

### 3.2.2 Carrigaline & Environs (fig. 7; plates 3.8-3.14; 3.16-3.23; 3.48-3.51)

The proposed pipeline route in the Carrigaline area will travel mainly through green field areas. However, the pipeline will follow along some roadways in the centre and east and south of Carrigaline. Carrigaline is at present a busy town in its own right, with many residential areas around its perimeter. It is built on the Owenboy River. The river estuary is designated as a conservation area (see section 6).

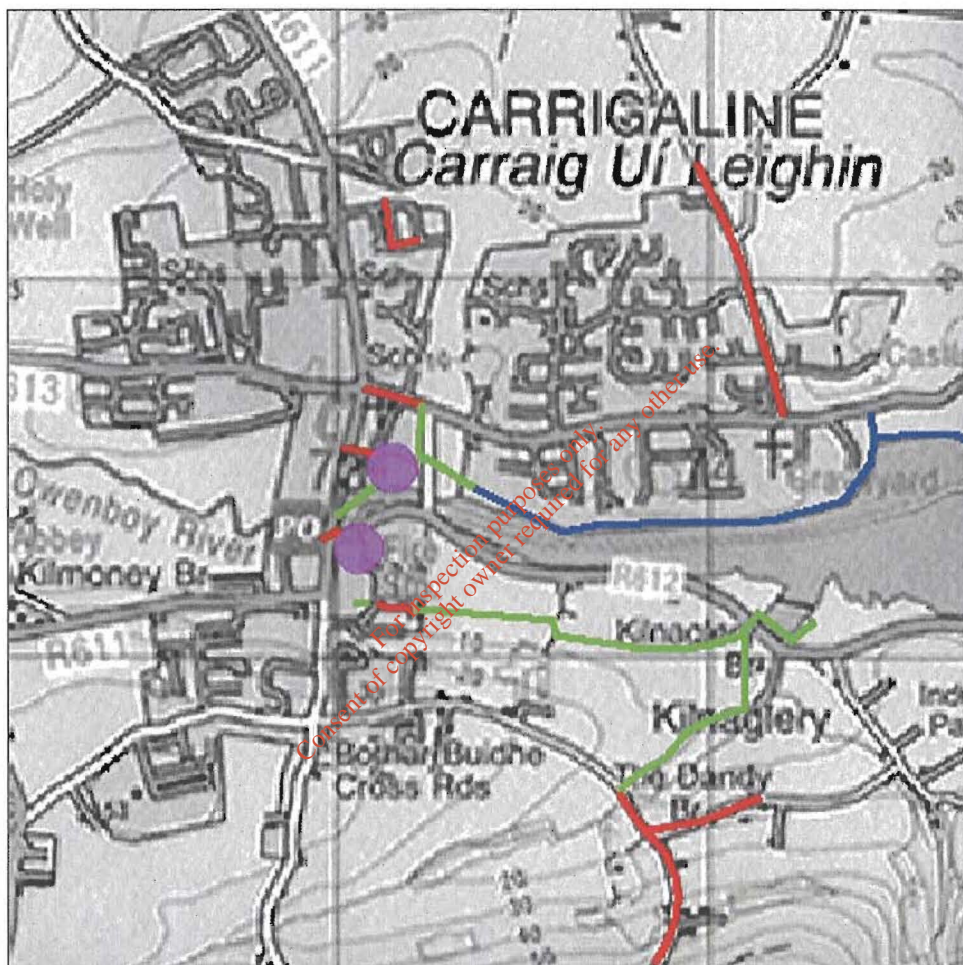


Figure 7. Location of pipeline routes within Carrigaline and its environs (map detail no. 2)

#### Pipeline Routes along Existing Roads

Seven stretches of pipeline are proposed to follow existing roadways in the centre and environs of Carrigaline town. Some are proposed to be quite short as figure 7 illustrates. The longest stretch is immediately north of Church Road and travels northward for a distance of approximately 750m. This is uphill and is an existing fairly substantial roadway. Nothing of note was recorded during the inspection at this location. Three further short stretches are proposed to the north of Carrigaline town centre and to the west of the main carriageway to

Cork City. These areas are all proposed for residential and built-up areas. There is another east - west running stretch in another residential area of Carrigaline, which is proposed to connect some green field stretches of pipeline.

The final stretch of pipeline proposed for existing roadways is around The Dandy Bridge (CH24). The proposed pipeline runs from north to south, with another line running perpendicular at a T-junction to the south of The Dandy Bridge. The route of the pipeline was inspected and nothing of an archaeological nature was noted. The bridge is designated a CH (see below).

### Pipeline Routes through "Green Field" Areas

There are six stretches of pipeline proposed to traverse green field locations. These will form part of the route with the pipelines along the existing roadways described above. A new pipeline is proposed to run parallel to the carriageway to Cork City, along its western edge. This is currently a modern landscaped area along the western side of the road. Another new route diverges from the one just described, which heads in an eastern direction, crossing the carriageway and connecting to the intertidal route (marked in blue on mapping see intertidal zone section below). This green field area is public space near public buildings. Nothing of an archaeological nature could be determined.

There is a section of new pipe proposed for the centre of Carrigaline, which will run generally along the left bank of the Owenboy River. This river is open and runs through the town. This route was inspected where possible and nothing of a cultural heritage nature was noted.

The longest stretch of proposed new pipeline is proposed for the southeast of Carrigaline, and to the south of the Crosshaven road, the R612. This route traverses private lands, which were not accessible at the time of writing. From aerial photos, nothing of an archaeological nature could be ascertained. This stretch links with another which leads from The Dandy Bridge northeastwards to Kilnaglery, where the two pipelines converge to outfall at Kilnaglery Bridge. This bridge appears to be modern and nothing of antiquity could be noted at the time of inspection. Immediately to the north of this location is a Great Southern railway Embankment, which was designated CH25 (see below).

### Pumping Stations

There are two types of pumping stations proposed for this project: minor pumping stations and major pumping stations. The minor pumping stations were considered part of the overall

pipng route, when this was visited. There are no major pumping stations proposed for this location at the time of writing.

### The Intertidal Zone

The proposed pipeline route to the east of Carrigaline town is proposed for the intertidal zone, which runs to the south of the road R613. The Owenboy estuary is designated a conservation area (see section 6). From a cultural heritage perspective, this area was assessed by ADCO (see appendix section 10).

### Cultural Heritage Features (Figs 21 & 23)

The cultural heritage features impacted by the pipeline in this area are: CH6, CH7, CH17, CH19, CH24 and CH25. CH6 is a mill in the centre of Carrigaline town. It is also a Protected Structure. This mill is extant and has recently been renovated. CH7 is a church and graveyard. It is also a Protected Structure and extant. The pipeline route runs along the road which runs to the north of CH7. CH17 was a possible souterrain found during the construction of a house at this location. CH17 no longer extant. CH19 is the location of a possible *fulacht fiadh* (burnt mound). No surface trace visible. CH24 is The Dandy Bridge. This is extant and already has pipes running along its base. CH25 Kilnaglery Bridge, which appears modern and the Great Southern Railway embankment, which now forms part of a local amenity walk to Crosshaven.

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### 3.2.3 Waste Water Treatment Plant (WWTP) (fig. 8; plates 3.15-3.23)



Figure 8. Location of pipeline routes and WWTP (in yellow) around Shanbally area (map detail no. 3)

This area incorporates the proposed waste water treatment plant (WWTP) at Shanbally and associated pipeline. Pipeline routes follow existing roads N28 and R613 as well as interconnecting roads in Raheens and Shanbally. The pipeline is to be laid from the existing roads at east and west.

#### Pipeline Routes along Existing Roads

The majority of the pipeline route in this area follows existing roads. The most northerly stretch continues from Raffeen/Strawhill pumping station, which follows the R610 to Raffeen Bridge. Another pipe route runs along a third class road southwards from Raffeen Bridge towards Carrigaline in the direction of the WWTP (and an existing ESB substation). A third short stretch is to be located immediately to the south of the R28 in a cluster of houses. The longest stretch runs from north along a road near a golf course to the south of Monkstown Creek, southwards to the junction with the R28 at Shanbally. The route continues southwards



across the R28 to Coolmore Cross Roads. There is a westwards branch off this main north-south line to service the WWTP (it follows the lane to the current sports field at this location).

At Coolmore Crossroads, the pipeline along the roads follows for a short distance to the east and south and follows to the west along the R613 towards Carrigaline.

### Pipeline Routes through "Green Field" Areas

There are several sections of Greenfield pipeline proposed at this location. The majority are proposed to feed to the WWTP and three emanate from the northwest, northeast and southeast corners of the WWTP. These are proposed to follow existing field boundaries. Nothing of an archaeological nature was noted along the northwest stretch. The northeast section will impact on CH9 and CH10 (see below).

There is a short stretch of green field pipeline proposed to the east of Raffeen Bridge in order to connect two stretches of pipeline along the road. This is going through a wooded area.

The final stretch of green field pipeline runs generally parallel to the R613 from Coolmore Cross Roads towards Carrigaline. The route runs behind houses which front onto the R613 and so could not be walked at the time of writing. It would appear from viewing from the R613 that the route is through fields under both pasture and crops. A short stretch is located on the northern side of the R613 and was viewed from aerial photos. Nothing of an archaeological nature was noted from the aerial photos.

### Pumping Stations and WWTP

The proposed treatment plant is to be located in a green field site on the slope of a hill overlooking the Owenboy River to the south.

The site incorporates two fields (labelled fields A and B for the purposes of description). Field A is the western field of the proposed location for the WWTP. It is bounded by mature hedgerows all around. The central portion of this field is proposed for the WWTP. The field slopes from a high at north to a low at south. High tension power lines cross the site from east to west (an esb substation lies to the southwest). The field at the time of inspection was under grass. Nothing of an archaeological or cultural heritage nature was found in this field. Field B is the eastern field of the proposed WWTP location. This field was also under pasture at the time of writing. Nothing of an archaeological or a cultural heritage nature was noted as being extant at the time of inspection. However immediately outside the boundary of field B are two

features: CH9 and CH10. These are recorded archaeological monuments RMPs. Both are enclosures and likely to be ringforts. CH9 is partially extant with its northern portion being maintained in the field boundary. CH10 was noted as a crop mark. Both these features are predicted to be impacted by the proposed WWTP and associated pipe work. The predicted negative impacts on these CH sites are detailed in section 5.

### Cultural Heritage Features (Fig. 21)

This area incorporates three cultural heritage features, CH8, CH9 and CH10 in the townland of Shanbally. CH8 is a limekiln (inventory no. 6163) and an RMP. Access to this site was not permitted at the time of writing and it was densely overgrown so could not be viewed from the road. Its ZAP is predicted to be impacted rather than the limekiln itself. CH9 (inventory 5312) is an RMP and is classified an enclosure. It is likely to be a ringfort based on its morphology and location. CH10 is another RMP enclosure (inventory 6364) and manifested itself as a crop mark. No trace visible on ground at time of inspection. Both CH9 and CH10 are predicted to be impacted by the pipeline route. Impacts and mitigation suggested in section 5.

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### 3.2.4 Ringaskiddy & Environs (fig. 9; plates 3.24-3.29)



Figure 9. Location of pipeline routes within the Ringaskiddy area (map detail no. 4)

#### Pipeline Routes along Existing Roads

The pipeline at this location again comprises both green field and existing/roadway pipelines, but the majority is along existing routes. Where it deviates from the N28 the pipe is proposed to run along the grass verge of the roadway. In the Ringaskiddy area it follows along the N28 at north, firstly along the roadway (at western end from Shanbally) where it then diverges from the road into the grass verge on the southern side of the N28 before meeting up with the N28 again. After a distance of approximately 500m the proposed pipeline then again will follow the grass verge of the N28 until its terminus.

The pipeline route is to be located along smaller roads in the Loughbeg area at south of the N28. All these routes were accessed for archaeological or cultural heritage features. None was noted during the inspection.

The proposed outfall pipe at the eastern side of the area is to follow an existing IDA outfall (as marked on the mapping).

### Pipeline Routes through “Green Field” Areas

Green field locations of the pipe for the N28 in Ringaskiddy have been noted above in the existing routes, as it is proposed that the pipes will travel along the road verges (which are disturbed ground in any case). A short stretch of pipe is routed across fields to the west of a school. This stretch was not accessed at the time of writing but was seen on the aerial photos. The route follows existing field boundaries.

### Pumping Stations

There are two types of pumping stations proposed for this project: minor pumping stations and major pumping stations. The minor pumping stations were considered part of the overall piping route, when this was visited. There are no proposals for a major pumping station at this location at the time of writing.

### Cultural Heritage Features (Fig. 22)

There are four Cultural Heritage (CH) features located within this area, CH11 and 12, and new sites noted during the walkover inspection CH20 and CH21. CH11 is recorded in the RMP as a possible church, though the inventory does not include it. No trace found during the walkover inspection. Location marked on constraint illustrates as per RMP. CH12 is a shell midden (inventory 4271). This feature was noted during the walkover inspection. As there are no predicted works in this area, it is not predicted to be impacted at this time. There is an existing IDA outfall at this location. CH20 is a modern roadside memorial. It is predicted to be impacted. CH21 is a plaque dating to 1980. It may be impacted depending on which side of the road the pipeline route will be located.



### 3.2.5 Cobh & Environs (fig. 10; plates 3.30-3.41, 3.45-3.47)

Due to Cobh's historical importance for a number of reasons, including its unique maritime history, it has been allocated a CH number for the purposes of this study: CH26. It is suggested that the boundary for CH26 follow the limits of the Town Council as set out in its Development Plan (CTC 2005). Where specific features of note have been inspected within the zone for Cobh, these have been given additional CH numbers.

For the majority of the works proposed around Cobh, the pipeline is to be located along existing roadway. There are some notable green field areas too, however.

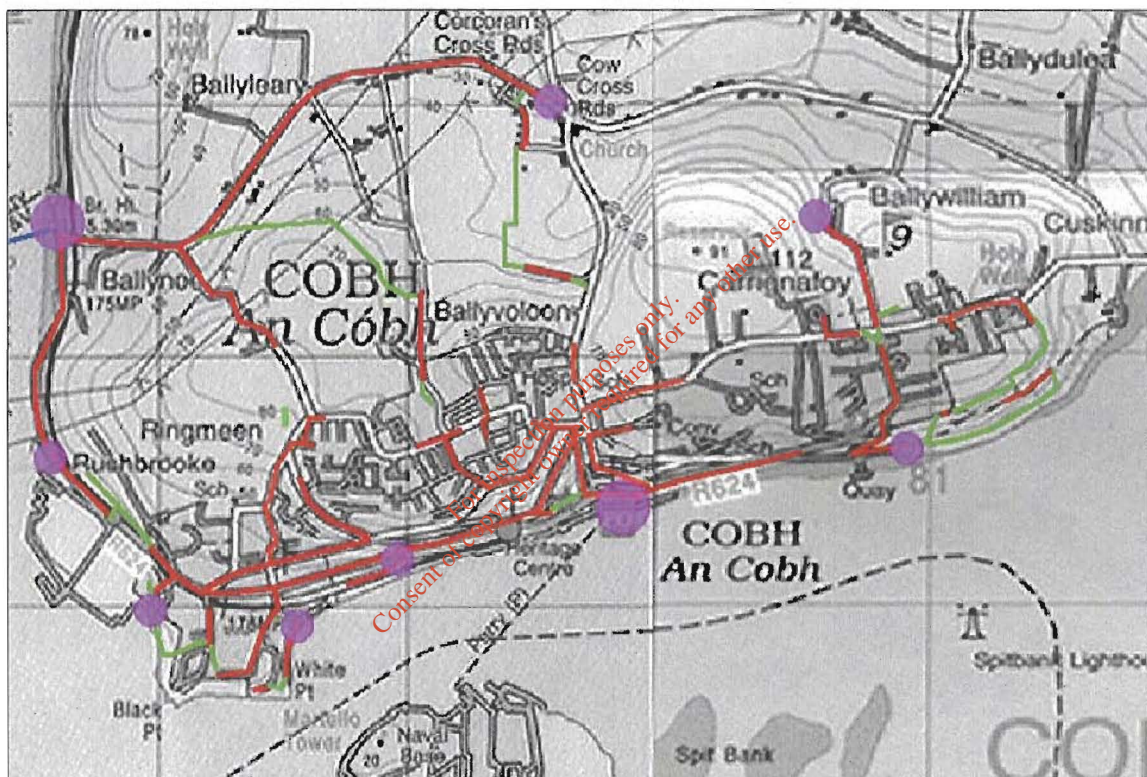


Figure 10. Location of pipeline routes around Cobh and its environs (map detail no. 5)

#### Pipeline Routes along Existing Roads

The pipeline proposed follows the R624 from Carrigaloe to the north (see pumping station below), through Rushbrooke, along the road at West Beach (the main street in Cobh), east Beach eastwards as far as Carrigafoey (the current harbour commissioners). This road is undulating as it clings to the steep sides of Cork harbour. There are several branches of pipeline from the main spine along West Beach.

A stretch follows Spy Hill and the Bishop's Road, another stretch follows Westbourne Place, and the road that the Heritage Centre and Garda station is located. Pipes are proposed for

Casement Square and Pearse Square, Rahilly Street, Bond Street and Bishop Street. Another existing pipe route proposed is northwards from Carrigafoy harbour office to Golf Club road. A further existing stretch is proposed for a roadway, which leads to Cushkinny Bay and east ferry, in the townland of Ballywilliam.

There are proposed existing pipelines along roads at White Point and Black Point to the west of Cobh town.

To the north of Cobh town, between the existing ferry cross on the R624 on the west and Cow Cross roads on the east, it is proposed to run a pipeline along this third class road with a diverging pipeline at the Y-shaped junction in the townland of Ballynoe, about 500m in length.

There is an additional short stretch to the west of Clonmel Church at Ballyvoloon. This is an important church of Ireland with a graveyard attached. Some of the casualties of the Lusitania are reputedly buried here.

One previously unrecorded feature was noted during the walkover CH22 (see below).

### Pipeline Routes through "Green Field" Areas

The green field locations in Cobh are necessitated to connect the red routes detailed above. The green field route proposed for White Point and Black Point were inspected. Nothing of an archaeological or cultural heritage nature was noted along these stretches.

Another green field stretch was noted at Rushbrook on the approach to Cobh from the west. Access was not permitted at the time of inspection. It appears from photos that the area through which the pipeline traverses is residential in nature. This will be verified at detailed design stage. There are two short stretches within the centre of Cobh which connect existing pipelines. Near Carrigafoy there are longer stretches of proposed green field pipeline. The topography of the ground here is very steep and rocky from a low at south to a high at north, and the locations were inspected from the fort itself and viewed from viewing locations in that area. The area around Carrigafoy crossroads to Cushkinny /East Ferry and the Golf Club also has some Greenfield pipes and this appears to correspond with grass verges.

At Cows Crossroads a stretch of green field pipeline route runs southward from near Clonmel Church and graveyard through a field in pasture to connect with an existing pipeline. Access was not permitted along this stretch at the time of writing, but it was viewed from a gateway



at north. A sort stretch of green field pipeline is also required to the west of Cow Crossroads to connect to roadway line at this point.

The final stretch of green field pipeline is required from the y-junction at Ballynoe eastwards to Ballyvoloon (this route goes through pasture to connect two third class roads). No access was permitted to this stretch at the time of writing. Orthophotos were used in this case.

### Pumping Stations (Figs 11 & 12)

There are two types of pumping stations proposed for this project: minor pumping stations and major pumping stations. The minor pumping stations were considered part of the overall piping route, when this was visited. There are five minor pumping stations required for this area of the project. They are situated in the townlands (from north) of Pembroke (2); Lackroe; Monkstown (Castle Farm); Raffeen. Two major pumping stations are proposed for this area, one at West Beach, Cobh and the other at Carrigaloe (adjacent to the ferry terminal).

#### West Beach, Cobh

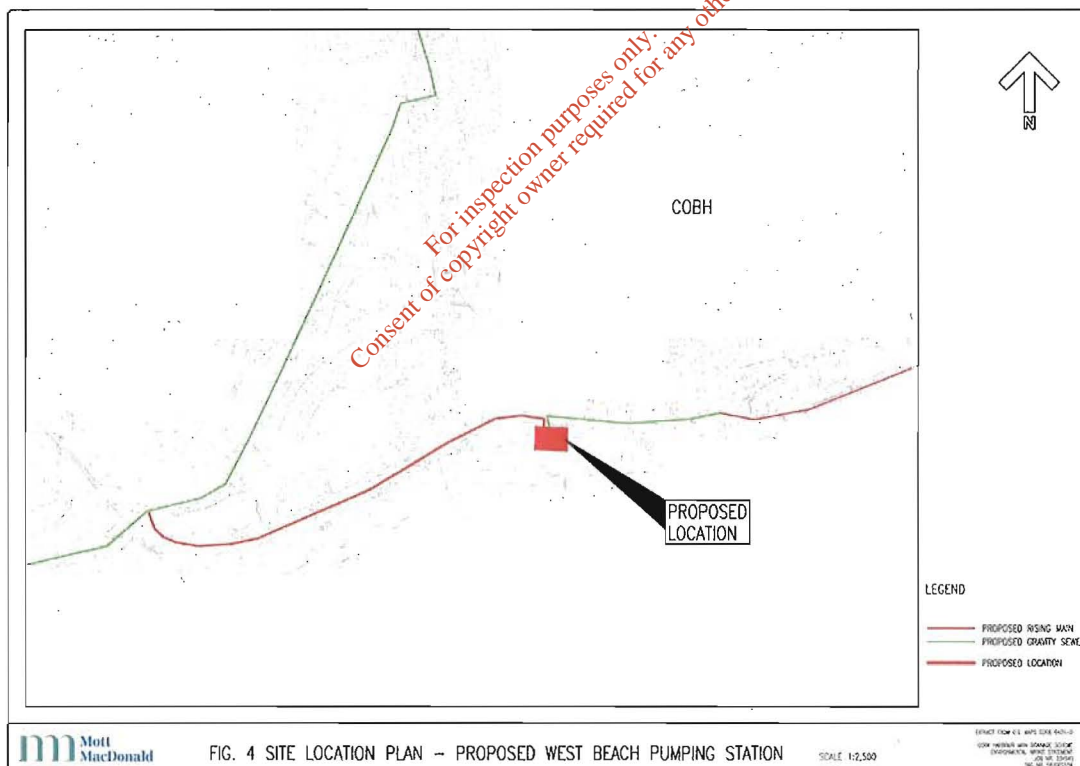


Figure 11. West Beach Cobh proposed pumping station location

This major pumping station is proposed to be located in the intertidal zone immediately adjacent to the T-shaped pier, known as Pier Head at West Beach, Cobh. The proposed site was inspected at low tide mark and nothing of an archaeological nature was noted during the

inspection. This location is important as it is in the centre of the historic town of Cobh (CH26). (See below for discussion of same.) It is supposed that this pumping station will be set on an area of ground reclaimed from the harbour. This reclamation and the construction of the station is predicted to obscure some view some of the stone quay wall.

### Carrigaloe

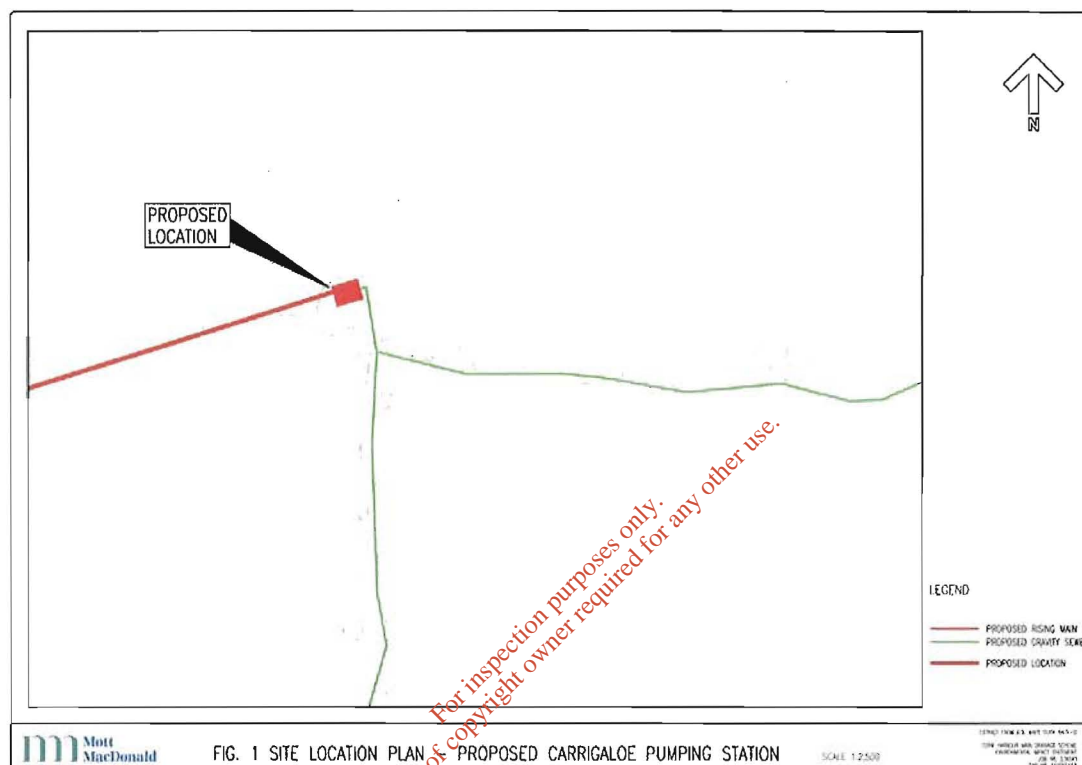


Figure 12. Carrigaloe proposed pumping station location

The proposed location for this major pumping station is immediately to the south of the current ferry terminal at Carrigaloe, on the opposite riverbank and to the east of Passage West. This site at the time of inspection was a shipyard area, with a large modern shed. The ground (after a visual inspection) appeared to be artificially and "made up" ground. The site was viewed from both the road (east) and the water (west). Nothing of an archaeological nature was noted during the inspection.

### Cultural Heritage Features (Fig. 20)

There are several cultural heritage features in the environs of Cobh. They are as follows: CH2 a holy well, CH13, 15, 14 church and graveyards, CH18 battery, CH22 limekiln, CH26 historic town, CH27 church and graveyard.

### 3.2.6 Intertidal & Underwater Zones (assessment undertaken by ADCO) (Fig. 2)

The intertidal and underwater zones marked on Figure 2 in blue were assessed by ADCO Limited in September 2007. Their results are detailed in section 10 of this report.

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Plate 3.1. Proposed route along roadway north of Passage West, from northwest



Plate 3.2. C of I church on Church Hill west of Passage West, from southwest



Plate 3.3. View along R610, Monkstown, from south



Plate 3.4. Road within ZAP of CH1 and CH16 in Rathanker, from southeast





Plate 3.5. Route of pipe along road within ZAP of CH3 in Parkgarriff, from northeast

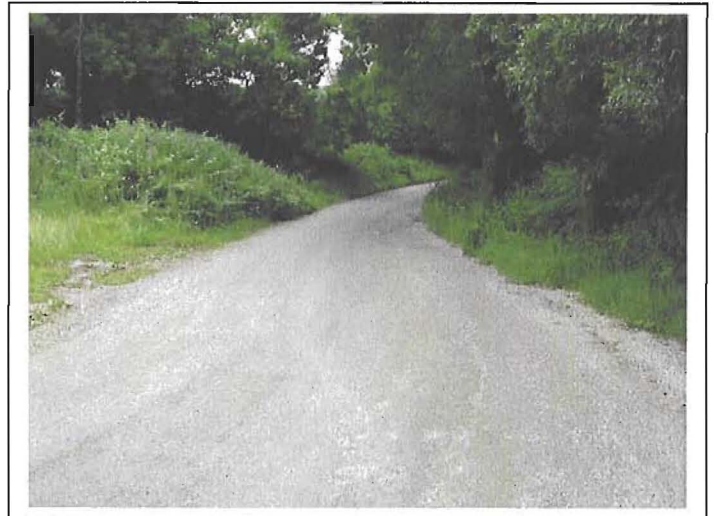


Plate 3.6. Pipe route within ZAP of CH4, in Ballyfoulo, from northeast

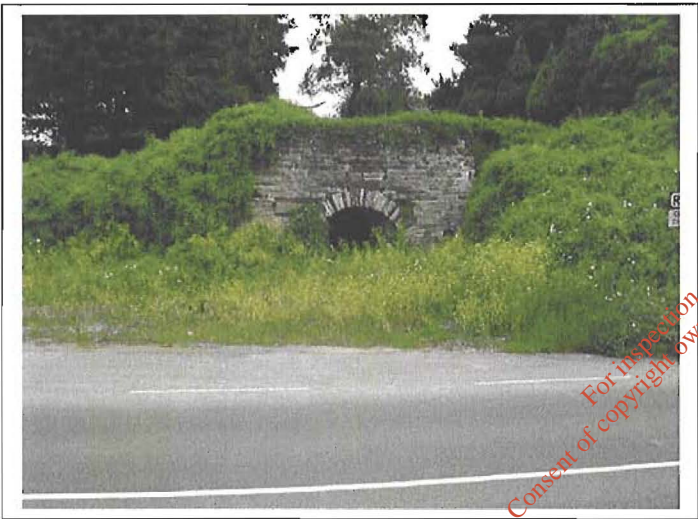


Plate 3.7. Pipe route flanked by CH5 along Monstown Creek road, from south

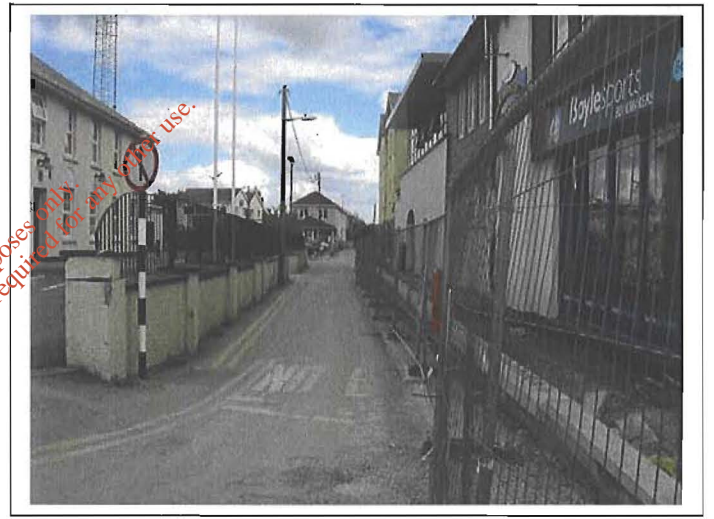


Plate 3.8. Pipeline route in the Carrigaline area, north of CH6, from west

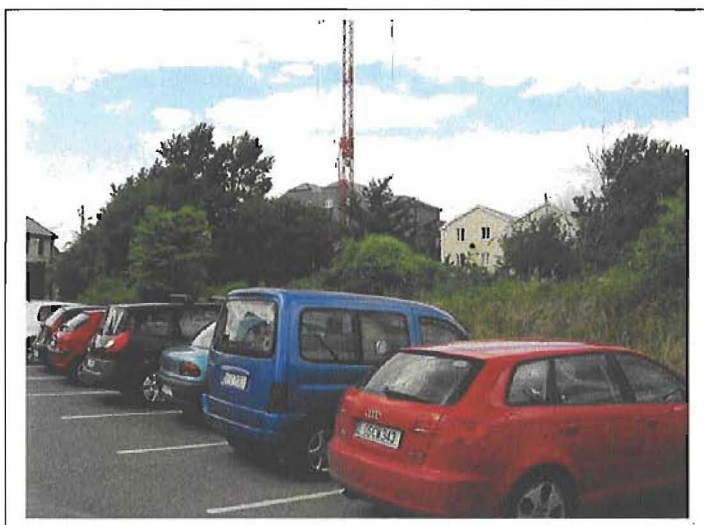


Plate 3.9. CH 6 in Carrigaline, from south



Plate 3.10. Mill race to southeast of CH6, Carrigaline, from west





Plate 3.11. Proposed piping along grass verge, northeast of Carrigaline village centre

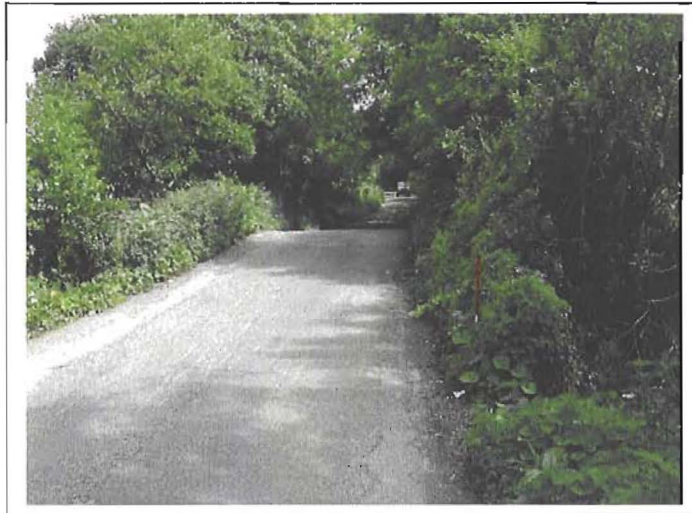


Plate 3.12. View southward over 'Dandy bridge' in Kilnagarry



Plate 3.13. Pipeline route within ZAP of CH19, from northeast

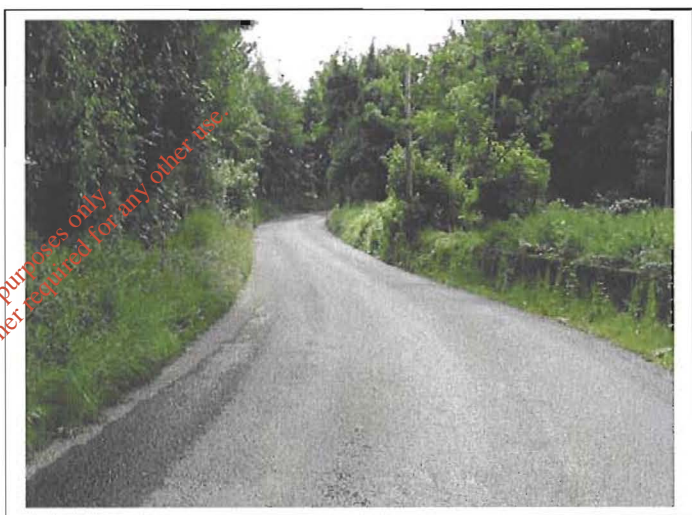


Plate 3.14. Pipeline route along roadway within ZAP of CH8, from northeast



Plate 3.15 View of proposed pipeline from Coolmore cross roads at south

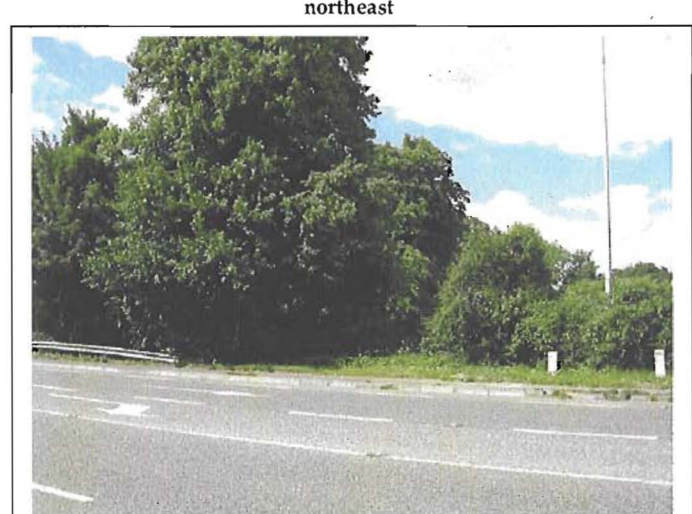


Plate 3.16. View from south across N28 near Raffeen Bridge, from south





Plate 3.17. Pipeline route along Carrigaline to Raffeen bridge road to northwest of WWTP, from south



Plate 3.18. Pipeline route to northeast of WWTP site, from east



Plate 3.19. CH9 at northeast extent of WWTP, from west (bank arrowed)



Plate 3.20. Field b, from northeast



Plate 3.21. Field a, from southeast



Plate 3.22. Proposed pipeline route (arrowed) to southeast of WWTP, from northwest



Plate 3.23. General location of CH10 to east of WWTP, from northwest





Plate 3.24. Pipe route along N28, from northwest



Plate 3.25. Pipe route along roadway in Loughbeg, from east

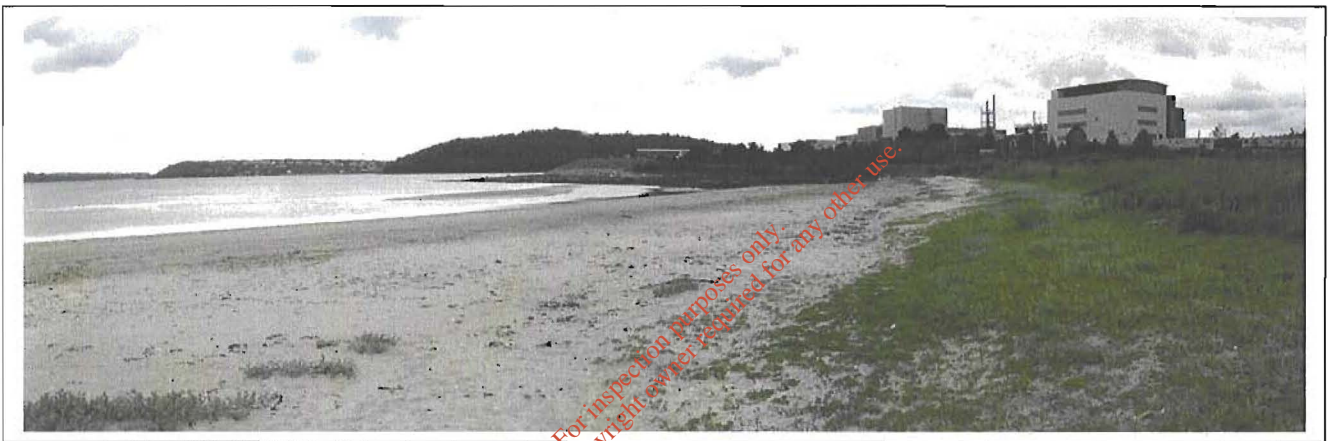


Plate 3.26. WWTP outfall in existing IDA outfall area, within ZAP of CH12, from north



Plate 3.27. CH20 (arrowed) along N20 grass verge, from southeast

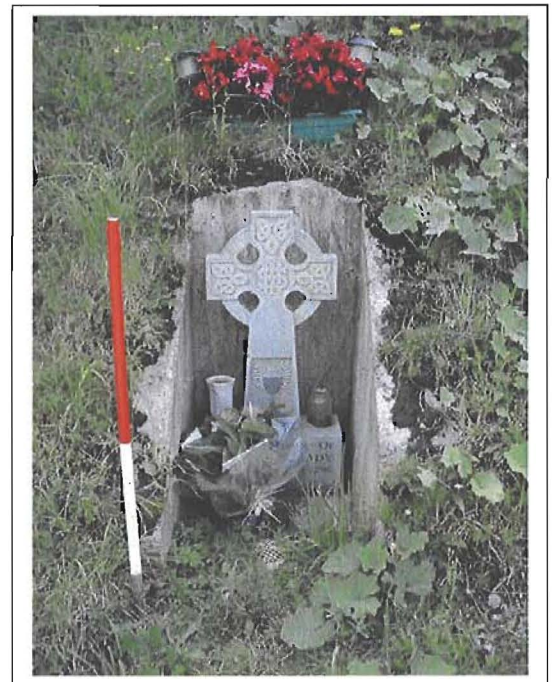


Plate 3.28. CH 20, memorial, from northeast





Plate 3.29. CH21, commemorative plaque, from southwest



Plate 3.30. Pipeline along roadway at east side of Cobh, from east



Plate 3.31. Pipeline route north of Cobh town centre, from north



Plate 3.32. Route of pipe along road in Ballyvoloon area, from east



Plate 3.33. Route of pipe west of Clonmel church graveyard wall, from south



Plate 3.34. Green field pipe location at south of White Point area, from east





Plate 3.36. CH2, from east

Plate 3.35. Pipeline route within ZAP of CH2 (location arrowed),  
from east

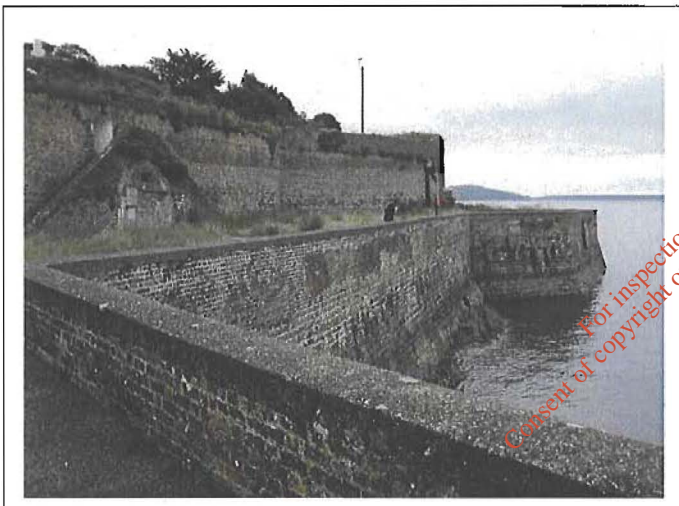


Plate 3.38. View to green field pipe locations from CH18 at west

Plate 3.37. Interior CH18 to south of pipeline route, from west

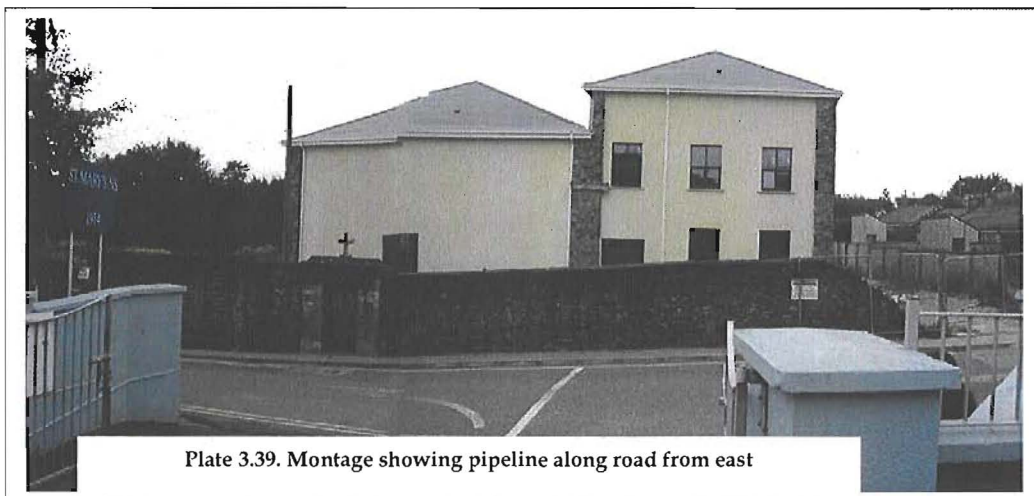


Plate 3.39. Montage showing pipeline along road from east





Plate 3.40. CH22, in white point Cobh, from northeast

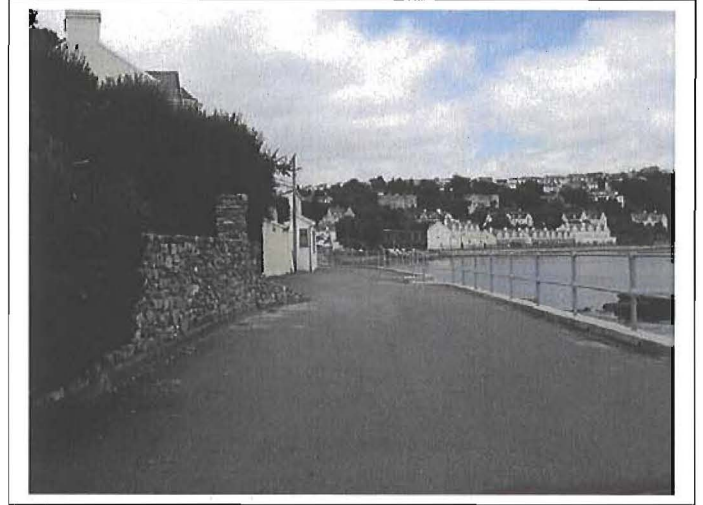


Plate 3.41. Pipeline route along roadway in White Point, from south



Plate 3.42. Proposed location for major pumping station at Monkstown, from east

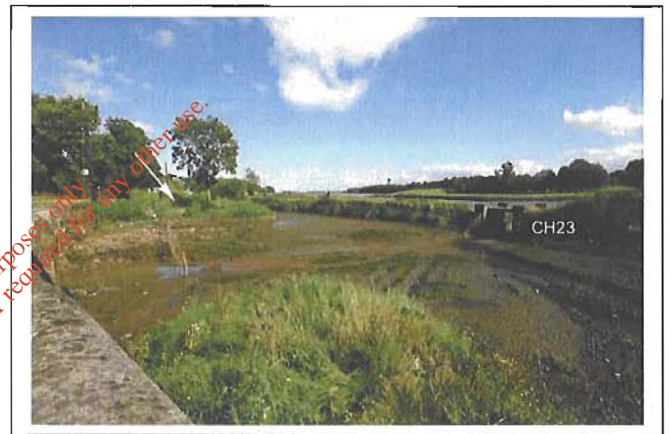


Plate 3.43. Proposed location for major pumping station at Raffeen/Strawhill, from northwest

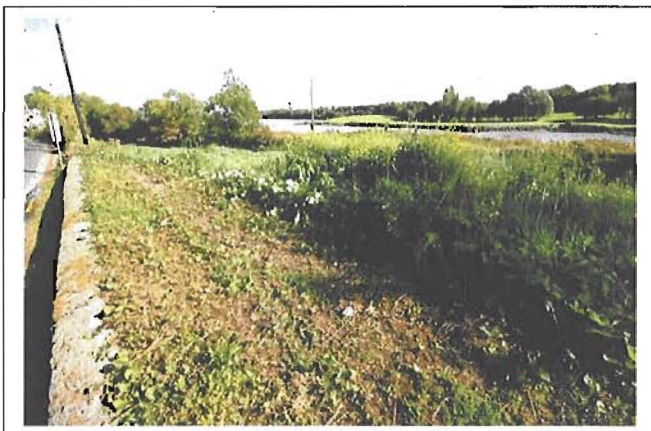


Plate 3.44. Detail of proposed location of Raffeen/Strawhill major pumping station, from west (modern fill)



Plate 3.45. Proposed location of major pumping station at West Beach Cobh, viewed from southwest





Plate 3.46. Location of major pumping station at West Beach Cobh, from south



Plate 3.47. View of Spike Island (arrowed) from proposed location of major pumping station at West Beach Cobh, from north



Plate 3.48. View of The Dandy Bridge (CH24), parapets arrowed, from west



Plate 3.49. View of paving beneath bridge, marking fording point, from east

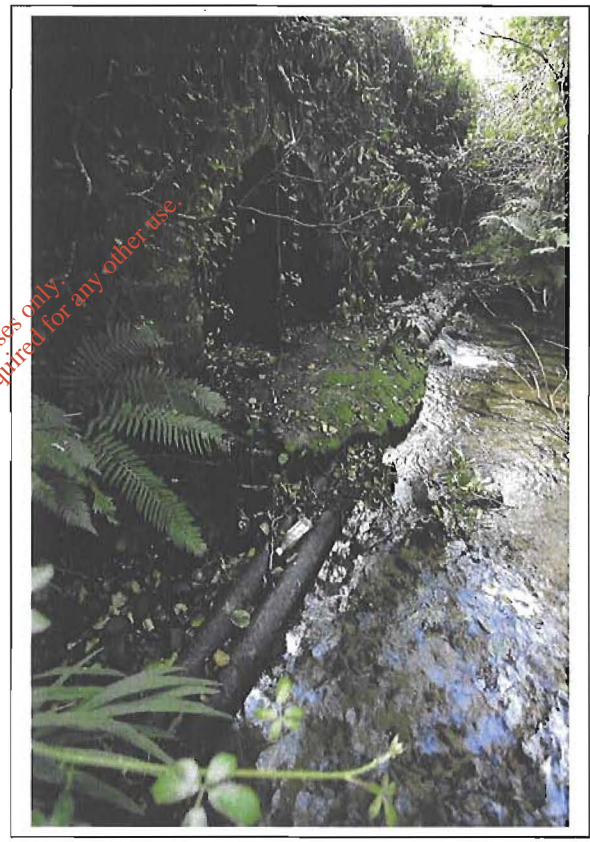


Plate 3.50. View of The Dandy Bridge Arch, modern pipes and concrete, from east

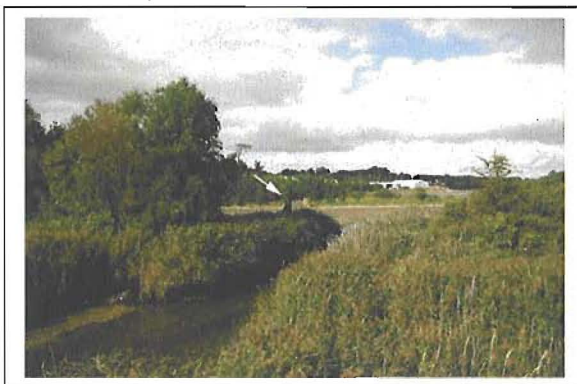


Plate 3.51. Location of proposed outfall at Kilnaglery Bridge, near Carrigaline, CH25 arrowed, from southeast