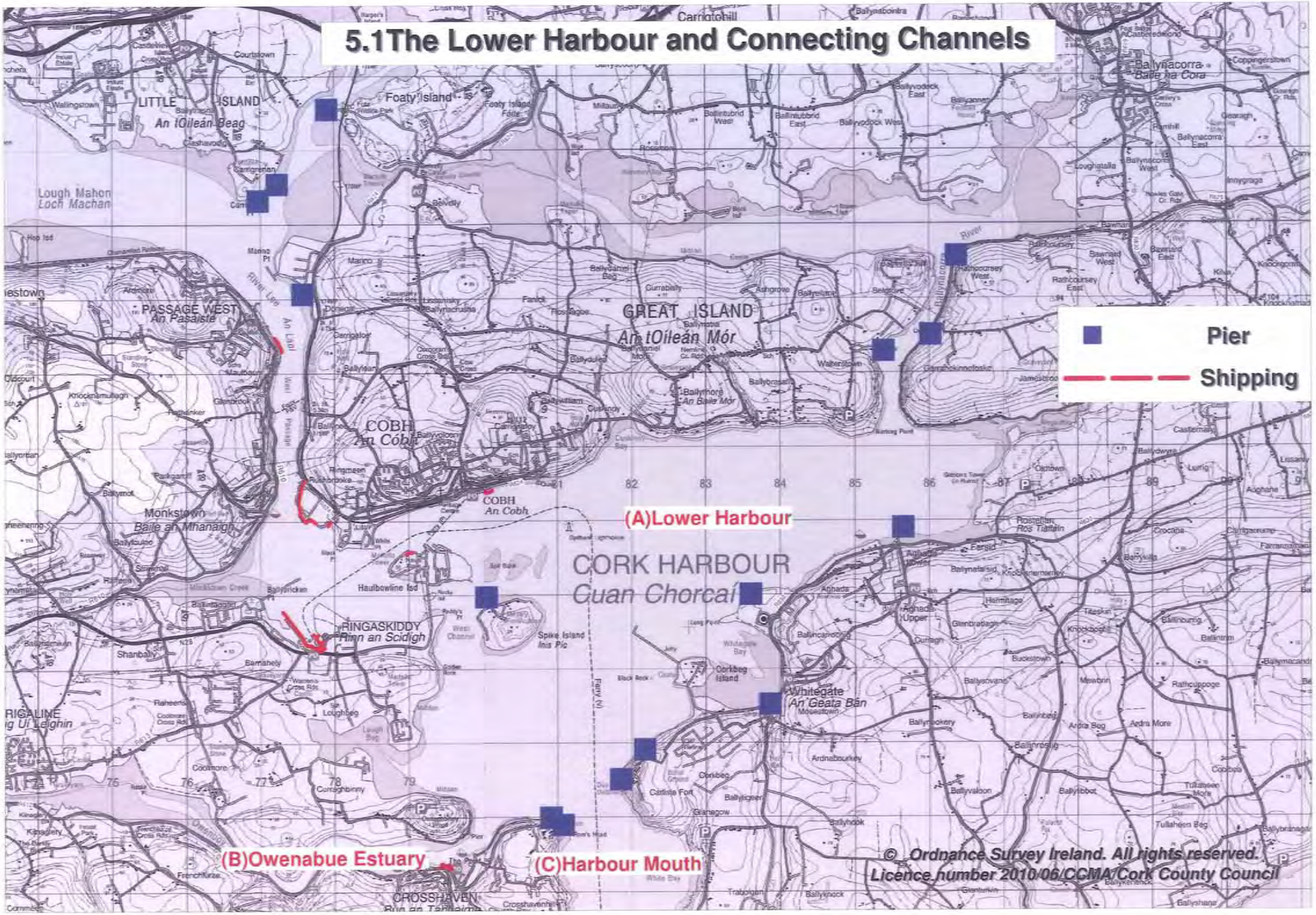
5.1The Lower Harbour and Connecting Channels



Chapter 5 The Lower Harbour

The Lower Harbour is much larger than Lough Mahon, but is similarly shaped by geology, being enclosed by sandstone ridges to the north and south, with channels cutting through those ridges to connect to Lough Mahon, the Great Island Channel and the Atlantic. These ridges rise to 60-100m, and a number of the steep linear coastal settlements characteristic of Cork Harbour are located on the slopes from these ridges down to the water, at Cobh, Monkstown, Crosshaven and Aghada.

In between the two ridges, the softer rock is reflected in the size of the Lower Harbour, and in lower land areas at its eastern and western ends – Rostellan Wood and Ringaskiddy – and inlets which also run E-W on each side of them (Monkstown Creek, the Owenabue estuary, and the small creeks up to the villages of Saleen and Rostellan). The sandstone ridges are closer together at the eastern end of the Lower harbour, giving it a shape which is closer to a triangle than a rectangle. Shallow waters and inter-tidal mud flats at the eastern and western ends of the Lower Harbour are important feeding areas for birds, and form part of the Cork Harbour SPA, as well as of nationally designated NHAs.

The availability of reasonably level land close to the deepwater channel has facilitated the development of Ringaskiddy and its peninsula as the principal location for port activities and pharmachem industry in the Cork area. In Ringaskiddy, as elsewhere in the Harbour, land reclamation has been used to bring quays closer to the deepwater channel, and create extra level land. The Harbour's main centre for energy sector activities at Aghada/Whitegate is also partly on reclaimed land. Mid-20th century industrialisation on the Lower Harbour happened largely on reclaimed land, at Haulbowline and Rushbrooke. More recently, the availability of reasonably level land adjoining the Owenabue estuary SE of Carrigaline has allowed development of the Kilnagleary Industrial Estate and the Pepsi plant there.

Incremental Development of Recreational/Tourism Centres

The Lower Harbour also has considerable recreational and tourism potential. Some concentration of a range of facilities in selected centres can help develop a secondary infrastructure of ancillary services (eg in a centre attracting both golfers and anglers, they may combine to support a better range of restaurants than either group would do individually). However, considerable critical mass is necessary to achieve this, and there are no locations on the Lower Harbour which have reached a 'mature' stage, in the sense that, say, Kinsale has.

Realistically, assembling such critical mass may be a quite lengthy incremental process, much of which has to be left to market forces. There are however some substantial 'increments' which can be influenced by local policies and can speed up the process. It would be desirable if available leverage could be used to bring one or two centres to a 'mature' or 'semi-mature' stage, because the benefits would probably then spill over to other parts of the Harbour. It would be easiest to do this with centres that already had quite substantial facilities in place, such as Cobh or Crosshaven.


FIG 5.2 FORTIFICATIONS ON THE LOWER HARBOUR
Cove Fort
Naval Base Haulbowline
Haulbowline Martello Tower
Fort Mitchell / Westmoreland
Ringaskiddy Martello Tower
Disused Forts
Operational Forts
Operational Millitary Post
Operational Naval base
Martello tower
Fort Davis / Carlisle
Fort Meagher / Camden
Templebreedy Fort
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Coastal defence heritage and marinas are examples of the type of substantial 'incremental' attraction which could help stimulate development of tourism/recreational centres in the Lower Harbour area. Sea angling also has an established role in that respect which could be developed further. These possibilities are discussed below:

Coastal Defence Heritage

Coastal fortifications are in evidence throughout Cork Harbour, from Blackrock Castle downwards, but are particularly concentrated in the Lower Harbour, which because of its size has been the main naval base in Ireland from the eighteenth century onwards. It was increasingly heavily fortified, especially in the period between the American war of Independence and the First World War. The principal forts defending the Harbour are on each side of the Harbour entrance, and on Spike Island directly facing it, with the naval base itself at Haulbowline Island and Cobh. Of these defence facilities, the western part of Haulbowline has retained its original function, and is the headquarters of the Irish Naval Service, and Fort Davis - on the E. side of the entrance - is also still in military use. It is intended that the other main forts – Camden and Spike Island – be developed as tourism attractions, and the central part of Haulbowline previously used by Irish Steel/ISPAT also has two vacant surviving barrack blocks of heritage value.

Spike Island is currently being transferred to the Council, while Camden Fort was transferred to Cork County Council in 1986, but its conversion was delayed by legal action by one of the parties who had responded to an invitation for proposals for tourist use of the Fort, and it is not at present open to the public.

While the various fortifications/structures and their sites are discussed in the relevant subsections of this chapter, some common issues arise from their very substantial aggregate scale, as summarised in Table 5.1:

Table 5.1 Disused Defence Structures of Heritage Interest in Cork Harbour, and areas of related lands

Site of Heritage Significance:		Area:	
		Hectares	Acres
Fort Camden/Fort Meagher		11.5	28
Spike Island	Fort	10.4	26
	Remainder of island	31.7	78
Haulbowline	Former steelworks	9.4	23
	Tip at E. end	9.0	22
Total		72	177

These common issues are

(1) ***Scale, Resources and Access:*** All 3 sites have extensive buildings of heritage value in poor repair. At least in the short term, there will be real difficulty in putting more than a small proportion of the buildings involved into reasonable repair. If they were developed as conventional tourist attractions, of the type where visitors pay at the gate and are then free to wander around, a substantial staff and/or extensive, effective (but not very welcoming) fencing would probably be needed.

(2) ***Secondary Uses/Stabilisation:*** The options for secondary buildings include (a) stabilisation of vacant buildings, (b) removal of less valuable ones, and (c) finding suitable ancillary users. Working through these options is likely to take time. Spike Island is only accessible by water, and Camden has minimal vehicle access within the fortifications, and these access difficulties are likely to complicate efforts to establish ancillary uses

(3) ***Complementarity:*** If more than one coastal fortification in Cork Harbour is to be opened to the public, a marketing strategy which ensures that they complement rather than compete with each other may be needed.

Co-ordinated Promotion/Guided Access to Fortifications?

Complementary promotion of the 2 main forts - Spike and Fort Camden – could be based on the difference of period. In their current form, the Spike Island Fort dates mainly from the Napoleonic era (c. half was built by 1809), and Camden mainly to 1862-73, so they lend themselves to sequential historical presentation, including explanation of how their design evolved. Spike Island has an additional dimension as a prison which held those sentenced to transportation to Australia after the Famine and 1848 rising.

This marketing approach would include a tourist booklet on Cork's coastal fortifications, using the sequential approach outlined above, focusing on extant, visitable ones, and with a pocket at the back to hold a sheet giving details of current access arrangements, opening times, information sources etc, which would updated annually.

Coordinated marketing of coastal fortifications could complement reliance on limited opening hours and guided tours at Spike and Camden, on the principle that some part of the overall programme was always available. Limited opening hours and guided tours would also be compatible with a flexible approach to secondary structures – allowing indicative fencing, minimising any conflict between visitors and any secondary uses, and allowing some scheduling of works within the tourist season.

The principle of some part of a set of coastal fortifications being open most of the time could be extended back in time, to include the much more modest Cove Fort at the E. end of Cobh (in place by 1743, but criticised as 'a miserable battery' by the then viceroy in 1770), and perhaps to Charles and James Fort in Kinsale (late and early 17th century respectively). A historical sequence would also help relate the fortifications to the fleets and possible invasions they were designed to exclude, from the Spanish at Kinsale onwards, so increasing the number of nationalities likely to see them as of interest.

A connection forwards to the present day Naval Service on Haulbowline would also be desirable, and might be achieved through opening the Martello Tower at Ringaskiddy as a small naval museum. It overlooks Haulbowline itself, and the other fortifications and anchorages on the Lower Harbour, and would be a good place to provide an overall account of the Harbour's role as a naval base, up until the present. Its close proximity to the Ferryport could have promotional advantages, particularly if opening times took account of ferry arrival and departure times[1].

Marinas

Marinas are another high profile attraction which could be added to existing attractions to help extend the range of activities in a centre and develop the overall tourist/recreational market. At present, Crosshaven is the main focus for recreational boating, and certainly has critical mass in that respect. It has 80% of marina berths in Cork Harbour, and 65% of boat yard capacity, and the Owenabue Estuary has 45% of moorings. In aggregate it thus has capacity for almost 1200 boats, whereas the 3 locations with the next largest aggregate numbers (Monkstown, E. Ferry and Aghada) have around 200 each[2]. This dominance reflects Crosshaven's obvious advantages, in terms of natural shelter and proximity to the Harbour mouth. All 4 locations are on or adjacent to the Lower Harbour.

One of the advantages of opening parts of Camden Fort to visitors would be that it would extend Crosshaven's range of attractions, currently based mainly on boating and beaches, and help it gain critical mass.

As noted in the previous chapter, there are proposals for around 900 extra marina berths in the Lower Harbour area: 285 in a current marina application at Monkstown, and a total of 600 berths proposes in 3 locations suggested in the Cobh Draft Urban Design Feasibility Study (Scott Tallon Walker, 2009). 2 of the Cobh locations are reasonably close to the town centre and could thus help extend the existing range of attractions there. There is a strong case for encouraging some marine leisure demand in the centre of Cobh, because:

[1] See also the discussion of Rosslague Martello Tower in Ch.6(v)

[2] *"Assessment of Coastal Recreational Activity and Capacity for Increased Boating in Cork Harbour"* Kopke, K., O'Mahony, C., Cummins, V., and Gault, J., CMRC, UCC, 2008, p.18-19

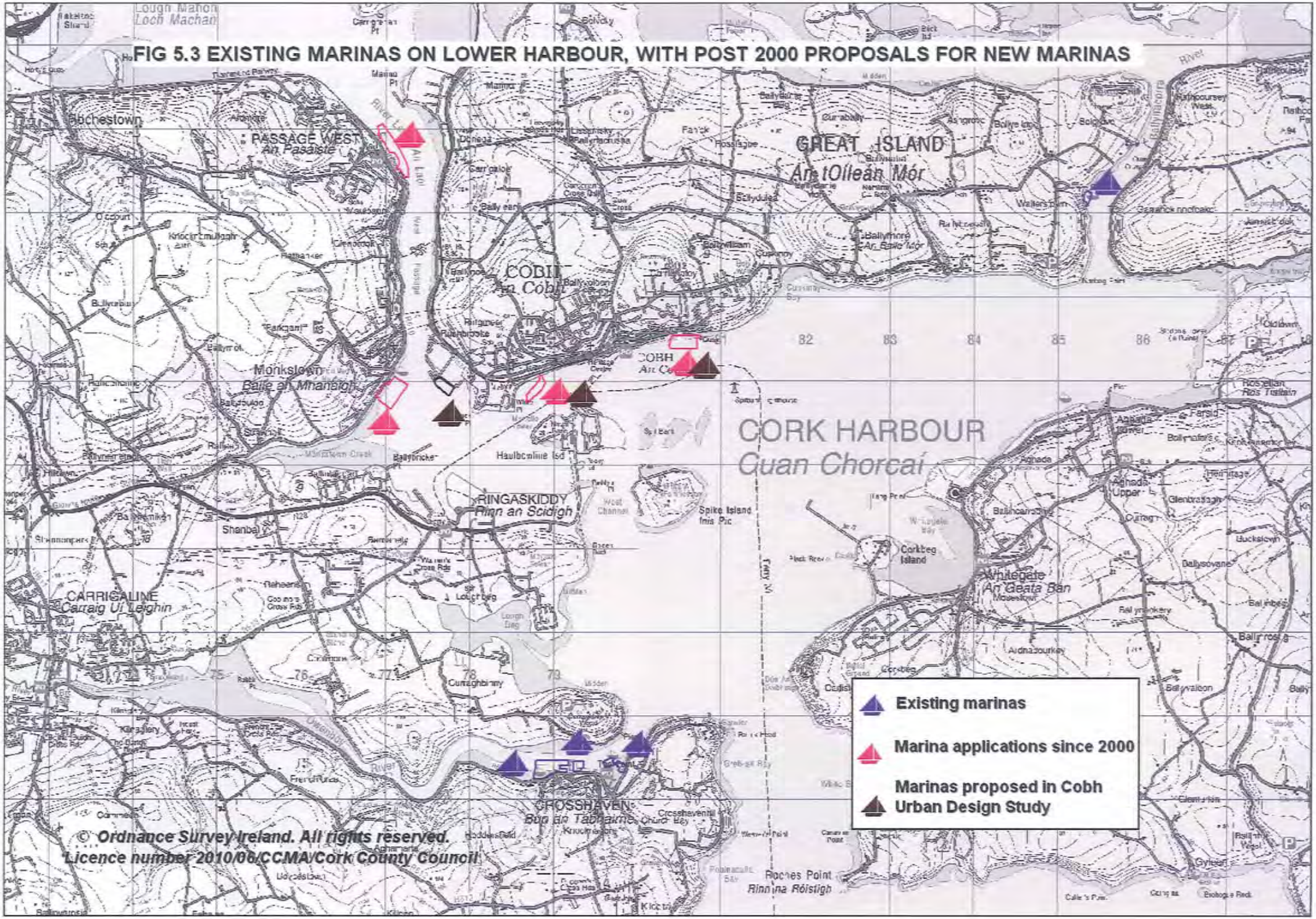
FIG 5.3 EXISTING MARINAS ON LOWER HARBOUR, WITH POST 2000 PROPOSALS FOR NEW MARINAS
Lough Mahon
Loch Machan
Rochestown
PASSAGE WEST
An Pasáiste
GREAT ISLAND
An tOileán Mór
COBH
An Cóbh
Monkstown
Baile an Mhanaigh
RINGASKIDDY
Rinn an Scidigh
CORK HARBOUR
Cuan Chorcaí
Spike Island
Inis Pic
Corkbeg Island
Whitegate
An Geata Bán
CARRIGALINE
Carraig Uí Leighin
CROSSHAVEN
Bun an Tábhairne
Roches Point
Rinn na Róistigh
Existing marinas
Marina applications since 2000
Marinas proposed in Cobh Urban Design Study
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- it already has a significant concentration of tourism activities
- it has an extensive and highly quality area of heritage buildings, which are of considerable tourism value, and which need tourism as a source of demand to keep them occupied and maintained.
- it has suffered from the migration of the main retail activities to the N. outskirts of the town, and needs an alternative source of demand to keep ground floor premises in the town centre in active use.

This suggests that a marina in Cobh should be a priority. There is substantial scope for additional recreational boating in Cork Harbour, and an attempt is made to quantify this in Chapter 7.

Angling Tourism

Sea angling is in a somewhat different category to coastal fortifications and marinas, as it is both well established in the Lower Harbour, and distributed more or less in accordance with the principle of critical mass. Cobh is the principal focus, but piers at Crosshaven, Monkstown and E. Ferry are also used. While much of the angling takes place outside the Harbour, the Lower Harbour provides a sheltered alternative in rough weather, making the activity less weather dependent.

There may be opportunities to improve fishing conditions within the Lower Harbour, for instance through provision of one or more artificial reefs[3], as habitats which could augment fish stocks or compensate for their loss or decline by providing a protected habitat and nursery grounds for fish species

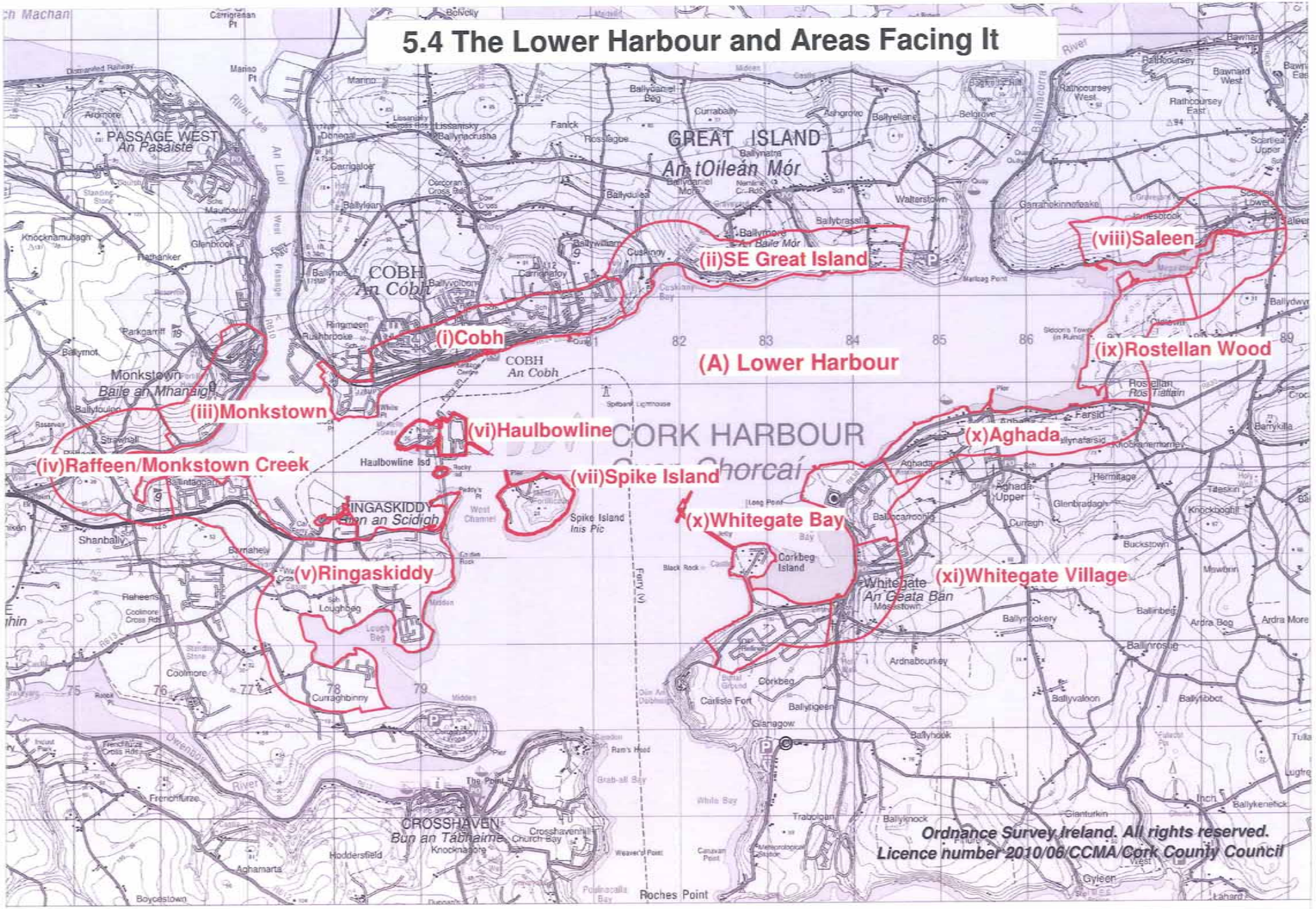
Services to sea for sea anglers (eg chartering of boats, provision of safety equipment, bait rooms, drying rooms etc) are primarily a matter for the businesses involved, but they may also be opportunities for public bodies to promote development of relevant infrastructure, some of which may need to be in shoreline locations. The development of centres of excellence in sea angling along the coast is one of the aims of Bord Fáilte's South West Regional Tourism Development Plan for 2008. The tourism infrastructure fund targets such facilities as angling within its funding provision[4].

The creation of "sanctuary areas" within the harbour may also become necessary, given the changing nature of the fishing industry, and the tendency for larger trawlers to fish in inshore waters. The recent designation of shell fish waters within the harbour is a step forward n the protection of marine waters.

[3] The concept of a sea angling enterprise based around the construction of several strategically placed reefs has been researched.in relation to the Beara peninsula.

[4] Eg Cork County Council received a grant of €137,000 to develop angling facilities on Iniscarra Lake and Lough Aderra in 2008

5.4 The Lower Harbour and Areas Facing It



A. The Lower Harbour, and areas facing it

The Lower Harbour is much the largest body of water within the Harbour (c.5km from north to south, and 10km from east to west), and both physical structures and socio-economic roles accommodated on it are similarly on a large scale.

Cobh is in a dominant central position on the N. side of the Lower Harbour. It occupies a slope 2.5km long, and this is emphasised by long, formally designed south facing terraces. The hillside levels off at around 80m OD, and is emphasised by the strongly vertical Cobh Cathedral, which has a spire c.90m high (c.125m OD).

Cobh and Harbour Chamber of Commerce have looked at the scope for reducing the visual impact of industry on the Lower Harbour, in particular:

(i) the ESB chimney at Aghada
(ii) the recent Centocor plant in Ringaskiddy (sited on a hill)
(iii) the tip created by Irish Steel at the E. end of Haulbowline
(iv) the Whitegate oil refinery
(v) the recent Bord Gais power station at Whitegate.

Of these, (i) is much the highest (152m high, or 155m above OD), and also the least amenable to the type of ameliorative measures suggested by the Chamber, such as landscaping and tree planting.

In socio-economic terms, Cobh is the third largest town in Co. Cork, with a population of 11,300 in 2006. Ringaskiddy is the primary area for pharmachem industries in the State, as well as being the main focus of activity for the Port of Cork. Whitegate/Aghada is major centre for energy generation and distribution of petroleum products, as well as the only oil refinery in the state.

Table 5.2 Estimated Employment and Population Densities in areas facing the Lower River Lee

Area	Population per km2	Jobs per km2
Cobh	3200	550
SE Great Island	90	>20
Monkstown	900	100
Raffeen/Monkstown Creek	120	30
Ringaskiddy	130	530
Haulbowline	-	3500
Spike Island	-	-
Saleen	120	>20
Rostellan Wood	>20	>20
Aghada	420	30
Whitegate Bay	>20	300
Whitegate Village	1200	200

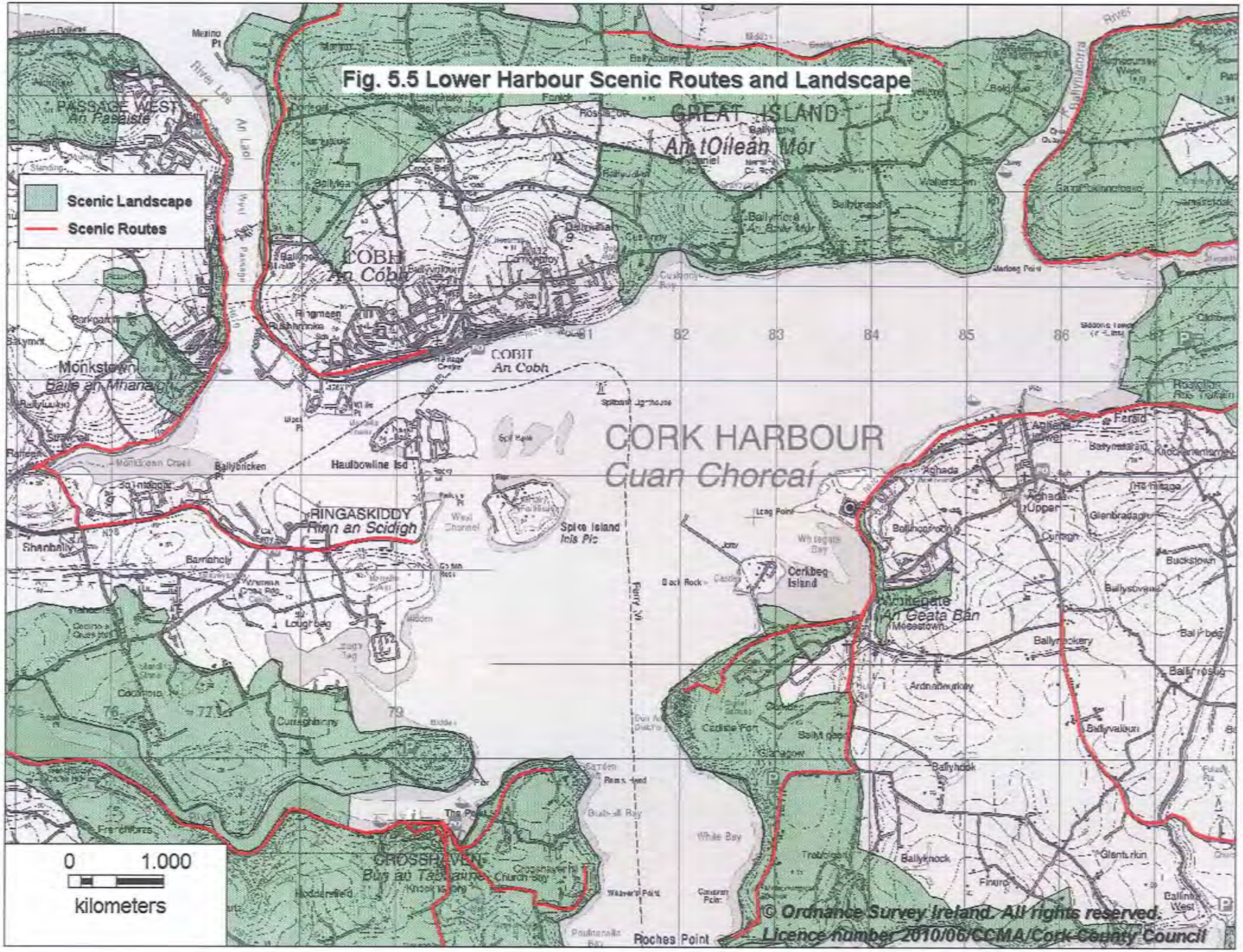


Fig. 5.5 Lower Harbour Scenic Routes and Landscape

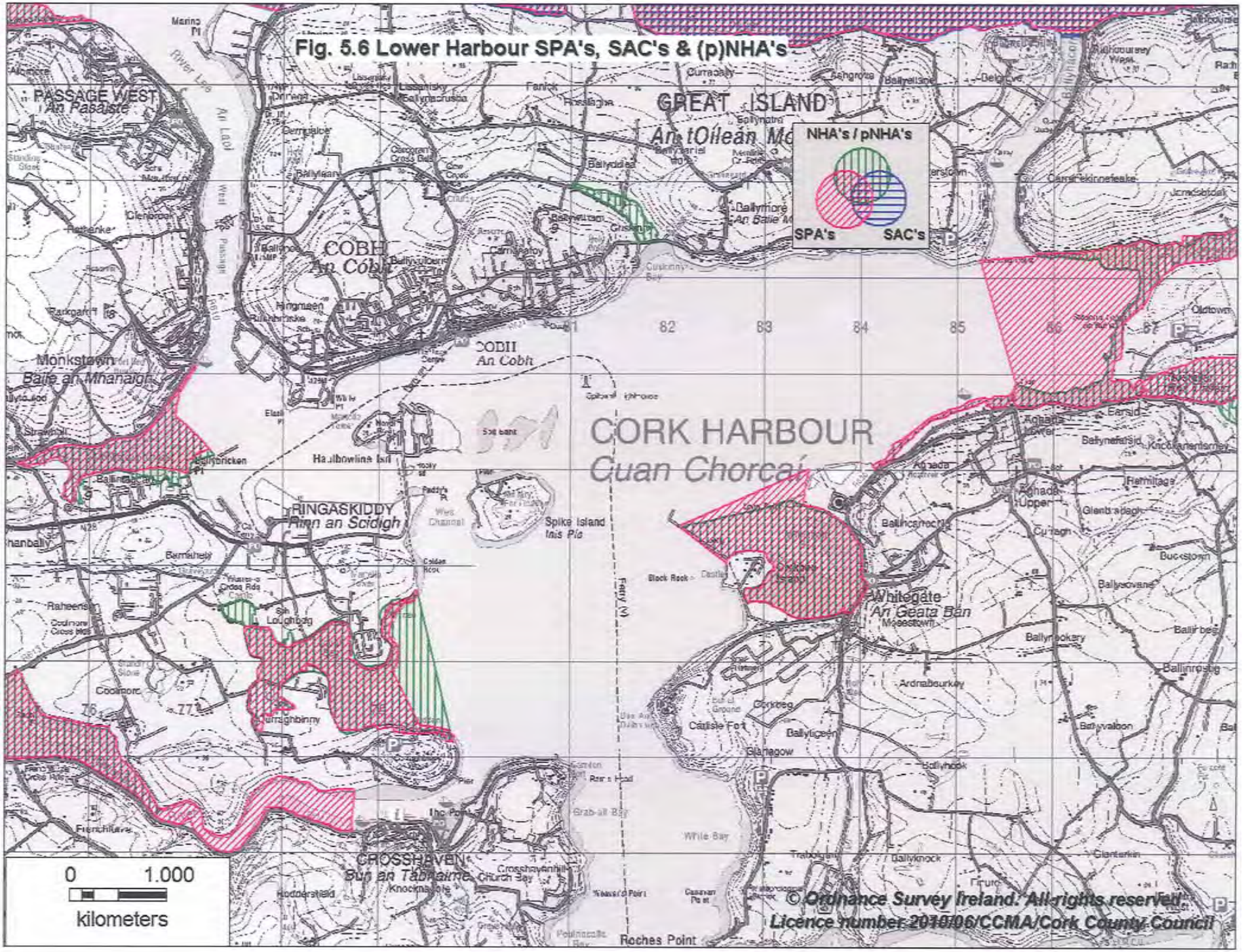


Fig. 5.6 Lower Harbour SPA's, SAC's & (p)NHA's
NHA's / pNHA's
SPA's
SAC's
CORK HARBOUR
Cuan Chorcaí
PASSAGE WEST
An Pasáiste
GREAT ISLAND
COBH
An Cóbh
Monkstown
Baile an Mhanaigh
RINGASKIDDY
Rinn an Scidigh
Spike Island
Inis Píc
Whitegate
An Geata Bán
CROSSHAVEN
Bun an Tábhairne
Roches Point
0
1.000
kilometers
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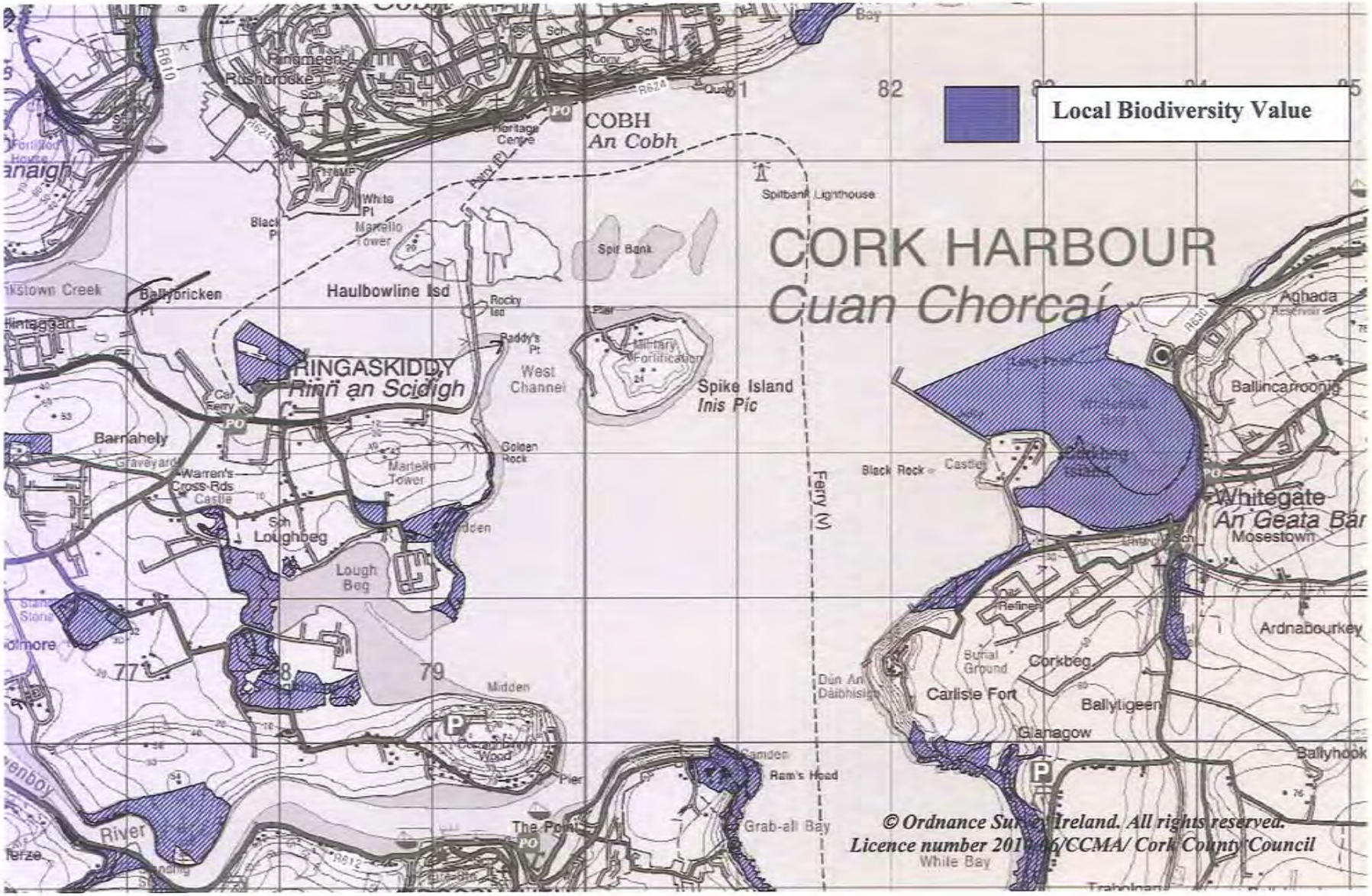
5.7 Lower Harbour Areas of Local Biodiversity Value



(i) Cobh

Cobh poses issues characteristic of Harbour side settlements in an exceptionally strong form:

(a) its main economic functions depend on the Harbour and on ship access. This applies both to the Naval Service, and also to the town's success over the last two decades in developing a substantial tourism function, which focuses on its past as an emigrant port, and relies heavily on cruise liners.

(b) it has been the settlement most affected by the development of Harbour side industries dependent on deepwater ship access (Irish Steel, Verolme and IFI) in the period 1938-1977, and their loss (1984-2003)

(c) being on an island in the middle of the harbour, its cul-de-sac position in terms of land transport make marine cross-harbour connections particularly relevant. It was much better connected by boat a century ago (see Figure 5.9)

(d) it is the largest, most prominent and architecturally most dramatic and interesting of the steep linear coastal settlements characteristic of Cork Harbour, and has an exceptionally long waterfront

(e) Its centre is physically constrained by limited level areas and steep, narrow access roads, leading to loss of anchor retail users to the N. fringes of the town over the last decade, and perhaps leading in the longer term to the loss of other town centre uses, and increased vacancy and dereliction.

(f) it has a large population (in comparison with most other towns in Co. Cork) to be affected by this unusual economic and geographical position.

While the significance of some of these issues naturally varies over time and in response to changing market demand, they are largely the result of the town's geography, and as such liable to continue to affect the town in the long term. Issues (c)-(e) are the ones which affect the part of the town facing the Lower Harbour most directly, and where the need to turn the town's unusual geography to advantage is greatest. These issues are discussed below:

Connectivity (item (c))

Cross-harbour connections are important to Cobh, but are dependent on demand. This is likely to be broadly proportionate to population and employment in a given direction, the methods of transport involved, and the saving in distance, relative to going round by road. The Glenbrook Carrigaloe Ferry is successful because it saves car users c.19km for trips between Cobh and Carrigaline/Ringaskiddy, and c.10km for trips to the S. periphery of the City. These are areas with large populations, employment numbers and services, being accessed by the dominant mode of transport (ie by car). Cross-Harbour movement S or E from Great Island may achieve similar distance savings, but would connect with areas with much less population and employment, and would be more difficult to connect by car ferry.


Fig 5.8 Cobh
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Ticknock Road
Coastal Road
Waterfront East
Cove Fort
Town Centre
Waterfront West
Rushbrooke Dockyard
White Point
For key to CMRC Coastal Inventory data, see inside of back cover

A passenger ferry between Cobh and Ringaskiddy would have obvious connectivity advantages, as it would allow tourists from incoming Swansea-Cork and Brittany Ferries vessels to come directly to Cobh, and those living in Cobh to commute to jobs in Ringaskiddy without using a car. From a commercial point of view, these are however limited markets. Employment in Ringaskiddy was around 3,300 in 2006, and POWCAR analysis in the Census indicated that 160 of these workers lived in Cobh. Most presumably currently use the existing Carrigaloe-Glenbrook ferry. Improved connections could increase this number - Carrigaline has a similar population to Cobh, and is at a similar distance, but has 3½ times the number of Ringaskiddy workers living there - but users of a purely public transport link are going to be quite limited. Ferries arrive a few times a week, in summer, though there would also be other visitors who would park at Ringaskiddy and take the boat to Cobh. While including a stop at Ringaskiddy on a longer route of the proposed Harbour CAT Ferry type – eg between the proposed stops in Cobh and the one in Monkstown - would probably add viability to that route, potential demand may be inadequate to support a freestanding Cobh-Ringaskiddy shuttle service.

The possibility of a passenger or vehicle ferry connection between the E. end of Great Island and East Cork is also raised periodically, and would also help increase connectivity. In particular, a car ferry would encourage tourist movement from the E. Cork coast to W. Cork via Cobh. As its name suggests, the traditional location for such a connection is at East Ferry. The main difficulty with it as a crossing point is that population is sparse and road links fairly basic at both ends. As a result, it might only be viable as a summer only service aimed mainly at the tourist market. It would save around 13km on a trip between Rostellan and Cobh. Ferry link ends at Aghada and Ballydaniel More (c.3km E. of Cobh) would have better road connections and somewhat more population nearby (Aghada, Whitegate and Rostellan had a combined population of 1670 in 2006), and would save around 20km. However, for a car ferry, this would involve a 2km crossing taking c.15 minutes. The per car charge for the 3km Killimer-Tarbert crossing is €18 single, €28 return, so fares might be quite high. The gradual slope of the foreshore on the Aghada side requires a long pier or ramp, though for a car ferry, some of the ramp length could be used for queuing purposes. Both options would require some road construction or widening near the ferry slips.

There are two bases on which a case for public support for cross-harbour ferry connections might be explored further. Firstly, they would have some economic benefits, of a type measurable in a cost benefit calculation. The shorter journeys possible should result in time savings, and reduced car mileage would reduce emissions. Also, increased tourism activity would add to invisible exports, and could also have heritage benefits in the town of Cobh, by improving prospects for use and adequate maintenance of the exceptional group of heritage buildings in the centre of Cobh. Secondly, a passenger ferry would have some social benefits, analogous to those of other forms of public transport, whose benefits are recognised through public support on the basis of the public service obligation involved. The support given to regional air services, in recognition of the access difficulties of the areas they serve,

Figure 5.9: Harbour Steamer Routes operated in conjunction with rail services in late 19th and early 20th centuries
(Source: C. Creedon, *The Cork, Blackrock and Passage Railway and River Steamers, 1850-1932;* Cork, 1992 p.172-3)

perhaps represents the closest analogy to the position of Cobh and Great Island.

Physical Constraints and Retail Functions (item (d))

The Scott Tallon Walker (STW) study suggested making use of the level difference between the front and back of the block on the N. side of West/East Beach to accommodate a multi-storey structure behind the frontage buildings, with a one way vehicle flow down through the structure.

This possibility was raised prior to the decentralisation of anchor shopping to the N. outskirts of the town, as a way of retaining it in the town centre. It illustrates the demanding and expensive adaption of standard development types which may be necessary if the centres of steep linear coastal settlements are to be able to compete commercially. Cobh is the only settlement of this type on Cork Harbour of sufficient size for such projects to have any chance of viability.

Options on the Retail Role of Cobh Town Centre: The possibility of a multi storey parking structure with associated anchor retail use in the centre of Cobh raises the question of whether the town centre should seek to regain such a use and so improve its chances of retaining a critical mass of other conventional retail uses, or whether it should accept the decentralisation of retail anchors that has occurred, and try to capitalise on opportunities to attract niche shops and retail services oriented more towards tourism and leisure than general consumer demand. The arguments on both sides raise capacity issues eg:

- Does Cobh have sufficient demand to support retail anchors both in the centre and at the edge of the town?
- Is the capacity of the shop frontages in the town centre such that they will only be properly used if the town has both a substantial conventional retail role, and a strong niche tourism/leisure related one?
- Is the town centre road system and pedestrian environment capable of coping with both?

A positive answer to these questions would be more likely if any town centre anchor was on a moderate scale.

This parking facility suggested would be a high cost solution, even by comparison with other multi-storey parking structures, and unlikely to be competitive with suburban shopping served by open lot parking, particularly once the latter were established. However, the amount of parking which could be

provided in a multi-storey structure would probably exceed the parking needs of a ground floor anchor retailer, so a structure partly funded by the retailer and partly by the local authority from the proceeds of disc parking might be a possibility.

Cobh's Waterfront (item (e))

The Town Council commissioned the 2009 Urban Design Feasibility Study by Scott Tallon Walker (STW), which can be seen as an ambitious attempt to turn the town's geography – in particular the long waterfront referred to in (c) above - to greater advantage. It proposes a 'string of pearls' strategy, the 'pearls' being 6 sections of waterfront, from Cove Fort at the E. end of the town right round to Rushbrooke Dockyard. Within these sections of waterfront, the Study makes 42 recommendations for sub-areas and buildings, with public realm improvements accounting for around 1/3rd of these.

The Urban Design Study's sub-division of the town's waterfront into sections (included in Figure 5.8) helps define their differing character and relationships with the water, and is used below:

- ***White Point:*** The STW Study suggests three marinas in Cobh, one of which would be in the lee of the White Point peninsula, which would shelter it from the west. As noted above, there is a strong case for provision of at least one marina in Cobh because of the potential for synergy with its established tourism base. The White point proposal has special merit because the marina site adjoins a large car park which is full on occasion, but most of the time has ample spare capacity. As a result, land reclamation for car parking would not be necessary. This has obvious economic advantages, and makes a marina at this point more readily realisable. In addition, the environmental impact of land reclamation is avoided.

The STW study suggests much of this car park could be developed for residential purposes, with land being reclaimed to create a new parking area near the marina gangplank. This would cover a wider range of objectives, but perhaps make the most important one – the marina – less readily attainable, particularly in a weak housing market.

It is however true that the car park in its current state can appear as a large and rather empty space, which perhaps isolates and detracts from the otherwise attractive and well used sea front walk from the station to White Point. A possible compromise might involve breaking the car park up into more visually manageable units through insertion of 2 residential or tourist use blocks which connected back across the rail line to the road behind at 2nd floor level, as well as forwards to the sea front.

- ***Waterfront West (Westbourne Place to White Point):*** If a marina was provided at White Point, it would be important to increase connectivity between it and the town centre. Tourism uses in the blocks described above would help, as would further development of small hotels and other tourism uses in the Westbourne Place area.

  If provided, the landing stage for the proposed Harbour CAT Ferry service would also add to the vitality of this area

- ***Town Centre (Westbourne Place to E. Beach):*** This area of Cobh contains the main architectural set pieces – the two squares, the Crescent and the Cathedral – and also the town's commercial core.

  The STW study suggested refurbishment of the existing hard-surfaced camber on the slope down to the water in the harbour/basin W. of John F. Kennedy Quay, as a stepped slope which allows people to walk down to the water's edge, as it is positioned in front of Pearse's Square in the centre of the town where can be a main focus of activity. The upper part of the slope is dry, with only has small amount of loose dry seaweed, though the surface has deteriorated. The lower slopes, covered by tides on a regular basis, have growing seaweed and are difficult to negotiate on foot.

  While the solution suggested by STW has obvious merit in this particular location, there are other focal urban locations in Cork Harbour in which it would be desirable to improve the connection between quayside public areas to the sea. The tidal variation of c.4m in Cork Harbour, and the need to protect against unusually high tides, typically result in quay walls which are high above water levels at low tide. Even where slips, beaches, or paved slopes instead of quay walls provide better visual connection, their lower parts are liable to become overgrown with seaweed, and the upper parts with detritus and litter.

  The issue has wider application in a small number of focal locations in other parts of the Harbour. Techniques which can be used to achieve a better connection across the high water mark level in urban situations are outlined in the box below (Theme 6):

Theme 6. Improving Visual/Pedestrian Access to Sea Level

Possible of methods of achieving in this focal urban locations include:

(i) a stepped paved slope (as in Cobh – see above)
(ii) wide steps down to a board walk closer to sea level
(iii) a wide gangplank set back from existing line of the sea wall, connecting to pontoon
(iv) a reflecting pool behind and at right angles to a quay wall
(v) lock gates which maintain water at high tide level
(vi) impounded areas which reduce tidal variation by being connected to the sea via pipes of limited size
(vii) artificial or enhanced natural beaches

(i) and (v)-(vii) lend themselves to situations in which there would be a sloping beach and/or mudflats in the absence of intervention, whereas (ii)-(iv) are more suitable in situations where there is a quay wall, and sufficient public space behind it to accommodate the relevant feature. The best opportunities may arise in the various possible port industrial sites around Cork Harbour, if the subject of dockland type redevelopment, but there are other sites (eg in Blackrock village, Passage)

- ***Waterfront East (Old Town Hall to Pilot Harbour):*** Permission has been granted for the more central of the two proposed landing stages in Cobh for the Harbour CAT Ferry at Lynch's Quay.

The foreshore at East Beach south of Connolly Street was the subject of 2 planning applications for a marina and over 100 apartments developments. Both applications were granted by the Town Council but refused on appeal to An Bord Pleanála (in 2003 and 2007). In both cases the Board made it clear that it was not opposed to the principle of a marina development at this location, but that the reclamation platform and buildings proposed on to be built on it would be out of scale and out of character with Cobh.

It is not easy to avoid a large reclamation platform for a marina at East beach, due as much to the width of the existing beach and the level difference with Connolly Street, as to the need for car parking or supporting development. The STW Study advances a proposal to build 3 levels of residential accommodation against the slope down from Connolly Street to the beach, thereby bringing structures closer to the LWM.

The marina layout it suggests includes a westward extension of the marina, from the East beach to water on the seaward side of the recent Sirius Wharf development, where there is an existing quay wall which comes close to the LWM. If satisfactory access could be achieved and other practical obstacles overcome, the alternative of a smaller marina in this position - not involving large amounts of reclamation or non-marina development at East Beach - might be worth considering.

- *Cove Fort*

  As noted earlier in this chapter, Cove Fort dates from the mid eighteenth century, and is the oldest of the forts defending Cork harbour which survives in approximately its original form. The lower part of the fort belongs to the Port of Cork, which has an office building there. A sense of the original star fort design and battery function of the Fort can be gain by descending to the beach, and the Port allows public access to these areas. If the idea of promoting Spike and Camden Forts as part of a longer chronological sequence of fortifications outlined above was pursued, additional on site explanation which explained the function of Cove Fort and its place in this sequence would be needed.

Figure 5.10 The natural amphitheatre at Cove Fort, viewed from the from the Sea

The STW study suggests the steep slope running up towards the back of the Fort has potential for a landscaped amphitheatre, with seating set into the hillside and looking down on a stage at roadway level. The site is a quite dramatic one, within reasonable walking distance of the centre of Cobh. The Irish climate obviously poses some difficulties for open air performances. STW suggest the amphitheatre might be covered. Alternatives would include greater vertical spacing of the seating on the assumption that the audience would sometimes need to use umbrellas.

As a source of evening entertainment in Cobh, the amphitheatre proposal would fit well into a policy of building a critical mass of tourism attractions incrementally in the town. A local operator would be a major advantage, and could be essential to the success of the concept. A less ambitious approach might involve its use by local performing arts groups.

Fig 5.11 South East Great Island

For key to CMRC Coastal Inventory data, see inside of back cover

(ii) SE Great Island

SE Great Island is a rural area, though there is a small diffuse settlement of Ballymore/Walterstown centred around 1 km N of the coast. The 4 ½ km of rural and heavily wooded coastline make an important contribution to the balance between urban and rural uses on the Lower Harbour, and is a particularly prominent feature from the Aghada area.

The first 3km section of coastline E. of Cobh incorporates the coastal parts of Cuskinny and Ballymore, much of which are steep, wooded, and used as the often extensive grounds of large houses overlooking the sea.

Cushkinny marsh is located in the centre of this section c. 1km E. of the town. The marsh is at the mouth of Cuskinny nature reserve which comprises 12 hectares of land located along the Ballyleary stream. It is a popular spot for bird watching and an important local amenity and is used by local schools for educational purposes[5] and walking clubs. Regular recording of the bird population began in the early 1970's, and in 1990 BirdWatch Ireland established a nature reserve. The marsh itself is now designated an NHA, (site code 001987). The dominant habitat is a brackish lake joined to the sea through a sluice gate. Surrounding the lake are common reeds and wet deciduous woodland. The main interest in the area is ornithological, and the lake supports locally important numbers of ducks and swans. The main land use is management for conservation purposes, the site is an Irish Wildbird Conservancy Reserve. The marsh hosts a mix of habitats within a small area supporting locally important numbers of wildfowl[6].

The Lee CFRAMS[7] Draft Report has identified the marsh and the road which separates the marsh from the harbour as an area vulnerable to tidal flooding, with a 10% chance of flooding in any given year

Further E., in Ballybrassill, the slope down to the coast is more gradual, with a landscape which is farmland rather than woodland. Perhaps because of this, it is quite densely developed with one off houses

Marloag Point is further east again, at the SE tip of the island. A large wood - Marloag Wood - extends c. ¾ km W and c. 1 km N along the coast from the Point. The wood is a mixture of conifer and broadleaf and is owned by Coillte. It overlooks the harbour and is open to the public as an amenity, with woodland walks served by a small car park.

[5] www.cuskinnynaturereserve.net

[6] Site synopsis, (site code 1987)

[7] The Lee Catchment Flood Risk Assessment and Management Study

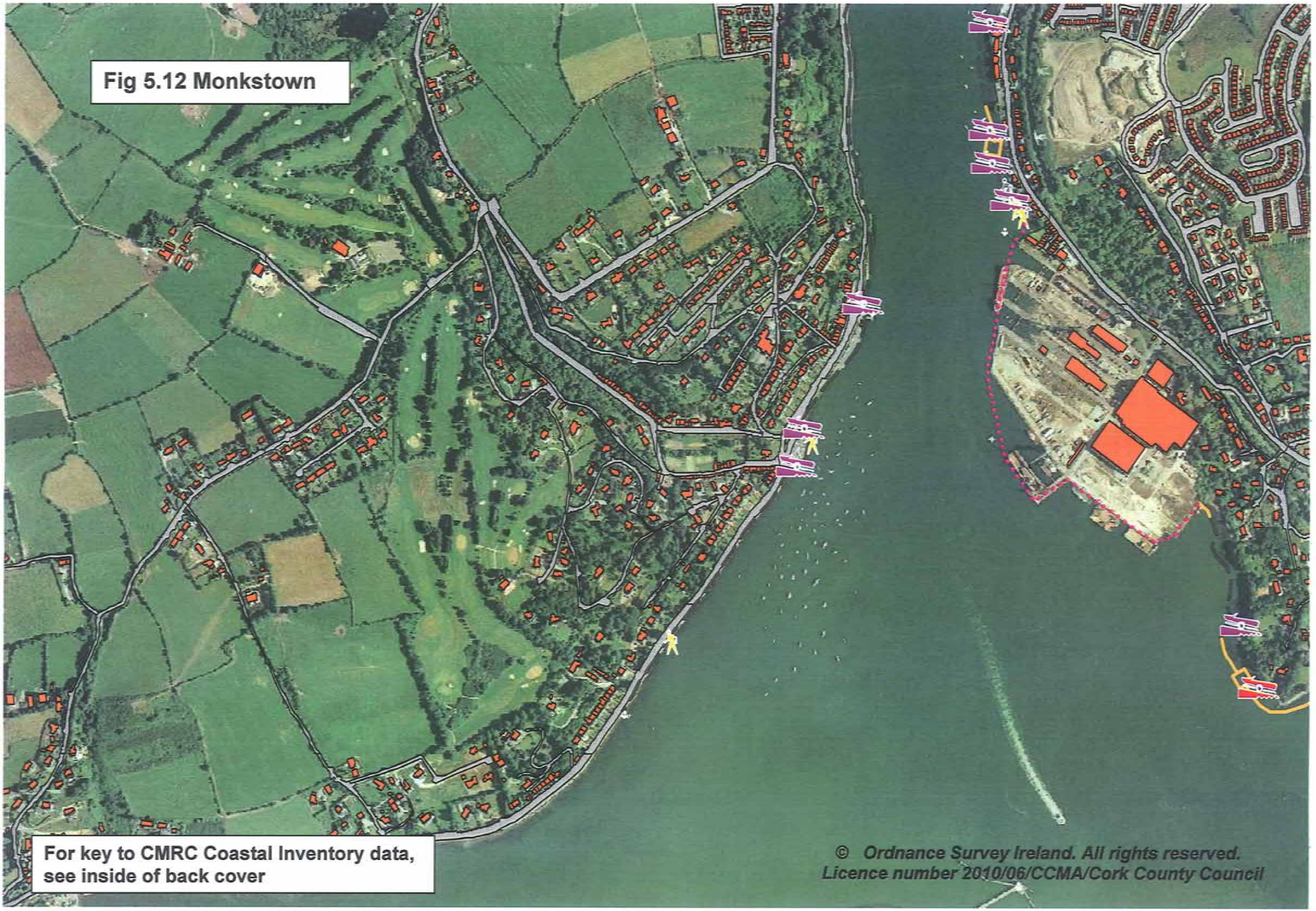
Fig 5.12 Monkstown
For key to CMRC Coastal Inventory data, see inside of back cover
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(iii) Monkstown

Monkstown is a steep linear coastal settlement on a southward continuation of the sloping hillside on which Passage and Glenbrook are also built. However, unlike Passage, it faces SE rather than NE, and thus has a more favourable solar orientation. It is also unlike Passage in that there is no development on the seaward side of the R610, so lower as well as upper areas of the village enjoy extensive sea views, as does a long and well used section of footpath along the sea front. These views include industrial areas, across the West Passage to the cranes of the former Verolme shipyard at Rushbrooke, south along the coast road to Ringaskiddy, and SE across the Lower Harbour to Whitegate and Aghada.

The village has limited room for expansion, as immediately to the west, there is a golf course, woodlands formerly forming part of the lands of Monkstown Castle and now containing a limited amount of modern development, and a steep sided wooded valley known as the Glen. This setting, while restricting expansion, adds to its amenities.

Much of the lower part of the village is included in two Architectural Conservation Areas in the 2009 County Development Plan. Monkstown Castle, which dates from the early 17th century, decayed during the 2nd half of the 20th century to a not very stable ruin, but has recently been restored privately to a high standard as a residence.

Monkstown Bay Sailing Club are located at the Sand Quay, in the centre of the town, with approximately 70 small boats stored on land. The existing facilities are seen as inadequate, and both the Sailing and the Rowing Club Club have been supporters of marina proposals for the area south of the Sand Quay, which would them provide them with additional facilities. Permission was granted in 2007 for an 82 berth marina and 23 parking spaces (the latter on existing land). Subsequently, an application was submitted for a 285 berth marina and 174 car parking spaces (on reclaimed land), but has not yet finally been determined. The latter application involves reclamation of 0.9 ha and covers an overall area (including water) of 8.7 ha.

A marina at Monkstown is likely to be primarily for recreational users from the Cork area, though Monkstown is an attractive village, and could also be used by some visiting boats. There is some potential for synergy between a marina and local businesses (eg pubs, restaurant, shop, boatyard). However, local tourism accommodation is very limited, and it is difficult to see this changing greatly, so development of a significant tourism role seems unlikely. Its modest scale is however part of the attraction of Monkstown, and should perhaps be regarded as an asset rather than a problem.

A ferry landing and pontoon has been granted permission at De Vesci Place in Monkstown as part of the proposed Harbour CAT ferry service from the City to Cobh. The site adjoins a public car park. It would provide direct public transport access to Cobh as well as Cork City.

Fig 5.13 Rafeen/ Monkstown Creek

For key to CMRC Coastal Inventory data, see inside of back cover

(iv) Raffeen/Monkstown Creek

Monkstown Creek is a tidal inlet and adjacent brackish lake between Monkstown and Ringaskiddy. It forms part of the Cork Harbour (SPA), site code 004030. The area is also designated a pNHA, site code 1979. The mudflats support waterfowl including Shelduck, Teal, Redshank and Dunlin. On the S. side of the creek, Pfizer developed or took over industrial buildings near its mouth, and established a golf course its head of the creek as a social facility for their workers. The golf course, and several tree belts near the shoreline, soften the visual impact of the industrial buildings.

The footpath on the coast road from Monkstown does not at present extend as far as Raffeen. However, much of the former disused rail track between Monkstown and Carrigaline still exists, in various forms:

- as a causeway on the seaward side of the road as far as Raffeen;
- through a wooded strip from Raffeen to the junction with the N28 at Raffeen Bridge; and
- in the form of a cutting running from the N28 into the NE suburbs of Carrigaline.

The route is significant as a potential cycleway connection between Carrigaline, Monkstown/Passage, and (via the vehicle ferry at Glenbrook) to Cobh and Fota, and a cycle connection between the two largest towns in the Lower Harbour area should be in reasonable demand. It would also provide a southward extension to the existing coastal walk through Monkstown.

There are some issues which would have to be resolved:

- a section of the old rail line near the head of Monkstown Creek directly adjoins the SPA, so an Appropriate Assessment would be needed

- at present, it is not particularly easy for cyclists or pedestrians to cross the N28.

The N28 is due to be replaced by a new road which will run a few hundred metres S. of it in the area near Raffeen Bridge. Downgrading the existing road may allow provision of a cycle lane and crossing. Proposals for the new N28 show the Rock Road N. of Carrigaline passing under the new road via an underbridge, slightly N. of the point where the it passes over the track of the old rail line. It should be possible to provide for cyclist movement from the rail track through this underbridge (which would need to be wide enough to accommodate cyclists as well as vehicles) and across the existing N28.

A further possibility would be to take advantage of the downgrading of the existing N28 to create a connecting cycleway along it from Raffeen Bridge to Ringasiddy village and the employment there. This would be attractive primarily for commuters coming from the NE side of Carrigaline, but cyclist from Monkstown might also prefer a reasonably level route via Raffeen Bridge to the much steeper and narrower road from Raffeen up to Shanbally.

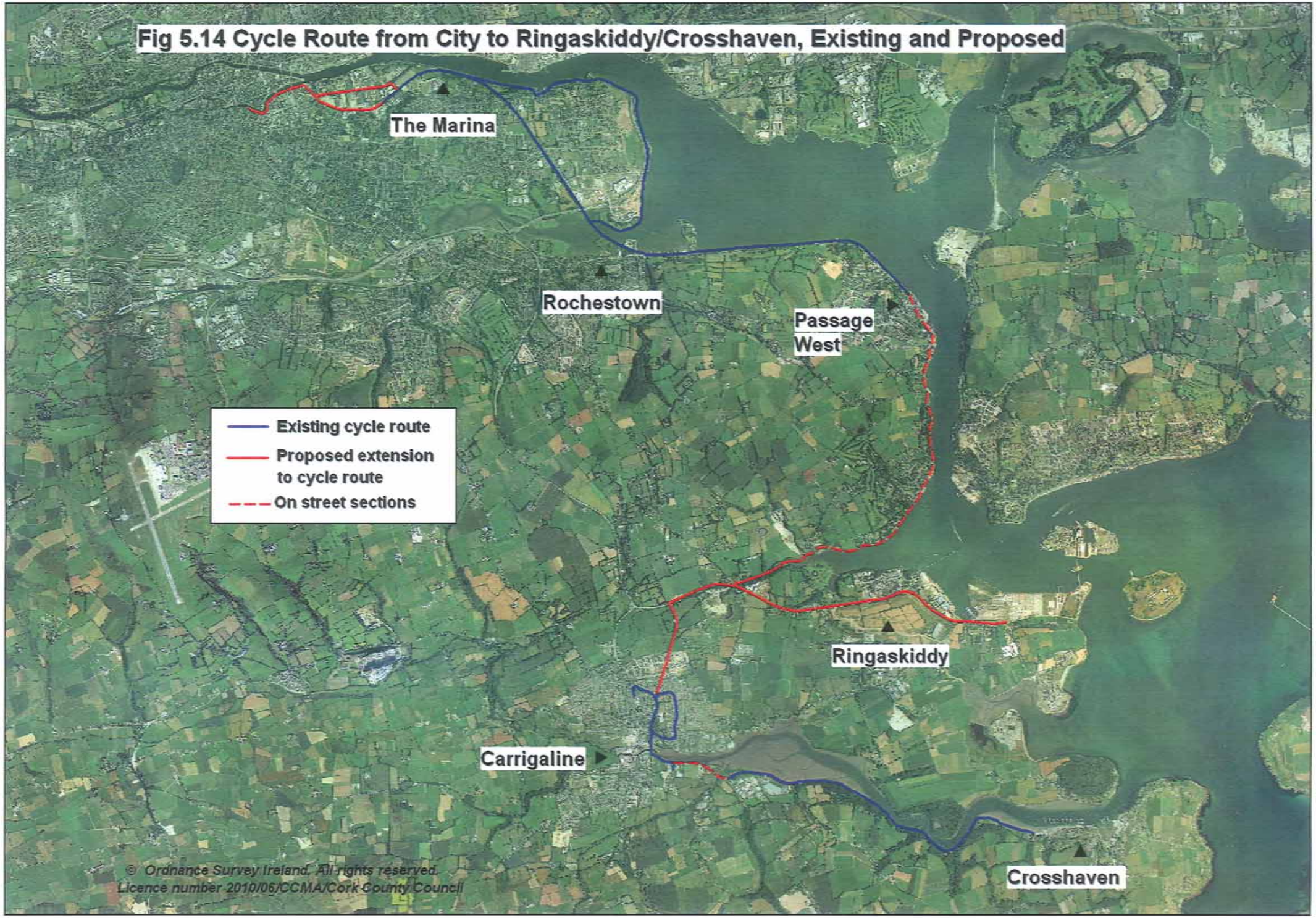
Fig 5.14 Cycle Route from City to Ringaskiddy/Crosshaven, Existing and Proposed
The Marina
Rochestown
Passage West
Ringaskiddy
Carrigaline
Crosshaven
Existing cycle route
Proposed extension to cycle route
On street sections
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Theme 7: Urban/Tourist Use of Coastal Footpaths/Cycleways

The recreational and transport value of the disused rail line on the W. side of the Harbour can be increased if opportunities to create links which connect to major housing and employment areas are exploited. An existing example is the way in which the Rochestown-Passage more or less connects with the Rochestown-Blackrock section, facilitating inward job-related movements to Mahon, and outward, recreational movement from the SE of the City towards Passage. Carrigaline is the other main population centre W. of the Harbour, and a further suggestion on connecting the southern side of Carrigaline to employment at Kilnagleary and the rail line walk to Crosshaven is made in. Disused rail lines make good cycleways because they are more or less level, and because they originally provided a continuous corridor, much of which is often still there or can be restored without undue difficulty.

The 2007 *Strategy for the Development of Irish Cycle Tourism* and the supporting 2006 report for the Cork-Kerry region envisaged a tourist cycle route linking Ringaskiddy port with Cork city centre. Much of this route is already in place. The missing sections are Passage – Ringaskiddy, and the Marina – city centre. The City's proposals in the S. Docks, LAP, together with those in this section and section B(iii) below, would largely fill those gaps, and would create pleasant cycle route running mainly along the waterfront which was separate from the road system for most of its length. The possibility of connection through Carrigaline and the old rail line route to Crossahven would be an added bonus.

(v) Ringaskiddy

Ringaskiddy was originally a small village, with a line of mostly 19th century buildings on one side of the main street facing the Harbour on the other. There was an extensive intertidal area in front of the village, with a causeway across it out to the pier and also to a small offshore island.

In 1969, Pfizer established a plant producing citric acid W. of the village. Following the 1972 Harbour Development Plan, the seaward side of Ringaskiddy was developed as the main new downstream location for the Port of Cork, with large areas of foreshore being reclaimed, and its landward side was developed as one of two major Harbour-related industrial areas (the other being Little Island). To facilitate this latter role, the IDA acquired a large land bank, and a high volume water supply was provided via the City and harbour water scheme. This broad approach was endorsed by the 1978 LUTS Plan, which included road improvements which would inter alia would make Ringaskiddy more accessible. These included upgrading of the Mulcon Valley section of the N28 in Rochestown, and provision of a crossing of the River Lee downstream of the city centre.

Industrial Role

The intended industrial role of Ringaskiddy has evolved over time. At the time of the 1972 Harbour Development Plan, there was an expectation that many of the industries attracted would be of the bulk processing type and would require ship access and plentiful water (IFI was an example of such an industry, though not in Ringaskiddy). It was considered that such industries would only come to Cork if advance facilities were provided. By the mid 1970s, the IDA had acquired a land bank of 950 acres (380 ha.).

In practice, pharmachem rather than bulk process industries came to dominate. One consequence was that early concerns with smells and possible health risks from such plants helped force stronger environmental regulation and the establishment of the EPA[8]. The rate of industrial development was initially fairly slow, and there was a view in the 1980s that Cork had overcommitted to Harbour related industries, at the expense of high tech/IT sectors which preferred locations closer to the City. However, the potential of Ringaskiddy has been more fully realised in the period since 1990.

In the past decade, there has been a shift of emphasis from pharmachem to biopharm type industries, the latter exemplified by Centocor (2005-8) and the biotechnology plant built in Shanbally by Pfizer in 2008. There has also been a increasing tendency for greenfield sites to be supplemented by recycling of developed industrial plants, either through resale of such plants to another firm, or redevelopment of a cleared site (as in the case of Pfizer's plant in Shanbally).

[8] There are currently 4 Seveso uses in Ringaskiddy, at the Pfizer campuses at Ballintaggart and Loughbeg, and at Glaxo Smith Kline and Novartis

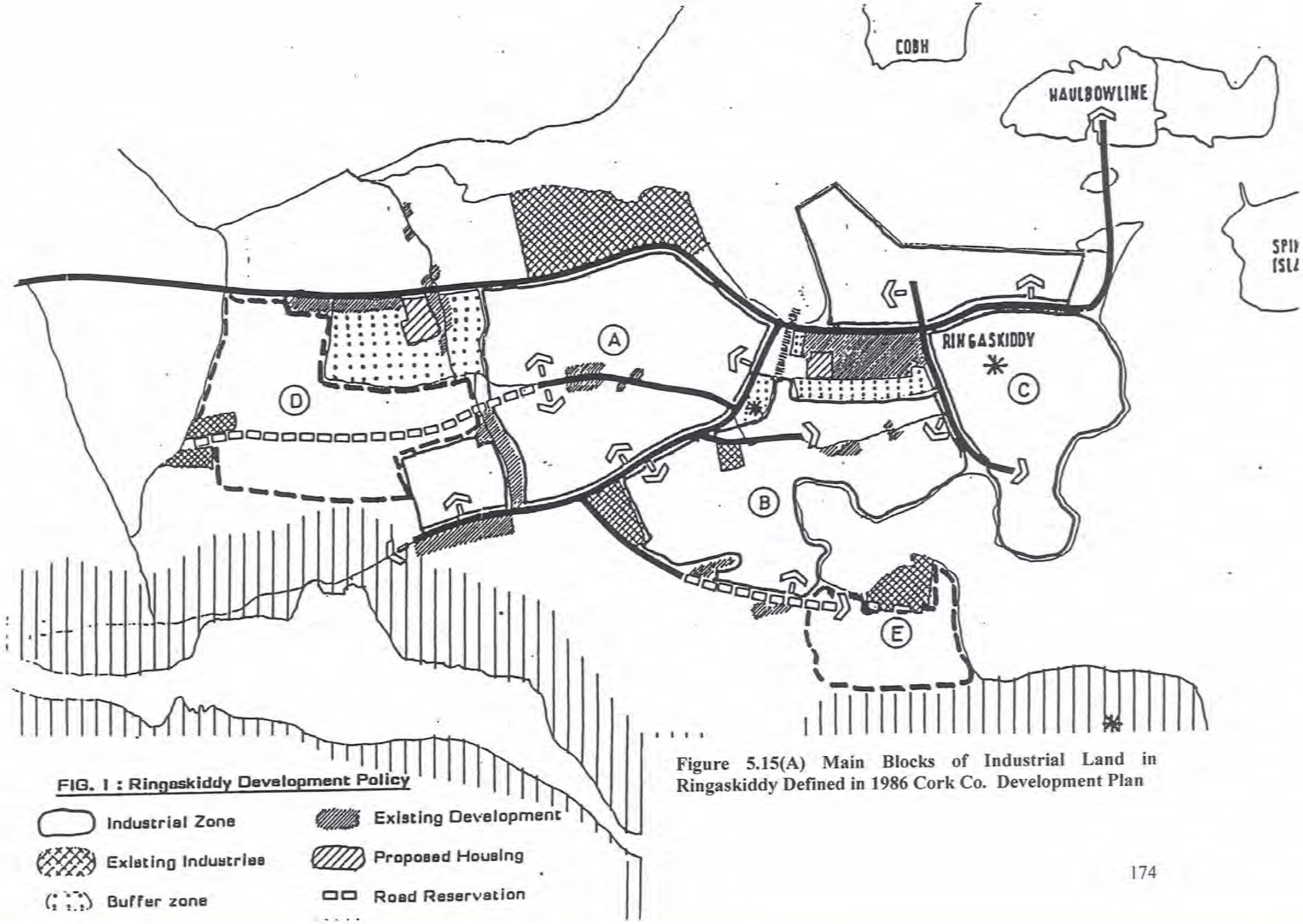
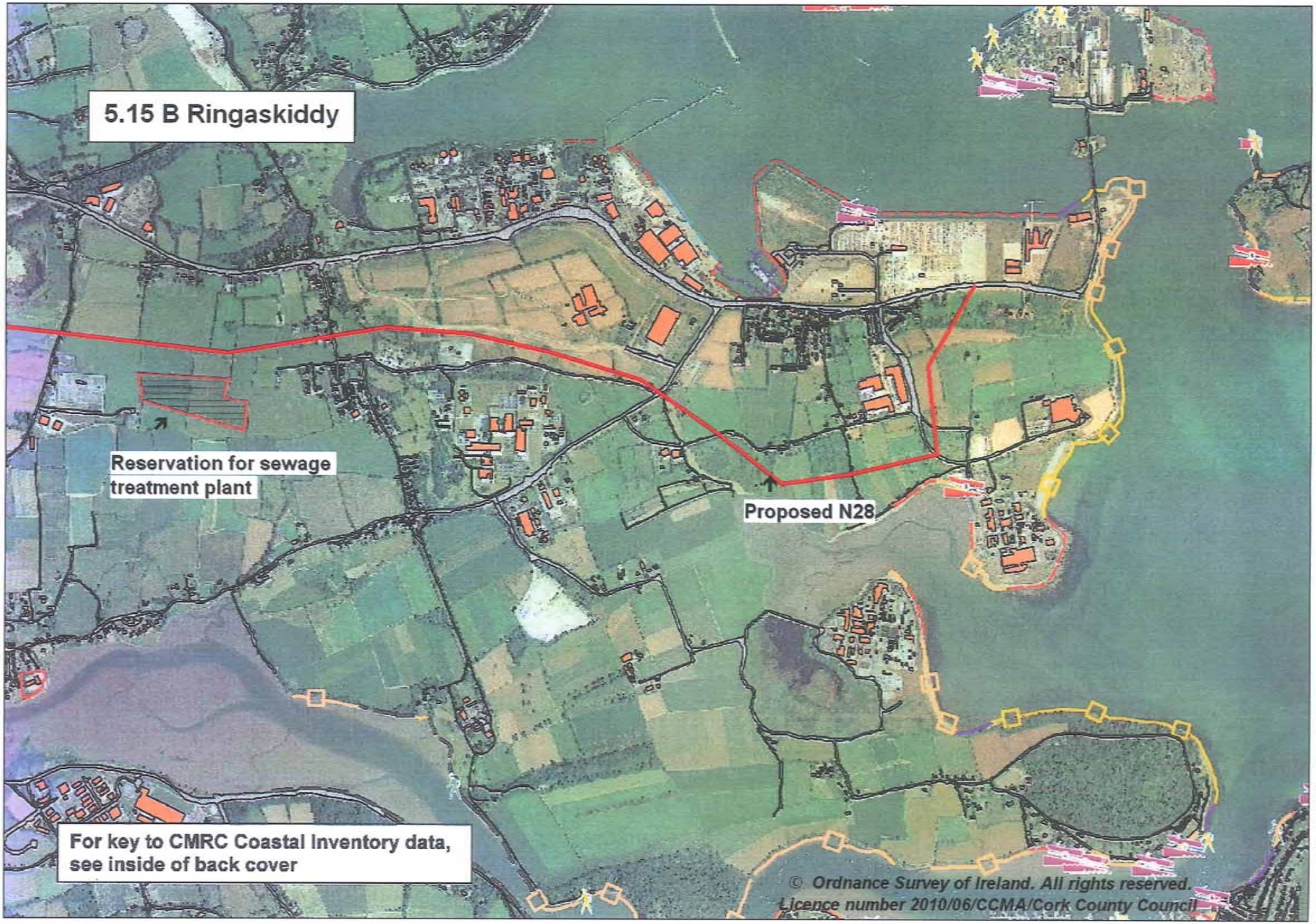


Figure 5.15(A) Main Blocks of Industrial Land in Ringaskiddy Defined in 1986 Cork Co. Development Plan


5.15 B Ringaskiddy
Reservation for sewage treatment plant
Proposed N28
For key to CMRC Coastal Inventory data, see inside of back cover
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While very capital intensive, and therefore predisposed to remain in place over quite long periods in order to recoup the initial investment, pharmaceutical plants have a finite lifespan, which has come to an end for some first generation plants. They are also vulnerable to less predictable events, such as takeovers of or by parent companies, or some adverse clinical reactions to key drugs. Patents also have limited life, and it may be more difficult than expected to develop suitable successor products when they end.

While the presence of a substantial specialised skills pool is probably the prime factor supporting Cork's role in this sector, a continuing supply of suitable land is also important to Cork's capacity to attract new firms. The preference for large sites with extensive peripheral buffer zones which can planted and landscaped is a characteristic of the sector, and helps maintain an attractive environment for it.

Figures 5.15 (A) and (B) illustrate the partial absorption of Ringaskiddy's industrial land bank over the past quarter century. Figure 5.15(A) is copied from the 1986 Cork County Development Plan, and shows the situation at that time. The amount of land actually developed for industry at that time (shown cross-hatched) is quite modest, and there are five large, undeveloped blocks of potential industrial land (labelled (A)-(E).

The opposing page shows how much greenfield land remains available from these 5 blocks. Specifically, the situation in Blocks (A)-(E) has changed as follows:

(A) This block is no longer available, as it is now largely in the ownership of Novartis and Centocor. Construction of the Centocor plant postdates the 2005 aerial photo base, so it is not shown. The Centocor site is much larger than the area now developed, and extends back to Shanbally.

(B) Much of this area remains available and in the ownership of the IDA. There is a large sub area of around 50 ha W. of Lough Beg. However, the part of the area on the N. side of Lough Beg will be bisected by the new N28, leaving relatively constrained sites.

(C) The S. half of this area has been developed since 1986 and is occupied by the Pfizer Loughbeg and De Puy plants. The N. half remains in IDA ownership, and has a gross area of 43 ha, but is in practice constrained by the sensitivity of the hilltop areas close to the Martello Tower, steep slopes down to the existing N28, and the elongated nature of the more developable S. facing slopes.

(D) This area remains largely undeveloped, but will be bisected by the new N28, and part of the S. half is required for a Wastewater Treatment Plant for the Lower Harbour Sewerage Scheme. Sub-blocks will remain N. of the new road, and also NW of the Coolmore gates, but both are constrained by slopes and proximity to housing.

(E) At this stage, most of the developable eastern portion of this block has been developed. The western portion is low lying, partly wetland, and partly incorporated in the SPA and pNHA which also cover Lough Beg.

The Business Land Availability Study estimated that there are 173 hectares of land available for industrial development, and a further 63 hectares zoned for enterprise. These figures do not include any land within the ownership of an existing user, as it is not considered available for new users. However, as can be seen from Figure 5.15(B), there is only one undeveloped site in Ringaskiddy within this land bank of similar size to that acquired by Centocor in 2005 (c.50 ha). There are however 2 others readily serviceable sites of this size zoned for stand alone industries elsewhere in the Cork area, in the NE corner of Little Island (see Ch.4), and E of Carrigtwohill (the site on which Amgen has permission). (An unserviced site SE of Saleen was also zoned in the 1996 and 2003 County Development Plans, but not in the 2010 Draft Local Area Plan).

Availability is less of a problem for medium sized sites (eg of 10-25ha.) in Ringaskiddy, as these could be created in blocks (C)-(D), and (subject to land assembly) on the part of block (B) N. of Loughbeg. If there is a compulsory purchase order to acquire land for the section of the new N28 north of Loughbeg, consideration might be given to acquiring the somewhat fragmented holdings between the new road and Loughbeg, particularly if the alternative is to compensating or offsetting severance of lands in their existing agricultural use.

Theme 8: Large Industrial Sites (40ha.+)

The evidence of the last quarter century in Ringaskiddy is that in the longer term, sites with the potential to accommodate large industries do get used up. In 1986, there were 5 potential 50 ha sites in Ringaskiddy: 2 in block (A), and 1 each in blocks (B)-(D). Both sites in block A have been developed or committed, block (C) has been subdivided to accommodate 2 medium sized industries, and block (D) will be divided by a new main national road, and part of the larger half is required as a Waste Water Treatment Plant. Only 1 of the 5 potential 50 ha. sites existing in Ringaskiddy in 1986 is thus still available.

In the past, interest in large industrial sites has tended to be intermittent, with periods in which there is pressure to identify such sites alternating with ones in which opportunities to market them are not expected. For instance, prior to the interest in such sites associated with the Centocor and Amgen applications in 2004-6, they were previously seen as a priority in the mid 1990s. As a result, the Saleen site and a (different) large site E. of Carrigtwohill were added at a late stage to what became the 1996 County Development Plan. There may thus be a case for taking a long-run view on the need for such sites, even though there will be periods where this diverges from shorter term market assessments.

Availability of large sites is a distinct issue from the general availability of business land, as it depends on land being available in large uninterrupted blocks.

Ringaskiddy and Shanbally villages

From the 1970s onwards, there has been a need to protect these villages from the potential adverse effects of their position within a larger, predominantly industrial and port zone. As the diagram from the 1986 County Development Plan reproduced as Figure 5.15(A) illustrated, the primary method of achieving this has been the use of buffer zones. Some development has occurred on the S. side of both villages, making them deeper and creating more substantial residential areas.
Both are also subject to substantial commuter and port traffic and should benefit from the transfer of much of this to the new N28. Ringaskiddy in particular has a long and handsome main street, and there may be an opportunity to enhance it once it ceases to be the N28.

Limited bus services may contribute to the large volumes of commuter traffic. The current 223 bus service from the City runs via Rochestown, Passage and Monkstown to Ringaskiddy. These intermediate locations are probably the ones best served by the 223, and 2006 Census data suggests around 10% of Ringaskiddy employees live in them. However, there is no bus connection to Carrigaline, where a further 15% of Ringaskiddy workers live, and some of the main employers are also at a distance from the bus route. Both problems might be addressed by continuing the 223 onward from its current terminus[9] in Ringaskiddy through southern parts of the industrial area to Carrigaline. The eastern end of the new N28 could facilitate the necessary loop at the E. end of the peninsula, as well as providing residents of Ringaskiddy with public transport access to the nearest large town.

Port Expansion and Relocation

The main recommendations of the Port of Cork's 2002 Strategic Development Plan related directly to Ringaskiddy. A number of reasons were cited for undertaking the study, including the need to respond to:

(1) growth in traffic and changes in vessel types
(2) proposals for redevelopment of the City Docks
(3) "conflicting leisure, residential amenity, commercial, industrial, environmental and planning demands within Cork Harbour"

(a) related primarily to container traffic. Tivoli was expected to reach capacity by c.2010, and draught restrictions there made a new terminal elsewhere desirable. The Plan recommended this be provided through reclamation of the 'Oyster Bank', involving outward extension of the existing reclaimed port area on the seaward side of Ringaskiddy village.

In responding to (b), the Plan considered that c.350m of quay would be needed to replace the quays lost in the City, and that while some relocation (eg to areas vacated by the departure of the container terminal from Tivoli) might be possible, existing facilities would be inadequate to meet this need. Reclamation on the W. side of the ship basin at Ringaskiddy (ie NE of the

[9] Some peak hour services continue to Haulbowline, and probably need to do so, as the Naval Service is a major employer. To connect to Carrigaline as well would require increasing peak frequency on the route (currently c.2 per hour out from the City in the morning and back in the evening)

former ADM facility) was therefore proposed. As this would cost c.€58m , and as the Port would not gain any extra income from the transfer, the compensation it received for relocating from the City Quays would have to cover this capital cost.

The Port of Cork sought permission to relocate the Tivoli container terminal to the Oyster Bank in Ringaskiddy in 2008. The proposal involved reclamation of 18 hectares of land, extensive sea bed dredging, installation of cranes and associated buildings. An Bord Pleanála accepted in principle the need to relocate from Tivoli, but refused the specific proposal, as they considered port related goods movements would:

- use the Jack Lynch tunnel, Bloomfield interchange and other ring road junctions and exacerbate congestion there
- be unable to use rail – a *'retrograde step in terms of sustainable transport planning'*

The refusal perhaps illustrates the Port's 3rd reason for undertaking the 2002 Plan, namely the wide range of potentially conflicting functional and policy considerations affecting the Harbour. While the Board's reasons were based on (landside) transport and sustainability considerations, they also reflected the special constraints of the Harbour. The Jack Lynch tunnel and Bloomfield interchange are overloaded for a reason – namely because they are the lowest road crossings of the River Lee and Douglas Estuary, on what is now the main transport corridor serving the W. side of the Harbour.

The Port of Cork responded to the Board's decision with a Review of their Strategic Development Plan (2010), which revisits the various options. It considered those at Ringaskiddy, Marino Point and the Dogsnose Bank (off Whitegate) in some detail, as these scored highest on preliminary assessment of the 3 main trade categories (containers, dry bulk/general cargo and liquid bulk). As indicated in the discussion of Marino Point (Ch. 4 (D) (i)), the Review saw a container port at Ringaskiddy as a better option than at the most obvious alternative sites.

It may be useful to step back from the detailed comparison of alternative sites in the Review, to consider some broader implications of the issues highlighted by the Board's decision. From the perspective of this Study, 2 in particular stand out:

(1) ***Port Location and Coastal Corridors:*** There is a certain inevitability in the container port being in a location which is accessible via congested roads. In its current location at Tivoli, it is accessed from the N8, on the major transport corridor running along the N. and E. sides of the Harbour. This is a congested location at present, and was considerably more so, until the opening of the Jack Lynch tunnel in 1997 put it upstream of the lowest Harbour crossing. If the container port were relocated to one of the alternative sites on the E. side of the Harbour considered in the 2002 Harbour Development Plan or in the 2010 Review, much of the consequent traffic would still use the Dunkettle interchange. Any port facility on Cork Harbour will be on one of the coastal transport corridors described under Theme 2 (Ch.3), and these connect with each other and most of the main inter-urban routes via Dunkettle.

Table 5.3 Actual and Planned Population and Employment in East and West sides of Cork Harbour

	2006 (actual)		2020 - CASP (2001)		2020 - CASP Update	
	Empl.	Pop.	Empl.	Pop.	Empl.	Pop.
EAST HARBOUR AREA						
Midleton	4702	10315	8370	21010	6202	23429
Little Island/Glounthaune	12760	6555	9080	5340	14934	6883
Carrigtwohill/Midleton hinterland		9685		17220		20303
Cobh	3380	12880	5600	14570	4380	16370
Whitegate/Aghada	743	3149	1090	2200	2743	3306
Total	21585	42584	24140	60340	28259	70291
WEST HARBOUR AREA						
Carrigaline/Ringaskiddy	7816	12677	8430	14280	10316	14280
Crosshaven	426	3061	2260	4010	526	4010
Carrigaline Hinterland		3985		3140		4184
Douglas and S. City Env.	13234	27716	14100	25220	14734	30102
Monkstown and Passage	806	5650		5740	906	5740
Total	22282	53089	24790	52390	26482	58316

Source: CASP Update, Tables 3.6 and 3.7, p.56-7.

Similarly, while an alternative container port at Marino Point or Whitegate might avoid loading significant further traffic onto the section of the N25 which runs through Mahon, it would add to that using the section which runs N. of Little Island instead. This is also heavily used, and likely to become more so, as a result of the major expansion planned by CASP for Midleton and Carrigtwohill. As Table 5.3 indicates, there were roughly equal numbers of jobs on the E. and W. sides of the Harbour in 2006, and projections in CASP and the CASP Update suggest this will continue. However, population on the E. side of the Harbour is c. 80% of that on the W. side at present, but CASP projections envisage this ratio being reversed in the medium term.

(2) ***National Context for Port Functions:*** The Board's 2nd refusal reason raises a broader issue of Irish economic geography, in which Cork is part of a wider pattern. Partly for historical reasons, all 7 cities on the island of Ireland[10] are also ports. Within the State, the 3 city regions on the east and south coast have the ports with lo-lo facilities, and also account for half the state's population. The 2003 Strategic Rail Review noted the implications for the freight market:

> *"approximately one third of hauls (road and rail) are over distances of 150-200km. Two thirds of movements are short haul and confined, in the main, to movements around cities and ports. Rail, which is best suited to the transport of low value, high volume freight over medium/longer distances, is in effect realistically only a competitor in a contestable market of less than a third of the total freight task in Ireland. When factors such as network access and connectivity are considered the true contestable market becomes even smaller"*[11].

As a result, while the container ports are on the E. and S. coasts, the firms most likely to be interested in transporting goods to and from them by rail are mainly in the midlands and west. These areas are accessible by rail from Dublin or Cork or Waterford. To maintain the option of reviving the rail container service requires a container port to remain adjacent to rail lines in at least one of these locations, but not necessarily in all 3.

Lo-lo facilities at Dublin and Waterford are on the north side of their respective estuaries and adjacent to existing rail lines, as in Cork. Unlike Cork, their port authorities appear to envisage expansion occurring through extension of their existing sites, rather than relocation to a new location remote from a rail line. The proposed site for a possible new port north of Dublin, at Bremore, is also adjacent to the existing Dublin-Belfast rail line. There is thus no obvious risk that Ireland will find itself without lo-lo ports which are or could be made suitable for ship-rail transfers, and would be well placed to handle containers originating in or destined for the midlands and west of the country. Cork's container port does not need to be on the NE side of the Harbour close to the rail line, in order to retain the option of reviving rail container freight in Ireland.

It is not only the container market that is affected by lack of a national policy on rail freight. The 2003 Strategic Rail Review cited (p.198) the case of Lisheen mines, which from the late 1990s had a need to transport 1300 tonnes of ore daily from near Thurles to Tivoli Docks. In the absence of arrangements by

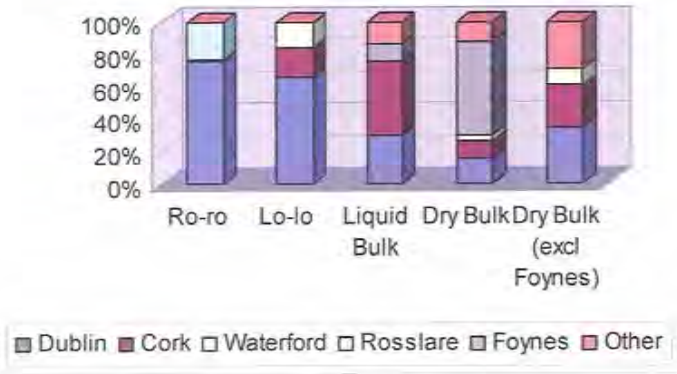
[10] ie urban areas large enough to have had County Borough status

[11] Booz Allen and Hamilton "Strategic Rail Review" p.177

which government could co-finance some of the £6.7m costs involved in the necessary upgrading of rail connections, the ore was carried by 80-90 trucks per day, rather than 2 trains. The Strategic Rail Review estimated excess external costs of using road rather than rail in this case at c.£4m per annum, of which around £0.3m was in the form of increased road maintenance.

Figure 5.16 indicates the market shares of ports within the State for the main traffic categories. Dublin dominates the container markets – both ro-ro and lo-lo – and lo–lo is Waterford's principal port function. Cork has a slightly larger share of the lo-lo market than Waterford, but its main specialisation is in the bulk market (where its share is similar to that of Dublin). This includes the dry bulk market, if the very large tonnages moved in and out of Aughinish are discounted. Cork has facilities for handling dry and liquid bulk freight close to a rail line, at Tivoli and Marino Point, and so may be better placed to maintain a rail freight option in the bulk rather the container market.

Figure 5.16: Market Shares by Port in 2008



Marine Role

The National Maritime College was opened in 2006. It is a constituent college of CIT and provides training for the merchant navy and the naval service. There are plans to expand the existing facility eastwards to provide a maritime campus adjacent to the college, accommodating the Maritime and Energy Cluster Ireland (MERC). It is intended this will include facilities for UCC's Coastal and Marine Resources Centre (CMRC) and Hydraulics and Maritime Research Centre (HMRC), as well as maritime IT, incubator and marine business accommodation. Renewable ocean energy is seen as one of the niche areas the campus will focus on initially.

The overall effort in the marine research area can be seen as an attempt to build up a critical mass of sectorally related businesses and skills in the Cork area, somewhat analogous to the Cork Harbour Development Plan in the 1970s and UCC's National Microelectronics Research Centre in the 1980s. Such initiatives are necessary if the region is to develop and retain worthwhile sources of competitive advantage. They involve a willingness to commit substantial resources, ahead of potential competitors, and often also to adopt a relatively long term view in relation to results. .

Martello Tower

Martello Towers are a distinctive type of early 19th century coastal fortification, with an interesting external and internal design. They were designed to allow a single large cannon to pivot around a central point on the roof, and command a 360

degree field of fire. The special advantages of the Ringaskiddy one for tourism purposes are

(a) it is in a central position overlooking the other fortifications on the Lower Harbour, and would fit in well with a promotion strategy which aimed to promote them jointly, as part of a historical sequence of coastal fortifications.

(b) it is well positioned for interpretation of Cork's historical and continuing role as a naval base

(c) it is both reasonably accessible and in the ownership of a public agency. (the other readily accessible Martello Tower - at Belvelly - is in private ownership).

(d) it is close to the Ferryport

(e) it is unusual in having a moat. As well as being on interest, this could act as an unobtrusive security feature when the tower is unattended.

At present there is pedestrian access via a stile and footpath running E. from the public road to the Tower. While the road is is not very suitable for parking on, it is possible to park in the village main street and walk from there. However, the route of the new N28 crosses this footpath, and will be in a cutting where it does so. There should be an opportunity to create a simple parallel parking area on the E. side of the new road, within c.60m of the tower. As a roundabout is proposed at both ends of this section of road, c200m in both directions from the point where it crosses the existing footpath, those on the other side of the road would not need to make right turns across the carriageway to access such a parking area. Consideration would also need to be given to making sure the final roundabout where the new N28 will rejoin the existing village main street is suitable for pedestrians.

(vi) Haulbowline

Haulbowline Island is partly natural and partly man-made. The western end of the island is a natural limestone rock outcrop. The remainder of the island is made land resting on a mudbank (the Spit bank), and is arranged around a dock basin entered from the north.

The current layout of the island reflects its subdivision between the Naval Service and Irish Steel in the period from 1938 to 2001. It was subdivided into 4 blocks (shown on Figure 5.17), labelled (a)-(d) (reading from west to east). Areas (b) and (d) were used by Irish Steel/ISPAT until its closure in 2001 and are now vacant, while areas (a) and (c) are remain in naval use. This pattern of subdivision meant that both users had blocks which were not contiguous. While the steelworks remained in operation, the use of the island by 2 organisations only may have simplified security, but a more complex situation could arise if the former steelworks site had numerous users or was open to the general public.

Area (a) contains the bulk of the naval base buildings, and has been the site of a succession of fortifications included a medieval tower house, an early 17th century star fort and an early 19th century Martello tower. The last of which has been maintained in good condition by the Naval Service, and has


Fig 5.17 Haulbowline
a
b
c
d
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For key to CMRC Coastal Inventory data, see inside of back cover

some items of heritage interest stored there, including a cannon of the correct period set on a gun carriage designed to allow to rotate in the original manner. However, its position in the centre of the naval base make it unsuitable for public access for security reasons. Other heritage buildings in this part of the island include the original club house of the Royal Cork Yacht Club, and a nearby group of late Georgian buildings arranged in collegiate fashion around a lawn.

On the boundary between areas (a) and (b), near the channel into the dock basin, there is a group of 6 early 19th century, 3 storey plus mansard level, stone built storehouses. They are of similar size and architecture, of considerable architectural interest, and are listed in the CDP (RPS 006704). 4 are on Naval Service property, and the other 2 on the former ISPAT site (ie area b). Two of these have suffered fire damage. One, on the ISPAT site, lost its roof in a fire in the 1990s, but a temporary roof has been re-erected. Another, in use by UCC's Coastal and Marine Resources Centre, was severely damaged in a fire in 2008. The latter building was part of an impressive group of 3 buildings concavely arranged around a small dock facing N. towards Cobh, and forming an architectural landmark viewed from the town..

One of these storehouses on the ISPAT site was the subject of a 2007 Scoping Study sponsored by the Heritage Council and the Naval Service, on its potential as a Naval/Maritime Museum. The study indicated it has a floor area of 2,000m2 (21,500ft2), and was suitable for office/commercial, industrial workspace or self storage use, as well as for a museum. The structural works (ie repairs and alterations only) involved in museum conversion were costed at €12.8m, with museum/fit out costs at a further €7.4m. (This structural costs, at c.€600 per square foot, may reflect the high quality of restoration required for a Museum use)

Area (b) has been largely cleared so as to leave the concrete slabs which constituted the floor of the steel mill in place. There are numerous underground services, tanks etc, which also largely remain in place. While one possible use for the site is as an extension to the IDA industrial land bank at Ringaskiddy, potential clients might be put off by uncertainties implied by underground structures.

Part of area (b) is reclaimed land created by tipping steel plant waste on pre-existing mud banks, and protected it from erosion by sea walls. There is a report on the degree of ground contamination, and how far this would affect potential for re-use. A higher standard of decontamination would be needed for a residential use than for most commercial/industrial ones, particularly if the dwellings concerned has gardens. The site is close to sea level (c.3m OD), but does not seem to have been subject to tidal flooding, and is not shown as being so in the LeeCFrams MRFS.

A small single storey building of early C19 appearance with cut stone pilasters had been completely incorporated in later industrial type structures, has been revealed by their demolition. It has been inspected by Freddie O'Dwyer, of the conservation section of the Department of the Environment, and its retention recommended.

Potential of Southern Part of Area (b)

The main potential for new uses on Haulbowline is in area (b), which is c.9 ha.. The Naval Service may wish to take over the quays on the N. and E. sides of this block, and area (b) would no longer have shipping access if they did so. A block of perhaps 5-7 ha. facing the bridge from Ringaskiddy would remain, and would include the 2 storehouses and the small single storey building referred to earlier.

If used for a purpose unrelated to the Naval Service property which surrounds it, and the National Maritime College which adjoins, this would be a cul-de-sac site, and perhaps not very attractive. On the other hand, if used as a site for businesses related to the NMC/MERC campus at the Ringaskiddy end of the causeway, its position would be an asset.

Given the presence of subsurface structures relating to the previous steelworks use, it might be worth exploring a possible layout for the site which provided for its subdivision in a way which allowed above ground site boundaries to reflect below ground structures (or their absence), so that individual users could decide on the basis of their particular needs how far it was necessary to modify ground conditions on their particular plot.

Area (c) consists of the dock basin which was shared between the steelworks on the W quay, and a part of the Naval Service complex, on the E. one. Naval vessels continue to be moored on the E. side while in port. As with the island as a whole, sharing this basin may become less practical if more than 2 users were involved. The naval service would like to have some more direct connection on foot across the mouth of the basin, between their main complex at the W end of the island, and their buildings E of the basin.

There are 2 ship width docks on the S. side of the basin. The larger of these was used by Irish Steel as a loading dock, and has also been used as a dry dock, while the latter incorporates slipways.

Area (d) has been created by tipping steel plant waste on pre-existing mud banks. The weight of material may have depressed the underlying mud bank below its original level. Like area (b), it is currently in the ownership of the Department of the Environment. The ongoing decontamination of area was halted by a dispute with the contractor, who was required to leave the site in 2008. It is understood that a settlement has been reached in relation to the subsequent litigation.

Current options include:

(i) capping the tip with inert material and top soil, and then grassing and planting the area

(ii) as (i), but with a quay wall to prevent erosion or leaching (if it is felt this could pose an environmental/health risk)

(iii) removal of some or all of the material, if considered necessary on environmental/health grounds, and assuming there is a suitable site elsewhere to which the material could be exported.

Whatever resolution is arrived at in relation to area (d), it seems unlikely that it will be available for use in the short-

medium term. It could however have a passive amenity function, particularly in relation to Cobh, if a satisfactory containment strategy could be shown to be acceptable, and the area could be covered with a suitable depth of clean soil, grassed and planted.

In the long term, treatment on the lines of option (i) or (ii) might produce a usable site, depending on whether the environmental standard of at least part of the area could be improved sufficiently to allow building foundations to be placed on it, for instance for a small-medium stand alone industrial site. However, it is somewhat doubtful that the value of such a site would justify the further works that it might make necessary.

The mud bank or spit underlying area (d) extends eastwards beyond the tip, and there are two smaller island mud banks further east (see map). All 3 mud banks are now below LWM, and permanently covered by a shallow depth of water, though it appears from older maps that this was not always the case.

In the nineteenth century, there was a walkway linking Haulbowline to Spike Island, as convicts imprisoned on Spike worked on some the structures on Haulbowline. Most of this route is now either underwater or buried under the tip, but a small section projects out from the current HWM at the SE corner of area (d)

Rocky Island/Paddy's Point

Road access to Haulbowline is from Ringaskiddy, via Paddy's Point and Rocky Island. There are former ammunition stores partly cut from natural rock on the latter, which are of considerable interest and have found a suitable new use as a crematorium. The industrial and open storage uses on Paddy's Point could be a constraint on future development of Haulbowline, because of their position on the main access.

The limited frontage development on the road seems to promote speeding. The water supply to Haulbowline is via a large diameter private water pipe under the bridge/causeway from the public road E. of Ringaskiddy. The pipe system on the island is old and subject to leaks, and the connecting pipe may also not be in good condition. A sewerage connection to Ringaskiddy village might become necessary in the event of redevelopment.

Fig 5.18 Spike Island

For key to CMRC Coastal Inventory data, see inside of back cover

(vii) Spike Island

The history of Spike Island dates back to a monastic settlement there in the 7th century, but above ground structures now date mainly from the 19th century. The primary structure on the island is Fort Mitchel (formerly Fort Westmoreland), but there are also numerous buildings outside the fort, many of them on the natural route between the pier and the main gate of the fort. Most are in a poor state of repair. They are likely to

- complicate opening of the island to the public, due to the need for safety precautions
- absorb considerable resources if they are to be refurbished
- not be easy to find new uses for.

The island has been transferred to Cork County Council. A steering committee was established in 2009 to explore ways of realising the island's tourism potential, chaired by Brendan Tuohy, former Secretary General at the Department of Communications, Energy and Natural Resources. Such tasks require a combination of creativity and imagination in developing a project, and the resources necessary to realise to realise it.

Given the presence of a dedicated committee examining the issue in more detail, and the variety of ideas which have been suggested, this Study does not make any attempt to 'pick winners'. Some analysis is however possible in relation to the needs common to any tourism use on Spike Island, namely:

(a) a means of access
(b) a partner(s) to help realise or operate tourism activities
(c) a selling point(s) to be emphasised in promoting the island
(d) a method of managing visitors
(e) a decision on whether a resident population is practicable
(f) a policy on buildings (other than prime tourism attractions)
(g) a means of covering costs

Table 5.4 lists possible means of access (a) as a starting point on the 2nd line, as the range of possible solutions to that need appear quite limited, even if includes the more adventurous and expensive ones. In the remainder of the table, solutions to other needs which seem reasonably compatible with particular types of access arrangement are listed in the column below it. This approach is by no means exhaustive, as there are probably a variety of ideas which would be consistent with each access option, but the need to consider how such ideas would meet the needs listed may be a useful way of testing and developing them.

Table 5.4 Spike Island Options – Grouped into Packages on basis of mutual compatibility

	A	B	C	D	E
Means of Access	***Low frequency tourist boat trips*** from Cobh, City etc	Stop on proposed Cobh - Crosshaven ***CAT route***	Minibus to Haulbowline, walk ***restored causeway***	Boat or Cable Car ***from Ringaskiddy/NMC***	***Road bridge*** to possible Port facility on Curlane Bank
Suggested Partner(s)	***Boat Operator,*** Academic Guides, FÁS	***Harbour CAT Ferries***, FÁS, Trust?	***DoE/Board of Works,*** FÁS, Tour operator	***NMC, NMRC,*** Ferry Cos.	***Port of Cork***
Tourism Selling Point(s)	Unpackaged, ***sense of exploration,*** small parties, good guides	***Includes easily accessed sea trip*** from 9 different quays. Can island hop	***Bring history up to date.*** Causeway would pass naval base, Irish Steel, tip cleanup	Combine history of Spike with ***marine energy theme***	Easy drive from ***ferryport***
Visitor Management Model	Access through Boat Operator only. Guide	Guided tours of Fort, Easter-September. Visitors can walk around rest of island	Guided walk/ tour starting from SE tip of Haulbowline, Easter-September	Boat/cable car operator controls access. Fort open in ferry seasons	Conventional tourist attraction, Easter-September
Resident Population?	No	Possible	No	Possible	Possible
Use of Surplus Buildings	Ongoing basic conservation, fence off as needed. Sheep or deer to graze?	Small museum in fort. Convert houses outside fort to tourist/ winter let housing?	(with Haulbowline): Gradual conversion for marine related uses, research?	Convert to NMC student housing, low cost group tourism in summer?	Normal access: convert to uses compatible with Port development
Financial Model	***Minimum cost***. Boat fares to cover cost of transport, guide. FÁS help sought with ongoing conservation.	***State aid for training/tourism***. Seek grant for landing point, to get regular service. FÁS - house restoration. Let to break even.	***State aid for environmental/ heritage works***. Use integrated nature of project to seek EU funding	***3rd level educational.*** Housing self funding. Hall etc can house meetings. Isolation to aid summer think-ins	***Port Development.*** Bridge access by product of (long term) Curlane Bank project
Pre-requisite	Boat Operator	CAT service	Tip clean up, causeway	NMC interest and resources	Curlane Bank Project

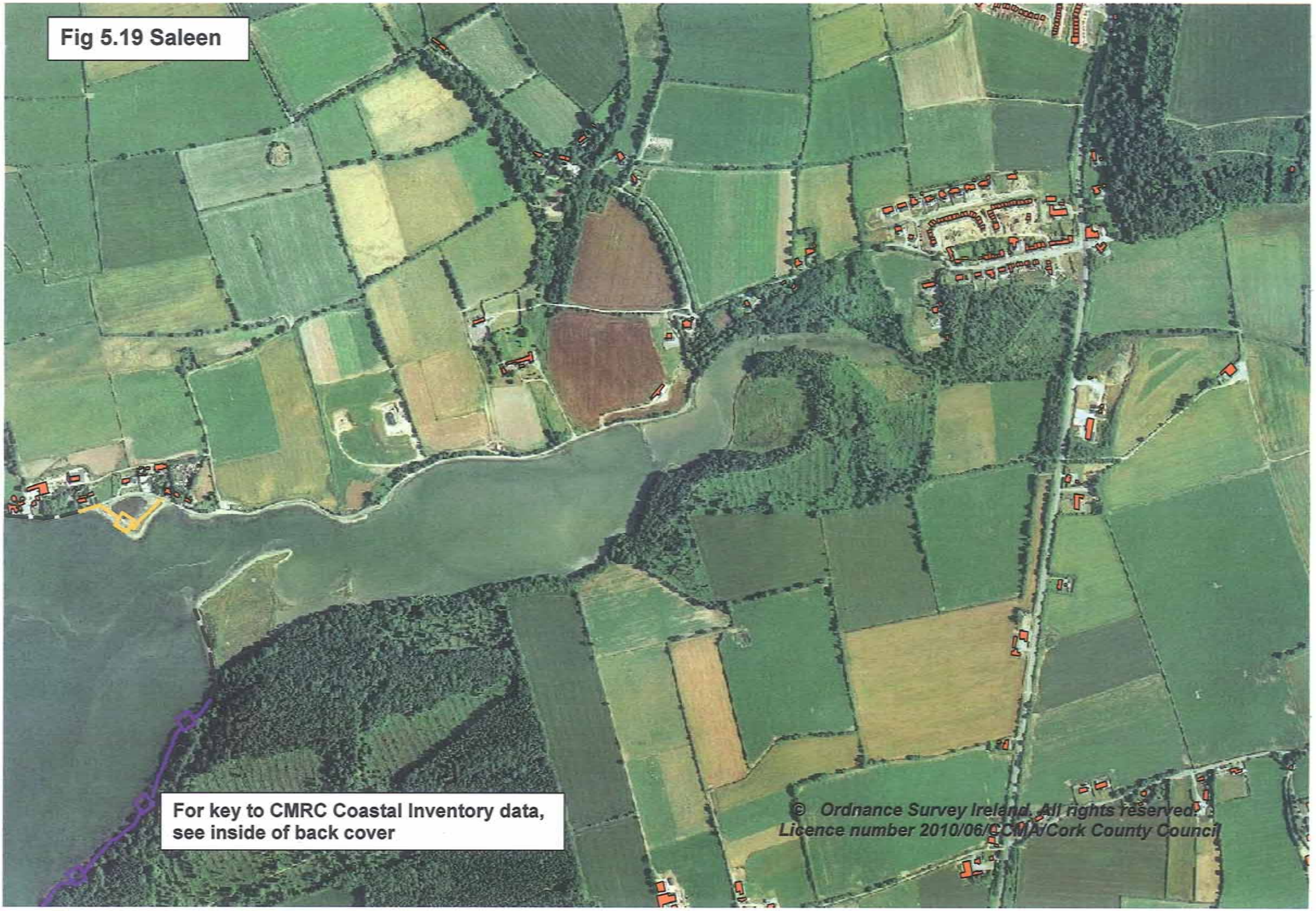
Fig 5.19 Saleen
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(viii) Saleen

The village of Saleen is at the head of the Saleen Creek/ Poulnabibe inlet, and until recently was a single street settlement on the W. side of a crossroads on the main road from Midleton to Whitegate (R630). In the past decade, there has been development of housing estates uphill of Saleen, and downhill of development of the small settlement of Scartlea at the top of the hill to the N., which contains the local school. As the remaining undeveloped section of hillside between them was zoned in the 2005 LAP, and permission for 137 houses in that area has since been granted, the two settlements are likely to merge.

Saleen, like many other settlements on the Harbour, is at the base of a steep hill created by the transition between an east-west old red sandstone ridge, and softer, more readily eroded rock. It is unusual in that the village has only started to climb the hill behind it in the last decade, with the result that the slope is likely to be more dominated than usual by modern housing estate type development. The visual effect of this is contingent on the quality of layout and building type, which in the permission granted had some merit, with the normal tendency for housing development on steep slopes to be unduly dominated by long lines of houses running along the contours being offset by lines of housing which are stepped up the hill. However, development of the hillside in three estates which are not envisaged as connecting with each other means that pedestrians will have to walk along the main road to any services provided in Saleen. While there is footpath on the western side of the R630 which links the existing and proposed housing, some rather indirect routes for pedestrians will result, possibly reducing the improvement in local services which might be expected from the growth in the local population, and leaving the combined settlement rather weakly integrated.

On the S. side of Saleen main street, permission has also been granted for a 64 dwelling development on Coillte land, and this includes a village square with shops near the junction with the R630. Proposals for detached houses in the woodland at the W. end of this site were excluded by condition by An Bord Pleanála.

There is a 83 ha. block of land SW of the village, which was zoned as a stand alone industrial site in the 1996 and 2003 County Development Plans. This industrial zoning has been allowed to lapse in the 2010 Draft Local Area, having regard to slopes, and the potential for adverse impact on landscape and adjacent SPA and pNHA areas. The zoning represented a contingency measure - a way of maintaining a choice of such sites, in recognition of the intermittent and somewhat unpredictable nature of demand for them. Substantial infrastructure investment would be required to bring it into use.

The village is not in direct contact with the Harbour, and is ½ km upstream of the point where the creek widens out into a substantial body of water, which is tidal, and provides a rich feeding ground for wintering waterfowl. Mature mixed woodland adjoins the creek on both sides, and there is an attractive scenic route west of the village along the shore towards E. Ferry, which passes Jamesbrook Hall - a recently restored. three storey Georgian country house.

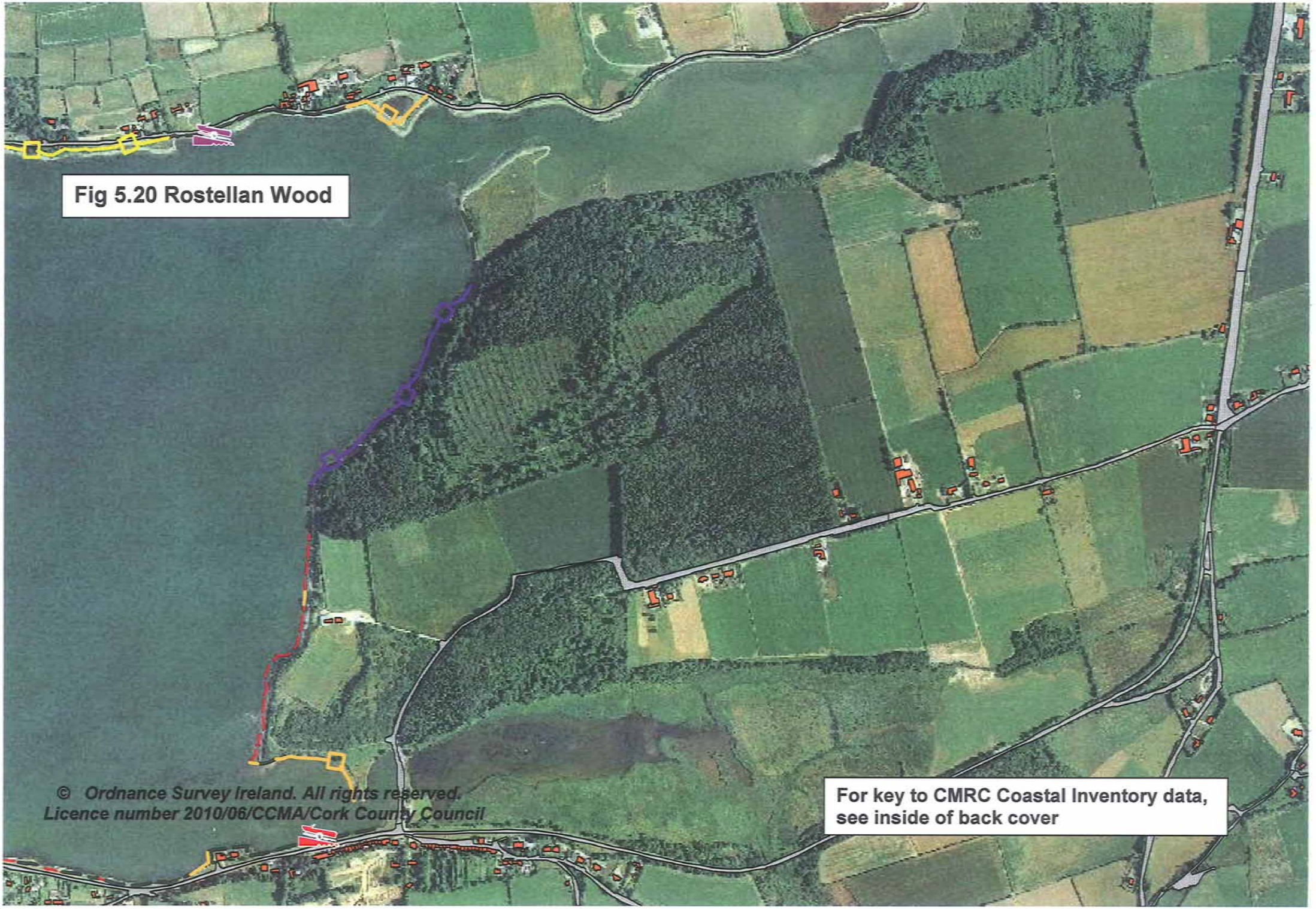

Fig 5.20 Rostellan Wood

For key to CMRC Coastal Inventory data, see inside of back cover

A Connection between Jamesbrook and Rostellan?

There is a old dyke, now breached, which runs across the inlet running up to Saleen village some ¾ km outside it. This, if suitably restored, with a sufficient bridge section to avoid interfering with tidal flows, could form a pedestrian link between the attractive road running W. of Saleen (described above), and Rostellan Woods (described below). The wood on the southern side is owned by Coillte, and this wood is only separated by a 300m gap from the main Coillte Wood in Rostellan. There might thus be the potential to create a worthwhile section of pedestrian or cycle route along the eastern shore of the Harbour, connecting at the southern end to the villages of Rostellan, Farsid and Aghada, and possibly connecting northwards towards Midleton as well

(ix) Rostellan Wood

Rostellan wood is north of the village of the same name, and occupies 70 ha. It was once part of the estate attached to Rostellan Castle, a mid 18th century country house which replaced an earlier castle, and was itself demolished in 1944. A delapidated 18th century tower built in its grounds as a folly in honour of the actress Sarah Siddons survives at the water's edge.

Rostellan woods include much of the peninsula which projects westward, between Saleen Creek and Rostellan Lake. Rostellan Lake is located upstream of Rostellan bridge and forms part of the Cork Harbour Special Protection Area (SPA). The lake is brackish, and used by swans throughout the winter. This entire area is very popular for bird watching, on an individual rather than club basis. The signage at the lake documents the sites of interest in the locality very well.

Rostellan Wood and peninsula have special importance for the Harbour, in that they provide a substantial break between the settlements south of Midleton, and the group of villages extending from Rostellan to Whitegate. This makes it easier for the latter group to retain some of the character of seaside villages.

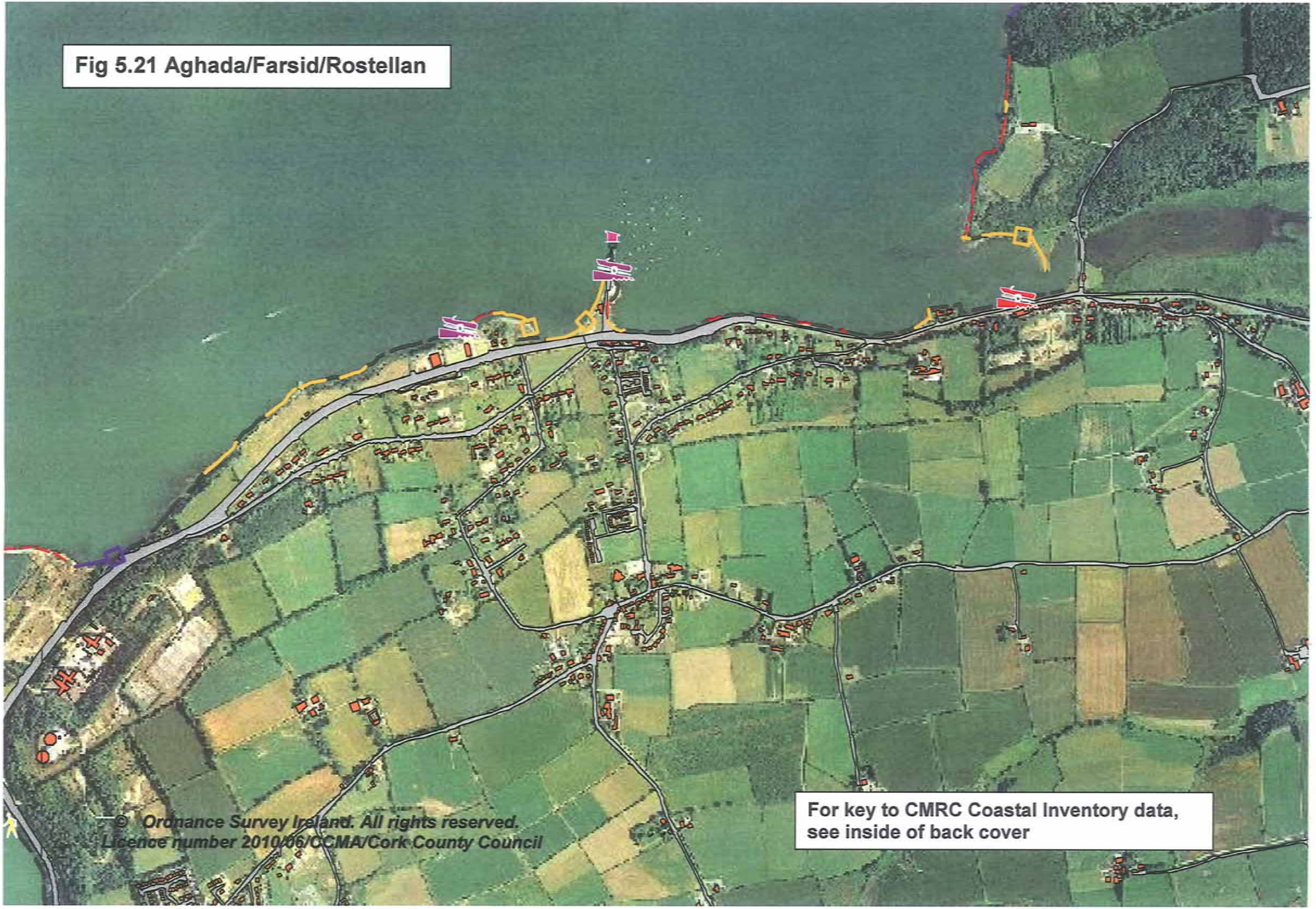
Fig 5.21 Aghada/Farsid/Rostellan
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(x) Aghada/Farsid/Rostellan: The CSO treats these villages as a single unit for census purposes, and if viewed in this way they can be regarded as another example of a steep linear coastal settlement, with a common north facing orientation. However, each village has a distinct character, and there is a physical break between Farsid and Aghada which is worth retaining. Farsid and Rostellan both consist primarily of a one-sided main street, facing the water and the main road, and backing onto a hill steep enough to limit sunlight in winter. The main street of Rostellan is set back from the main road and at a higher level, and there is a magnificent arched gateway of classical design set in the retaining wall separating the two roads. There are lawns and flower beds between the village frontages and the main road, which are very well maintained.

There is little 20th century development in either village, but in the last few years, there have been new developments, of terraced housing on the road running SE out of Rostellan, and of large detached houses behind the street frontage at Farsid. Neither development is fully complete or fully occupied, but both are reasonably close to that stage.

Housing and Population Growth

The population in this group of villages has grown from c.400 in the 1960s to 900 in 2006, and most of this has occurred in Aghada. The slopes behind Lower Aghada are less steep than those behind Farsid or Rostellan, and have been developed incrementally so as to connect it with Upper Aghada, which is on a plateau at the top of the hill, c.60m above sea level. Incremental development has resulted in an interesting mix of housing types, including substantial 19th century terraced village cores, extensive areas of individual houses built over the last half century, and a number of small private and public housing estates. The result does not conform to current ideas on compact development, as the substantial number of individual houses have had more effect on the area covered by the settlement than on its population. However, the mix helps maintain a degree of physical and social diversity, and the informal, seaside village aspect of Aghada.

However, larger scale, less incremental development, or decay of the village cores, could easily result in loss of this balance between development types, and convert this informal but structured seaside character into suburban sprawl. As the villages are at a considerable distance from most substantial employment centres, the desirability of further growth there in strategic planning terms depends largely on the future employment role of Whitegate, which is discussed in the next sub-section.

As in other steep linear coastal settlements on the Harbour, the villages are separated from the sea by a transport corridor – the R630 – which carries oil tankers and commuter traffic to Whitegate. This is not likely to change unless major expansion at Whitegate required a new road access on an inland route. Management of the existing route should aim to ensure control of speeds through the villages, and safe and adequate pedestrian crossing facilities.

Recreational Role

There is a concentration of marine leisure and recreational clubs in Aghada which serve the SE harbour area. Aghada has a boat yard, and almost 100 moorings registered with the port of Cork[12]. The clubs in Aghada include the sea angling club, and the Lower Aghada tennis and sailing club next to the boatyard. The Aghada GAA club is located across the bridge close to Rostellan woods. In combination, the villages offer a good range of recreational facilities.

Aghada pier is used by wind surfers, and has a fuel station which serves boats as well as cars. The stone and concrete pier was extended by a jetty, but the latter is now unusable and partly destroyed by wave action. As noted in sub-section A(i) of this chapter, it is one possible location from which a cross harbour ferry to Great Island could be operated, though limited depth near the shore and the complications of building around the existing pier might make construction of a suitable terminal facility quite expensive. The waters E of the pier, and the foreshore W. of it, are also an SPA, so any such project would be subject to Appropriate Assessment.

Similar issues would be likely to apply to construction of a marina. There might be some advantage in exploring whether a multi-functional development in the area around the pier was feasible, and if it was, whether there any one arrangement stood out as being obviously more economic and practical than the alternatives. Such an exercise could make it easier to see whether more limited short term works fitted in with possible longer term development.

The Lee CFRAMS draft flood maps have identified areas at risk of tidal flooding along the coast at Rostellan and Aghada, with a 1 in 10 year chance of flooding in any given year. These include Rostellan Bridge and the pier.

[12] Assessment of coastal recreational activity and capacity for increased boating in Cork harbour. CMRC, UCC.

(x) Whitegate Bay (Outer)

The industrial areas on the "C" shaped Whitegate Bay are grouped on the outer part of the Bay, around the tips of the 'C', on its northern and southern sides, while the village of Whitegate is on its inner, eastern side, in the middle of the 'C'. They include the Aghada Power Stations and the industrially zoned area inland from them/SE of them.

The industrial areas are used for energy activities, which are present because Whitegate is an important 'node' in the national energy distribution system. Initially, the size and depth of the Lower Harbour made Whitegate attractive as a place to unload and refine crude oil, and proximity to the landfall for the Old Head of Kinsale gas field made it a convenient location for construction of a gas-fired power station in 1979, which then had to be connected via high capacity electricity lines to the national grid. Above ground electricity lines are now being supplemented by submarine ones connecting Whitegate to Cuskinny (E. of Cobh) and Ringaskiddy. Whitegate's position close to the gas pipeline which connects the Old Head of Kinsale field to Dublin and to European pipeline networks, has allowed the construction of 2 further gas fired CCGT power stations completed in 2010. Cumulatively, this has led to Whitegate having roles in the importation, storage, processing and distribution of energy. Exhaustion of the Old Head gas field creates the possibility of future use of it and the connecting undersea pipeline for carbon capture and storage purposes.

These competitive advantages are reinforced by economies of scale. A recent example was the sharing of the cost of a 15 km gas pipeline connection between the (competing) ESB and Bord Gais power stations There is also clustering of relevant specialist technologies, skills and services, some – such as high performance pumps – shared with the pharma chem sector.

These advantages are offset by some potential weaknesses. Whitegate was developed to handle imported fossil fuels, and may decline with them, unless it can progressively substitute renewable sources of energy. Its infrastructure would be best adapted to forms of renewable energy which require transport by ship or pipe, in the form of a bulk liquid or gas, but it is not clear at this stage how large a role these types of energy will play. The refinery is operated by Conoco Philips, but it is justified more by security of supply considerations than competitiveness, and there is some uncertainty on its likely status after current agreements expire in 2016. Part of the National Oil Reserve is held at Whitegate. The need for the reserve, and the availability of storage facilities at Whitegate, create favourable conditions for its continuation. There are indeed arguments for increasing the proportion of the reserve held on the island of Ireland, but these are more supportive of providing extra storage close to the main area of consumption (ie the Greater Dublin area).

The benefits of the nodal position created by energy transport, storage and distribution functions at Whitegate depend largely on how far they allow maintenance of existing and creation of new opportunities for processing activities. Such activities are


Fig 5.22 Whitegate Bay (outer)
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see inside of back cover

likely to support more significant amounts of employment and a worthwhile specialist skills pool.

It is not easy to predict what form relevant new opportunities will take. For instance, intense international interest in promotion of biofuels in 2004-6 was seen as contributing to spike in world grain prices in 2007-8, causing this type of renewable energy to fall into disfavour. Such opportunities as do arise and are sustained and are relevant to Whitegate are likely to have spatial implications. Existing industrial zoned land is concentrated in two locations:

(1) a 57 ha. block which provides for the expansion of the oil refinery in a visually controlled manner. The lands surrounding this block lands are zoned for open space, to preserve the visual sensitive setting, particularly when viewed from Roche's Point.

(2) a 2nd block of 51 hectares adjacent to and uphill from the existing ESB generating station is zoned for petrochemical industry, with provision for a service corridor to allow access to the harbour. The site is presently in agricultural use. The access route (primarily for pipe connections) would be quite steep but the site itself is generally flat.

This capacity can be compared with the area used by the new gas fired electricity generating station currently being completed by Bord Gais (10 ha), and the Port of Cork's estimates of the areas occupied by uses on the City Quays or at Tivoli, and expected to relocate[13]. The categories for which Whitegate might be a possible location might include gas (5 ha), bulk liquids (3 ha), and possible future alternative fuels (3 ha).

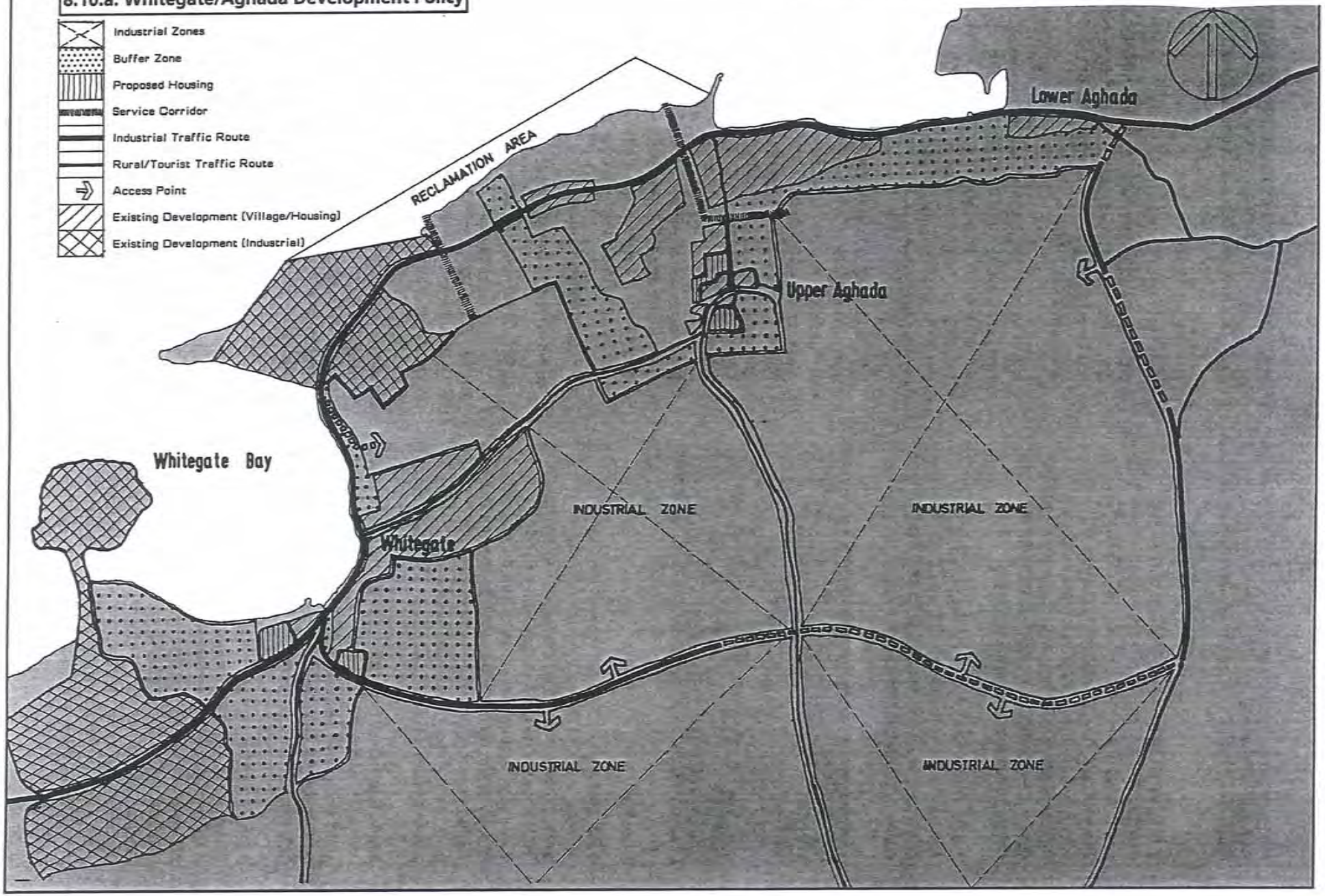
This comparison suggests development capacity in Whitegate may be adequate for some time. On the other hand, the industrial development now in existence at Whitegate has been built in the last 50 years, and occupies an area which is similar in extent to the current unused zoned area, and much more readily accessible.

As noted in Ch 4 (D) (i), the Port of Cork's 2010 Strategic Development Plan Review considered the option of developing the Dogsnose Bank area off Whitegate for a container and bulk goods port in some detail. All the land involved, and most of the uses involved, would be additions to land supply and demand in Whitegate. On the supply side, the entire area would be reclaimed from shallow water adjoining the deepwater channel. However, the submarine electricity cable to Ringaskiddy referred to earlier in this subsection, which is due to be laid shortly, would severely constrain this site.

In the 1980's and 90's, a much larger area of land was reserved for future industry on the plateau inland from Aghada and Whitegate, and south and east of area (2) above, but this reservation was not continued in the 2003 County Development Plan. Its origins lie in the 1972 Harbour Development Plan, which saw Whitegate as a 3rd possible Harbour industrial area, in conjunction with Ringaskiddy and Little Island. Unlike the other two, there was no IDA land acquisition, and industrial development inland and independent of waterfront industries has not occurred.

[13] See Table 4.2, Ch. 4 (B) (i).

Figure 5.23 Whitegate/Aghada Development Policy (from 1986 Cork County Development Plan)



There are expensive infrastructure thresholds which would probably be crossed if there was substantial industrial growth at Whitegate – if for instance the growth of local employment from 750 in 2006 to c.2000 in 2020 projected in the 2008 CASP Update were realised. The original intention in the 1970s was to extend the City and Harbour Water Scheme to Whitegate, but this has not so far happened[14]. Also, reliance on the existing R630 route would also pose greater difficulties if there was substantial industrial expansion, and at some point an additional new inland route as allowed for in the 1986 and 1996 County Development Plans could become necessary.

As noted in the 'option' box below, Whitegate may have sufficient special potential for types of industry not directly related to liquid fuels or power stations, and for relocation of existing energy uses from Cork City, to justify restoring the protective zoning of the plateau area which existed up until 2003 on a contingency basis:

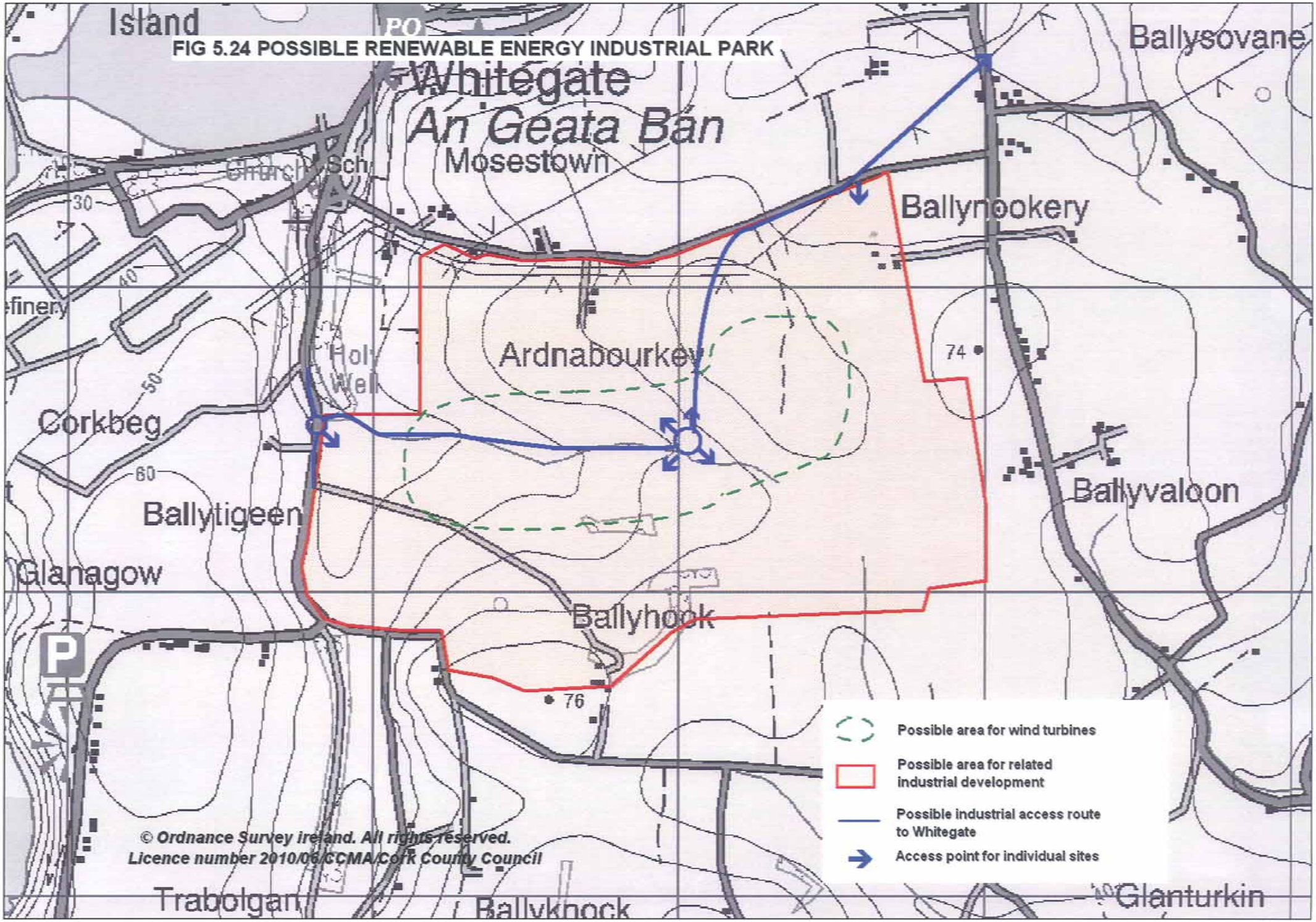
Option – Protective Zoning of Plateau E. of Whitegate: The long term contingency planning case for reviving this protective reservation may be strengthened by interest amongst industries on large sites in Cork in wind turbines on their own sites, for their own use. Such on-site, own use generation is not subject to Eirgrid transmission charges, and can provide security of supply at a predictable cost. The main industrial areas in Cork are mostly in lower, flatter areas which are sheltered by higher E-W sandstone ridges, and are quite urbanised. Full size turbines would be more necessary in such locations, but also at more risk of being out of scale there.

A limited part of the plateau inland and SE from Whitegate, (and N. of the coastal areas classified as strategically unsuitable for wind farms in the 2003 County Development Plan) might be suitable for an industrial park offering such a facility on a planned basis. The areas which could be affected are shown in Figure 5.24 They would still be prominent from many parts of the Harbour, but distances from major urban areas would be greater, and higher wind speeds might allow use of smaller, less obtrusive turbines.

The feasibility of the concept might be worth exploring further, through more detailed infrastructural, economic and visual assessment. The area adjoins part of scenic route S50 and would also affect parts of route S51, as well as more distant routes on the far side of the Harbour. More broadly, it would affect the visual balance between developed and undeveloped parts of the Harbour. Pending the necessary studies, a protective zoning would however prevent the option being closed off through incompatible development.

[14] A submission was made in December 2007 by Cork City Council with the support of the County Council for funding from the Gateway Innovation Fund. The prime focus of this application was the City Docklands, but it also sought extension of the trunk watermain from Carrigtwohill to land zoned for industry south of the refinery in Whitegate. The estimated cost was €8.5m, of which €6.8m was being sought from the Fund. The watermain was linked to the City Docklands project, in that it would facilitate relocation of port uses from there.

FIG 5.24 POSSIBLE RENEWABLE ENERGY INDUSTRIAL PARK



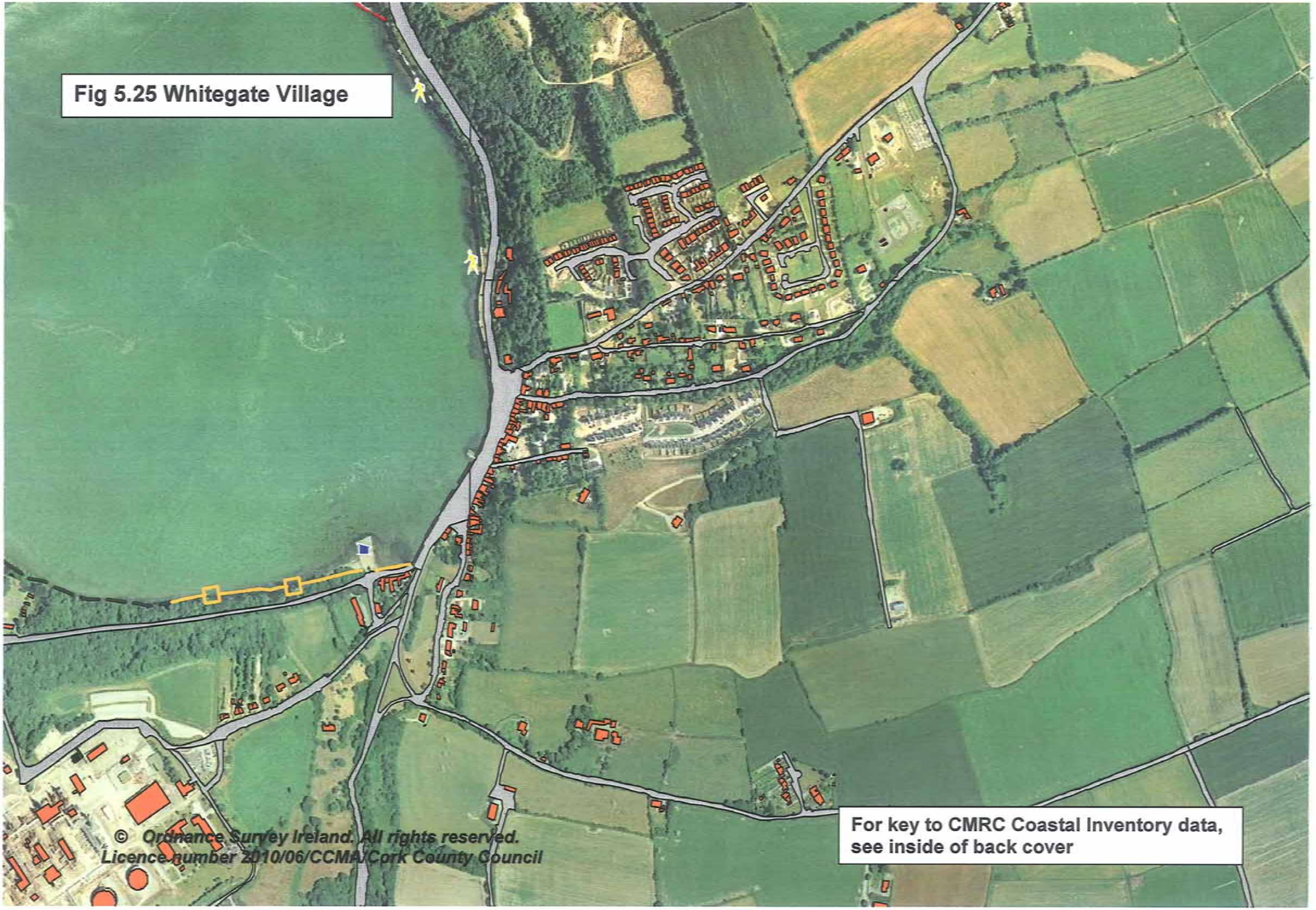


Fig 5.25 Whitegate Village

For key to CMRC Coastal Inventory data, see inside of back cover

(xi) Whitegate Village

Whitegate had a population of 360 in 1966, 290 in 1996, and 765 in 2006. It contrasts with the adjoining village of Aghada, which had fairly similar populations to Whitegate in 1966 and 2006, but grew at a more even pace in between. The reason for the difference is that population growth in Whitegate has been based on housing estate development, which has only occurred in boom conditions. Physically, there is scope for further growth, as the areas zoned for residential development in the 2005 Local Area Plan totalled 25 hectares, and the largest parcel is still 60% undeveloped. However, the 2009 County Development Plan does not see Whitegate as an area in which further substantial population growth should be encouraged.

Although Whitegate is flanked by 2 major energy industry complexes, it is to some extent insulated from them by wooded foreshore areas which act as a partial buffer. The oil refinery and the oil tanks on Corkbeg Island are quite well screened, the power station less so. Insulation from adjoining industrial development needs to be maintained, particularly if Whitegate does in fact grow significantly as an employment location.

Whitegate has worthwhile amenities. It has good views across the Lower Harbour towards Great Island, particularly from upper areas. It also has marine recreation facilities: the bay is one of the best known marks or fishing spots in the harbour for flat fish and bass particularly on a night tide, and there is a rowing club located in Whitegate bay, and an angling club located in Guileen. The bay is also a popular spot for bird watching.