_\_\_

\*Please attach weather sheet

Notes: \_\_\_\_\_



- Legend
- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
  - Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

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0 200 m

Scale: 1:7,500 @A1

Date: 26/04/2017 Job No: SEC/909 Rev: c

Drawn: CH Checked: DRAFT Approved: DRAFT

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| RPS                                                  |             | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                       |                                                      |
|------------------------------------------------------|-------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|--------------------------------------------------|------------------------------------------------------|
| Site                                                 | GDD         |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud above average height of viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                 | 24/11/17    |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                  |                                                      |
| Survey                                               | WJO         |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                  |                                                      |
| Observer                                             | Nicki Veale |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                  |                                                      |
| Start Time                                           | 08:50       |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                  |                                                      |
| Finish Time                                          | 15:30       |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                  |                                                      |
| Sheet 1/ & [ ] Maps attached                         |             |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                |                                                      |
|                                                      |             |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                |                                                      |
|                                                      |             |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                |                                                      |
|                                                      |             |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                  |                                                      |
|                                                      |             |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                  |                                                      |
|                                                      |             |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                  |                                                      |
|                                                      |             |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                  |                                                      |
| Weather                                              | Wind speed  | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                  |                                                      |
| Hr 1                                                 | 5           | W              | 0                | 3/8           | 2                  | 2          | —           |               | 2°C                     |                        |                                                  |                                                      |
| Hr 2                                                 | 5           | W              | 0                | 5/8           | 2                  | 2          | —           |               |                         |                        |                                                  |                                                      |
| Hr 3                                                 | 5           | W              | 0                | 5/8           | 2                  | 2          | —           |               | 3°C                     |                        |                                                  |                                                      |
| Hr 4                                                 | 4           | W              | 1                | 6/8           | 2                  | 2          | —           |               |                         |                        |                                                  |                                                      |
| Hr 5                                                 | 5           | W              | 2                | 6/8           | 2                  | 2          | —           |               | 4°C                     |                        |                                                  |                                                      |
| Hr 6                                                 | 5           | W              | 2                | 6/8           | 2                  | 2          | —           |               |                         |                        |                                                  |                                                      |
| Hr 7                                                 | 5           | W              | 0                | 7/8           | 2                  | 2          | —           |               | 4°C                     |                        |                                                  |                                                      |
| Hr 8                                                 | 5           | W              | 0                | 5/8           | 2                  | 2          | —           |               |                         |                        |                                                  |                                                      |
| Field Notes:<br>Maps attached                        |             |                |                  |               |                    |            |             |               |                         |                        |                                                  |                                                      |
| For office use only. NB- Initial AND date ALL boxes. |             | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                  |                                                      |







Date: 24 + 28 / 11 / 2017

\*Please attach weather sheet

 BBS/VVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

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USG Patent Cit. EPSG 29902

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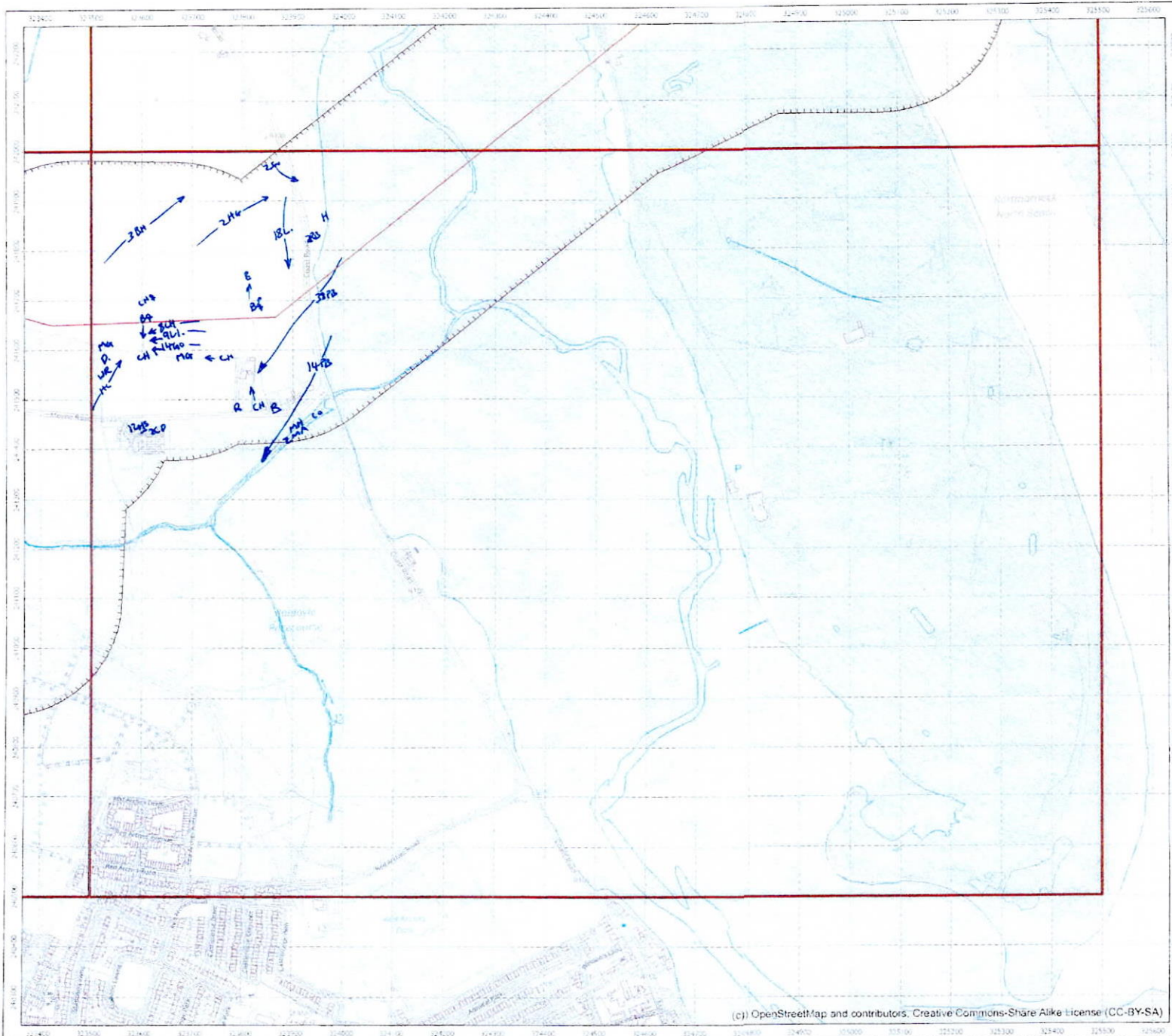


|                                                                          |                   |                       |             |                    |                     |                    |                  |                                                                                                                                                                                                |                                |                        |                                                           |                                                      |
|--------------------------------------------------------------------------|-------------------|-----------------------|-------------|--------------------|---------------------|--------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| <b>RPS</b>                                                               |                   | <b>Weather Sheet</b>  |             | <b>Wind Speed</b>  |                     | <b>Direction</b>   | <b>Rain/Snow</b> |                                                                                                                                                                                                | <b>Cloud Cover</b>             | <b>Cloud Height</b>    | <b>Visibility</b>                                         |                                                      |
| <b>Site</b>                                                              | GDD               |                       |             | Calm               | 0                   | >1                 | N                | None                                                                                                                                                                                           | 0                              | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| <b>Date</b>                                                              | 28/11/17          |                       |             | Light air          | 1                   | 1-3                | NE               | Drizzle/Mist                                                                                                                                                                                   | 1                              |                        |                                                           |                                                      |
| <b>Survey</b>                                                            | WJO               |                       |             | Light breeze       | 2                   | 4-7                | E                | Light showers                                                                                                                                                                                  | 2                              |                        |                                                           |                                                      |
| <b>Observer</b>                                                          | Nick Vede         |                       |             | Gentle breeze      | 3                   | 8-12               | SE               | Heavy showers                                                                                                                                                                                  | 3                              |                        |                                                           |                                                      |
| <b>Start Time</b>                                                        |                   |                       |             | Mod. breeze        | 4                   | 13-18              | S                | Heavy rain                                                                                                                                                                                     | 4                              |                        |                                                           |                                                      |
| <b>Finish Time</b>                                                       |                   |                       |             | Fresh breeze       | 5                   | 19-24              | SW               | <b>Lying Snow</b>                                                                                                                                                                              |                                | <b>Frost</b>           |                                                           |                                                      |
| <b>Sheet 1/ &amp; [ ] Maps attached</b>                                  |                   |                       |             | Strong breeze      | 6                   | 25-31              | W                | None                                                                                                                                                                                           | 0                              | None                   | 0                                                         |                                                      |
|                                                                          |                   |                       |             | Mod. gale          | 7                   | 32-38              | NW               | On site                                                                                                                                                                                        | 1                              | Ground                 | 1                                                         |                                                      |
|                                                                          |                   |                       |             | Fresh gale         | 8                   | 39-46              |                  | High ground                                                                                                                                                                                    | 2                              | All day                | 2                                                         |                                                      |
|                                                                          |                   |                       |             | Strong gale        | 9                   | 47-54              |                  | Please be as accurate as possible, with<br>weather details, entering only one figure,<br>not a range. e.g. WS - 5, not 5-6.<br>Use notes for extra info.<br>E.g. WS - 5, gusting 6 [in notes]. |                                |                        |                                                           |                                                      |
|                                                                          |                   |                       |             | Whole gale         | 10                  | 55-63              |                  |                                                                                                                                                                                                |                                |                        |                                                           |                                                      |
|                                                                          |                   |                       |             | Storm              | 11                  | 64-72              |                  |                                                                                                                                                                                                |                                |                        |                                                           |                                                      |
|                                                                          |                   |                       |             | Hurricane          | 12                  | 73+                |                  |                                                                                                                                                                                                |                                |                        |                                                           |                                                      |
| <b>Weather</b>                                                           | <b>Wind speed</b> | <b>Wind direction</b> | <b>Rain</b> | <b>Cloud cover</b> | <b>Cloud height</b> | <b>Visibility</b>  | <b>Frost</b>     | <b>Snow</b>                                                                                                                                                                                    | <b>Notes(e.g. temperature)</b> |                        |                                                           |                                                      |
| Hr 1                                                                     | 5                 | NW                    | 0           | 3/8                | 2                   | 2                  | 1                | —                                                                                                                                                                                              | 0°C                            |                        |                                                           |                                                      |
| Hr 2                                                                     | 4                 | NW                    | 0           | 3/8                | 2                   | 2                  | 1                | —                                                                                                                                                                                              | 1°C                            |                        |                                                           |                                                      |
| Hr 3                                                                     | 4                 | W                     | 0           | 4/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 1°C                            |                        |                                                           |                                                      |
| Hr 4                                                                     | 5                 | W                     | 0           | 3/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 2°C                            |                        |                                                           |                                                      |
| Hr 5                                                                     | 5                 | NW                    | 0           | 2/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 3°C Gusts up to force 7        |                        |                                                           |                                                      |
| Hr 6                                                                     | 5                 | NW                    | 0           | 4/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 5°C                            |                        |                                                           |                                                      |
| Hr 7                                                                     | 5                 | NW                    | 0           | 3/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 5°C                            |                        |                                                           |                                                      |
| Hr 8                                                                     | 5                 | NW                    | 0           | 4/8                | 2                   | 2                  | 0                | —                                                                                                                                                                                              | 5°C                            |                        |                                                           |                                                      |
| <b>Field Notes:</b><br>Maps attached                                     |                   |                       |             |                    |                     |                    |                  |                                                                                                                                                                                                |                                |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial <u>AND</u> date <u>ALL</u><br>boxes. |                   | Logged                |             | Database Entered   |                     | Database Validated |                  | GIS Entered                                                                                                                                                                                    |                                | GIS Validated          |                                                           |                                                      |











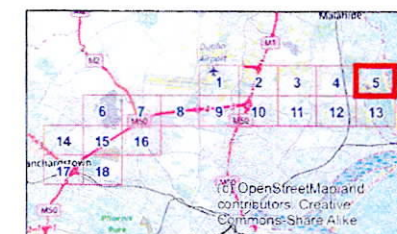
Surveyor: N. Venk

Date: 28/11/2017

|             |           |
|-------------|-----------|
| Start time: | End time: |
|-------------|-----------|

\*Please attach weather sheet:

Notes:



Legend

-  BBS/VVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary);  
 Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

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|                  |                 |                 |
|------------------|-----------------|-----------------|
| Date: 06/04/2017 | Job No: SEC7909 | Rev: c          |
| Drawn: CH        | Checked: DRAFT  | Approved: DRAFT |

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## **APPENDIX 6                      SUMMER 2015 (APRIL AND JUNE)**

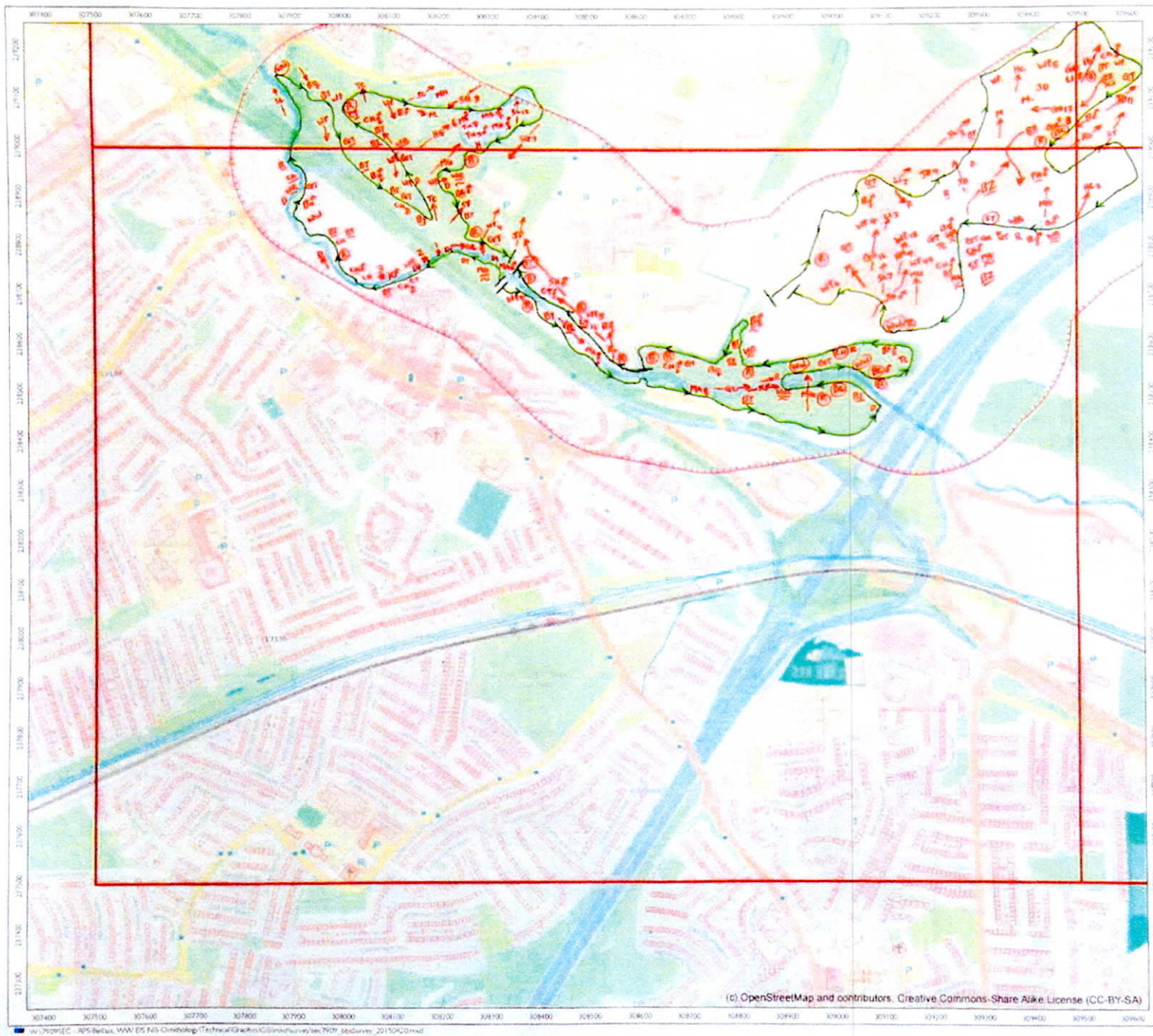
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The data from the April and June 2015 breeding walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).



| RPS                                                        |                | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                                                                                                                                                     |                                                      |
|------------------------------------------------------------|----------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDP            |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed                                                                                                                                      | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 15/04/2015     |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        | <150m 0                                                                                                                                                                                        |                                                      |
| Survey                                                     | Breeding Birds |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        | 150-500m 1                                                                                                                                                                                     |                                                      |
| Observer                                                   | Nick Vede      |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        | >500m 2                                                                                                                                                                                        |                                                      |
| Start Time                                                 | 07:00          |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        | Please be as accurate as possible, with<br>weather details, entering only one figure,<br>not a range. e.g. WS - 5, not 5-6.<br>Use notes for extra info.<br>E.g. WS - 5, gusting 6 [in notes]. |                                                      |
| Finish Time                                                | 13:00          |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                                                                                                                                                                |                                                      |
| Sheet 1/ & [ ] Maps attached                               |                |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                                                                                                                                                              |                                                      |
|                                                            |                |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                                                                                                                                                              |                                                      |
|                                                            |                |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                                                                                                                                                              |                                                      |
|                                                            |                |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
|                                                            |                |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
|                                                            |                |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
|                                                            |                |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
| Weather                                                    | Wind speed     | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                                                                                                                                                                |                                                      |
| Hr 1 07:00                                                 | 2              | SW             | 0                | 6/8           | 2                  | 2          | 0           | 0             | 6°C                     |                        |                                                                                                                                                                                                |                                                      |
| Hr 2 08:00                                                 | 3              | SW             | 0                | 6/8           | 2                  | 2          | 0           | 0             | 8°C                     |                        |                                                                                                                                                                                                |                                                      |
| Hr 3 09:00                                                 | 3              | W              | 1                | 8/8           | 2                  | 1          | 0           | 0             | 8°C                     |                        |                                                                                                                                                                                                |                                                      |
| Hr 4 10:00                                                 | 2              | W              | 0                | 8/8           | 2                  | 2          | 0           | 0             | 9°C                     |                        |                                                                                                                                                                                                |                                                      |
| Hr 5 11:00                                                 | 3              | W              | 0                | 8/8           | 2                  | 2          | 0           | 0             | 11°C                    |                        |                                                                                                                                                                                                |                                                      |
| Hr 6 12:00                                                 | 2              | W              | 2                | 8/8           | 2                  | 2          | 0           | 0             | 11°C                    |                        |                                                                                                                                                                                                |                                                      |
| Hr 7                                                       |                |                |                  |               |                    |            |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
| Hr 8                                                       |                |                |                  |               |                    |            |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
| Field Notes:<br>Maps attached                              |                |                |                  |               |                    |            |             |               |                         |                        |                                                                                                                                                                                                |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |                | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                                                                                                                                                                |                                                      |





RPS

Surveyor: Nick Veele

Date: 15/4/2015

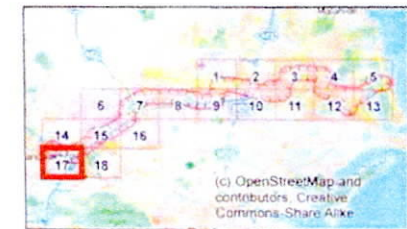
Start time: 07:00 End time: 13:00

\*Please attach weather sheet

Notes:

Transect route

- 1 \* Dipper Nest Active (under bridge)
- 2 \* Dipper Nest Active (under bridge)
- 3 \* Kingfisher Nest (Active seen going in + out)



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 17 of 18

0 200 m

Scale: 1:7500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev: 1  
 Drawn: CH Checked: DRAFT Approved: DRAFT

Map: National Grid (EPSG: 27900)  
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| RPS                                                 |            | Weather Sheet  |                  | Wind Speed  |              |                              | Direction     | Rain/Snow |                         | Cloud Cover  | Cloud Height  | Visibility    |                        |            |         |                                                  |             |                  |             |
|-----------------------------------------------------|------------|----------------|------------------|-------------|--------------|------------------------------|---------------|-----------|-------------------------|--------------|---------------|---------------|------------------------|------------|---------|--------------------------------------------------|-------------|------------------|-------------|
| Site                                                | Date       | Survey         | Observer         | Start Time  | Finish Time  | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph       | None                    | Drizzle/Mist | Light showers | Heavy showers | Heavy rain             | Lying Snow | Frost   | Height of cloud above average height of viewshed | Poor (<1km) | Moderate (1-3km) | Good (>3km) |
| GDD                                                 | 16/04/2015 | Breeding Birds | N. Veale         | 06:50       | 12:50        |                              | Calm          | 0         | >1                      | N            | None          | 0             | In eighths<br>e.g. 3/8 | <150m      | 0       | 150-500m                                         | 1           | >500m            | 2           |
|                                                     |            |                |                  |             |              |                              | Light air     | 1         | 1-3                     | NE           | Drizzle/Mist  | 1             |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Light breeze  | 2         | 4-7                     | E            | Light showers | 2             |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Gentle breeze | 3         | 8-12                    | SE           | Heavy showers | 3             |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Mod. breeze   | 4         | 13-18                   | S            | Heavy rain    | 4             |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Fresh breeze  | 5         | 19-24                   | SW           | Lying Snow    | 0             | None                   | 0          | None    | 0                                                |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Strong breeze | 6         | 25-31                   | W            | On site       | 1             | Ground                 | 1          | All day | 2                                                |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Mod. gale     | 7         | 32-38                   | NW           | High ground   | 2             |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Fresh gale    | 8         | 39-46                   |              |               |               |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Strong gale   | 9         | 47-54                   |              |               |               |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Whole gale    | 10        | 55-63                   |              |               |               |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Storm         | 11        | 64-72                   |              |               |               |                        |            |         |                                                  |             |                  |             |
|                                                     |            |                |                  |             |              |                              | Hurricane     | 12        | 73+                     |              |               |               |                        |            |         |                                                  |             |                  |             |
| Weather                                             | Wind speed | Wind direction | Rain             | Cloud cover | Cloud height | Visibility                   | Frost         | Snow      | Notes(e.g. temperature) |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 1 06:50                                          | 2          | E              | 0                | 7/8         | 2            | 2                            | 0             | 0         | 4°C                     |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 2 07:50                                          | 3          | E              | 0                | 7/8         | 2            | 2                            | 0             | 0         | 7°C                     |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 3 08:50                                          | 3          | E              | 0                | 6/8         | 2            | 2                            | 0             | 0         | 7°C                     |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 4 09:50                                          | 3          | E              | 0                | 5/8         | 2            | 2                            | 0             | 0         | 9°C                     |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 5 10:50                                          | 3          | E              | 0                | 5/8         | 2            | 2                            | 0             | 0         | 10°C                    |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 6 11:50                                          | 4          | E              | 0                | 5/8         | 2            | 2                            | 0             | 0         | 10°C                    |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 7 12:50                                          |            |                |                  |             |              |                              |               |           |                         |              |               |               |                        |            |         |                                                  |             |                  |             |
| Hr 8                                                |            |                |                  |             |              |                              |               |           |                         |              |               |               |                        |            |         |                                                  |             |                  |             |
| Field Notes:<br>Maps attached                       |            |                |                  |             |              |                              |               |           |                         |              |               |               |                        |            |         |                                                  |             |                  |             |
| For office use only. NB-Initial AND date ALL boxes. |            | Logged         | Database Entered |             |              | Database Validated           |               |           | GIS Entered             |              |               | GIS Validated |                        |            |         |                                                  |             |                  |             |







Surveyor: Mike Veda

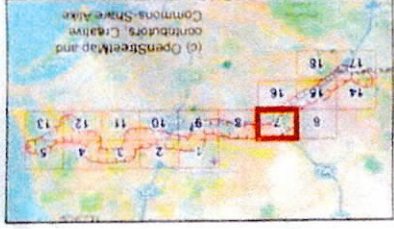
Date: 16/04/2015

|       |          |       |                   |
|-------|----------|-------|-------------------|
| 12:50 | 11:04:15 | 06:50 | Start time: 06:50 |
| 12:30 | 23:04:15 | 06:50 | End time: 06:50   |

\*Please attach weather sheet

Notes:

Reverse Routers



ပုဂံ

BBS survey boundary (250 m buffer, supplied 2014-2020)

Greater Dublin Drainage

Breeding bird survey

Page 7 of 18

0 300 m

Scale 17500BA3

Date: 20/04/2015 Job No: SEC7909

Drawn On \_\_\_\_\_  
Checked DRAFT \_\_\_\_\_

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\* Objectives are categorized based on the importance of the component (1-5).

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| RPS                                                                                                                                                                                |            | Weather Sheet  |                  | Wind Speed  |                    |                              | Direction     | Rain/Snow |                         | Cloud Cover | Cloud Height  | Visibility |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|------------------|-------------|--------------------|------------------------------|---------------|-----------|-------------------------|-------------|---------------|------------|
| Site                                                                                                                                                                               | Date       | Survey         | Observer         | Start Time  | Finish Time        | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph       |                         |             |               |            |
| GDD                                                                                                                                                                                | 23/04/2015 | Breeding Birds | Nick Veda        | 06:30       | 12:30              |                              | Calm          | 0         | >1                      | N           | None          | 0          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light air     | 1         | 1-3                     | NE          | Drizzle/Mist  | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light breeze  | 2         | 4-7                     | E           | Light showers | 2          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Gentle breeze | 3         | 8-12                    | SE          | Heavy showers | 3          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. breeze   | 4         | 13-18                   | S           | Heavy rain    | 4          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh breeze  | 5         | 19-24                   | SW          | Lying Snow    |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong breeze | 6         | 25-31                   | W           | Frost         |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. gale     | 7         | 32-38                   | NW          | None          | 0          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh gale    | 8         | 39-46                   |             | On site       | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong gale   | 9         | 47-54                   |             | Ground        | 1          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Whole gale    | 10        | 55-63                   |             | All day       | 2          |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Storm         | 11        | 64-72                   |             |               |            |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Hurricane     | 12        | 73+                     |             |               |            |
| Height of cloud above average height of viewshed<br><150m 0<br>150-500m 1<br>>500m 2                                                                                               |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| Weather                                                                                                                                                                            | Wind speed | Wind direction | Rain             | Cloud cover | Cloud height       | Visibility                   | Frost         | Snow      | Notes(e.g. temperature) |             |               |            |
| Hr 1 06:30                                                                                                                                                                         | 0          | —              | 0                | 0/8         | 2                  | 2                            | 0             | 0         | 8°C                     |             |               |            |
| Hr 2 07:30                                                                                                                                                                         | 0          | —              | 0                | 0/8         | 2                  | 2                            | 0             | 0         | 10°C                    |             |               |            |
| Hr 3 08:30                                                                                                                                                                         | 1          | SE             | 0                | 0/8         | 2                  | 2                            | 0             | 0         | 13°C                    |             |               |            |
| Hr 4 09:30                                                                                                                                                                         | 1          | SE             | 0                | 1/8         | 2                  | 2                            | 0             | 0         | 16°C                    |             |               |            |
| Hr 5 10:30                                                                                                                                                                         | 1          | SE             | 0                | 1/8         | 2                  | 2                            | 0             | 0         | 16°C                    |             |               |            |
| Hr 6 11:30                                                                                                                                                                         | 1          | SE             | 0                | 1/8         | 2                  | 2                            | 0             | 0         | 17°C                    |             |               |            |
| Hr 7 12:30                                                                                                                                                                         | 2          | S              | 0                |             | 2                  | 2                            |               |           | 18°C                    |             |               |            |
| Hr 8                                                                                                                                                                               | 2          | S              | 0                |             |                    |                              |               |           |                         |             |               |            |
| Field Notes:<br>Maps attached                                                                                                                                                      |            |                |                  |             |                    |                              |               |           |                         |             |               |            |
| For office use only. NB-Initial AND date ALL boxes.                                                                                                                                |            | Logged         | Database Entered |             | Database Validated |                              | GIS Entered   |           | GIS Validated           |             |               |            |



0874158374

Surveyor: Nick Vele

Date: 23/04/2015

Start time: 06:10

End time

\*Please attach weather sheet

## Notes

 No Access Rang  
landowner 2 days in a row  
left numerous messages, no  
contact.



Legend

 BBS survey boundary (250 m buffer, supplied 20140420)

### Greater Dublin Drainage

### Breeding bird survey

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Scale: 1/7,500 @A3

Date: 20/04/2015 Job No: SEC7907

Rev. A

Drawn: CH

Checked DRAFT

Approved DRAFT

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 Permission of the Government. License P5, 3.1.11

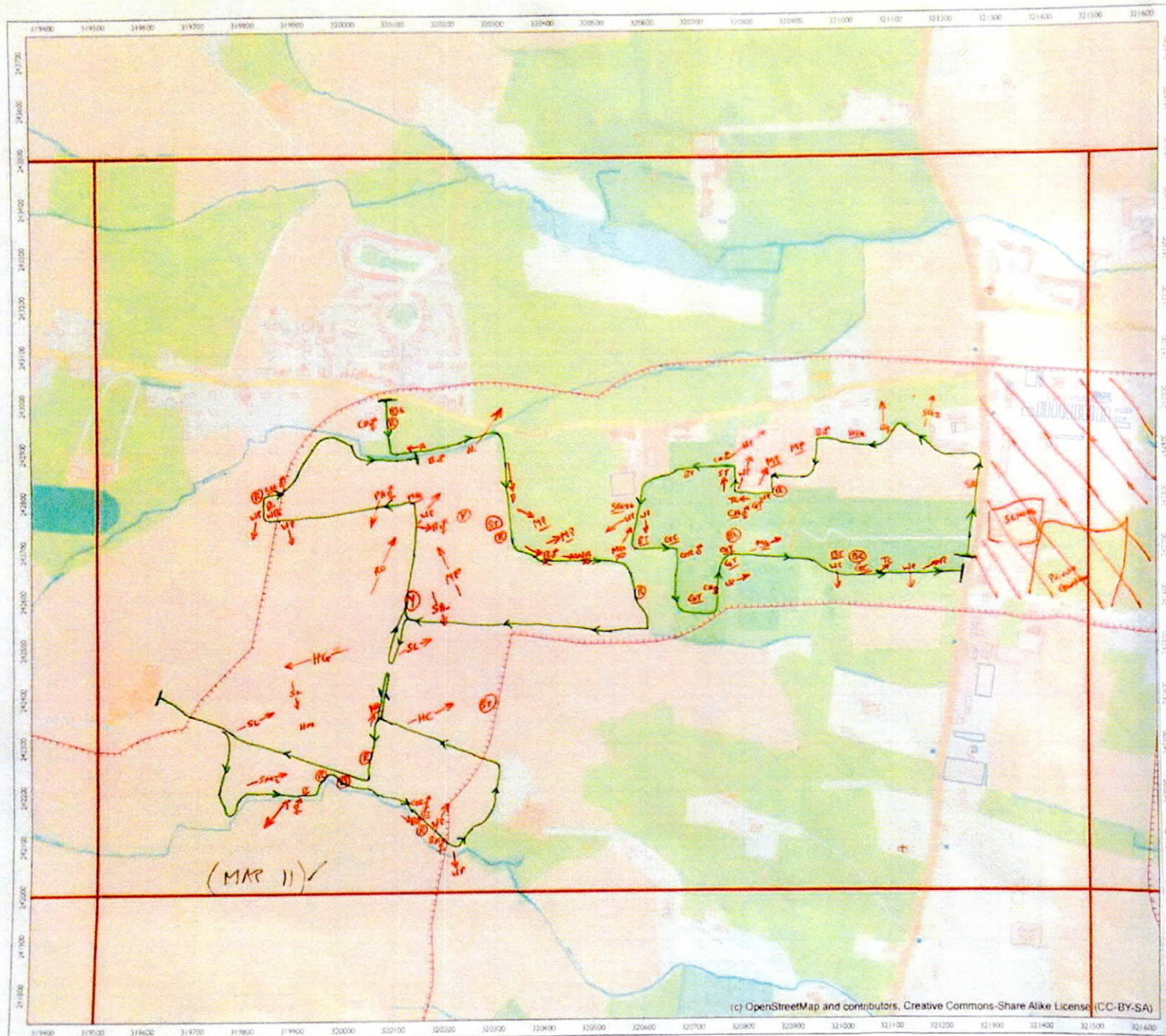
http://www.ingroup.com

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RPS

Surveyor: Nick Vele

Date: 24/04/2015

Start time:

End time:

\*Please attach weather sheet

Notes:

Transsect Route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 3 of 18

0 200 m

Scale: 1:75000

Date: 20/04/2015

Job No: SEC7909

Rev: a

Drawn: CH

Checked: DRAFT

Approved: DRAFT

For: National Grid, EPSG:27902

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| RPS  |            | Weather Sheet   |            | Wind Speed |             | Direction                    | Rain/Snow     |     | Cloud Cover | Cloud Height | Visibility    |   |                        |                                                           |                                                                                                                                                                                                |   |
|------|------------|-----------------|------------|------------|-------------|------------------------------|---------------|-----|-------------|--------------|---------------|---|------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Site | Date       | Survey          | Observer   | Start Time | Finish Time | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph |             |              |               |   |                        |                                                           |                                                                                                                                                                                                |   |
| GDO  | 27/04/2015 | (CBS) Walkovers | Nick Veale | 06:32      | 12:32       |                              | Calm          | 0   | >1          | N            | None          | 0 | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km)                                                                                                                                                                                    | 0 |
|      |            |                 |            |            |             |                              | Light air     | 1   | 1-3         | NE           | Drizzle/Mist  | 1 |                        |                                                           | Moderate (1-3km)                                                                                                                                                                               | 1 |
|      |            |                 |            |            |             |                              | Light breeze  | 2   | 4-7         | E            | Light showers | 2 |                        |                                                           | Good (>3km)                                                                                                                                                                                    | 2 |
|      |            |                 |            |            |             |                              | Gentle breeze | 3   | 8-12        | SE           | Heavy showers | 3 |                        |                                                           |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Mod. breeze   | 4   | 13-18       | S            | Heavy rain    | 4 |                        |                                                           |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Fresh breeze  | 5   | 19-24       | SW           | Lying Snow    |   | Frost                  |                                                           |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Strong breeze | 6   | 25-31       | W            | None          | 0 | None                   | 0                                                         |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Mod. gale     | 7   | 32-38       | NW           | On site       | 1 | Ground                 | 1                                                         |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Fresh gale    | 8   | 39-46       |              | High ground   | 2 | All day                | 2                                                         |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Strong gale   | 9   | 47-54       |              |               |   |                        |                                                           | Please be as accurate as possible, with<br>weather details, entering only one figure,<br>not a range. e.g. WS - 5, not 5-6.<br>Use notes for extra info.<br>E.g. WS - 5, gusting 6 [in notes]. |   |
|      |            |                 |            |            |             |                              | Whole gale    | 10  | 55-63       |              |               |   |                        |                                                           |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Storm         | 11  | 64-72       |              |               |   |                        |                                                           |                                                                                                                                                                                                |   |
|      |            |                 |            |            |             |                              | Hurricane     | 12  | 73+         |              |               |   |                        |                                                           |                                                                                                                                                                                                |   |

| Weather | Wind speed | Wind direction | Rain | Cloud cover | Cloud height | Visibility | Frost | Snow | Notes(e.g. temperature) |
|---------|------------|----------------|------|-------------|--------------|------------|-------|------|-------------------------|
| Hr 1    | 3          | SW             | 0    | 2/8         | 2            | 2          | 0     | 0    | 3°C                     |
| Hr 2    | 4          | W              | 0    | 3/8         | 2            | 2          | 0     | 0    | 4°C                     |
| Hr 3    | 5          | W              | 2    | 4/8         | 2            | 2          | 0     | 0    | 7°C                     |
| Hr 4    | 5          | W              | 0    | 4/8         | 2            | 2          | 0     | 0    | 7°C                     |
| Hr 5    | 4          | W              | 0    | 5/8         | 2            | 2          | 0     | 0    | 10°C                    |
| Hr 6    | 4          | W              | 23   | 5/8         | 2            | 1          | 0     | 0    | 10°C                    |
| Hr 7    |            |                |      |             |              |            |       |      |                         |
| Hr 8    |            |                |      |             |              |            |       |      |                         |

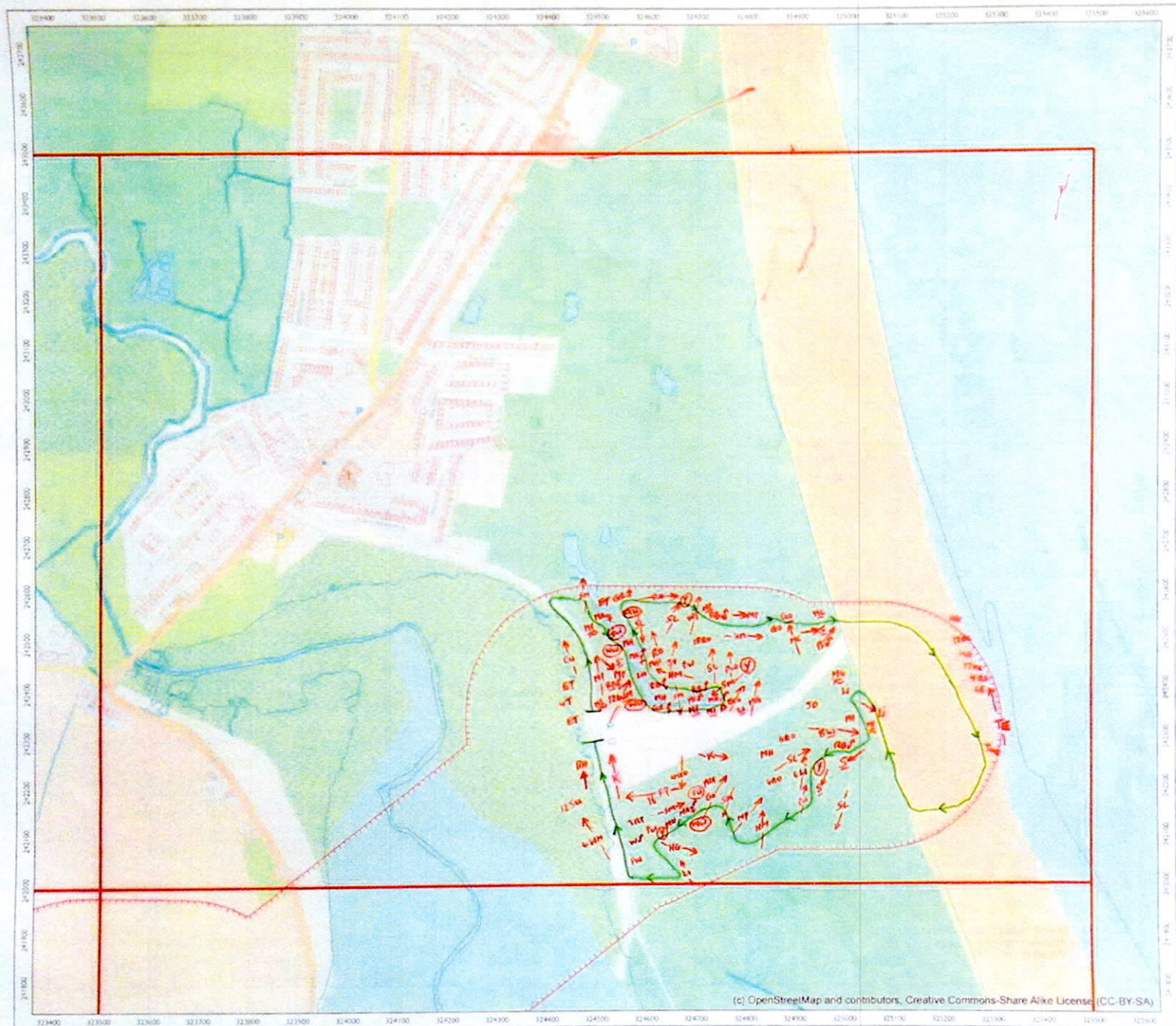
Field Notes:

Maps attached

|                                                            |        |                  |                    |             |               |
|------------------------------------------------------------|--------|------------------|--------------------|-------------|---------------|
| For office use only. NB-<br>Initial AND date ALL<br>boxes. | Logged | Database Entered | Database Validated | GIS Entered | GIS Validated |
|------------------------------------------------------------|--------|------------------|--------------------|-------------|---------------|





RPS

Surveyor: Nick Veale

Date: 27/04/2015

Start time: 06:32

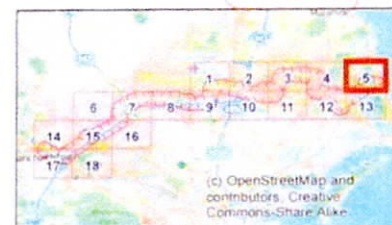
End time: 12:32

\*Please attach weather sheet

Notes

Transect Route

(Access: Flume Quays, Portmarnock Golf Links)  
(01 2065942) Home



Legend

  BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 5 of 18

0 200 m

Scale 1:7500 (eA3)

Date: 20/04/2015 Job No: SEC7409 Rev: 1

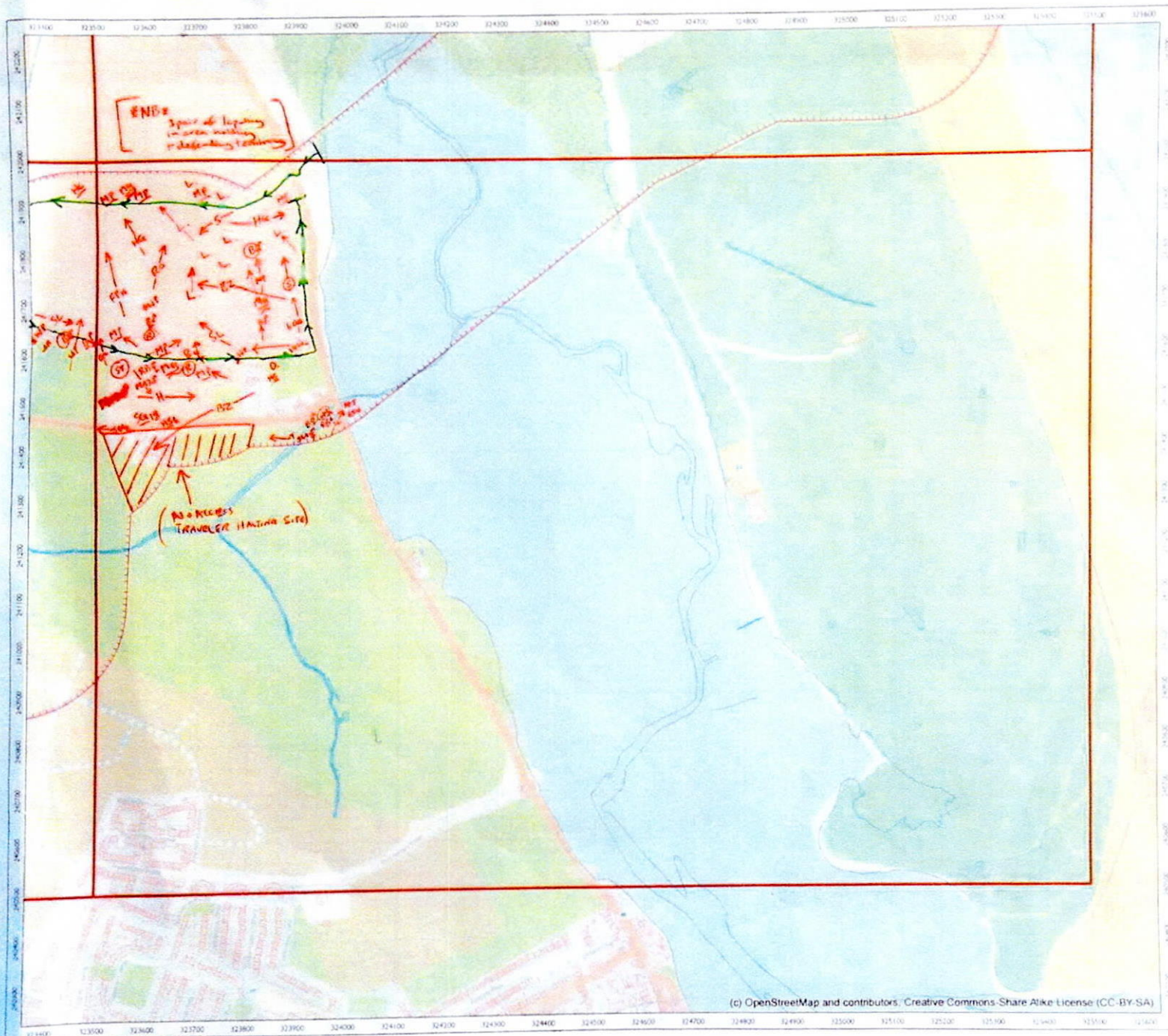
Drawn: LHM Checked: (DRAFT) Approved: (DRAFT)

Web Address: Local RPS: 21902

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[openmap.com](http://openmap.com)





RPS

Surveyor: Nick Veda

Date: 27/04/2015

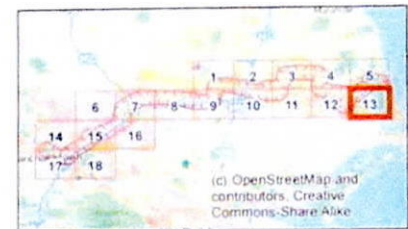
Start time: 06:32 End time: 12:32

\*Please attach weather sheet

Notes:

Transit route

NB Transit continued on Map 12



Legend

BBS survey boundary (250 m buffer supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 13 of 18

Scale: 1:7500 (BAA)

Date: 20/04/2015 Job No: SEC7909 Rev: 1

Drawn: CH (Checked: DRAFT) Approved: DRAFT

W: National Grid (EPSG: 29902)

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RPS

Surveyor: Nick Veda

Date: 27/04/2015

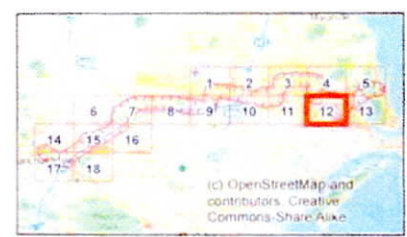
Start time: 06:32 End time: 12:37

\*Please attach weather sheet

Notes:

→ Transect Route

No Access Security Fencing observation from outside perimeter



Legend  
 BBS survey boundary (250 m buffer supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 12 of 18

Scale: 1:7500 (BA3)

Date: 20/04/2015 Job No: SECT909 Rev: a  
 Drawn: CH Checked: DRAFT Approved: DRAFT

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RPS

Surveyor: Nick Vede

Date 28/04/2015

Start time: 06:25

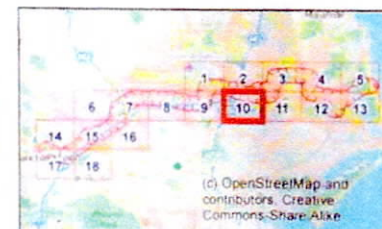
End time: 12:25

\*Please attach weather sheet.

Notes

XNB (continues on map 11)

 Transect route



Legend

 BBS survey boundary (250 m buffer, supplied 20140420)

### Greater Dublin Drainage

### Breeding bird survey

Page 10 of 18

Scale: 1:7,500 @B3

Date: 20/04/2015 Job No: SEC7909

Job No. SEC7909

Rev. a

Drawn OH

Checked DRAFT

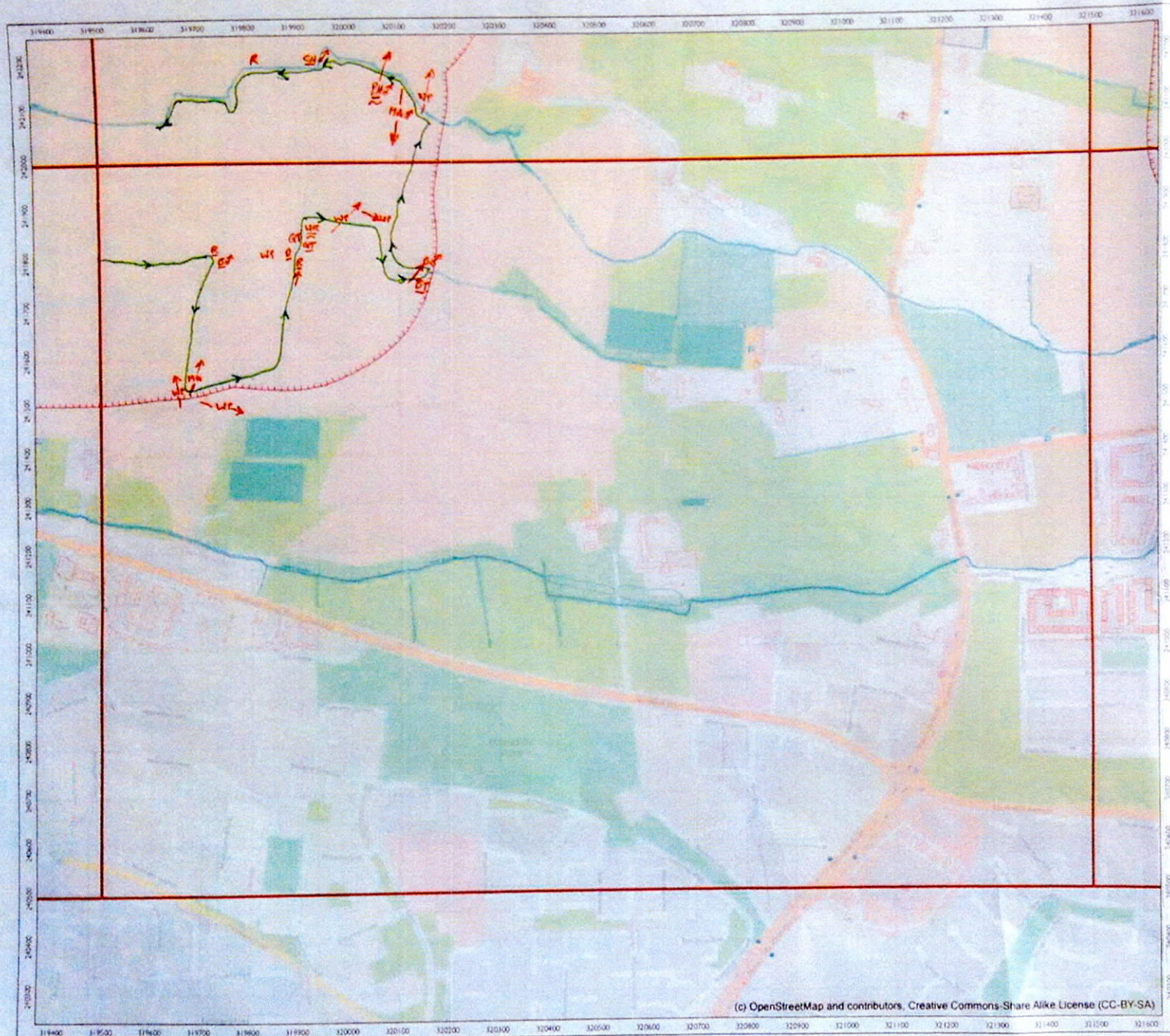
Approved: DRAFT

Environ Monit Assess (2008) 142:219–232

\* Opened with top contributors. Reproduced from the Cochrane Survey Of Ireland by permission of the Government of Ireland, May 2014.

[Copyright Clearance Center](#)





RPS

Surveyor: Nick Veale

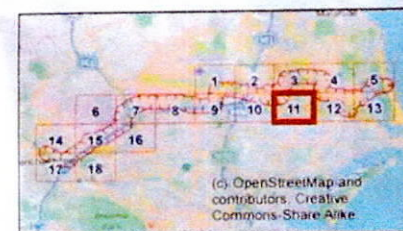
Date: 28/04/2015

Start time: 06:25 End time: 12:25

\*Please attach weather sheet

Notes:

XNB Continued from Map 10  
 ↳ Transect Route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 11 of 18

0 200 m

Scale: 1:7500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev: a

Drawn: CH Checked: DRAFT Approved: DRAFT

W&J National Grid, EPSG:29902  
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RPS

Surveyor: N. JANE

Date: 28/04/2015

Start time: 06:25

End time: 12:25

\*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 1 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev: a

Drawn: CH

Checked: DRAFT

Approved: DRAFT

Irish National Grid, EPSG 29902

\* Checkpoints to be used before. Reproduced from the Ordnance Survey (OS) Ireland 1:50,000 map of the area.

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RPS

Surveyor N. JEALE

Date 28/04/2015

Start time 06:25

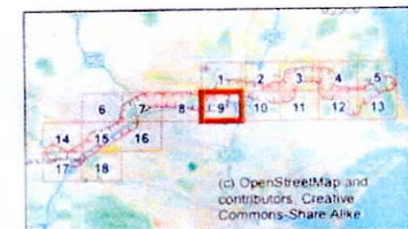
End time 12:25

\*Please attach weather sheet

Notes

→ Transit route

No Access



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 9 of 18

0 200 m

Scale: 1:2,500 @A3

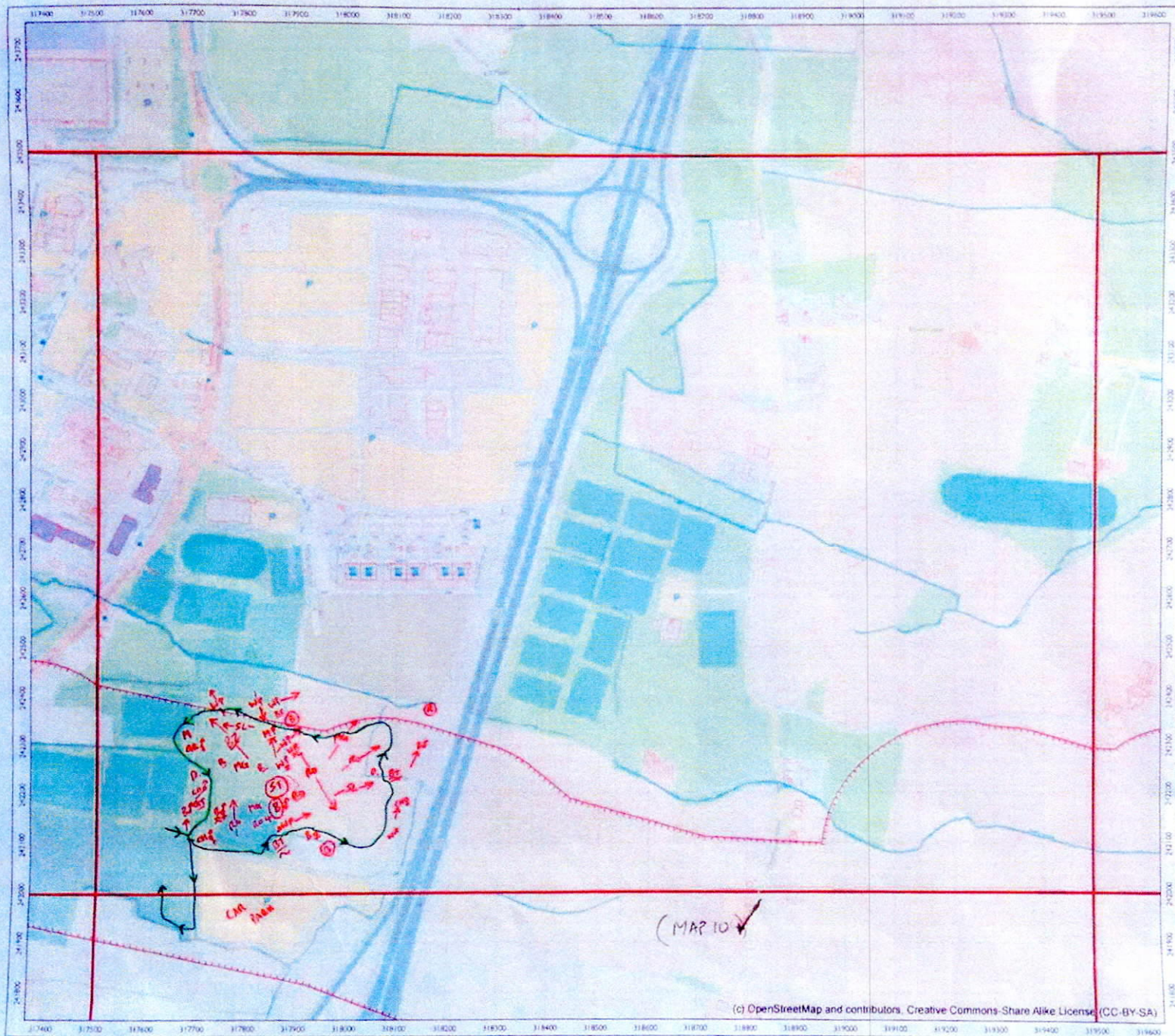
Date: 20/04/2015 Job No: SEC7909 Rev: 3

Drawn: CH Checked: DRAFT Approved: DRAFT

Irish National Grid: EPSG 29902  
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RPS

Surveyor: **N. VEAL**

Date: **28/04/2015**

Start time: **06:25**

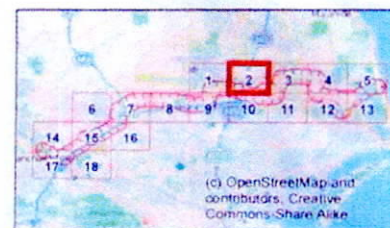
End time: **12:25**

\*Please attach weather sheet

Notes:

→ Transit Route

XNB \* Transvers Cross Maps 1-2



Legend

BBS survey boundary (250 m buffer supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 2 of 18

0 200 m

Scale: 1:7500 (RPS)

Date: 20/04/2015

Job No: REC7909

Rev: a

Drawn: CH

Checked: DRAFT

Approved: DRAFT

Irish National Grid, EPSG:29902

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RPS

Surveyor: Nick Vella

Date: 03/06/2015

Start time: 05:45 End time: 11:45

\*Please attach weather sheet

Notes:

Transit route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 15 of 18

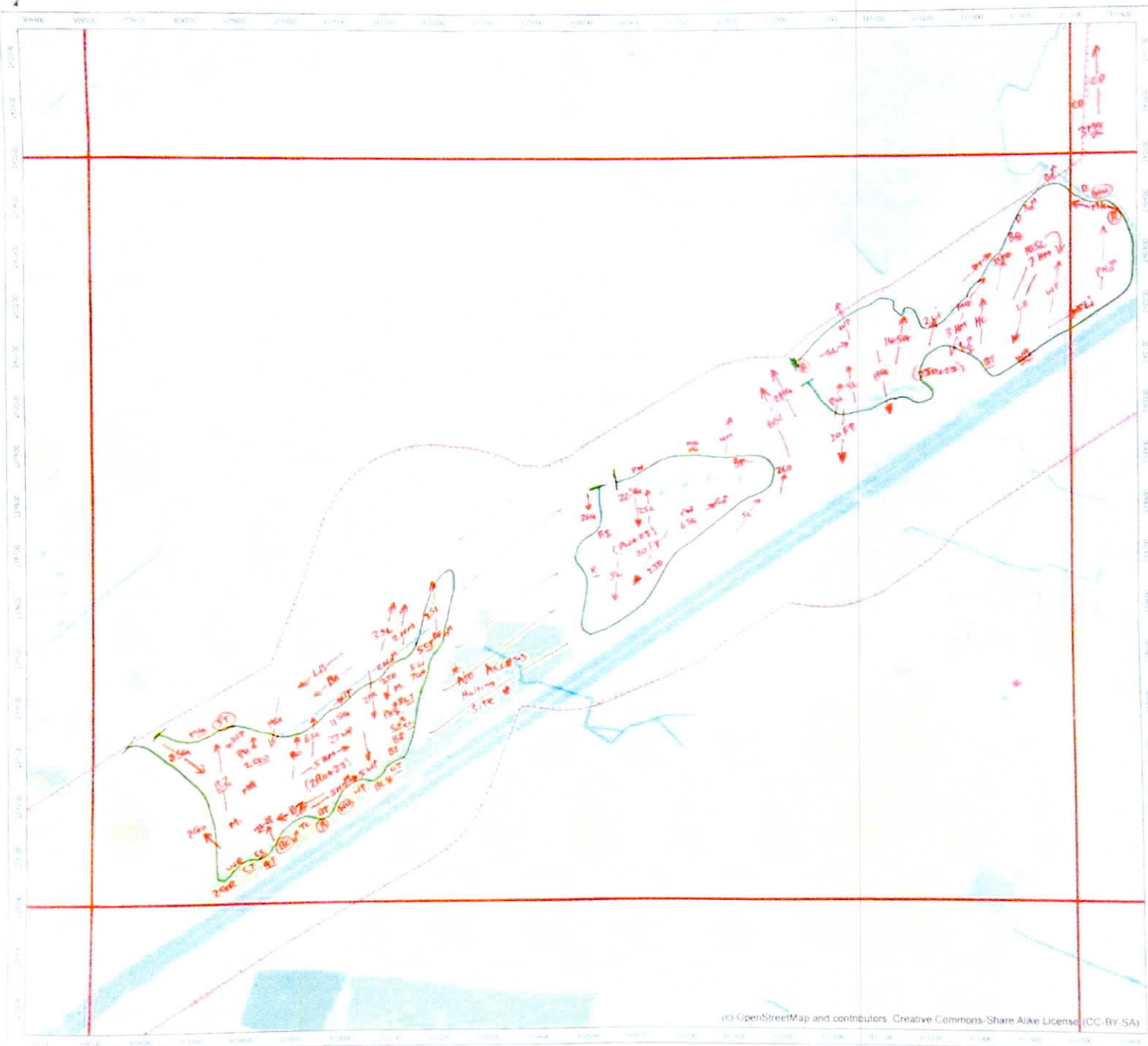
Scale: 1:7500 (A3)

Date: 26/04/2015 Job No: SSC2909 Rev: 2

Drawn: CH Checked: DRAFT Approved: DRAFT

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Surveyor **N. Vede**

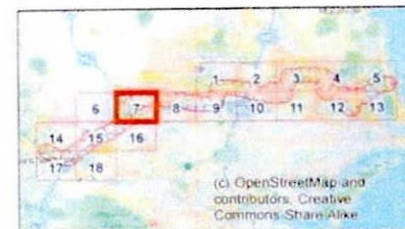
Date **03/06/2015 + 08/06/2015**

Start time **08:00** End time **11:30**  
 Start time **08:30** End time **11:30**

\*Please attach weather sheet

Notes:

**Transect route**



Legend

BBB survey boundary (250 m buffer supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 7 of 18

200 m

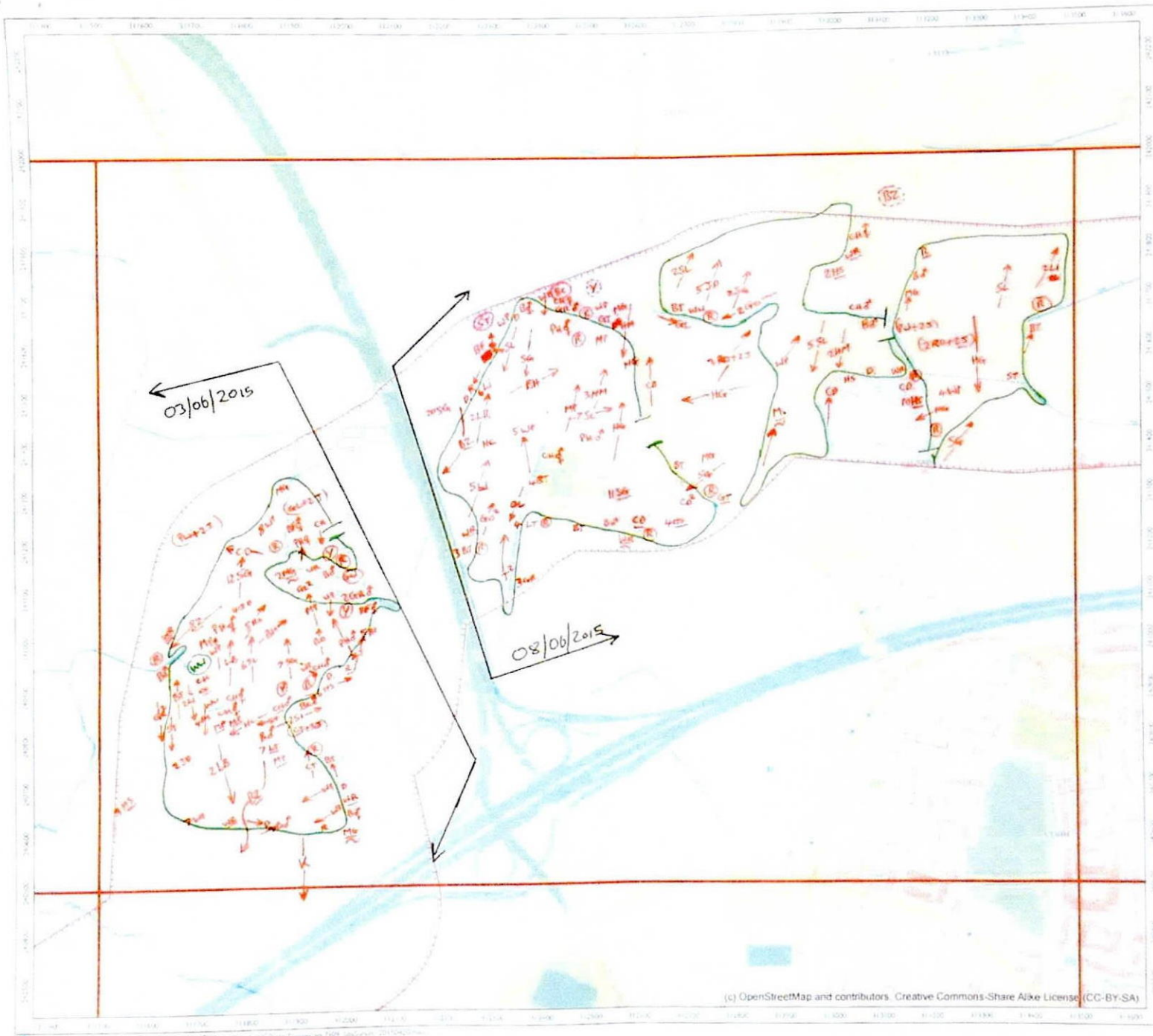
Scale: 1:7,500 (GA)

Date: 20/04/2015 Job No: SEC7909 Rev: 1  
 Drawn: CH Checked: DRAFT Approved: DRAFT

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RPS

Surveyor: Nick Veale

Date: 10/06/2015

Start time: 05:30 End time: 11:30

\*Please attach weather sheet

Notes:

Transect route



Legend  
BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

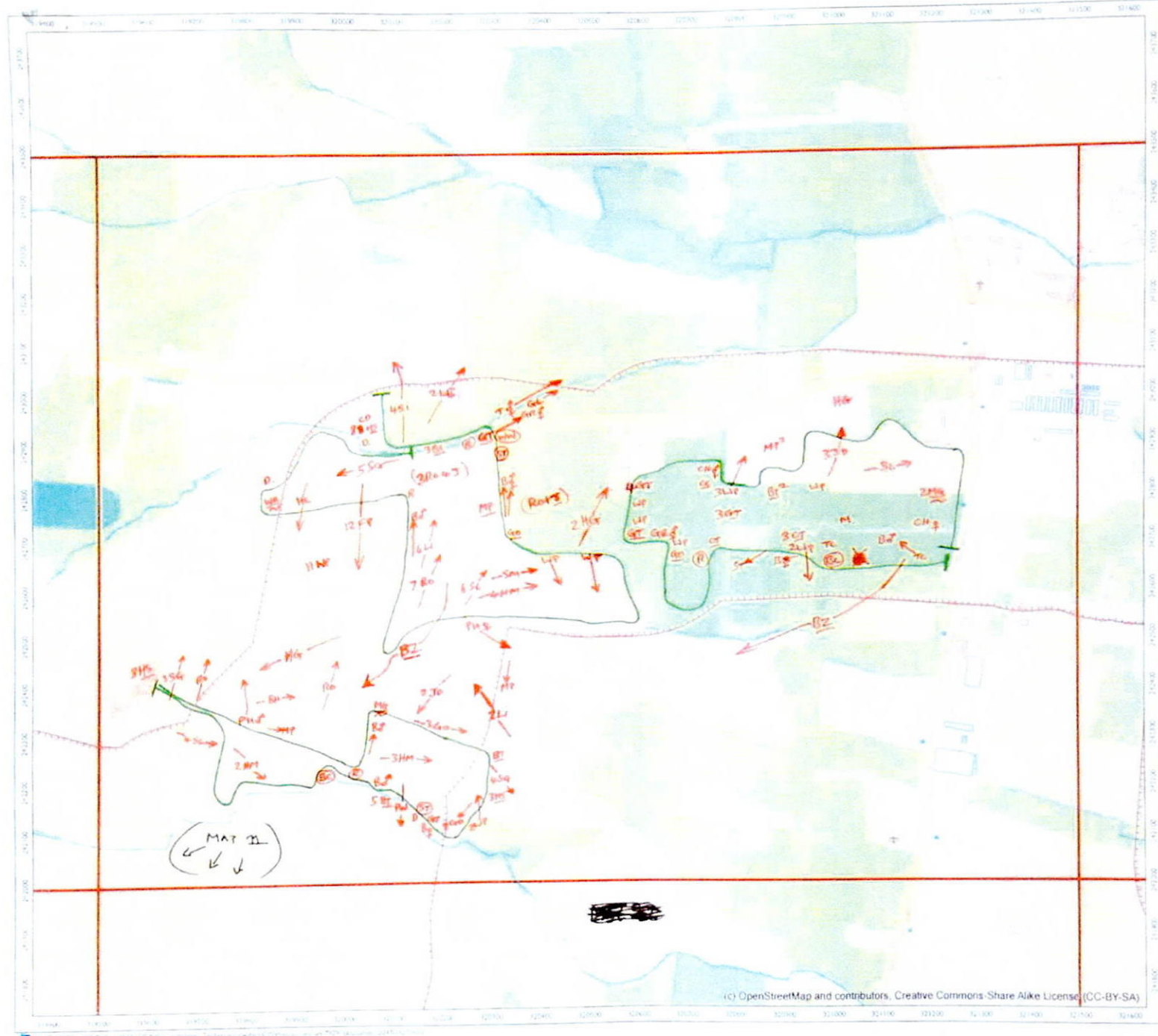
Breeding bird survey

Page 3 of 18

Scale: 1:7,500 @A3  
0 200 m

Date: 20/04/2015 Job No: SEC7909 Rev: a  
Drawn: CH Checked: DRAFT Approved: DRAFT

Irish National Grid: EPG 29902  
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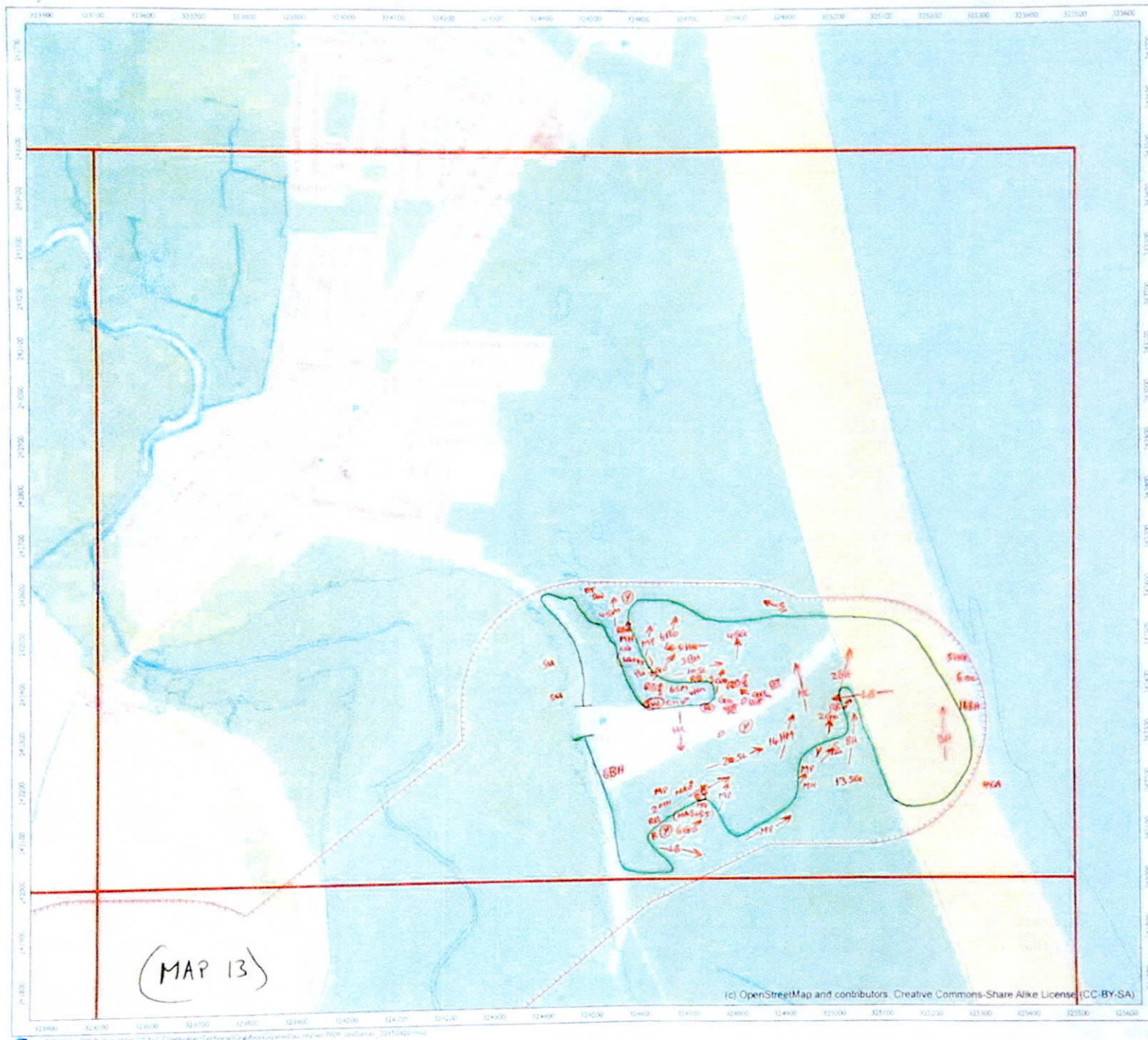


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RPS

Surveyor: Nick Veale

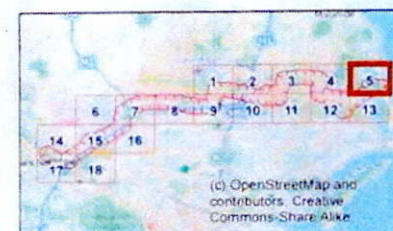
Date: 11/06/2015

Start time: 05:30

End time: 11:30

\*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 5 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 20/04/2015 Job No: SEC7909 Rev: a

Drawn: CH Checked: DRAFT Approved: DRAFT

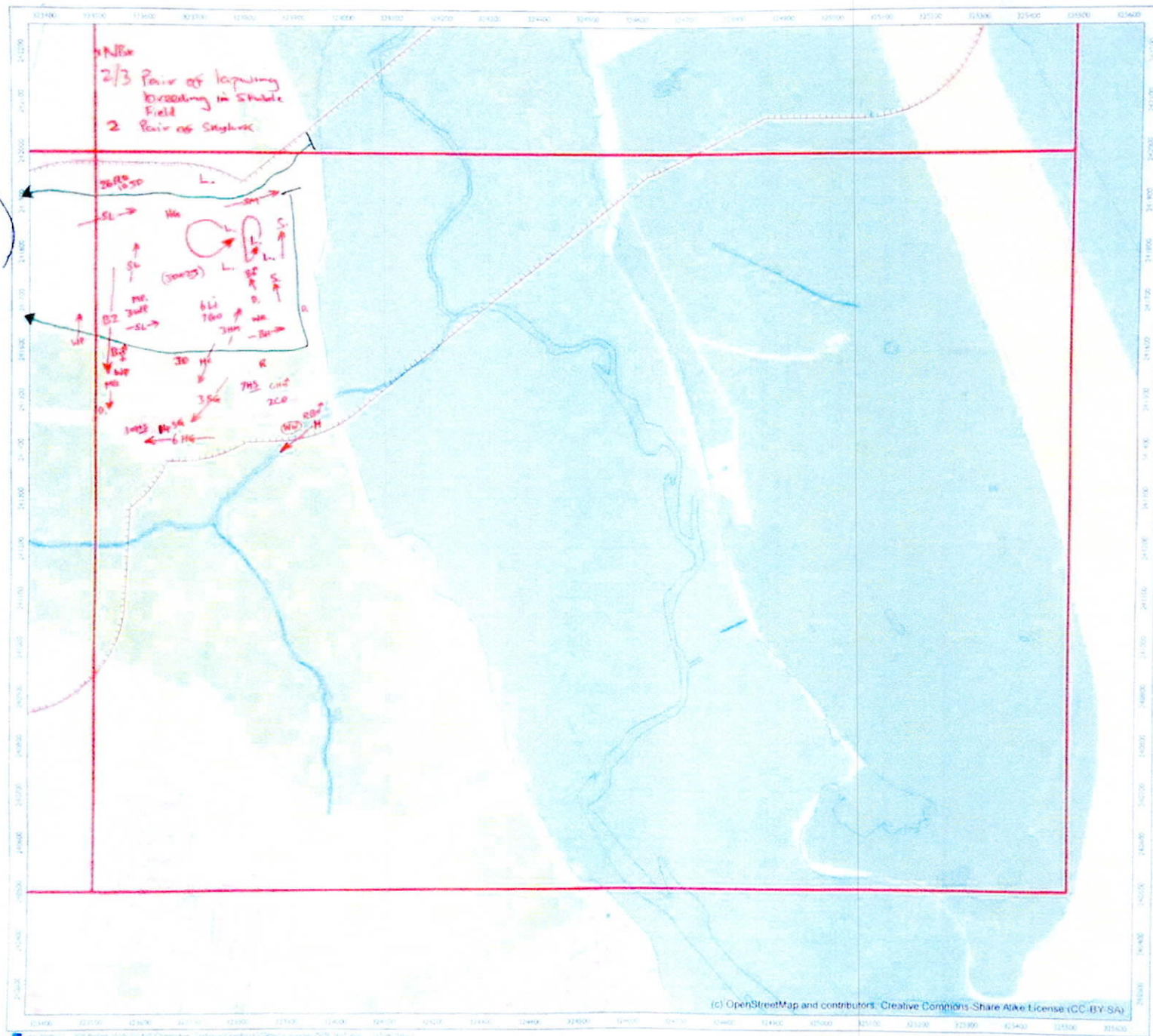
Web: Natural Grid, BPSO 2000

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(Cont..  
MAR  
12)



RPS

Surveyor: N. Veele

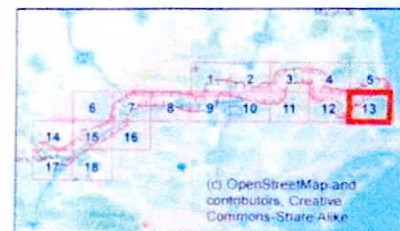
Date: 11/06/2015

Start time: 05:30

End time: 11:30

\*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 13 of 18

0 200 m

Scale: 1:7500 (BA1)

Date: 2004/2015

Job No: SEC7909

Rev: a

Drawn: CH

Checked: DRAFT

Approved: DRAFT

with National Grid EPSG:29902

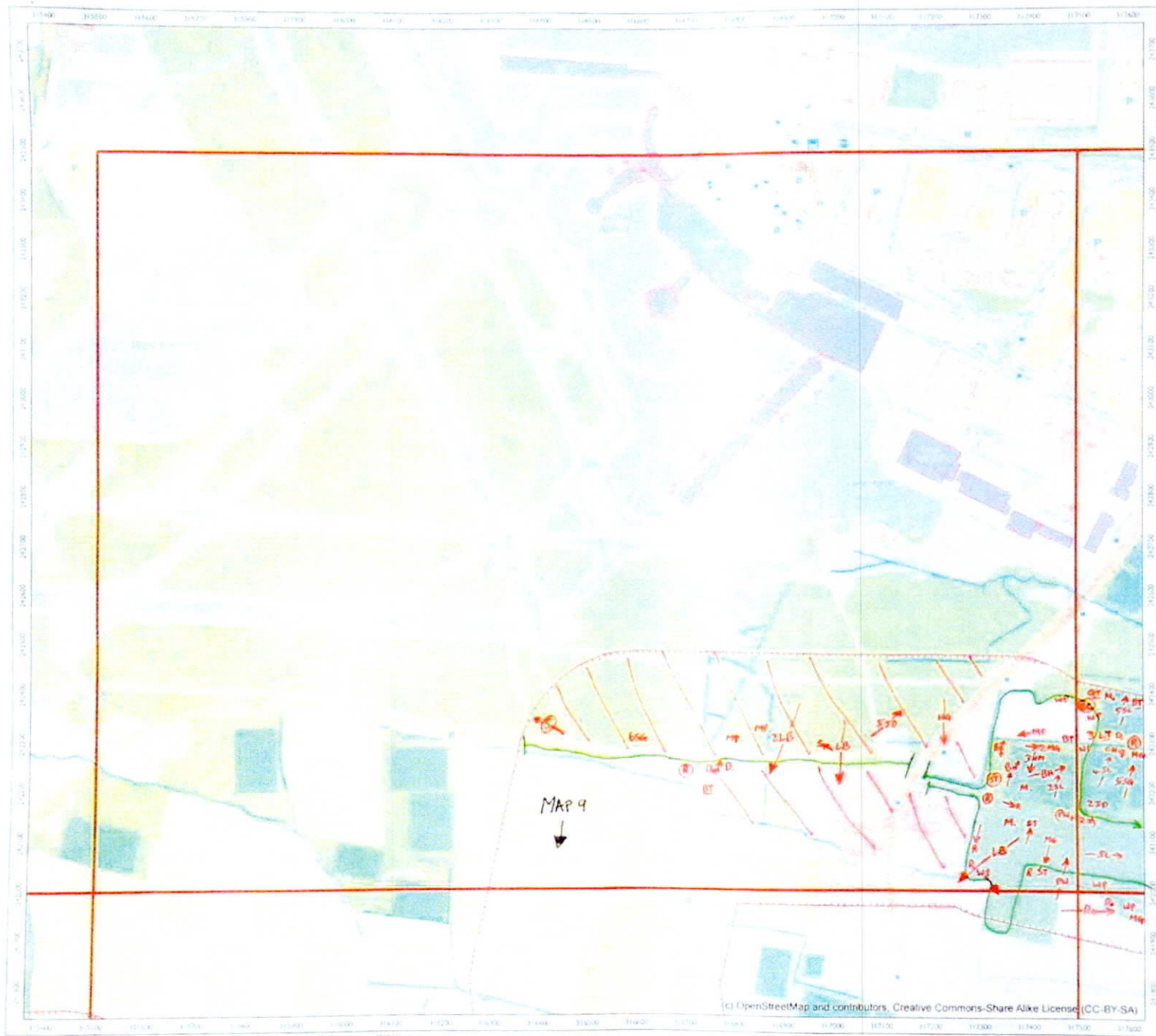
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RPS

Surveyor: Nick Veale

Date: 12/06/2015

Start time: 05:40 End time: 11:40

\*Please attach weather sheet

Notes:

H Transect route

No Access



Legend:

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

MAP 2  
Page 1 of 18

0 200 m

Scale: 1:7500 (BA3)

Date: 20/04/2015 Job No: SEC7909 Rev: a

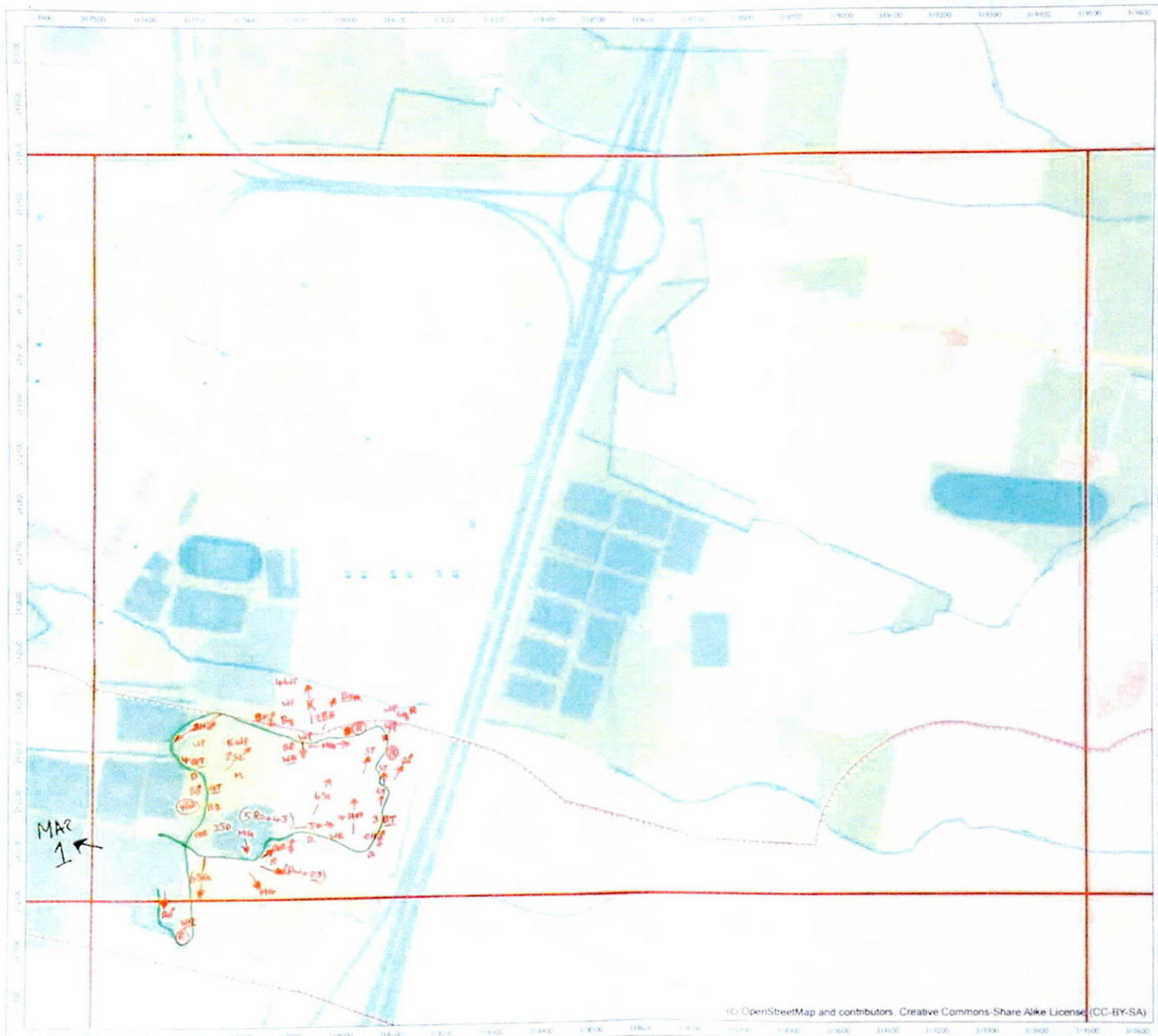
Drawn: CH Checked: DRAFT Approved: DRAFT

Web: National Grid, EPSG: 29902

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mapson.com





RPS

Surveyor: N Veele

Date: 12/06/2015

Start time: 0540 End time: 11:40

\*Please attach weather sheet

Notes:



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 2 of 18

0 200 m

Scale: 1:2,500 (BA1)

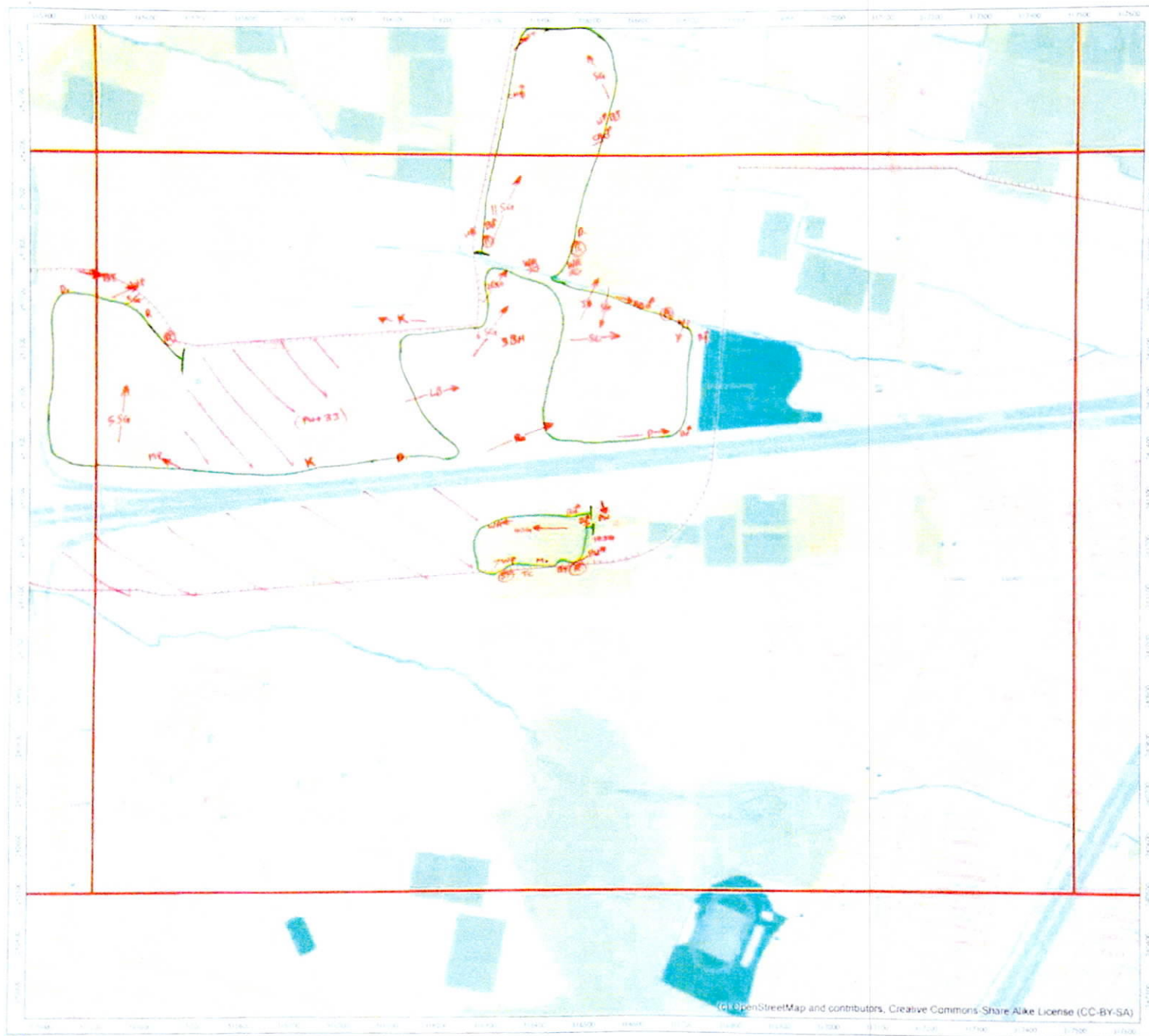
Date: 20/04/2015 Job No: SEC7909 Rev: a

Drawn: CH Checked: DRAFT Approved: DRAFT

Map National Grid, EPSG:29903  
© OpenStreetMap contributors, Reproduced from the Ordnance Survey of Ireland by permission of the Government, Licence No. 1.3.3.31

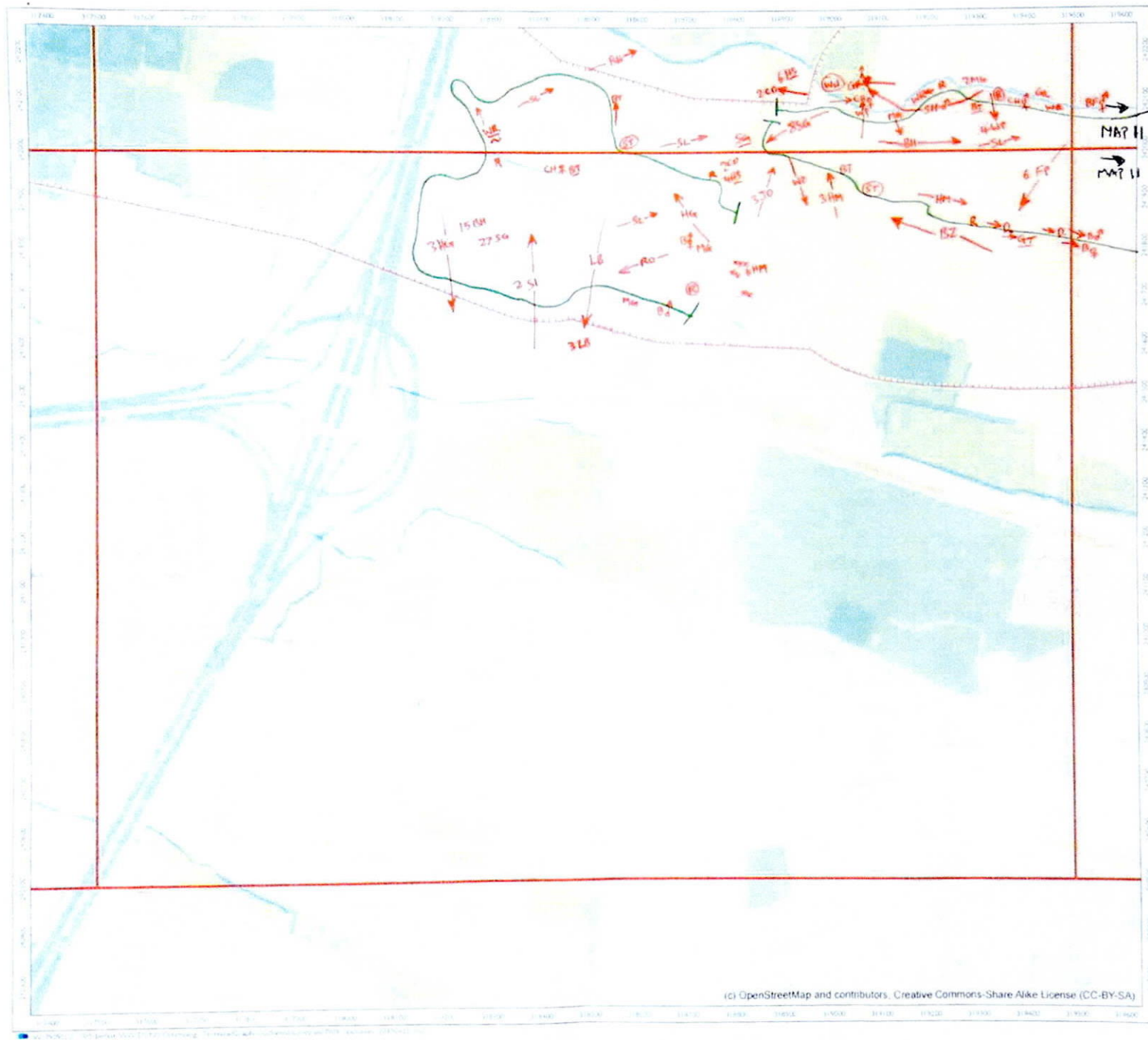
mapbox.com





**RPS** Nick Veale  
 Surveyor: 12/06/2015  
 Date:  
 Start time: 05:40 End time: 11:40  
 \*Please attach weather sheet  
 Notes:  
 — Transect route  
 No Access  
 (c) OpenStreetMap and contributors, Creative Commons-Share Alike  
 Legend  
 BBS survey boundary (250 m buffer, supplied 20140420)  
 Greater Dublin Drainage  
 Breeding bird survey  
 Page 9 of 18  
 0 200 m  
 Scale: 1:7500 (BA3)  
 Date: 2004/20-5 Job No: SEC7909 Rev: a  
 Drawn: CH Checked: DRAFT Approved: DRAFT  
 Web: National Grid, EPG 2960  
 RPS Group Ltd, 100, The Quadrant, Dublin 4, Ireland  
 Tel: 01 454 4000 Fax: 01 454 4001 Email: info@rpsgroup.com





RPS

Surveyor: Nick Velea

Date: 12/06/2015

Start time: 05:40

End time: 11:40

\*Please attach weather sheet

Notes:

Transect Continues on map 11

H Transect route



Legend

BBS survey boundary (250 m buffer, supplied 20140420)

Greater Dublin Drainage

Breeding bird survey

Page 10 of 18

0 200 m

Scale 1:7500 (SA3)

Date: 2004/2015 Job No: SEC7909 Rev: a

Drawn: CH Checked: DRAFT Approved: DRAFT

Map National Grid (Easting, Northing) Reproduced from the Ordnance Survey OS MasterMap data (c) Crown Copyright and the Ordnance Survey 2015

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## **APPENDIX 7                      SUMMER 2017 (MAY AND JUNE)**

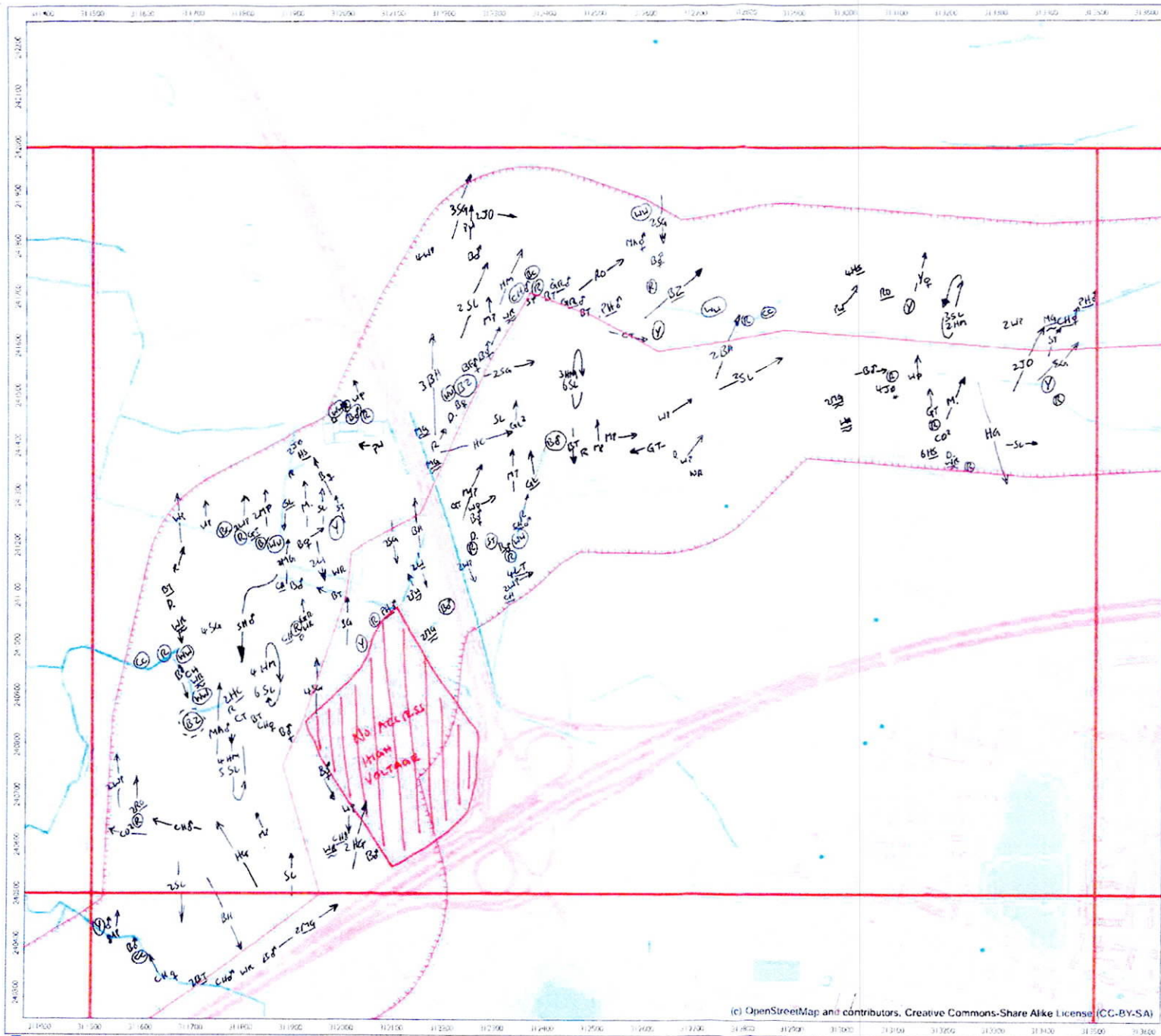
---

The data from the May and June 2017 summer walkover surveys were mapped, and are enclosed below (along with the associated survey recording sheets).



| RPS                                                                                          |               | Weather Sheet  |                  | Wind Speed         |              | Direction     | Rain/Snow | Cloud Cover   | Cloud Height            | Visibility             |                                                           |                                                      |
|----------------------------------------------------------------------------------------------|---------------|----------------|------------------|--------------------|--------------|---------------|-----------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                                                         | GDD           |                |                  | Calm               | 0            | >1            | N         | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                                                         | 31/05/2017    |                |                  | Light air          | 1            | 1-3           | NE        | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                                                       | BBS           |                |                  | Light breeze       | 2            | 4-7           | E         | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                                                     | Nick Veeh     |                |                  | Gentle breeze      | 3            | 8-12          | SE        | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                                                   | 05:00         |                |                  | Mod. breeze        | 4            | 13-18         | S         | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                                                  | 12:00         |                |                  | Fresh breeze       | 5            | 19-24         | SW        | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ]                                                                               | Maps attached |                |                  | Strong breeze      | 6            | 25-31         | W         | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                                                              |               |                |                  | Mod. gale          | 7            | 32-38         | NW        | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                                                              |               |                |                  | Fresh gale         | 8            | 39-46         |           | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                                                              |               |                |                  | Strong gale        | 9            | 47-54         |           |               |                         |                        |                                                           |                                                      |
|                                                                                              |               |                |                  | Whole gale         | 10           | 55-63         |           |               |                         |                        |                                                           |                                                      |
|                                                                                              |               |                |                  | Storm              | 11           | 64-72         |           |               |                         |                        |                                                           |                                                      |
|                                                                                              |               |                |                  | Hurricane          | 12           | 73+           |           |               |                         |                        |                                                           |                                                      |
| Weather                                                                                      | Wind speed    | Wind direction | Rain             | Cloud cover        | Cloud height | Visibility    | Frost     | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                                                         | 2             | E              | 0                | 3/8                | 1            | 0             | —         | —             | Patching Fog            | 7°C                    | Visibility >500m                                          |                                                      |
| Hr 2                                                                                         | 2             | E              | 0                | 4/8                | 1            | 0             | —         | —             | Patching Fog            | 8°C                    | " >500m                                                   |                                                      |
| Hr 3                                                                                         | 2             | SE             | 0                | 5/8                | 1            | 1             | —         | —             | 11°C                    |                        |                                                           |                                                      |
| Hr 4                                                                                         | 3             | SE             | 0                | 5/8                | 2            | 2             | —         | —             | 12°C                    |                        |                                                           |                                                      |
| Hr 5                                                                                         | 3             | SE             | 0                | 6/8                | 2            | 2             | —         | —             |                         |                        |                                                           |                                                      |
| Hr 6                                                                                         | 4             | SE             | 0                | 6/8                | 2            | 2             | —         | —             |                         |                        |                                                           |                                                      |
| Hr 7                                                                                         | 4             | SE             | 0                | 5/8                | 2            | 2             | —         | —             | 14°C                    |                        |                                                           |                                                      |
| Hr 8                                                                                         |               |                |                  |                    |              |               |           |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached<br>Some localized fog but Visibility over 500m so fine for BBS |               |                |                  |                    |              |               |           |               |                         |                        |                                                           |                                                      |
| For office use only. NB- Initial AND date ALL boxes.                                         |               | Logged         | Database Entered | Database Validated | GIS Entered  | GIS Validated |           |               |                         |                        |                                                           |                                                      |





## RPS

Surveyor: N. Veale

Date: 31/05/17

Start time: 05:00 End time: 12:00

\*Please attach weather sheet

Notes:

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**Legend**

- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 7 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 06/04/2017 Job No: SEC7509 Rev: c

Drawn: CH Checked: DRAFT Approved: DRAFT

Irish National Grid (EPSG:29902)  
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Surveyor: N. Veale

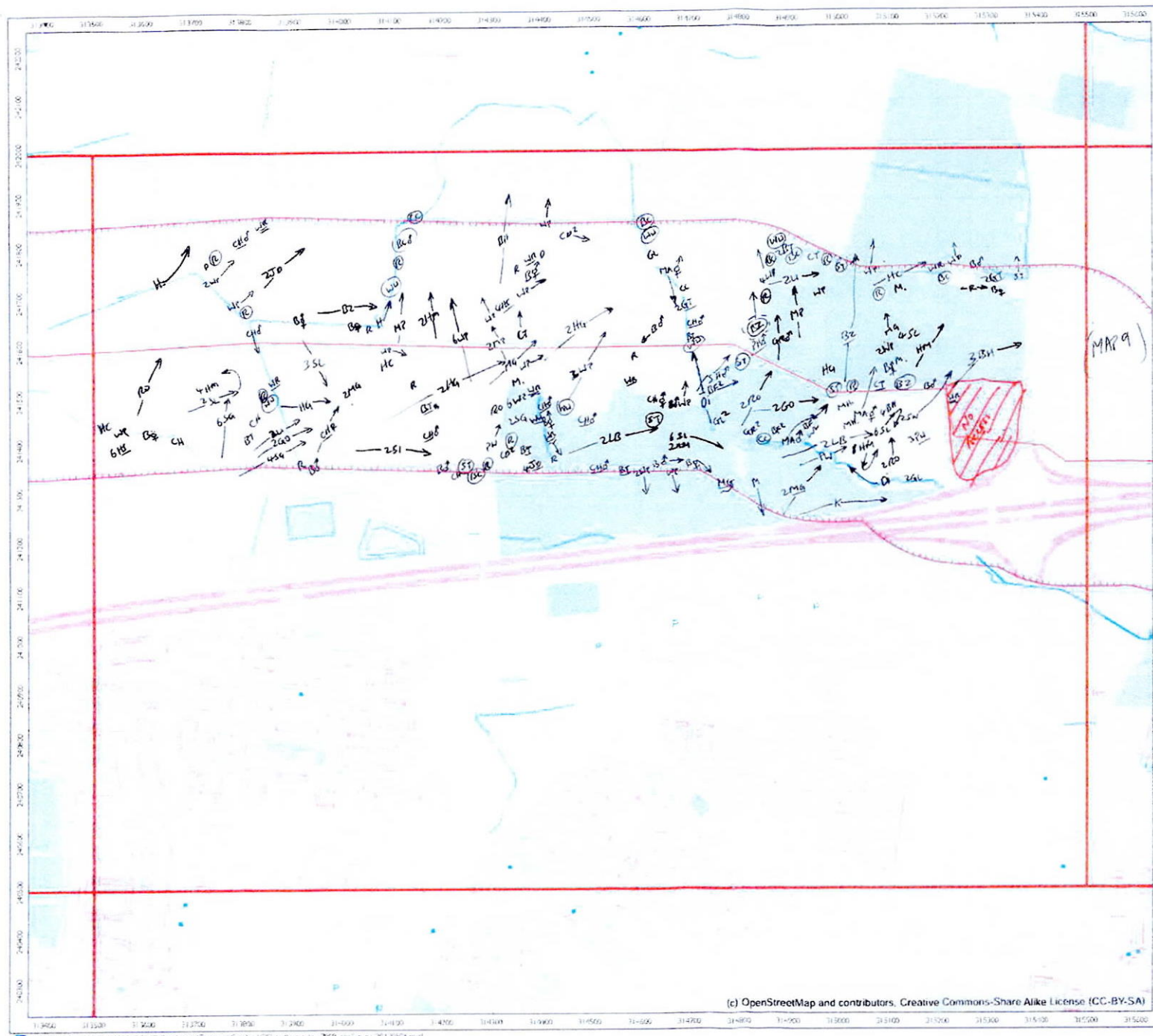
Date: 31 / 05 / 2017

Start time: 05:00

End time: 12:00

\*Please attach weather sheet

Notes:



Legend

- BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 8 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 06/04/2017 Job No: SEC7909

Rev: c

Drawn: CH

Checked: DRAFT

Approved: DRAFT

Irish National Grid (EPSG:29903)

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| RPS                                                                                                                                                                                |            | Weather Sheet  |                  | Wind Speed  |                    |                              | Direction     | Rain/Snow |                         | Cloud Cover | Cloud Height  | Visibility |                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|------------------|-------------|--------------------|------------------------------|---------------|-----------|-------------------------|-------------|---------------|------------|------------------------|
| Site                                                                                                                                                                               | Date       | Survey         | Observer         | Start Time  | Finish Time        | Sheet 1/ & [ ] Maps attached | Beaufort      | Mph       |                         |             |               |            |                        |
| GDD                                                                                                                                                                                | 25/05/2017 | BBS            | N. Veale         | 05:30       | 12:00              |                              | Calm          | 0         | >1                      | N           | None          | 0          | In eighths<br>e.g. 3/8 |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light air     | 1         | 1-3                     | NE          | Drizzle/Mist  | 1          |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Light breeze  | 2         | 4-7                     | E           | Light showers | 2          |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Gentle breeze | 3         | 8-12                    | SE          | Heavy showers | 3          |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. breeze   | 4         | 13-18                   | S           | Heavy rain    | 4          |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh breeze  | 5         | 19-24                   | SW          | Lying Snow    |            | Frost                  |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong breeze | 6         | 25-31                   | W           | None          | 0          | None                   |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Mod. gale     | 7         | 32-38                   | NW          | On site       | 1          | Ground                 |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Fresh gale    | 8         | 39-46                   |             | High ground   | 2          | All day                |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Strong gale   | 9         | 47-54                   |             |               |            |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Whole gale    | 10        | 55-63                   |             |               |            |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Storm         | 11        | 64-72                   |             |               |            |                        |
|                                                                                                                                                                                    |            |                |                  |             |                    |                              | Hurricane     | 12        | 73+                     |             |               |            |                        |
| Please be as accurate as possible, with weather details, entering only one figure, not a range. e.g. WS - 5, not 5-6. Use notes for extra info. E.g. WS - 5, gusting 6 [in notes]. |            |                |                  |             |                    |                              |               |           |                         |             |               |            |                        |
| Weather                                                                                                                                                                            | Wind speed | Wind direction | Rain             | Cloud cover | Cloud height       | Visibility                   | Frost         | Snow      | Notes(e.g. temperature) |             |               |            |                        |
| Hr 1                                                                                                                                                                               | 3          | SE             | 0                | 6/8         | 1                  | 1                            | ---           | ---       | 11°C - Patchy Fog       |             |               |            |                        |
| Hr 2                                                                                                                                                                               | 2          | SE             | 0                | 5/8         | 1                  | 1                            | ---           | ---       | 11°C Patchy Fog         |             |               |            |                        |
| Hr 3                                                                                                                                                                               | 2          | E              | 0                | 5/8         | 2                  | 2                            | ---           | ---       |                         |             |               |            |                        |
| Hr 4                                                                                                                                                                               | 2          | E              | 0                | 4/8         | 2                  | 2                            | ---           | ---       | 14°C                    |             |               |            |                        |
| Hr 5                                                                                                                                                                               | 3          | SE             | 0                | 4/8         | 2                  | 2                            | ---           | ---       |                         |             |               |            |                        |
| Hr 6                                                                                                                                                                               | 3          | SE             | 0                | 3/8         | 2                  | 2                            | ---           | ---       | 18°C                    |             |               |            |                        |
| Hr 7                                                                                                                                                                               | 3          | E              | 0                | 3/8         | 2                  | 2                            | ---           | ---       |                         |             |               |            |                        |
| Hr 8                                                                                                                                                                               |            |                |                  |             |                    |                              |               |           |                         |             |               |            |                        |
| Field Notes:<br>Maps attached                                                                                                                                                      |            |                |                  |             |                    |                              |               |           |                         |             |               |            |                        |
| For office use only. NB- Initial AND date ALL boxes.                                                                                                                               |            | Logged         | Database Entered |             | Database Validated |                              | GIS Entered   |           | GIS Validated           |             |               |            |                        |





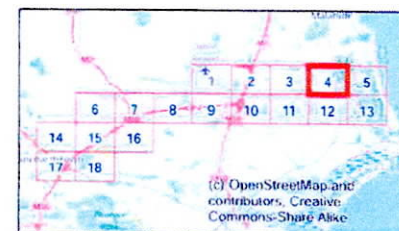






| RPS                                                 |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|-----------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                | 24/05/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                              | BGS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                            | N. Vede    |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                          | 05:20      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                         | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                        |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                     |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                     |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                     |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                             | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                | 3          | SW             | 0                | 7/8           | 2                  | 2          |             |               | 14°C                    |                        |                                                           |                                                      |
| Hr 2                                                | 3          | SW             | 0                | 6/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 3                                                | 3          | SW             | 0                | 7/8           | 2                  | 2          |             |               | 10°C                    |                        |                                                           |                                                      |
| Hr 4                                                | 2          | SW             | 0                | 7/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 5                                                | 1          | S              | 0                | 8/8           | 2                  | 2          |             |               | 19°C                    |                        |                                                           |                                                      |
| Hr 6                                                | 2          | S              | 0                | 8/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 7                                                | 3          | SE             | 0                | 8/8           | 2                  | 2          |             |               | 20°C                    |                        |                                                           |                                                      |
| Hr 8                                                |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                       |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-Initial AND date ALL boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |





— Pipe route (supplied 20170405)

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Drawn: CH      Checked: DRAFT      Approved: DRAFT

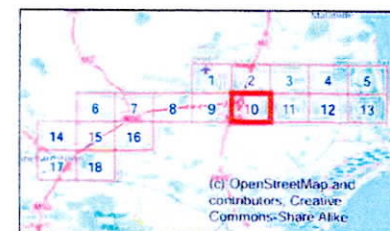
Irish National Grid: 87°/5 29602

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— Pipe route (supplied 20170405)

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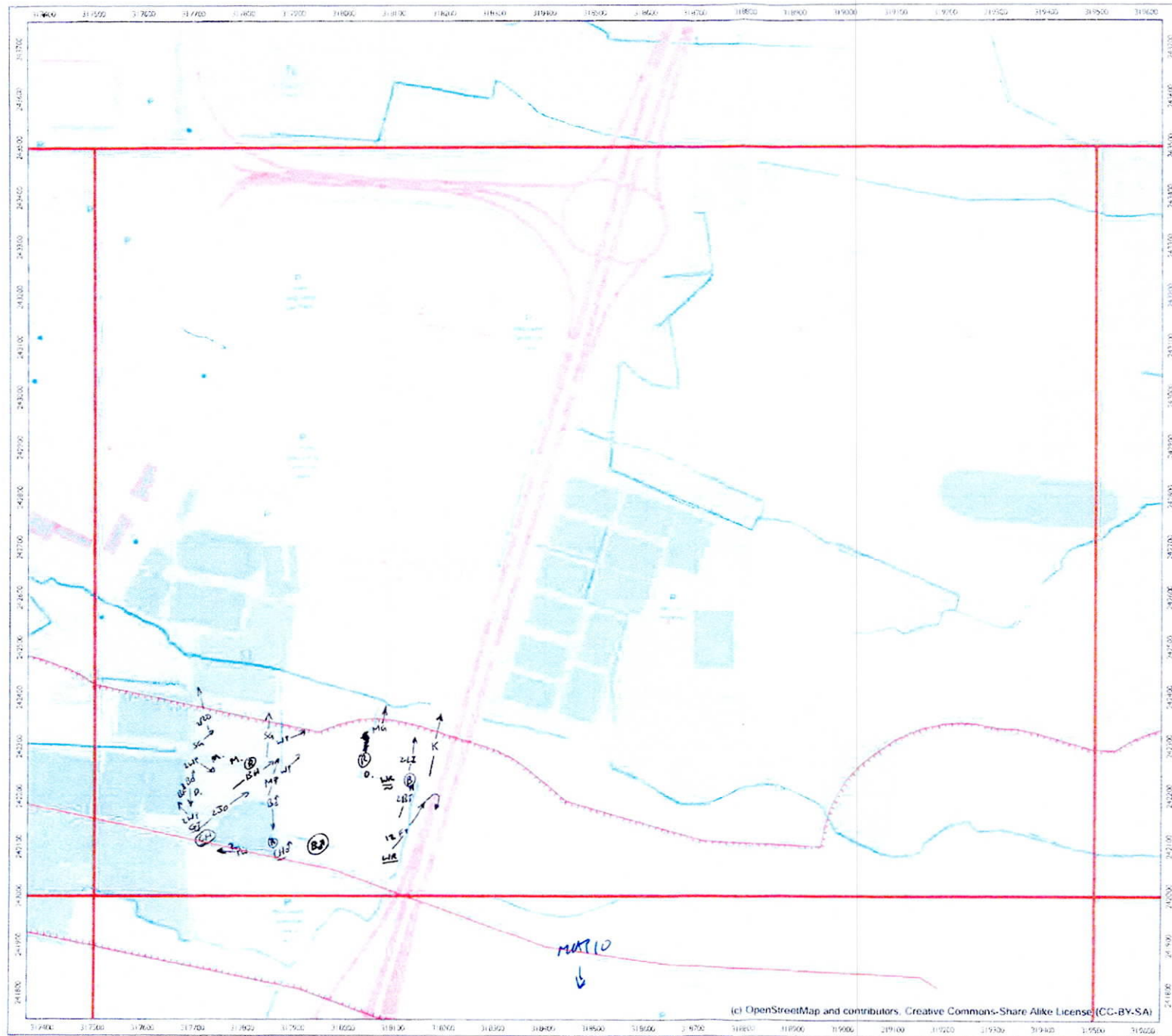


| RPS                                                 |            | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                         | Cloud Cover            | Cloud Height                                              | Visibility                                           |
|-----------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                | 600        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                | 23/05/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                              | RBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                            | N. Veeh    |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                          | 08:00      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                         | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                        |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                     |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                     |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                     |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                     |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                             | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                | 2          | NW             | 0                | 5/8           | 2                  | 2          |             |               | 13°C                    |                        |                                                           |                                                      |
| Hr 2                                                | 2          | W              | 0                | 7/8           | 2                  | 2          |             |               | 14°C                    |                        |                                                           |                                                      |
| Hr 3                                                | 2          | W              | 0                | 7/8           | 2                  | 2          |             |               | 16°C                    |                        |                                                           |                                                      |
| Hr 4                                                | 3          | W              | 0                | 8/8           | 2                  | 2          |             |               | 18°C                    |                        |                                                           |                                                      |
| Hr 5                                                |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Hr 6                                                |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Hr 7                                                |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Hr 8                                                |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                       |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-Initial AND date ALL boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |









RPS

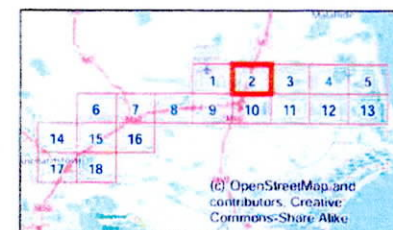
Surveyor: N. Veale

Date: 23/05/2017

Start time: 08:00 End time: 12:00

\*Please attach weather sheet

Notes:



Legend

- BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 2 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 06/04/2017 Job No: SEC7909 Rev: c  
Drawn: CH Checked: DRAFT Approved: DRAFT

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| RPS Weather Sheet                                                                                          |            | Wind Speed       |                    | Direction   | Rain/Snow     | Cloud Cover | Cloud Height                                     | Visibility         |                         |
|------------------------------------------------------------------------------------------------------------|------------|------------------|--------------------|-------------|---------------|-------------|--------------------------------------------------|--------------------|-------------------------|
| Site                                                                                                       | G00        | Calm             | 0                  | N           | None          | 0           | Height of cloud above average height of viewshed | Poor (<1km) 0      |                         |
| Date                                                                                                       | 19/05/2017 | Light air        | 1                  | NE          | Drizzle/Mist  | 1           |                                                  | Moderate (1-3km) 1 |                         |
| Survey                                                                                                     | BBS        | Light breeze     | 2                  | E           | Light showers | 2           |                                                  | Good (>3km) 2      |                         |
| Observer                                                                                                   | N. Veda    | Gentle breeze    | 3                  | SE          | Heavy showers | 3           |                                                  |                    |                         |
| Start Time                                                                                                 | 08:00      | Mod. breeze      | 4                  | S           | Heavy rain    | 4           | <150m 0                                          |                    |                         |
| Finish Time                                                                                                | 12:00      | Fresh breeze     | 5                  | SW          | Lying Snow    |             | 150-500m 1                                       |                    |                         |
| Sheet 1/ & [ ] Maps attached                                                                               |            | Strong breeze    | 6                  | W           | None          | 0           | >500m 2                                          |                    |                         |
|                                                                                                            |            | Mod. gale        | 7                  | NW          | On site       | 1           |                                                  |                    |                         |
|                                                                                                            |            | Fresh gale       | 8                  |             | High ground   | 2           |                                                  |                    |                         |
|                                                                                                            |            | Strong gale      | 9                  |             |               |             |                                                  |                    |                         |
|                                                                                                            |            | Whole gale       | 10                 |             |               |             |                                                  |                    |                         |
|                                                                                                            |            | Storm            | 11                 |             |               |             |                                                  |                    |                         |
|                                                                                                            |            | Hurricane        | 12                 |             |               |             |                                                  |                    |                         |
| Weather                                                                                                    | Wind speed | Wind direction   | Rain               | Cloud cover | Cloud height  | Visibility  | Frost                                            | Snow               | Notes(e.g. temperature) |
| Hr 1                                                                                                       | 3          | SW               | 0                  | 2/8         | 2             | 2           |                                                  |                    | 9°C                     |
| Hr 2                                                                                                       | 3          | SW               | 0                  | 3/8         | 2             | 2           |                                                  |                    | 10°C                    |
| Hr 3                                                                                                       | 3          | W                | 0                  | 2/8         | 2             | 2           |                                                  |                    | 11°C                    |
| Hr 4                                                                                                       | 3          | W                | 0                  | 3/8         | 2             | 2           |                                                  |                    | 14°C                    |
| Hr 5                                                                                                       |            |                  |                    |             |               |             |                                                  |                    |                         |
| Hr 6                                                                                                       |            |                  |                    |             |               |             |                                                  |                    |                         |
| Hr 7                                                                                                       |            |                  |                    |             |               |             |                                                  |                    |                         |
| Hr 8                                                                                                       |            |                  |                    |             |               |             |                                                  |                    |                         |
| Field Notes:<br>Maps attached NB* (Not allowed to start air down 05:20 Due to clients access restrictions) |            |                  |                    |             |               |             |                                                  |                    |                         |
| For office use only. NB-Initial AND date ALL boxes.                                                        | Logged     | Database Entered | Database Validated | GIS Entered | GIS Validated |             |                                                  |                    |                         |





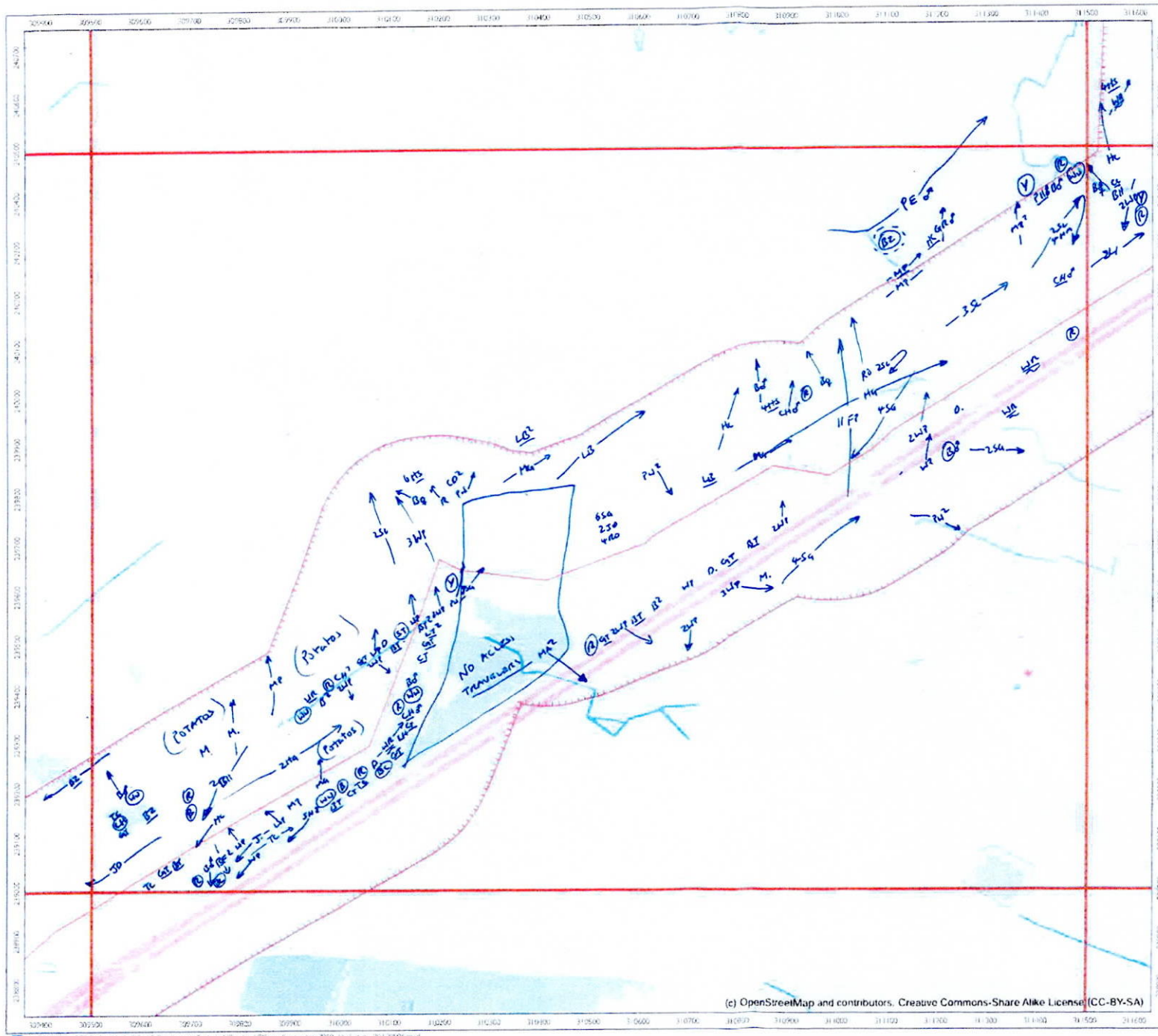






|                                                     |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
|-----------------------------------------------------|----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------|
| <b>RPS</b>                                          | <b>Weather Sheet</b> |                       | <b>Wind Speed</b>                                                                                                                                                                                                                                                                                 |                                          | <b>Direction</b>                                                                                                                     | <b>Rain/Snow</b>                                                   | <b>Cloud Cover</b>                                                                   | <b>Cloud Height</b>                                  | <b>Visibility</b>              |
| <b>Site</b>                                         | GPD,                 |                       | Beaufort Mph<br>Calm 0 >1<br>Light air 1 1-3<br>Light breeze 2 4-7<br>Gentle breeze 3 8-12<br>Mod. breeze 4 13-18<br>Fresh breeze 5 19-24<br>Strong breeze 6 25-31<br>Mod. gale 7 32-38<br>Fresh gale 8 39-46<br>Strong gale 9 47-54<br>Whole gale 10 55-63<br>Storm 11 64-72<br>Hurricane 12 73+ | N<br>NE<br>E<br>SE<br>S<br>SW<br>W<br>NW | None 0<br>Drizzle/Mist 1<br>Light showers 2<br>Heavy showers 3<br>Heavy rain 4<br>Lying Snow<br>None 0<br>On site 1<br>High ground 2 | In eighths<br>e.g. 3/8<br>Frost<br>None 0<br>Ground 1<br>All day 2 | Height of cloud above average height of viewshed<br><150m 0<br>150-500m 1<br>>500m 2 | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |                                |
| <b>Date</b>                                         | 24/05/2017           |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Survey</b>                                       | BBS                  |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Observer</b>                                     | Nick Vane            |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Start Time</b>                                   | 08:00                |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Finish Time</b>                                  | 12:00                |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Sheet 1/ &amp; [ ] Maps attached</b>             |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Weather</b>                                      | <b>Wind speed</b>    | <b>Wind direction</b> | <b>Rain</b>                                                                                                                                                                                                                                                                                       | <b>Cloud cover</b>                       | <b>Cloud height</b>                                                                                                                  | <b>Visibility</b>                                                  | <b>Frost</b>                                                                         | <b>Snow</b>                                          | <b>Notes(e.g. temperature)</b> |
| Hr 1                                                | 2                    | SE                    | 0                                                                                                                                                                                                                                                                                                 | 4/8                                      | 2                                                                                                                                    | 2                                                                  | —                                                                                    | —                                                    | 13°C                           |
| Hr 2                                                | 2                    | SE                    | 0                                                                                                                                                                                                                                                                                                 | 5/8                                      | 2                                                                                                                                    | 2                                                                  | —                                                                                    | —                                                    | 14°C                           |
| Hr 3                                                | 3                    | SE                    | 0                                                                                                                                                                                                                                                                                                 | 5/8                                      | 2                                                                                                                                    | 2                                                                  | —                                                                                    | —                                                    | 15°C                           |
| Hr 4                                                | 3                    | SE                    | 0                                                                                                                                                                                                                                                                                                 | 7/8                                      | 2                                                                                                                                    | 2                                                                  | —                                                                                    | —                                                    | 18°C                           |
| Hr 5                                                |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| Hr 6                                                |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| Hr 7                                                |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| Hr 8                                                |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| <b>Field Notes:</b><br>Maps attached                |                      |                       |                                                                                                                                                                                                                                                                                                   |                                          |                                                                                                                                      |                                                                    |                                                                                      |                                                      |                                |
| For office use only. NB-initial AND date ALL boxes. | Logged               | Database Entered      | Database Validated                                                                                                                                                                                                                                                                                | GIS Entered                              | GIS Validated                                                                                                                        |                                                                    |                                                                                      |                                                      |                                |





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Surveyor *Níon Veach*Date *22/05/2017*Start time *08:00*End time *12:00*

\*Please attach weather sheet

Notes:

*Dipper nesting under N3 Bridge X*

## Legend

- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 17 of 18

0 250 m

Scale: 1:7,500 @A3

Date: 06/04/2017

Job No: SEC7909

Rev: 0

Drawn: CH

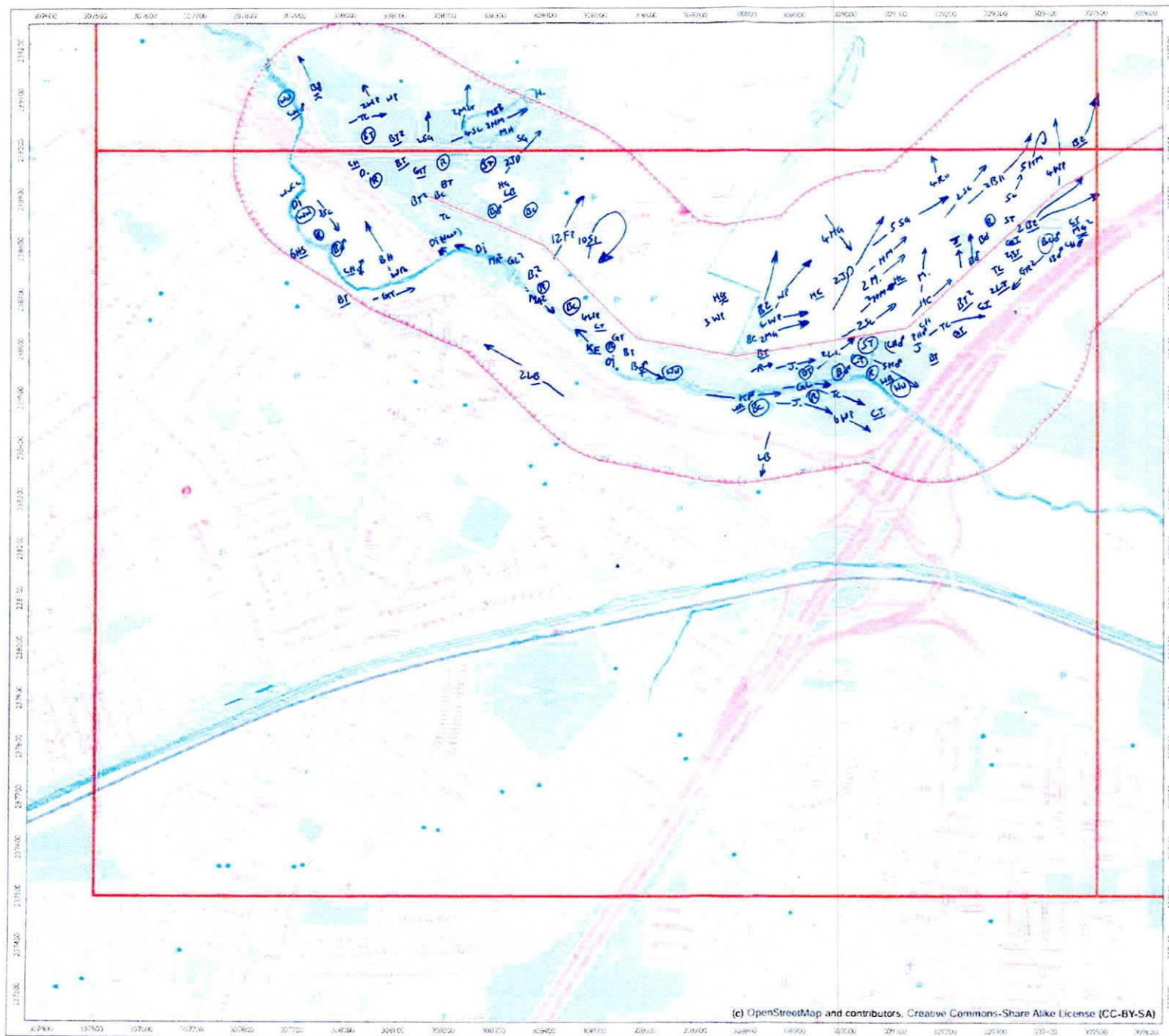
Checked: DRAFT

Approved: DRAFT

and National Grid (RPS 2000)

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| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                         | Cloud Cover            | Cloud Height                                              | Visibility                                                                                                                                                                                     |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site                                                       | GOD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2                                                                                                                                           |
| Date                                                       | 13/06/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                                                                                                                                                                |
| Survey                                                     | BBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                                                                                                                                                                |
| Observer                                                   | N. Veale   |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                                                                                                                                                                |
| Start Time                                                 | 0545       |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                                                                                                                                                                |
| Finish Time                                                | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                                                                                                                                                                |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                                                                                                                                                                |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                                                                                                                                                                |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                                                                                                                                                                |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           | Please be as accurate as possible, with<br>weather details, entering only one figure,<br>not a range. e.g. WS - 5, not 5-6.<br>Use notes for extra info.<br>E.g. WS - 5, gusting 6 [in notes]. |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                                                                                                                                                                |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                                                                                                                                                                |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                                                                                                                                                                |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                                                                                                                                                                |
| Hr 1                                                       | 3          | SW             | 1                | 7/8           | 1                  | 21         | —           | —             | 13°C                    |                        |                                                           |                                                                                                                                                                                                |
| Hr 2                                                       | 3          | SW             | 0                | 7/8           | 1                  | 2          | —           | —             |                         |                        |                                                           |                                                                                                                                                                                                |
| Hr 3                                                       | 3          | SW             | 0                | 6/8           | 2                  | 2          | —           | —             | 14°C                    |                        |                                                           |                                                                                                                                                                                                |
| Hr 4                                                       | 4          | SW             | 0                | 6/8           | 2                  | 2          | —           | —             |                         |                        |                                                           |                                                                                                                                                                                                |
| Hr 5                                                       | 4          | SW             | 0                | 7/8           | 2                  | 2          | —           | —             | 16°C                    |                        |                                                           |                                                                                                                                                                                                |
| Hr 6                                                       | 4          | SW             | 0                | 7/8           | 2                  | 2          | —           | —             |                         |                        |                                                           |                                                                                                                                                                                                |
| Hr 7                                                       | 3          | SW             | 2                | 8/8           | 1                  | 2          | —           | —             | 18°C showers            |                        |                                                           |                                                                                                                                                                                                |
| Hr 8                                                       |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                                                                                                                                                                |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                                                                                                                                                                |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                                                                                                                                                                |





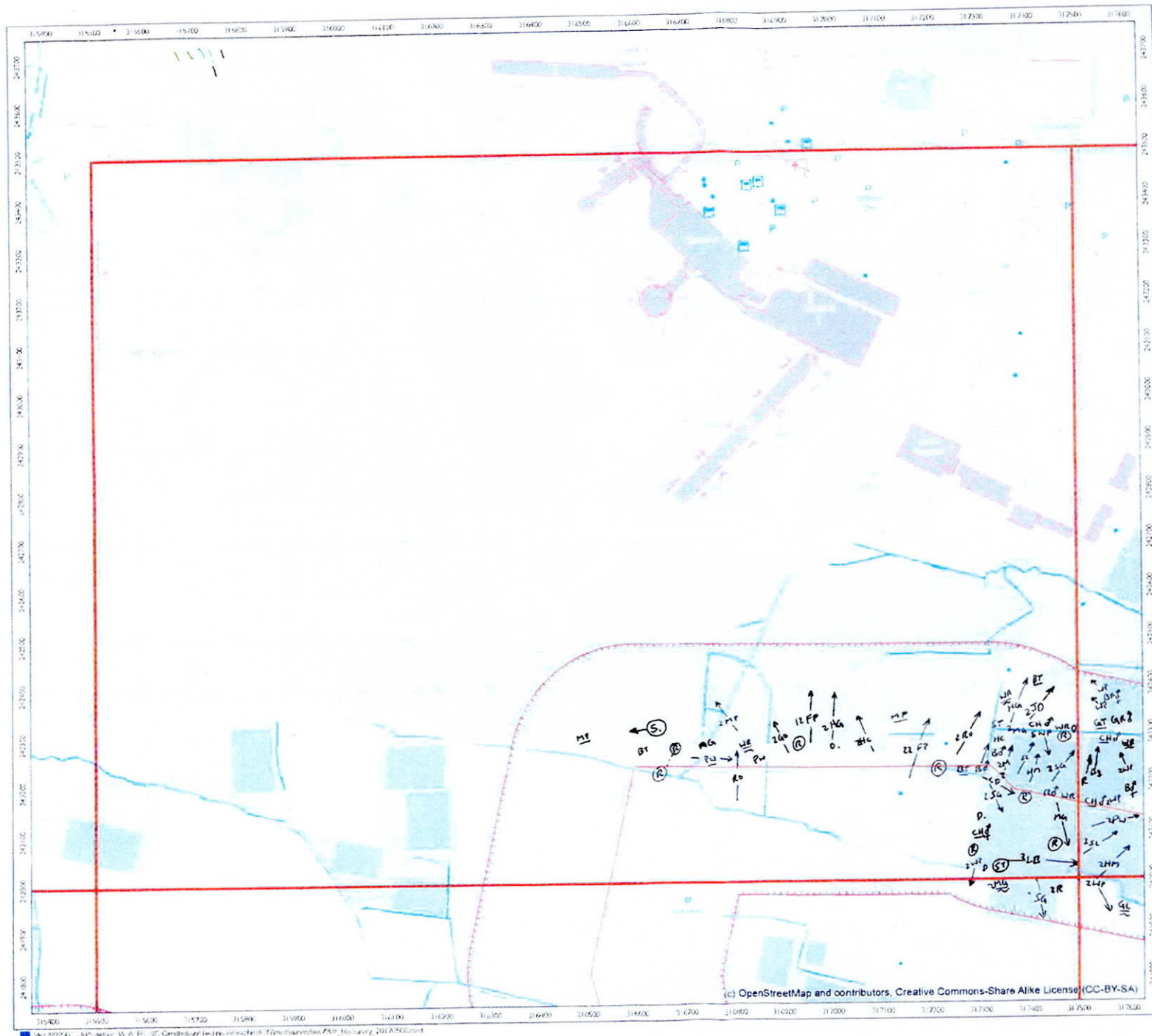






| RPS                                                  |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                                           |                                                      |
|------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|
| Site                                                 | GGDD       |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud above average height of viewshed<br><150m 0<br>150-500m 1<br>>500m 2 | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                 | 06/06/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                                                      |                                                      |
| Survey                                               | BBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                                                      |                                                      |
| Observer                                             | Nick Velez |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                                                      |                                                      |
| Start Time                                           | 06:00      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                                                      |                                                      |
| Finish Time                                          | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                                                      |                                                      |
| Sheet 1/ & [ ] Maps attached                         |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                                                    |                                                      |
|                                                      |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                                                    |                                                      |
|                                                      |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                                                    |                                                      |
|                                                      |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                                                      |                                                      |
|                                                      |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                                                      |                                                      |
|                                                      |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                                                      |                                                      |
|                                                      |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                                                      |                                                      |
| Weather                                              | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                                                      |                                                      |
| Hr 1                                                 | 4          | W              | 0                | 5/8           | 2                  | 2          | ---         |               | 8°C                     |                        |                                                                                      |                                                      |
| Hr 2                                                 | 4          | W              | 0                | 6/8           | 2                  | 2          | ---         |               | 9°C                     |                        |                                                                                      |                                                      |
| Hr 3                                                 | 5          | W              | 0                | 4/8           | 2                  | 2          | ---         |               | 11°C                    |                        |                                                                                      |                                                      |
| Hr 4                                                 | 4          | W              | 0                | 4/8           | 2                  | 2          | ---         |               | 12°C                    |                        |                                                                                      |                                                      |
| Hr 5                                                 | 5          | W              | 0                | 5/8           | 2                  | 2          | ---         |               | 13°C                    |                        |                                                                                      |                                                      |
| Hr 6                                                 | 5          | W              | 0                | 5/8           | 2                  | 2          | ---         |               | 13°C                    |                        |                                                                                      |                                                      |
| Hr 7                                                 | 5          | W              | 0                | 6/8           | 2                  | 2          | ---         |               | 14°C                    |                        |                                                                                      |                                                      |
| Hr 8                                                 |            |                |                  |               |                    |            |             |               |                         |                        |                                                                                      |                                                      |
| Field Notes:<br>Maps attached                        |            |                |                  |               |                    |            |             |               |                         |                        |                                                                                      |                                                      |
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RPS

Surveyor: N. Veale

Date: 06/06/17

Start time: 06.30

End time: 12.00

\*Please attach weather sheet

Notes:



Legend

- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 1 of 18

0 200 m

Scale: 1:7500 (B3)

Date: 06/04/2017 Job No: SEC7909 Rev: c

Drawn: CH Checked: DRAFT Approved: DRAFT

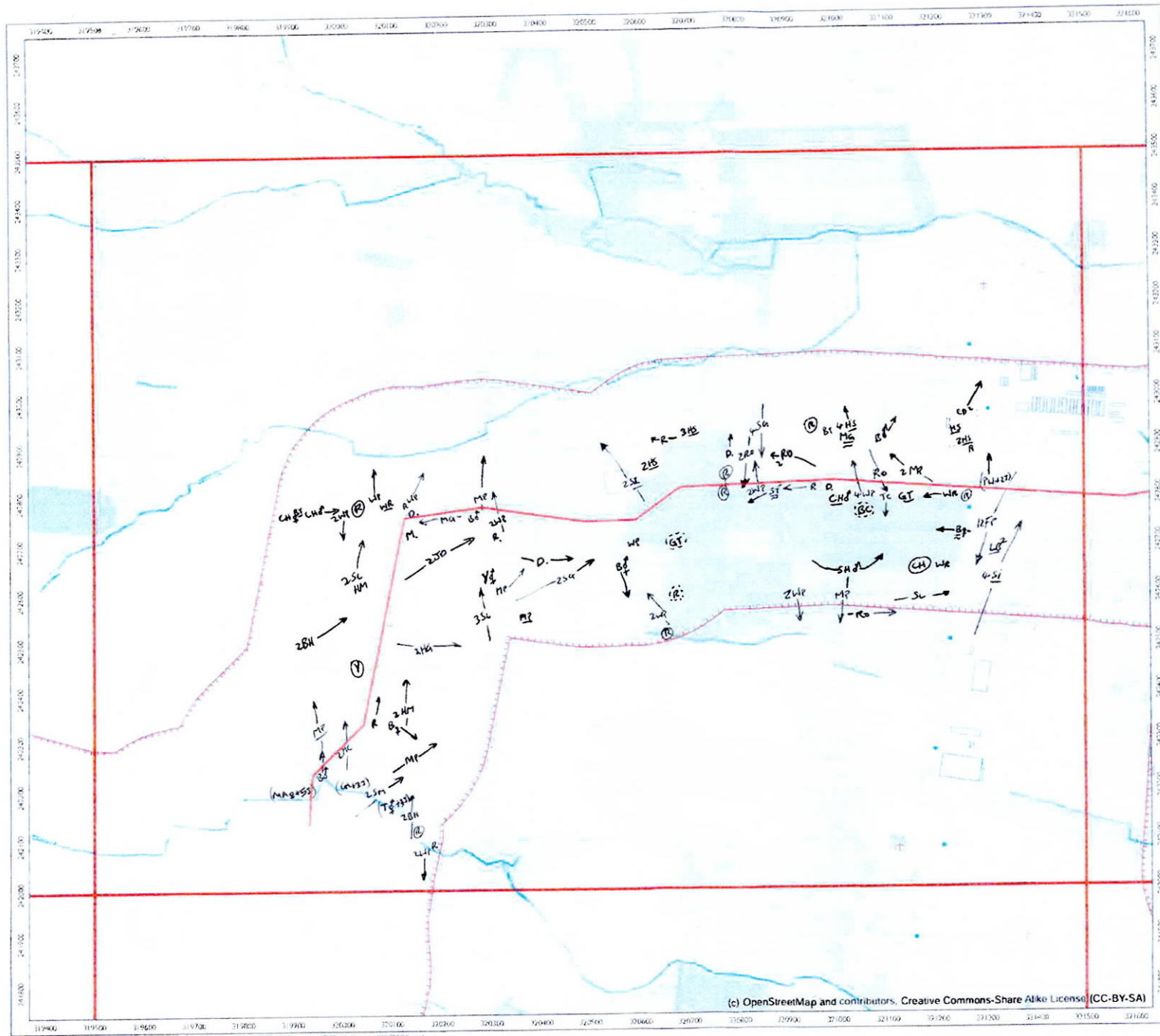
Irish National Grid (RPS 2990)  
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RPS

Surveyor: N. Veale

Date: 06/06/2017

Start time: 0630

End time: 12:00

\*Please attach weather sheet

Notes:



#### Legend

- BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

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0 200 m

Scale: 1:7500 @A3

Date: 06/04/2017 Job No: SEC7909 Rev: c

Drawn: CH

Checked: DRAFT

Approved: DRAFT

Irish National Grid: RPS 1990

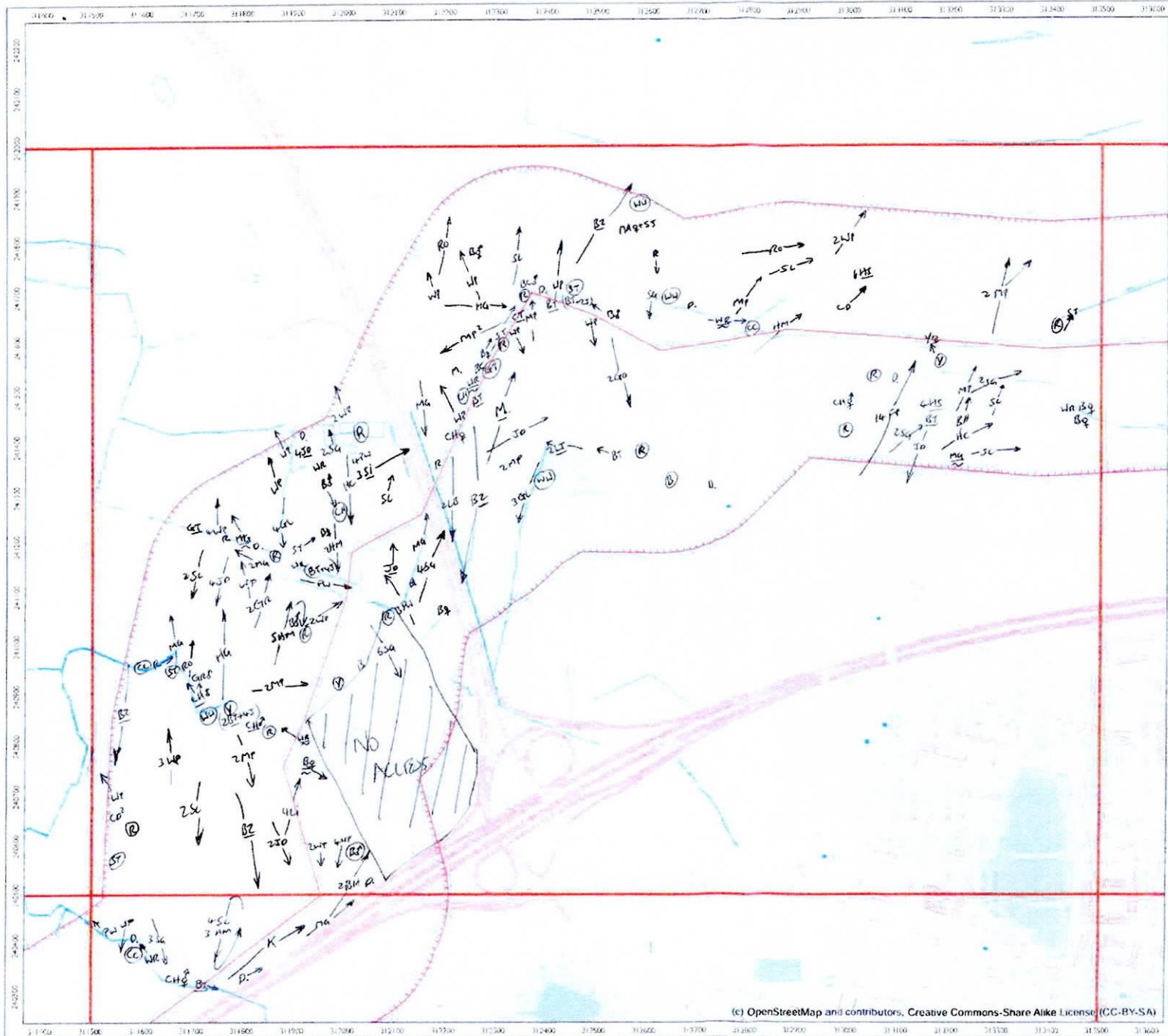
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| RPS                                                 |             | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                         | Cloud Cover            | Cloud Height                                              | Visibility                                           |
|-----------------------------------------------------|-------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                | GDO         |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                | 05/06/2017  |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                              | BBS         |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                            | N. V. V. V. |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                          | 05:30       |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                         | 12:00       |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                        |             |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                     |             |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                     |             |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                     |             |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                     |             |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                             | Wind speed  | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                | 3           | SW             | 2                | 8/8           | 1                  | 1          | ---         |               | 13°C                    |                        |                                                           |                                                      |
| Hr 2                                                | 3           | SW             | 2                | 8/8           | 1                  | 1          | ---         |               | 12°C                    |                        |                                                           |                                                      |
| Hr 3                                                | 4           | SW             | 0                | 8/8           | 1                  | 1          | ---         |               | 11°C                    |                        |                                                           |                                                      |
| Hr 4                                                | 4           | SW             | 0                | 8/8           | 1                  | 2          | ---         |               | 12°C                    |                        |                                                           |                                                      |
| Hr 5                                                | 4           | SW             | 0                | 8/8           | 2                  | 2          | ---         |               | 14°C                    |                        |                                                           |                                                      |
| Hr 6                                                | 4           | SW             | 0                | 7/8           | 2                  | 2          | ---         |               | 15°C                    |                        |                                                           |                                                      |
| Hr 7                                                | 3           | SW             | 0                | 6/8           | 2                  | 2          | ---         |               | 15°C                    |                        |                                                           |                                                      |
| Hr 8                                                |             |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                       |             |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
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RPS

Surveyor: Nick Veale  
 Date: 05/06/2017  
 Start time: 05:30 End time: 12:00

\*Please attach weather sheet  
 Notes:



Legend  
 BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)  
 Pipe route (supplied 20170405)

Greater Dublin Drainage  
 Breeding/winter bird survey  
 Page 7 of 18

0 200 m  
 Scale: 1:7500 (8A3)  
 Date: 06/04/2017 job No: SEC7909 Rev: c  
 Drawn: CH Checked: DRAFT Approved: DRAFT  
 Irish National Grid: RPS 17990  
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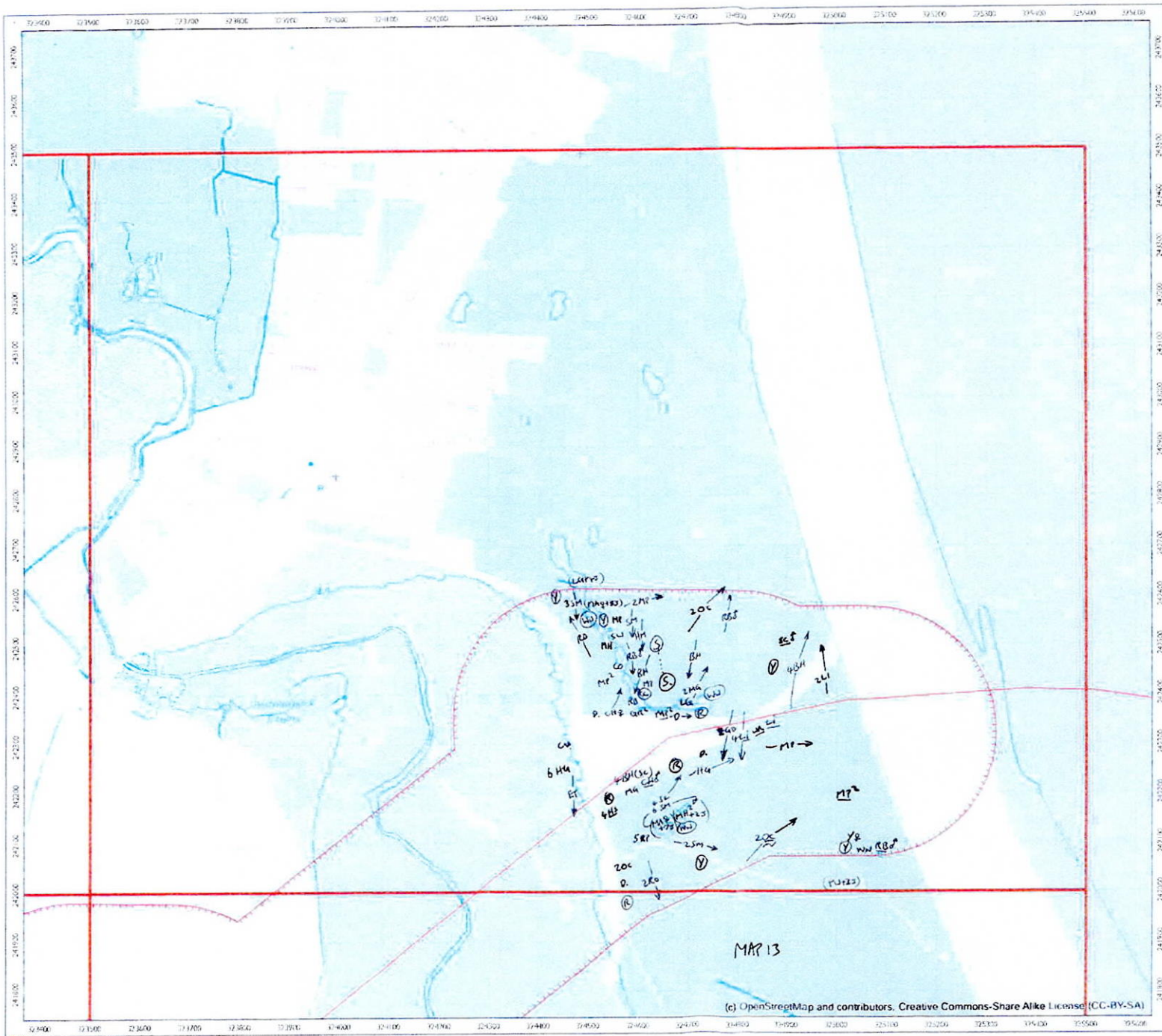


| RPS                                                  |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   | Cloud Cover   | Cloud Height            | Visibility             |                                                           |                                                      |
|------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                 | GDO        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                 | 07/06/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                               | BBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                             | Nick Veda  |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                           | 05:30      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                          | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                         |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                      |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                      |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                      |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                      |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                              | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                 | 3          | W              | 0                | 3/8           | 2                  | 2          |             |               | 8°C                     |                        |                                                           |                                                      |
| Hr 2                                                 | 3          | W              | 0                | 2/8           | 2                  | 2          |             |               | 12°C                    |                        |                                                           |                                                      |
| Hr 3                                                 | 3          | W              | 0                | 2/8           | 2                  | 2          |             |               | 13°C                    |                        |                                                           |                                                      |
| Hr 4                                                 | 4          | W              | 0                | 2/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 5                                                 | 4          | W              | 0                | 3/8           | 2                  | 2          |             |               | 15°C                    |                        |                                                           |                                                      |
| Hr 6                                                 | 4          | W              | 0                | 4/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 7                                                 | 3          | W              | 0                | 4/8           | 2                  | 2          |             |               | 17°C                    |                        |                                                           |                                                      |
| Hr 8                                                 |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| <b>Field Notes:</b><br>Maps attached                 |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
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RPS

---

Surveyor: Nick Veale

Date: 07/06/2017

Start time: 08:30      End time: 12:00

\*Please attach weather sheet

Notes:

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**Legend**

- BBS/WVO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)
- Pipe route (supplied 20170405)

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Greater Dublin Drainage

Breeding/winter bird survey

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0 200 m

Scale: 1:7,500 (3A3)

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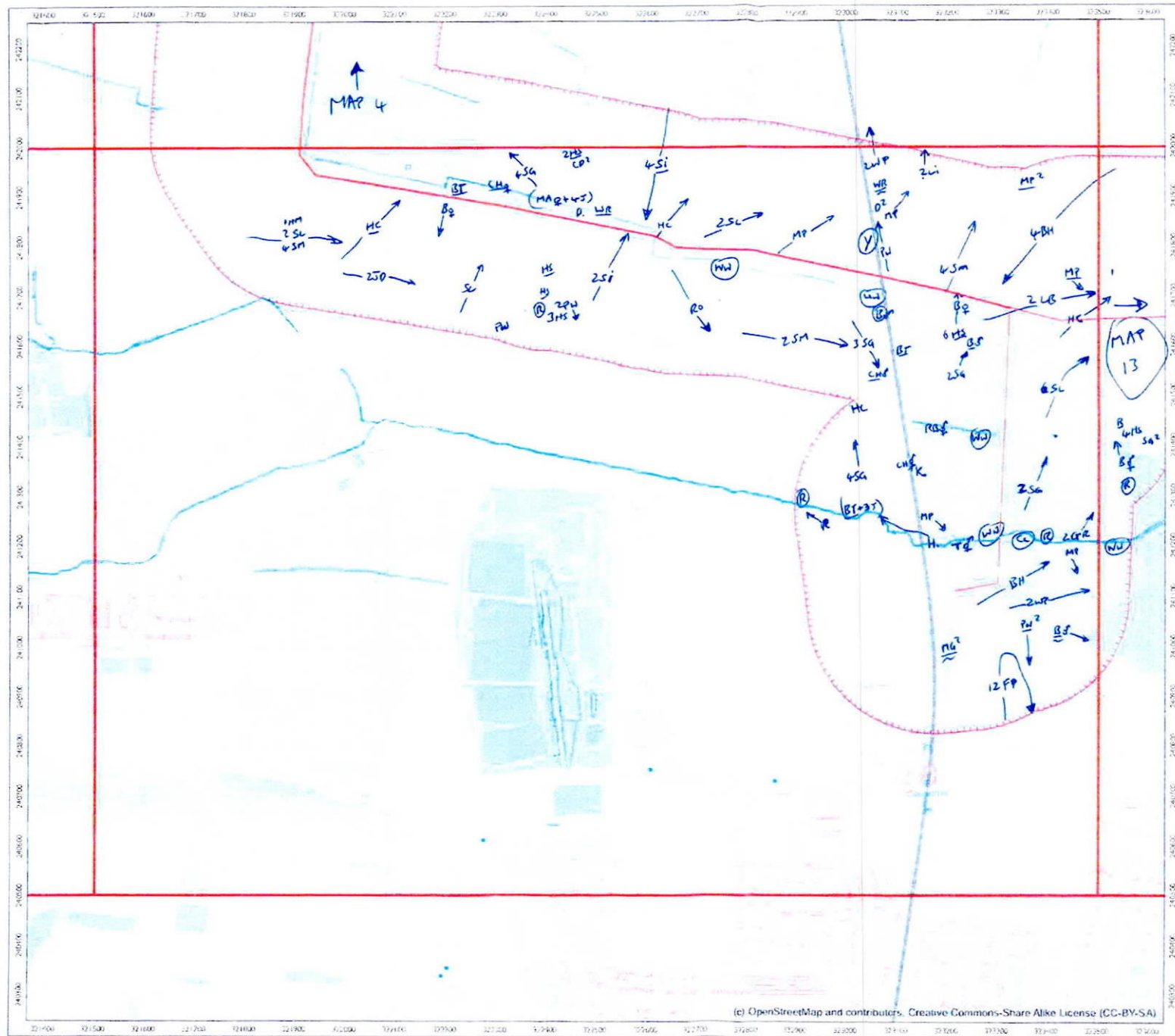
Date: 06/04/2017      Job No: SEC7909      Rev: c

Drawn: CH      Checked: DRAFT      Approved: DRAFT

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**RPS** *Nini Vee*

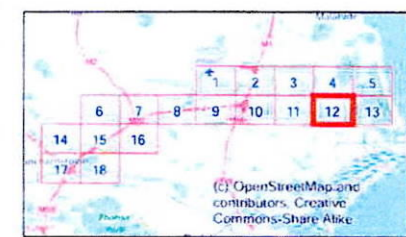
Surveyor *07/06/2017*

Date *07*

Start time *05:30* End time *12:00*

\*Please attach weather sheet

Notes:



Legend

BBS/WWO survey boundary (250 m buffer of route supplied 20170405 appended to previous boundary)

Pipe route (supplied 20170405)

Greater Dublin Drainage

Breeding/winter bird survey

Page 12 of 18

0 200 m

Scale: 1:7,500 @A3

Date: 06/04/2017 Job No: SEC7509 Rev: c

Drawn: CH Checked: DRAFT Approved: DRAFT

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| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    | Direction  | Rain/Snow   |               | Cloud Cover             | Cloud Height           | Visibility                                                |                                                      |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GDD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 02/06/2007 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | BBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | N. Veeh    |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 05:40      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                       | 1          | W              | 2                | 7/8           | 2                  | 2          |             |               | 10°C                    |                        |                                                           |                                                      |
| Hr 2                                                       | 1          | SW             | 0                | 8/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 3                                                       | 2          | SW             | 0                | 7/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 4                                                       | 2          | W              | 0                | 6/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 5                                                       | 3          | W              | 0                | 6/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 6                                                       | 3          | W              | 0                | 8/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 7                                                       | 3          | W              | 0                | 7/8           | 2                  | 2          |             |               |                         |                        |                                                           |                                                      |
| Hr 8                                                       |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
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| RPS                                                        |            | Weather Sheet  |                  | Wind Speed    |                    |            | Direction   | Rain/Snow     |                         | Cloud Cover            | Cloud Height                                              | Visibility                                           |
|------------------------------------------------------------|------------|----------------|------------------|---------------|--------------------|------------|-------------|---------------|-------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|
| Site                                                       | GPD        |                |                  | Calm          | 0                  | >1         | N           | None          | 0                       | In eighths<br>e.g. 3/8 | Height of cloud<br>above average<br>height of<br>viewshed | Poor (<1km) 0<br>Moderate (1-3km) 1<br>Good (>3km) 2 |
| Date                                                       | 01/06/2017 |                |                  | Light air     | 1                  | 1-3        | NE          | Drizzle/Mist  | 1                       |                        |                                                           |                                                      |
| Survey                                                     | BBS        |                |                  | Light breeze  | 2                  | 4-7        | E           | Light showers | 2                       |                        |                                                           |                                                      |
| Observer                                                   | Nich Vede  |                |                  | Gentle breeze | 3                  | 8-12       | SE          | Heavy showers | 3                       |                        |                                                           |                                                      |
| Start Time                                                 | 05130      |                |                  | Mod. breeze   | 4                  | 13-18      | S           | Heavy rain    | 4                       |                        |                                                           |                                                      |
| Finish Time                                                | 12:00      |                |                  | Fresh breeze  | 5                  | 19-24      | SW          | Lying Snow    |                         | Frost                  |                                                           |                                                      |
| Sheet 1/ & [ ] Maps attached                               |            |                |                  | Strong breeze | 6                  | 25-31      | W           | None          | 0                       | None                   | 0                                                         |                                                      |
|                                                            |            |                |                  | Mod. gale     | 7                  | 32-38      | NW          | On site       | 1                       | Ground                 | 1                                                         |                                                      |
|                                                            |            |                |                  | Fresh gale    | 8                  | 39-46      |             | High ground   | 2                       | All day                | 2                                                         |                                                      |
|                                                            |            |                |                  | Strong gale   | 9                  | 47-54      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Whole gale    | 10                 | 55-63      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Storm         | 11                 | 64-72      |             |               |                         |                        |                                                           |                                                      |
|                                                            |            |                |                  | Hurricane     | 12                 | 73+        |             |               |                         |                        |                                                           |                                                      |
| Weather                                                    | Wind speed | Wind direction | Rain             | Cloud cover   | Cloud height       | Visibility | Frost       | Snow          | Notes(e.g. temperature) |                        |                                                           |                                                      |
| Hr 1                                                       | 3          | S              | 0                | 7/8           | 2                  | 2          | ---         | ---           | 14°C                    |                        |                                                           |                                                      |
| Hr 2                                                       | 2          | S              | 0                | 6/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 3                                                       | 2          | S              | 0                | 4/8           | 2                  | 2          | ---         | ---           | 15°C                    |                        |                                                           |                                                      |
| Hr 4                                                       | 2          | S              | 0                | 5/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 5                                                       | 3          | S              | 0                | 8/8           | 2                  | 2          | ---         | ---           | 16°C                    |                        |                                                           |                                                      |
| Hr 6                                                       | 3          | SE             | 0                | 8/8           | 2                  | 2          | ---         | ---           |                         |                        |                                                           |                                                      |
| Hr 7                                                       | 3          | SE             | 1                | 8/8           | 2                  | 1          | ---         | ---           | 17°C                    |                        |                                                           |                                                      |
| Hr 8                                                       |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| Field Notes:<br>Maps attached                              |            |                |                  |               |                    |            |             |               |                         |                        |                                                           |                                                      |
| For office use only. NB-<br>Initial AND date ALL<br>boxes. |            | Logged         | Database Entered |               | Database Validated |            | GIS Entered |               | GIS Validated           |                        |                                                           |                                                      |







