# **APPENDIX C**

# Greystones/Delgany Local Area Plan-Local Biodiversity Areas

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## General Description of the natural environment

The following report was commissioned to assist in providing additional information for the Delgany/Greystones Local Area Plan. The Delgany/Greystones area is a coastal area located approximately between Bray Head and Kilcoole and east of the N11 at Glen of the Downs. The eastern boundary comprises of the HWM of the Irish Sea (Figure 1). This area, along with its hinterland, represents one of the first green field areas south of Dublin and as a result is under significant development pressure.

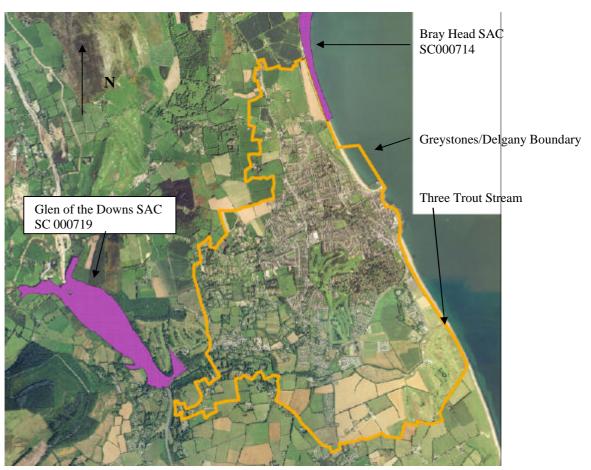


Figure 1. Aerial image (2000) of Greystones/Delgany Area with LAP boundary and designated areas.

The study area comprises of medium to high density housing in and around the immediate areas of Greystones/Delgany (40% of the area). In the outlying areas, larger houses with substantial gardens comprise approximately 25% of the area and improved grassland/amenity and scrub currently account for 35% of the area. The latter two areas are usually surrounded by well established hedgerows which are important wildlife refuges. However, with the introduction of the high density Charlesland development in the south east corner of the area, it is envisaged that the area of improved grassland/amenity and scrub will be reduced dramatically to approximately 25% of the entire area and medium to high density housing will increase to approximately 50% of

the study area. This and smaller scale developments will have significant negative impacts on the biodiversity of the region, which has already been confined to very few areas. As a result, the remaining wildlife refuges, though not necessarily nationally important due to the rarity of protected/rare species, should be classed as locally important with the function of maintaining biodiversity in the region. Wildlife refuges in the region are mainly concentrated, in substantial derelict sites, amenity areas, large well established gardens, hedgerows and along the banks of streams, the railway line and along the coast.

#### **Designated Areas**

The only designated area within the site is the southerly extension of the Bray Head SAC (Figure 1). This includes the eroding boulder clay/alluvial deposit cliffs in which sand martins nest each summer. The Glen of the Downs SAC is located outside the area, 300m to the west at its nearest point. However, the Three Trout Stream which feeds Glen of the Downs SAC and flows into the sea between the Charlesland Golf Club and the driving range, is a natural asset for the area and its importance cannot be underestimated. It is an important stream that contains migrating sea trout, eels, grey heron, dipper and otters (protected under Annex II of the Habitats Directive) and provides a strong natural wildlife corridor/refuge that divides the Greystones/Delgany area. No other designated areas occur in the area.

#### **Local Biodiversity Areas**

Following examination of aerial images (from 2000), 6" maps and discussions with National Parks and Wildlife Service/ Central Fisheries Board Staff the following areas (in blue) were selected for further study (Figure 2). Of the 25 areas highlighted and visited, 16 were deemed to be of importance to local biodiversity and 9 were dismissed as either being subsequently developed or were of low importance to biodiversity. The 16 areas of significant importance to local biodiversity are shown in figure 2 (a,b) and listed in Table 1.

Three Trout Stream was surveyed from its mouth to where it meets the N11. The coastal areas from HWM to the west side of the railway line on the eastern boundary, including part of Bray Head SAC were surveyed. The boundaries of all these areas were plotted on GIS (National Grid). In addition areas of Three Trout Stream that it was felt could be liable to seasonal flooding, based on the vegetation present and local knowledge were also geo-referenced and plotted on GIS. These areas were categorised into marsh areas (GM1) and Wet Grassland areas (GS4)(Figure 3).

The study was carried out from 16<sup>th</sup> -24<sup>th</sup> January 2006 and as a result could possibly underestimate areas of floral and seasonal migratory bird importance. However in contrast, winter migratory birds such as Brent Geese were observed in the study area.



Figure 2a Areas visited (blue) Local Biodiversity Areas identified with initial boundaries (numbered).

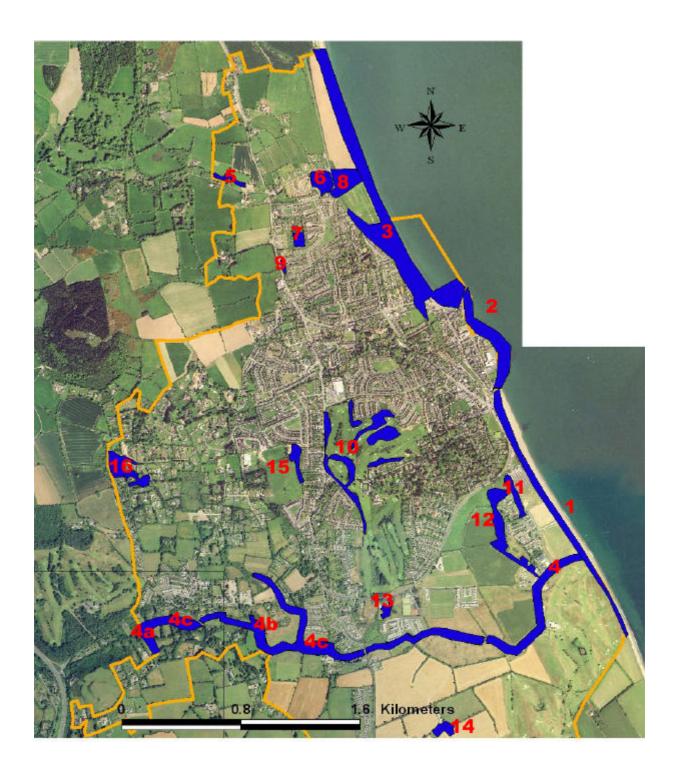


Figure 2b. Final extent of Local Biodiversity Areas including buffer zone on Three Trout Stream

Site No.	Townland/site name	Habitats present (Fossitt 2000)	Faunal/ Flora Species present or likely	Possible Threats	Relative Biodiversity importance	
1	Seashore to and including railway from south to Rocky outcrop (329839/21224 4)	CC1 Seawalls Piers and Jettys BL2 Earth Banks ED2 Spoil and Bare Ground LS2 Sandy Beach BL1 Stone Walls and other Stonework FW3 Canals	Seabirds (Gulls, Turnston es) Foxes	Human/canine disturbance Terrestrial litter Marine Pollution (oil, litter) Sea-level rise/ severe storms could impact	Low	
2	Rocky outcrop to (329839/21224 4) Greystones Harbour	LR1 Exposed Rocky Shores CS3 Sedimentary Cliffs CB1 Shingle and Gravel Banks	Sand martins	Erosion of sea cliff. Human and canine disturbance at the top of the cliff.	Medium	
3	North of Greystones harbour and part of Bray Head SAC	CB1 Shingle and Gravel Banks CS3 Sedimentary Cliffs HH1Dry Siliceous Heath GS2 Dry Meadows and Grassy Verges	Sand Martin Peregrine Falcon Kestrel	Erosion of sea cliff. Human and canine disturbance at the top of the cliff.	Medium	

4	Three Trout Stream and surrounding area (entire length from boundary to the sea)	GS4 Wet Grassland GM1 Marsh WS1 Scrub ED3 Recolonising Bare Ground WN1 Oak Birch Holly woodland WL2 Treelines GA2 Amenity Grassland FW1 Eroding Upland Rivers FW2 Depositing Lowland Rivers BL1 Stone walls and other stonework WL1 Hedgerows	Sea Trout Common Eel Heron Mallard Stickleba ck Oak Willow Birch Dipper	Encroachment from development leading to accidental and intentional damming Litter Removal of treeline /scrub Siltation of gravel bed Pollution (organic/non organic)	Medium/ High	
4a	Glacial meltwater channel	FW1 Eroding Upland Rivers WL2 Treelines( (Enda Mullen NPWS Pers Comm.)	Mainly of Geologic al interest	Development of site and drainage upstream resulting in loss of habitat and water that feeds stream	Medium	
4b	Oak, birch and holly woodland bordering Three Trout Stream	WN1 Oak, birch and holly woodland	Birch Oak Holly	Removal of trees and scrub resulting in loss of habitat	Medium	1
4c	Marsh areas that border Three Trout Stream	GM1 Marsh	Possible frog breeding areas and important floral habitat	Removal/drainage of habitat.	Medium	

5	Small stream at Redford Bridge (328170/21357 9)	FW1 Eroding Upland Rivers WS1 Scrub	Holly Birch Willow Ash	Development/removal or small stand of native scrub	Low	
6	Ruins of Captain Tarrants Farmhouse and St. Crispins Cell, Rathdown 328692/213663	WS1 Scrub BL1 Stone walls and other stonework	Bats Barn Owl (?) Willow sp. Bramble Gorse	Development of the site would lead to loss of habitat/ nesting site/ loss of prey habitat Vandalism and human disturbance of buildings is evident. Loss or roof covering	Medium	
7	Redford Bridge Graveyard 328462/213222	WS1 Scrub BL1 Stone walls and other stonework	Large Stand of Willow sp.	Development. In Littering is already a problem	Low/ Medium	
8	Stream from Redford Bridge to shore 328649/213500 to 328920/213625	FW1 Eroding Upland Rivers WS1 Scrub (20m wide) and 150m wide gorse dominated close to shore BL1 Stone walls and other stonework	Willow sp Bramble Ash Ivy Wide gorse area	Development would lead to loss of trees/pollution. Littering is already a problem	Low/ Medium	

9	Small stream South of Redford	FW1 Eroding Upland Rivers WS1 Scrub (20m wide x 30m long)	Bramble Elder Sycamor e	Development/pollution from new and current development upstream/litter	Low	
10	Greystones Golf Course	WS1 Scrub (Gorse dominated) WD5 Scattered Trees and Parkland	Gorse Oak Bats	Removal of broadleaf trees, hedgerows and scrub areas resulting in loss of habitat.	Low/ Medium	
11	Treeline west of DART carpark (329996/21140 6)- (329893- 211620)	WL2 Treeline	Scots Pine Beech Bat species	Development\felling resulting in loss of trees	Low/ Medium	
12	Treeline between R762 and sewage treatment works (330062/21101 4)- (329798/21187) -(329793 211558)	WL2 Treeline	Scots Pine Ash	Development/infrastructure resulting in loss of treeline and scrub areas.	Low/ Medium	

13	Old Mill ruins (329068/21074 4)	WS2 Scrub BL1 Stone walls and other stonework	Barn Owl Bat Species	Development resulting in loss of nesting/roosting habitat and felling of surrounding trees	Medium/ High	
14	Charlesland House and surrounding farm buildings	WS2 Scrub BL1 Stone walls and other stonework BL3 Buildings and artificial surfaces	Barn Owl Bat Species	Development	Medium/ High	
15	Treeline at (328520/21159 8)- (328498/21176 1)	WL2 Treeline	Scots Pine	Development resulting in felling of trees	Low	
16	South of Kindelstown	WS2 Scrub FW1 Eroding Upland Rivers WL2 Treeline	Elder Ash Willow Holly	Development resulting in loss of habitat.	Low	

# Areas meriting special attention

## 1) Three Trout Stream

Three Trout Stream Survey

The Three Trout Stream flows for 4km approximately within the Greystones/Delgany area and forms one of, if not the most important wildlife area in the Greystones/Delgany LAP area. It forms a natural and important wildlife corridor/refuge from Glen of the Downs SAC to the sea and is recognised as important for the migration of sea trout to the point where it reaches the N11. It is predominantly clear, fast flowing, shallow in nature with a significant gravel bed along most of its length.

The stream enters the sea between Charlesland driving range and golfcourse (330407/211099). Going upstream the stream initially passes under the railway and follows concrete banks either side of which is a 5m wide low scrub corridor, between golf course to the south and driving range to the north. Brent Geese (150 approxametely) and oystercatchers were observed on the driving range. Following the bridge beside the sewage treatment works (330218/211038) taller scrub and steeper banks develop. The field on the north bank of the stream (centre point 329947/210748) is substantially lower than that of the golf course on the other side of the stream, and is poorly drained grassland (GS4) and is possibly open to seasonal/periodic flooding. Despite a steep incline 3-4m at the northern end of this field the wet grassland continues up the slope indicating a high water table. Significant littering of the stream is evident at the bottlebank/waste centre of the golf club (330104/210608).

A culverted stream enters Three Trout Stream just prior to an apartment complex (329952/210483) where the wildlife corridor has been removed for 100m. The Three Trout Stream is blocked by a fallen tree with builder's waste (timber, styrofoam, flooring, signs etc.) forming an impasse to fish at 329869/10513. Following on from the dual carriageway bridge at 329779/210531 the wildlife corridor widens to 10 m on the northside of the stream which contains willio sp, elder, gorse and holly. On the southside scrub has been removed and replaced by fencing. This has been vandalised to provide access to the stream. Littering including building waste is evident here also. Possible seasonal flooding up to 5m from the stream is evident at 329395/210601.

Encroachment of housing and littering from (329348/210591) to (329019/210517) is clearly evident east of Three Trout Bridge, and impacts strongly on local biodiversity. Following the bridge at 328951//210465 and additional site of possible flooding is found on the north bank of the stream where the corridor is 2-3m wide. A substantial area of marsh (GM1) (70m x200m) with very high water table is located on the south side of the river at Farankelly House (328689 210473). The field on the north side of the river contains wet grassland (GS4) for approximately 40 meters from the stream.





Encroachment if housing and dumping along the Three Trout Stream

First obstruction to stream (image taken from downstream)

A significant tributary enters the stream slightly west of Farankelly House (328508 210505). This was followed northwards. The west side of this stream was wet grassland (GS4) marshy in areas (GM1) for approx 50 m from the stream. The eastern bank of the stream forms a steep grassy slope and contains willow sp., holly gorse Ivy and bramble. A housing development (at 328513/210717) has removed the northern bank of the stream and the bed of the stream is now made of hardcore. The flora of northern banks and southern banks of the stream have also been removed further upstream (328434/210745).

From the junction with the tributary above, the Three Trout Stream continues towards Delgany. Scrub (WS1) is 25m in width approx and contains Holly, *Salix* species. Another impasse to fish, backed up with litter and building waste is located at 328246/210502. A significant building site is located on the western bank where all scrub has been removed. A new, possibly drainage, outfall is located at (328246/210502). At this point the eastern side of the stream forms a slope of approximately 25m wide, 45°. While this area is classified as WN1 according to Fossit (2000) the area is too small to be considered of any real conservation significance. It does however represent a small fragment of native Irish woodland, a habitat which is in serious decline and for this reason should not be impacted on further. Another impasse to migrating trout/eels is located further upstream (at 328015/210628).

Following the bridge at Delgany (327848/210659) recolonising bare ground (ED3) is possibly susceptible to flooding. Scrub is maintained on both sides of the stream for approx 3-4 m until it widens to 30m further up stream (at 327451 210621). Of noteworthy importance is a canopy covered ravine containing a small stream, located on the border of the Greystones Delgany boundary. This ravine is potentially of geological significance as is one of several glacial meltwater channels.

The stream is currently extremely vulnerable to human based pressure and unless strict and significant preservation measures are put in place the Greystones Delgany area will imminently loose its main Local Biodiversity Area.

It is clear from examining the 6" maps, local flora and local knowledge that areas of this stream are liable to flooding. The presence of wet grassland and marsh in the area

would tend to indicate areas that are possibly open to seasonal flooding. This includes areas within the proposed Charlesland development and in the Delgany area.

#### Threats To Three Trout Stream

Development, encroachment and their corresponding side-effects appear to currently be the most significant threat to the stream. This stream is a shallow and predominantly gravel based with very few pool areas. As such it is sensitive to extreme temperatures in summer, resulting in lower oxygen levels and is also sensitive to siltation of gravel areas (possible egg laying/nursery areas). The removal of native vegetation from the sides of the banks increases both of these threats significantly. When the aerial image from 2000 is compared to the current status of the area and the current planning images, significant development has been carried out and is due to be carried out which will impact directly on the stream. With the potential scale of development that could arise, significant additional pressure could be placed both north and south of the stream resulting in a significant loss in the biodiversity associated with this stream.

In addition, the development of significant areas of land within the watershed reduces the absorbing nature of the land and as a result the stream is more liable to suffer flooding and also lower water levels in times of drought, when the stream is most sensitive to impacts such as pollution. With no current monitoring system in place for the stream it is difficult to assess if pollution incidents are occurring. The Eastern Region Fisheries Board does not recall serious pollution incidents in the stream. However is evident (NPWS), that there has been disintegration in the quality of the stream over the past ten years.

# Recommendations in relation to Three Trout Stream High Priority

- The stream is currently impassable for migrating fish at a minimum of three points. It is essential that these structures are removed as quickly as possible.
- Development of new houses and encroachment of by current inhabitants has removed the scrub and trees along the bank of the river making the river more vulnerable to extreme summer temperatures (reducing oxygen content) and an increases in particulates (clogging gravel beds). It is essential to the stream that the practice of scrub removal from either side of the bank is halted immediately and in areas that it has been removed, e.g. Charlesland, that these are replaced with similar native species. It is strongly recommended that a minimum of a 20m buffer zone of native vegetation, from each bank, is maintained along the bank of the stream and its main tributary, which would be extended where relevant to incorporate additional wooded/scrub/marsh areas (Figure 4). This would be deemed essential to protect the stream from extreme summer temperatures and reduce the threat of particulate material ending up in the stream, which would clog up spaces in gravelbed. It is also suggested where possible that an additional 3m of grassland/amenity area is maintained outside the buffer zone providing a "flyzone" for bats and Owl species. In areas where dense scrub (nor briar dominated) and tall trees have already been established that these are retained. Flushes of particulates due to construction, as observed during field work, should be avoided as it can cause fish mortality/irritations on fish gills and block gravel beds.

- Areas liable to seasonal flooding/marsh areas should not be developed (Figure 3). Instead areas of wet grassland, especially in the Charlesland area could be used to absorb runoff (including associated pollutants and silt) from developed areas through the use of reed beds. This would actively encourage and increase biodiversity while reducing the impact of development on the stream and avoiding the flooding of developments which could be placed in areas liable to flooding. Flooding becomes increasingly likely the more development that continues in the watershed. In addition in recent years summer rainfall levels have been lower on average than previously recorded. However, studies have shown that there has been a significant increase in winter rainfall over the past 40 years and it is predicted that climate change will introduce more erratic weather patterns including heavy rain and flooding. It is therefore emphasised that the areas outlined as marsh and wet grassland (Figure 3) are potentially conservative in relation to the flooding risk along this stream and the drawing of exclusion zones based on these alone should be done with caution. In addition these areas did not include bare of disturbed ground and amenity grassland due to the lack of indicator species.
- Continuous monitoring of the stream is needed to ensure that it retains its
  wildlife. This would include the monitoring of biological and chemical
  contamination as well as vigilance in relation to dumping, removal of the
  scrub corridor and discharge of contaminants, as well as accidential/intentional
  damming. Three sites for this monitoring would be suggested:

Junction of N11 and Three Trout Stream Delgany East side of new housing development. Downstream of Charlesland Development

#### **Medium Priority**

- Littering is evident where development occurs beside the stream. These areas have been highlighted. The golf course needs to issue stronger litter management procedures which could include fencing of waste areas.
- The stream is not currently treated as an asset by the local community and this philosophy should be changed as soon as possible. The inclusion of a walkway from Delgany to Greystones and education initiative in local schools/along the stream could assist. The danger is that with additional development along the stream an increase in the dumping of waste could occur.
- An assessment of the impacts of a development whose boundary is within 20m of the stream or its tributaries should be carried out pre, during and post development. This could have pre-empted the current damming of the stream and construction litter problems in the Charlesland and Delgany areas.

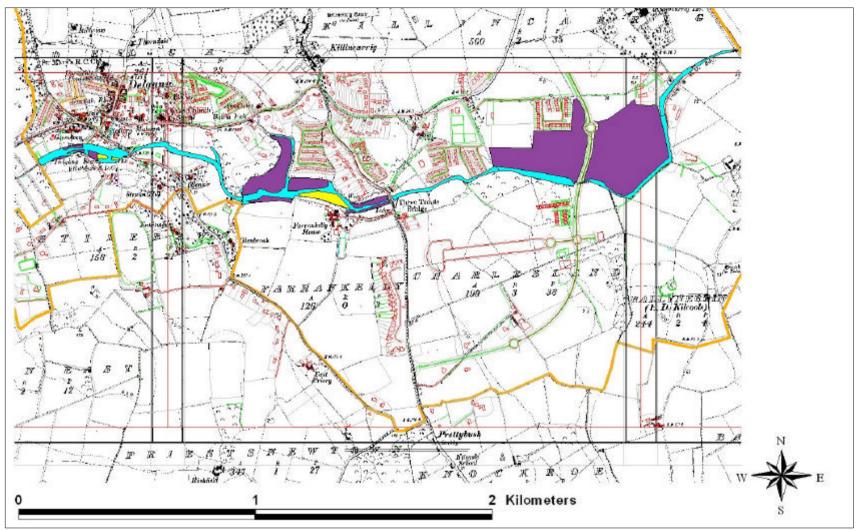


Figure 3. Possible sites of seasonal flooding based on vegetation present (Purple: Wet grassland, Yellow: Marsh & Blue: Scrub likely to flood). Areas of bare/disturbed ground and amenity grassland are not included in this image due to the lack of vegetative indicators.)

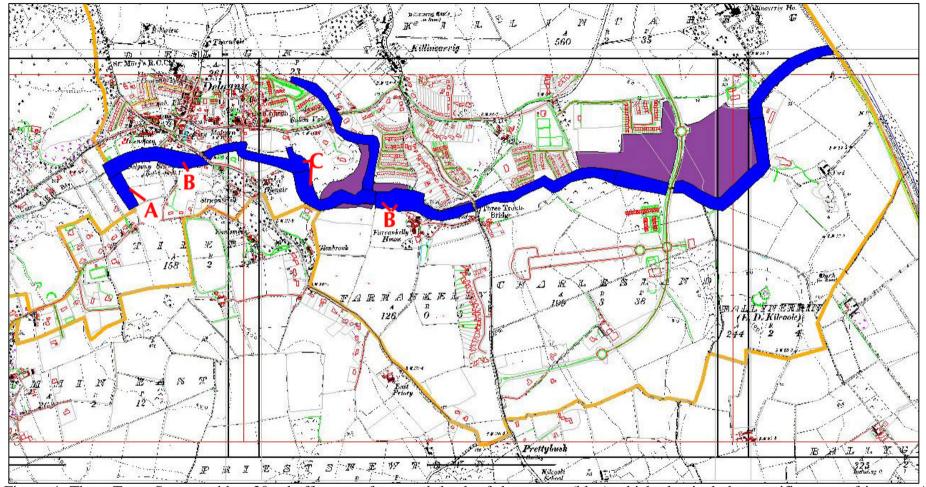


Figure 4. Three Trout Stream with a 20m buffer zone from each bank of the stream (blue) which also includes specific areas of interest A) Glacial meltwater channel B) Marsh areas C) Oak Birch and Holly woodland. Areas of wet grassland (Purple) indicate possible seasonal flooding or a high water table.

## 2) Coastal area survey from Charlesland Boundary to Bray Head SAC

The southeastern boundary of the area begins at the southern boundary of the Charlesland Golf club (330698/210600) on the a 20m wide boulder beach (man made). Beside the railway track was boulder clay and Gravel (CC1, BL1 and ED2) which was species poor. On the west side of the track is a golf course. Sandy Beach (LS2) starts opposite the golf course (at 330498/210988) and a grass verge 3m wide starts shortly after (at 330356/211181) between the railway track and boulders (BL1/ED2). The distance between the track and the railway at this point is 10m and as a result this area may be prone to sea based intrusion. On the west side of the track is the southern end of the driving range which contained Brent Geese, Oystercatcher and Turnstones.

Towards Greystones marram grass starts on the beach (at 330234/211364) and ends with the boulders (at 330096/211566) as the grassy bank also begins beside the railway. The terrestrial habitat along the majority of railway track behind the boulder defence is grassy verge (GS2). The main vegetation consists of *Taraxicum* sp., *Senecio vulgaris*, *Senecio jacobaea*, *Cirsium vulgare* and *Valeriana officinalis* and various grass species. A small area of marram grass (*Ammophila arenaria*) occurs on the beach to the east of the railway track at the northern edge of the driving range. The area behind railway track (west of track) appears to be slightly damper than the area to the east of the railway track and supports a community dominated by Common reed (*Phragmites australis*), Ivy (*Hedera helix*), Wood avens (*Geum urbanum*) and Butterbur (*Petasites hybridus*). The wildlife corridor area of the track stops prior to Greystones. The beach ends at a rocky outcrop 329873/212268. Up to this point the area is species poor and no noteworthy besides those mentioned above were found. However, grey seals, protected under Annex II of the Habitats directive are known to frequent the sea in the northern section of this beach.

On the boulderclay cliffs (CS3) behind the rocky cove at Carrig Eden (329666/21602) a possible nesting site for sand martins is located. No other noteworthy species or habitats were found in this area.



North of Greystones Harbour is a stony beach (CB1 above and below strandline). Birds observed in this area included great Black backed gull, cormorant, ringed plover, juvenile herring gulls, turnstone and oystercatcher. This beach continues northwards into the Bray Head SAC and is likely to be a result of the erosion of the boulder clay cliffs north of the harbour. The littoral and sublittoral areas of the proposed marina were examined by Aquafact International Services in 2000. Aquafact found very few faunal species and none that were deemed to be rare or sensitive or "listed under any sort of designation as requiring protection".

The terrestrial habitat along the cliff top is dry coastal heath and grassy verges, broadly corresponding to Fossit's (2000) classification of HH1 and GS2, the heath occurs as a mosaic grading into scrub (WS1) which is dominated by Bramble (*Rubus fruticosus*), and grasses (*Agrostis canina* and *A. stolonifera*). Gorse (*Ulex europaeus*) also occurs frequently within this area. Land use at the site consists of recreational use. A well-worn path is located along the cliff for much of the site and is regularly used for walking. Severe erosion of the sea cliffs is having an obvious impact on this marginal area. A model of the erosion of these cliffs from the Greystones Harbour EIS (3<sup>rd</sup> January 2006) estimates that these cliffs will recede 20m at the toe of the cliff, and even more on the upper cliffs, over the next 30 years. As a result this habitat is likely to disappear. Sand martins nest in these cliffs each summer. However the nest site changes annually depending on where the cliffs have been eroded.

Behind the beach at the beginning of the "Cliff Walk" a waste ground area, on the northern edge of the proposed harbour development (329188/213111) is located. This marks the beginning of a scrub (WS1) based, bramble dominated, 30m wide wildlife corridor between the cliff walk and the railway line which extends as far as the football pitch (328978/213314). A substantial gorse dominated enclosed scrub area WS1 (150m x 150m) follows the northern extent of the football pitch that extends from the railway to the sea cliffs. This area marks the location of a stream that flows down from the Redford area.

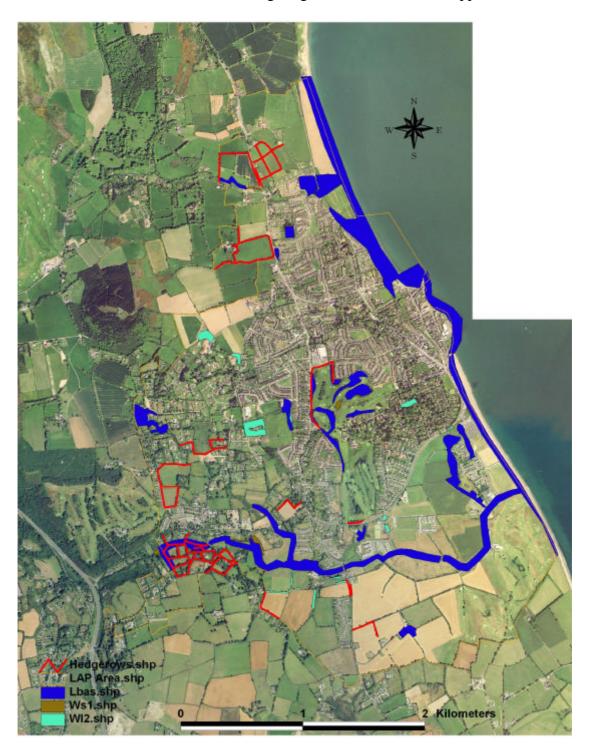
#### Recommendations in relation to the coastal zone area

The potential impacts of the proposed marina on the coastal zone need to be adequately assessed. The potential for the increased erosion of the cliffs within the SAC area needs to be reviewed.

The main threat to the coastal zone on south beach is from possible pollution. Littering either sea or land based can result in the entanglement of wildlife species and injury to bathers. Adequate refuse points along this stretch of coastline should be provided.

# 3) Additional survey of hedgerows and treelines.

An additional survey of the hedgerows and treelines of significance outside local biodiversity areas was carried out. Areas with prominent treelines and areas of native hedgerows that should be preserved were identified. The main area of significance within the LAP is the hillside south of Delgany. Here hedgerows have grown to include mature ash, beech, willow etc. giving the hillside a wooded appearance.



# Additional Recommendations in relation to Greystones/Delgany LAP-Local Biodiversity areas.

With increasing development in the Greystones/Delgany area biodiversity is clearly being reduced and apparently at an alarming rate. When the aerial image from 2000 is compared to the current situation on the ground, which is in turn compared to the proposed planning developments especially in the Charlesland area, there will soon be no real space for wildlife outside garden hedgerows and specific amenity areas in the Greystones/Delgany area. If this is the case one would have to question the existence of any Local Biodiversity Areas in the region. This may not sound significant but it is likely result in the loss of the remaining protected/rare species of resident mammals and birds such as otters and barn owls from the area. This need not be the case and the incorporation of certain recommendations as outlined below, from the planning permission level would assist in the presence of areas that are important wildlife refuges.

- The maintenance of all hedgerows, treelines, scrub and native wooded areas would be deemed essential to preserve biodiversity in the area and their removal should be prohibited. The planting of native hedgerows/trees possibly as a percentage of remaining green areas should be "encouraged".
- Derelict Buildings that currently possess protected species should be preserved and if possible enhanced to increase their biodiversity value e.g. incorporation of bat boxes, additional nesting sites etc.
- Buffer zones should be placed around areas that are deemed important to wildlife. This includes areas such as Three Trout Stream.
- The planning permission stage would be seen as the key to encourage biodiversity in the remaining areas that are going to be developed in the area.
- A biodiversity education programme should be incorporated into local schools to encourage the enhancing of biodiversity.
- Wildlife corridors should be maintained. This is especially important in relation to streams and infrastructural projects e.g. roads bridges etc. cross wildlife areas.
- Careful consideration needs to be taken in relation to flooding and the location
  of developments. It is felt that areas that are possibly prone to seasonal/
  infrequent flooding have been built upon in the past five years near the Three
  Trout Stream.
- An Expansion of the western edge of the LAP by 40 m to include glacial melt water channel
- An expansion of the LAP area to include the prominent tree line of Scots Pine on hill east of Drummin (observed from N11 and LAP area) (See figure 5)



Prominent treeline of Scots pine just outside LAP area (viewed from Kindlestown)

• Both the Mill brook Mill and Charlesland house have been identified by National Parks and Wildlife Service as areas containing barn owls. As a result these are sensitive areas that require special attention and conservation. This would include prohibiting/ restricting development and possibly enhancing the conservation value of these areas to increase biodiversity. However, the preservation of these areas needs to be in tandem with the conservation of surrounding hedgerows, linear scrub and treelines in order to maintain the value of these sites.