



West Braes - Pittenweem Tidal Pool
Extended Phase 1 Habitat Survey, Bat Survey and
Assessment

For West Braes Project

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Version

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The report, and the information contained in it, is intended to be valid for a maximum of 12 months from the date of the survey, providing no significant alterations to the site have occurred.



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1. Executive Summary

Ellendale Environmental was commissioned by Bill Watson on behalf of the West Braes Project to undertake an Extended Phase 1 Habitat Survey and a Preliminary Protected Species survey for a site at the Pittenweem Tidal Pool, Fife. The survey is to support a planning application to restore the tidal pool.

To fulfil the brief, an Extended Phase 1 Habitat Survey was conducted for the site following the Phase 1 survey methodology (JNCC, 2010) to list the plant species associated with each habitat. A preliminary protected species walkover for the site was also conducted for the site and the immediate surrounding area. In addition, a bat survey and assessment of the site was undertaken.

The site is located to the south of Pittenweem and is approximately 1.5ha in size, comprising an area of amenity to the north that leads down to the tidal pool on the south of the site. On the north boundary of the site are residential properties and to east and south is the Fife coastline. The coastline continues around the western boundary of the site and inland is agricultural land.

The site comprises an area of amenity grassland, tall ruderal vegetation and coastal rocks. Overall the site has limited habitat suitable for protected species. The boundaries of the site provide the most suitable habitat for nesting birds in the tall ruderal vegetation and scrub.



Some recommendations are made within this report for modest post-construction ecological enhancements at the survey site that are proportionate with the low level of environmental impact from the development. These measures aim to increase the diversity of species present on the site after the completion of any future development works.



2. Introduction

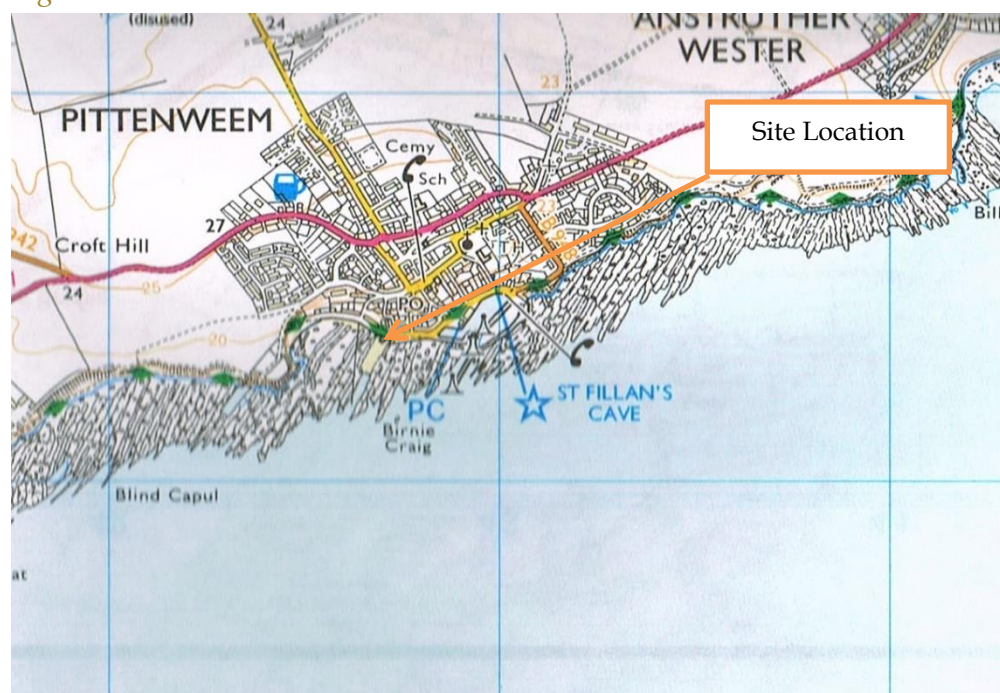
2.1 Commission

Ellendale Environmental was commissioned by Bill Watson on behalf of the West Braes Project to undertake an Extended Phase 1 Habitat Survey and a Preliminary Protected Species survey for a site at the Pittenweem Tidal Pool, Fife. In addition, a bat survey and assessment of the site was undertaken. The surveys have been undertaken to support a planning application to restore the tidal pool.

2.2 Site Details

The survey site is located south of Pittenweem at OS Grid Reference NO 54401 02328.

Figure 1: Location Plan



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2.3 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted an ecological survey to fulfil the following needs:

- ☛ Obtain baseline information on the current habitats and ecological features in and around the site;
- ☛ Identify any further specialist surveys that may be required;
- ☛ Identify the presence or potential presence of any protected species whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended); and
- ☛ Identify any species or habitats which may require special mitigation during the development of the site.



3. Methodology

3.1 Data Search

Publicly available databases including MAGIC and the NBN Atlas were consulted for historical evidence of:

- ☛ Statutory Land-Based Designations;
- ☛ Non-Statutory Land-Based Designations; and
- ☛ Protected Species.

The data search was conducted within a 2km radius of the site boundary.

3.2 Phase 1 Habitat Survey

An Extended Phase 1 habitat survey of the survey area was undertaken, and the habitats present on the site were mapped following the Phase 1 survey methodology (JNCC, 2010), listing the plant species associated with each habitat. This methodology was an Extended Phase 1 habitat survey, whereby all habitats were surveyed and recorded onto a base plan and any habitats that were considered to be of potential interest to nature conservation, were recorded through the use of target notes to annotate a Phase 1 habitat map.

The presence of any invasive weeds, such as Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera* or giant hogweed *Heracleum mantegazzianum*, was also recorded through the use of target notes where they were found to be present.

3.3 Preliminary Protected Species Survey

The site and immediate vicinity was examined for signs of protected species. The presence/potential presence of protected or notable species of conservation concern was recorded using target notes,



following the Institute of Ecological and Environmental Management guidance (IEEM, 2012).

3.4 Preliminary Bat Roost Survey

A physical internal/external site inspection of two structures within the site (toilet block and shelter) was undertaken. All suitable features were assessed externally and internally. A telescopic surveyor's ladder was used to gain access to various points and a CLU-10 searchlight was used to search dark areas. A Visual Optics VO36-10ww Endoscope was utilised to assist inspection of internal spaces. The survey was undertaken in accordance with BCT Bat Survey Guidelines, 2016.

The physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy.

3.5 Survey Area

The survey covered the entire site and areas within 30m (where accessible).

3.6 Survey Limitations

The aim of this survey was not to record every species present on the site, as one survey acts as a snap-shot, recording only those species which are present at the time or whose presence can be indicated through the occurrence of field signs, such as feeding remains, droppings or places used for shelter or foraging.

Evidence collected has been used to draw conclusions about the flora and fauna within the boundary of the site and to provide an assessment of their ecological and nature conservation value. Where it is suspected that species of nature conservation importance have the potential to be present, furthermore detailed surveys have been advised.



Weather was not a limiting factor to the surveys. The prevailing conditions at the time of the survey are summarised in Table 1 below.

Table 1: Survey Weather Conditions

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER / PRECIPITATION
11/09/19	16.2	Ave 7.2 Max 11.2	30% cloud cover, dry and warm with a strong breeze.



4. Results

4.1 Ellendale Environmental

The survey was undertaken by Stewart Parsons, Director and Principal Ecologist of Ellendale Environmental, who is a full member of CIEEM and a Chartered Environmentalist (CEnv).

Stewart Parsons holds a current bat survey license with SNH, Bat Roost License Number 36487, valid from 28th June 2019 to 30th November 2023.

Stewart has over 16 years' professional experience of undertaking ecological surveys and working with bat species across the UK.

4.2 Desk Study

A 2km data search for existing biological records was undertaken from publicly available databases. From this, it is known that the site is located in the Firth of Forth Site of Special Scientific Interest (SSSI); however, this SSSI is not considered to be at risk from the proposed development.

The following protected species were identified within 2km (5km for bats) of the site boundary by the data search:

- ☞ Water Vole *Arvicola amphibius*;
- ☞ Common Dolphin *Delphinus delphis*;
- ☞ Long-finned Pilot Whale *Globicephala melas*;
- ☞ Grey Seal *Halichoerus grypus*;
- ☞ Otter *Lutra lutra*;
- ☞ Badger *Meles meles*;
- ☞ Natterer's Bat *Myotis nattereri*;
- ☞ Harbour Seal *Phoca vitulina*;
- ☞ Common Porpoise *Phocoena phocoena*;



- ☛ Brown Long-eared Bat *Plecotus auritus*;
- ☛ Common Pipistrelle bat *Pipistrellus pipistrellus*;
- ☛ Soprano Pipistrelle bat *Pipistrellus pygmaeus*;
- ☛ Red Squirrel *Sciurus vulgaris*; and
- ☛ Leathery Turtle *Dermochelys coriacea*.

Approximately 202 bird species have been recorded within 2km of the site and are shown on the NBN Atlas. None of these records are for birds within the site.

4.3 Extended Phase 1 Survey

The site is located to the south of Pittenweem and is approximately 1.5ha in size. To the north is an area of amenity land that leads down to the tidal pool on the south of the site. On the northern boundary of the site are residential properties and to east and south is the Fife coastline. The coastline continues around the western boundary of the site and inland is agricultural land.

To the north of the site is an area of amenity ground including amenity grassland, a skate park, crazy golf and a play area. The grassland within the site is managed through mowing, has a low sward height and is species poor. Species present include perennial rye grass *Lolium perenne*, clover *Trifolium sp.*, ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg. and daisy *Bellis perennis*.

Within the site are two structures – a toilet block and shelter. The toilet block is located to the north of the site and is approximately 5m long by 3m wide and 3.5m tall, with a pitched roof covered by tiles. Externally the structure is covered in a pebble dash rendering.



Picture 1 showing a view of the amenity area



A shelter is present to the south of the amenity area and is approximately 5m long by 3m wide and 3.5m tall, with a pitched roof covered by roofing felt. The structure is whitewashed over the brick walls.

The vegetation around the edges of the amenity grassland includes tall ruderal vegetation and patches of scrub. Anecdotal evidence collected at the site suggests this habitat was previously managed through mowing as part of the wider site. Species present include dogrose *Rosa canina*, hogweed *Heracleum sphondylium*, thistle *Cirsium sp*, broadleaved dock *Rumex obtusifolius*, cocksfoot grass *Dactylis glomerata*, bent grasses *Agrostis sp*, common nettle *Urtica dioica*, hedge bidweed *Calystegia sepium* and willowherb *Epilobium sp*. Saplings of silver birch *Betula pendula* and hawthorn *Crataegus monogyna* are also present.



Picture 2 showing a view of the tall ruderal vegetation



Along the western boundary of the amenity area is a hedgerow of downy rose *Rosa sherardii* sp., beyond which is an amenity grassland.

To the south end the site leads down to the coastline and the tidal pool. The land is terraced with a path leading around the coastline. The terraced ground is overgrown with tall ruderal vegetation including hogweed, thistle *Cirsium* sp, broadleaved dock, cocksfoot grass, bent grasses, common nettle, camomile *Anthemis arvensis*, willowherb and dwarf gorse *Ulex gallii*.

The tidal pool is located to the south of the site and is separated from the coastal rock with concrete walls. The outer walls of the pool and coastal rock are covered in wracks (rockweeds): large brown seaweeds of the taxonomic order Fucale, including channel or channelled Wrack *Pelvetia canaliculate* and knotted wrack *Ascophyllum nodosum*.



Picture 3 showing a view of the tidal pool



4.4 Preliminary Protected Species Survey

The amenity grassland within the site has limited habitat suitable for protected species, and no evidence was found during the survey.

Tall ruderal vegetation provides some limited suitable habitat for protected species, mainly bird species, however the area is heavily impacted by people and dogs. Some passerine bird species were noted and some of the scrub habitat may provide nesting opportunities for bird species.

The coastal habitat provides the most suitable habitat for protected species and a number of wading birds including curlew *Numenius arquata*, lapwing *Vanellus vanellus*, cormorant *Phalacrocorax carbo* and oyster catcher *Haematopus ostralegus* were noted during the survey.



Common or harbour seal were also noted on the coastal rocks during the survey.

4.5 Physical Bat Survey Results

The two structures present on site do not provide suitable roosting habitat for bat species. They did not show evidence of features such as lifted or missing tiles where bats could roost. In addition, the external roof of the toilet block had moss growing on it suggesting that it was wet.

Picture 3 showing a view of the toilet block



The coastal habitat and rock face does not provide suitable roosting habitat for bats. The habitat is heavily impacted upon by wind and spray from the sea making it unsuitable for bat species. High tides may also submerge much of the coastline, again reducing the suitability for bat species.



5. Conclusions

5.1 Conclusion

The site is located to the south of Pittenweem and is approximately 1.5ha in size. To the north is an area of amenity land that leads down to the tidal pool on the south of the site. On the northern boundary of the site are residential properties and to east and south is the Fife coastline. The coastline continues around the western boundary of the site and inland is agricultural land.

The site comprises an area of amenity grassland, tall ruderal vegetation and coastal rocks. Overall the site has limited habitat suitable for protected species. The boundaries of the site provide the most suitable habitat for nesting birds in the tall ruderal vegetation and scrub.

The two structures present on site and the coastal rockface do not provide suitable roosting habitat for bat species. The whole site was noted to be windy and external surfaces showed signs of damp with moss growing on the roof of the toilet block. The rockface is exposed to wind and spray that would limit the suitability for bats species.

Protected species including wading birds and common or harbour seal were noted on the coastal areas during the survey.

5.2 Main Recommendations

Recommendations are made for modest post-construction ecological enhancements, that are proportionate with the low level of environmental impact from the development.

The following measures aim to increase the diversity of species present on the site after the completion of any future development works, and are made based on the project timescales:



- ☛ As part of any works, it is recommended that any vegetation clearance or building demolition is undertaken outside of the bird breeding season, i.e. March to July, as all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). If nesting birds are found, these areas of the site will need to be protected from disturbance until the young have fledged naturally.
- ☛ As part of the design and layout considered as part of any future planning application, bird nesting boxes, both small hole and open-fronted, could be placed within the site if possible. This could create nesting opportunities for small bird species as part of the overall design.
- ☛ As part of the design and layout considered as part of any future planning application, bat boxes could be placed on or around the site boundaries or on new buildings if possible. This could create roosting opportunities for bat species as part of the overall design.



6. Target Notes

6.1 Botanical Target Notes (TN)

TN1 – Hard standing car park area.

TN2 – Tall ruderal vegetation including dogrose, hogweed, thistle, broadleaved dock, cocksfoot grass, bent grasses, common nettle, hedge bidweed and willowherb. Saplings of silver birch and hawthorn are also present.

TN3 – Toilet Block Building

TN4 – Amenity Grassland with a crazy golf course and skate park.

TN5 – Species poor hedgerow.

TN6 – Amenity grassland and play area.

TN7 – Tall ruderal vegetation including dogrose, hogweed, thistle, broadleaved dock, cocksfoot grass, bent grasses, common nettle, hedge bidweed and willowherb. Saplings of silver birch and hawthorn are also present.

TN8 – Tall ruderal vegetation including hogweed, thistle, broadleaved dock, bent grasses, common nettle, camomile, willowherb and dwarf gorse.

TN9 – Tall ruderal vegetation including hogweed, thistle, broadleaved dock, bent grasses, common nettle, camomile, willowherb and dwarf gorse.

TN10 – Pittenweem tidal pool covered in wracks (rockweeds): large brown seaweeds of the taxonomic order Fucale, including channel or channelled Wrack and knotted wrack.



TN11 – Coastal rock covered in wracks (rockweeds): large brown seaweeds of the taxonomic order Fucale, including channel or channelled Wrack and knotted wrack.

6.2 Animal Target Notes (AN)

AN1 – Toilet Block is not suitable for roosting bat species.

AN2 – Shelter structure is not suitable for roosting bat species.

AN3 – Tall ruderal vegetation and scrub may provide some habitat for passerine bird species.

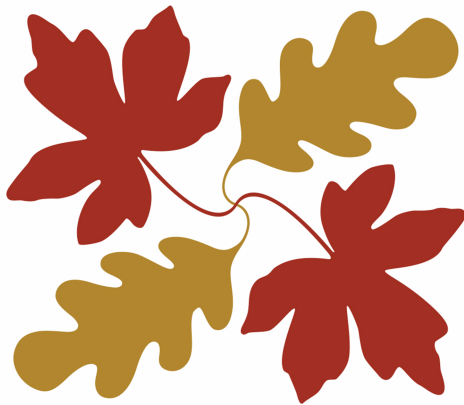
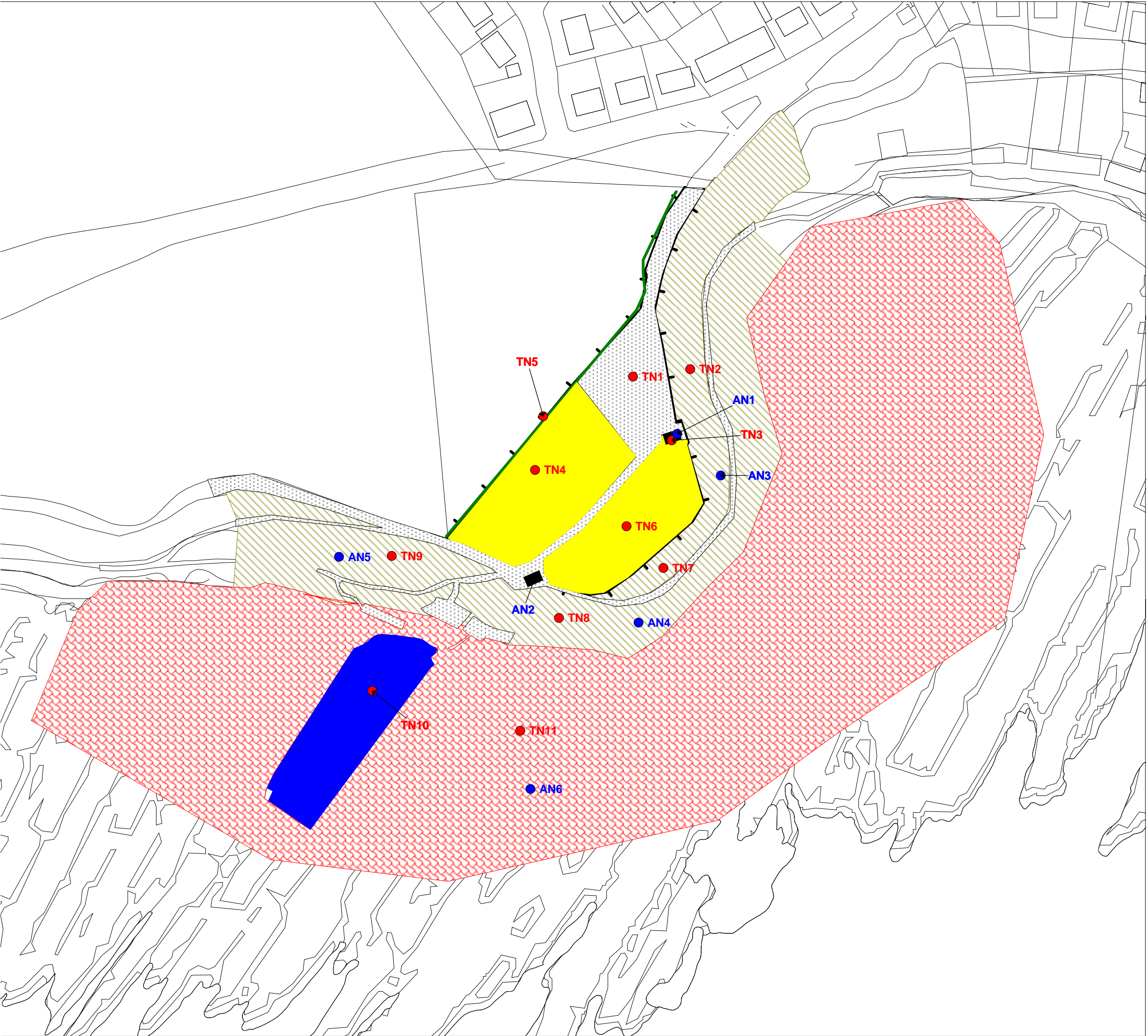
AN4 – Tall ruderal vegetation and scrub may provide some habitat for passerine bird species.

AN5 – Tall ruderal vegetation and scrub may provide some habitat for passerine bird species.

AN6 – Wading bird species and seal noted on the coastal rock.



7. Extended Phase 1 Map



ELLENDALE
ENVIRONMENTAL

Drawing Title;
Pittenweem Tidal Pool
Extended Phase 1 Map

Client;
West Braes Project

Date;
22/09/19

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SP

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- Animal Notes
- AN
- Target Note
- TN
- Water
- Water
- Coastal
- Coastland (Rock)
- Grassland
- Amenity Grassland
- Built-up Area
- Fence
 - Species Poor Hedgeow
 - Building
 - Hard Standing
- Tall herb and fern
- Tall Ruderal