

Submission on behalf of Catherine McMahon

Every day winter and summer, I get into the sea at the Velvet Strand, Portmarnock and I am part of a wide community of people for whom this beautiful natural amenity is a part of their live..

Mu name ic Catherine McMahon and I have been swimming in the sea year round for 32 years.

As a group, we have a knowledge of the sea that is based on reality rather than desk top modelling.

In our presentation today we have gathered information from people some of whos livelihoods, in fact some of whos actual lives depends on their knowledge of these local waters off Portmarnock and Howth. This presentation is additional information on a point made in our original objection.

This is a randon sample taken from an number of endless people, voicing their concerns of this strategic Infrastructural project, the GDDP., and sharing their expert local knowledge with the competent authority, An Bord Pleanala.

Based on the expert local knowledge in this presentation, which undermnes the desk top modelling undertaken by Irish Water, we call on An Bord Pleanala to refuse permission of this project, as this presentation contradicts Irish Waters report and also highlights the possibility of other flawed modeling.

Mr. Edward Burke will follow this presentation with a few points.

What you are about to see is not desk top modelling, it is reality.

Catherine McMahon The Velvet Strand sea swimmers and other beach users.

Catherine Mchahon

TIME 11:15	
Z 8 M	AR 2019 

## Greater Dublin Drainage Project: Response to Submissions



during the construction works. The overall conclusion is that there will be no impact to the SAC reefs fro suspended sediments during dredging.

#### 10.3.2 Operational Phase Discharges following Malfunction

434. The following submission raised a concern regarding the impact of discharges on the reefs and harbo porpoises at Ireland's Eye as a result of a malfunction during operation.

GDD Submission ID	Name	ABP Submission ID
GDD_SUB_108	Peadar Farrell	LDG-007716-18

#### Applicant's Response

- 435. Please see response to risk of malfunctions in Section 23 of this Response which describes the safeguarc that will be in place to prevent malfunction.
- 436. As presented in Section 9.5 in Chapter 9 in Volume 3 Part A of the EIAR, "Discharge modelling shows the the resulting suspended sediment plume discharged from the proposed marine diffuser will disperse awa from the site following a trajectory north and east of the Ireland's Eye coastline. This will therefore not impact on the sublittoral reef area recorded on the northern and eastern parts of this island within the Rockabill the Dalkey Island SAC".
- 437. Section 9.5 in Volume 3 Part A of the EIAR states the following regarding impacts during the Operational Phase on marine mammals:

"Owing to possible enhancement of fish life around the proposed marine diffuser location (attracted by the seabed structure and/or possible increased productivity), the impact is likely to be slightly beneficial to the marine mammals, particularly the seals, with a long-term duration (the lifetime of the proposed outfall pipeline route (marine section)) but generally negligible magnitude. This would result in a Negligible Beneficial impact for pinnipeds, but a Minor Beneficial impact to harbour porpoises in magnitude. However, as this area represents only a very small proportion of their foraging range, this significance of this impact is expected to be Negligible."

- 438. The results presented in Chapter 8 Marine Water Quality in Volume 3 Part A of the EIAR assess the water quality parameters that would be affected in the event of a three day malfunction within the processing discharge. The modelled water quality parameters show that natural dispersion qualities of the proposec marine diffuser continue to operate in the prevailing oceanographic conditions and continues to provide high dispersion and diffusion of the discharge during this period. No suspended solids concentrations were modelled but it would be expected that these concentrations would increase slowly over the period of the malfunction, with the main suspension components being removed from the treated wastewater during this period. An increased plume of suspended material would be expected to move away from the proposed outfall pipeline route (marine section) discharge point in a seaward direction.
- 439. The impact of this on the harbour porpoise population within the SAC would be expected to be subtle and short lived. This species is routinely recorded in areas of high suspended sediment loads, so an elevated turbidity is unlikely to have a significant impact on this species. However, the species may be indirectly affected by an increased plume where a behaviour change is recorded in a prey species. It is uncertain if a short period malfunction will enhance fish activity around the proposed outfall pipeline route (marine section) discharge point or reduce it, as both could occur subject to season and resulting plume structure. However,

3/28/2019



The race area - HYC.ie

Members Section

HOME CLUB RACING RACE AREA

## The race area



Our local sailing and racing area is bounded by Howth Sound and Lambay to the north , Portmarnock and Malahide to the west and the Irish Sea to the east and often confounds the unwary with contrary tides, eddies, gyres and slack areas. You can be baffled by a similar boat headed in the wrong direction and gaining or sailing nearby and going a knot faster.

Many visitors assume that they cannot compete with our local knowledge. The truth is that most of us 'locals' might as well be predicting the stream directions with tea leaves or relying on Divine intervention, which sometimes appears to be the case. To help dispel some of the black art we spoke with some people considered 'tide gurus', both fishermen and sailboat racers.

The tides in the area are complex but a basic understanding can help your performance improve. A Scandinavian Optimist team in the 90's spent weeks with flow meters and floats all around the

area. They gave up in despair without collecting any useable data! That was probably a good lesson, what is really required is a conceptual knowledge of the main elements allied to alert observations on the day. The conditions change frequently and the tidal streams respond.

Ian Byrne produced this document after discussions with Dave Doyle, Ian Malcolm, Michael Duffy, Dennis Toomey and others.

Much of this article is about the tide peculiarities in the proximity of Baldoyle, Ireland's Eye and Balscaddan, which play a big part in our HYC Club Racing series. However, Championship Events are held in the area to the East of Malahide, where the tidal flow is more standard and predictable.

Hopefully this article will prompt you to focus on this important racing varible that will have a bigger impact than a new headsail or any other go-faster tweak - if you get it right. Get it wrong and even the best prepared boat and equipment will leave you trailing.

North of Rockabill (a few miles north of Lambay Island), there is a tidal null point midway up the Irish Sea. This probably influences the tidal streams in our area as the slack area moves a little north or south depending on the conditions. Similarly, a persistent southerly wind will prolong the flood and a persistent northerly will prolong the ebb.

The influences that alter the main Irish Sea north/south stream are :



The islands and headlands ie, Howth Head, Ireland's Eye and Lambay. The bays/inlets of Malahide and Baldoyle. The tide height and atmospheric pressure. The wind direction in the preceding days. The relative times the tide turns.

All this results in four main back eddies that can give you a significant advantage. These eddies are in the vicinity of:

Balscaddan (B)

Along the East side of Irelands Eye

Along the North side of Irelands Eye

• Within the area described by the NW corner of Irelands Eye, Hub (H), Portmarnock (P) and West (W) marks

The first thing to note is that the streams turn in Howth Sound and at Balscaddan between 1 and 2 hrs before the main streams. They also turn early at the West (W) & Cush (C) marks and along Portmarnock Strand.

This is because the inlets at Malahide and Baldoyle are large areas to fill on the flood and drain on the ebb. Baldoyle fills up more quickly than Malahide and slackens earlier due to the lower volume of water. This can be observed at the bar and its subsequent effects at the Cush (C) and West (W) marks.

The race area - HYC.ie

These inless deflect the main north/south stream east of Lambay and the stream in Howth Sound gradually NW/SE, increasing W/E as you close the shore.

JIZOIZUIS

Along the Portmarnock shore the streams run slacker and benefits can be gained by standing inshore if there is an adverse stream on the direct course to your mark.

At the West (W) Mark you will experience a SW flood and a NE ebb, gradually turning E/W as you approach the Spit (S) Mark as Baldoyle fills and drains.

Another view, based upon observation, is that the stream between Cush (C) and Spit (S) is either slack or flowing towards the beach on Ireland's Eye regardless of ebb or flood.

The islands and headlands are in the way as the inlets fill and drain and divert the streams on each side creating

back eddies. This is evident along both edges of the Sound, along Portmarnock Strand and along the north of Ireland's Eye.

Also north of Ireland's Eye, in the vicinity of the Island (I) mark, there is a tidal eddy. Its location, which is generally obvious, moves depending on conditions and the tidal direction. Similarly, the south side of Lambay Island has a more west/east direction with a slack area south of the bar running west from the Burren Perch.

In the Sound the stream runs strongly in the centre and slacker on the north and south edges. In

fact on the south side you will often experience a back eddy a cable or two off and gain up to 1.5 knots from Balscadden (B) and along the pier to the lighthouse. Generally there is a cross tide, roughly N/S, at Balscadden (B) which can ruin your layline and in light conditions can end your race there. On the other side of the Sound, just north of Thulla (J) is an area of slack water between contrary streams.

All these features will give you an advantage if balanced against the racing wind strength and direction on the day and how far out of your way you have to go. The streams can run at up to 2 knots and you should also take account of

the wave height and patterns generated by wind and tide in deciding you course to the next mark. Your course will also be influenced by the velocity gradient as you move west out of the main stream e.g., the rates may be 2kn at the East (E) mark, 1 Knot at the Hub (H) and ¼ Knot along the Portmarnock shore. Advantage or disadvantage ? - your call!

The most sensible approach is to be aware of the variables and endevour to understand the principles whilst relying on regular observations before and during the race. Continued observation is key because the streams turn at different times throughout the area you will often find the stream directions on your second round or between the same marks totally different 30 minutes later.



Portmarnock

Baldoyle

Tide

E

6 G

Howth

Ireland's Eye

Howth Hd.



When you assimilate all this data you must then judge if the potential tidal benefits outweigh your VMG when compared to the sailing wind - not easy, but that's why we do it. Anyway, hopefully you found something useful that will add another dimension to your racing, alternatively if you have experienced other tidal features in the area or have an opinion please raise a topic on the members area of the site.



#### East Coast Sea Kayaking Club

#### bsəH rtwoH < nisəliO < prinnslq qinT < əmoH

Vser Rating:♥♥♥♥ beah hwoh

Written by David Walsh est Rate Poor

Thursday, 20 May 2010 13:51

sewage now goes to the modern treatment is much improved in 2003 as most of the corner of the Head. However, the situation Nose of Howth at 0301389 on the NE is a sewerage outlet operating just off the handy shuttle, the only downside to this trip excursion. Attractive for its scenery, and its also attractive to take in as part of the for Dublin sea paddlers. Ireland's Eye is The round of Howth Head is a popular trip

at LW, the tide goes a long way out. A so it is not suitable for large groups. Aso, and considerate parties. Parking is limited The Club is welcoming to small competent O265-377, just NW of the Martello Tower. sandy beach at Sutton Sailing Club at of the Head, the launching point is the Harbour. There is plentiful parking. To the S dtwoH ni noitsta IJNR adt ts vewqils The put-in point to the N is at the public works in Ringsend.

shingle beach at O296-373, 1km N of the

also possible in several places on the S side. welcome break, and there is even a track upwards to the commonage above. Stopping is Bailey Lighthouse O297-363 offers a

'emnus southerlies. An ?out and back? trip from Howth Harbour is also quite feasible and avoids the The round of Howth is usually done -anti clockwise, on a rising tide, best in calm or gentle

Aqs

Fulmar, Cormorant, Shag, Herring Gull, Kittiwake, Guillemot, Razorbill, Black Guillemot.

sapij

N/NE flood runs from Dublin HW +0430 to -0130, and the ebb the reverse. NE side of the head is often very bumpy, easing as one approaches Howth Harbour. The stream coming out of Dublin Baymeets the main stream, can be quite nasty. The Nose at the the seaward side, especially with wind over tide. In particular the Bailey, where the tidal Ireland's Eye, where 2 knots can be achieved. There can be very bumpy water anywhere on The main E coast streams run N and S off the Bailey and the Nose, and on both sides of

the other three, from Dublin HW to Dublin HW +0300. out of the twelve, from Dublin HW +0300 to Dublin HW. The ingoing W stream flows for only of the bay. Therefore, an outgoing stream runs E along the S shore of the Head for nine hours ebb, except when flowing at its strongest, in the middle three hours, eddies around the N part inner bay to exit eastwards along the S side of Howth Head. To complicate matters, the main The main E coast flood enters Dublin Bayon its S side heading NE, and circles around the

In the first hour or two of the flood, from Dublin WH -0600 to -0400, paddlers often find that the

nual@ meM

- Home
- Forum
- 2199M
- Events Calendar
- Membership .
- eninnel9 dinT .
- o Oileáin
- v Anglesey
- IsbiT o o Weather

#### Information

- Skills
- spribruos .
- Library .
- Gallery .
- sbsolnwod .
- speeds
- Syuij
- tuodA
- Contact Us
- Search .
- dlaH .

### **UI607**

..... Usemame

Register Forgot login?

Login

Rememberme

bead-dtwod-£4/niselio/gninnslq-qitt/ue.cs/sce.www/:qtth



F 6 1

#### Howth Head

stream exiting Dublin Bay E is stronger than the main coastal flood N. Thus the stream at the Bailey is E, and sets up a huge circular eddy, for about 2km to the N. Text reproduced from Oileáin by kind permission of the author, David Walsh. Text was extracted from Oileáin (online

edition) on 4th May 2010.

Last Updated on Tuesday, 08 June 2010 19:27

#### Add comment

Your name will be displayed with your comment. Please be respectful when posting comments.

E-mail (required, but will not display)

<u>କ୍ରର୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍ଚ୍</u>

1000 symbols left

Notify me of follow-up comments

Refresh

2. .....

Send

JComments

.

Powered by Joom la!. Valid XHTML and CSS.

.....

eOceanic

Contact Us (/contact) Privacy Policy (/privacy) About Us (/about) prevpage=/salling/harbours/72/howth) Register (/register/?prevpage=/sailing/harbours/72/howth) Log in (/login/?



(/sailing/harbours/74/carrigeen\_bay) (/sailing/harbours/72/resources/) (/sailing/harbours/75/balscadden\_bay) **Tides and tools** Overview

Howth is an artificial harbour on the east coast of Ireland that lies to the north of Dublin Bay on the far side of the Howth peninsula that juts out into the Irish Sea. The harbour is situated beneath the rocky island of Ireland's Eye that lies close offshore. It is a centre for fishing and yachting that has excellent pleasure boat facilities and is very popular with sailing craft.

Howth affords complete protection. The harbour provides safe access in all reasonable conditions, night and day, at any stage of the tide. Special care should be taken when swell is running in the sound during east to southeast gales. Craft with very deep drafts should stay centre channel on the marina approach during low water springs.

The popularity of Howth's sailing events can often result in the club's visitor berthing capabilities being overwhelmed. It is therefore advisable to get in touch with the club in the days preceding any planned visit.



+353 1 8392777 (tel:+353 1 8392777)

HM +353 1 8322252 (tel:+353 1 8322252)

marina@hyc.ie (mailto:marina@hyc.ie)

eOceanic

Ch.M, 80

Position and approaches

#### Haven position

53° 23.647' N, 006° 4.012' W

Howth harbour east pier light tower. A 13 metre tall white and red beacon at the end of the harbour's northernmost breakwater F1. (2) W.R. 7.5 sec 13m W12M.

#### What are the initial fixes?

The following waypoints will set up a final approach:

(i) Howth Buoy initial fix

🔗 53° 23.727' N, 006° 3.593' W

This waypoint sets up a final approach from the southeast (south around Irelands Eye). The Howth buoy is the first marker for the channel into Howth Sound starboard hand F1.G 5 sec. Please note if approaching from the north keep outside of Rowan Rocks east cardinal Q - (3) 10 sec.

(ii) Howth Sound fairway initial fix

65' 53° 24.500' N, 006° 4.665' W



Expand to new tab (/map.php? latitude=53.3941154&longitude=-6.0668669&zoom=16) or fullscreen

6. The Boat Harbour

This leads through into Howth Sound and passed through the fairway on a line of bearing of 158° T that may be seen by aligning the Martello Tower, situated in the southeast corner of Howth harbours, aligned against the eastern side of the harbour entrance.



Initial fixes only set up their listed targets. Do not plan to sail directly between initial fixes as a routing sequence.

#### What are the key points of the approach?

Offshore details are available in eastern Ireland's Coastal Overview from Strangford Lough to Dublin Bay (https://eoceanic.com/sailing/routes/21/). Details for vessels approaching from the south are available in eastern Ireland's coastal overview from Dublin Bay to Rosslare Harbour  $\Im$ (https://eoceanic.com/sailing/routes/18/).

#### Not what you need?

Click the 'Next' and 'Previous' buttons to progress through neighbouring havens in a coastal 'clockwise' or 'anti-clockwise' sequence. Below are the ten nearest havens to Howth for your convenience.

These havens are ordered by straight line charted distance and bearing, and can be reordered by compass direction or coastal sequence:

1. Balscadden Bay (/sailing/harbours/75/balscadden\_bay) - 0.3 miles SSE

2. Carrigeen Bay (/sailing/harbours/74/carrigeen\_bay) - 0.4 miles NNW

- 3. Malahide (/sailing/harbours/73/malahide) 2.9 miles NW
- 4. Talbot's Bay (/sailing/harbours/77/talbot%e2%80%99s\_bay) 3.5 miles NNE
- 5. Seal Hole Bay (/sailing/harbours/389/seal\_hole\_bay) 3.8 miles NNE
- (/sailing/harbours/81/the\_boat\_harbour) 3.8 miles N 7. Dublin Port (Poolbeg Marina) (/sailing/harbours/40/dublin\_port\_%28poolbeg\_marina%29) - 3.8 miles
- 8. Dún Laoghaire Harbour (/sailing/harbours/41/d%c3%ban\_laoghaire\_harbour) 3.9 miles SSW
- 9. Saltpan Bay (/sailing/harbours/76/saltpan\_bay) 3.9 miles NNE
- 10. Rogerstown Inlet (/sailing/harbours/387/rogerstown\_inlet) 4.5 miles NNW

To find locations with the specific attributes you need try:

Resources search (1) (1) (1) (2) (1) (2)

Chart

#### How to get in?



Image: Bjørn Christian Tørrissen via CC BY-SA 2.0

Howth Harbour is situated on the north shore of the Ben of Howth peninsula, nearly a mile to the northwest of the Nose of Howth. It is formed by two piers, east and west, that run out from the shore towards Ireland's Eye a small island immediately offshore. It is predominantly a fishing port but is also a major small craft and yachting centre.

The problem with Howth is overcrowding and anyone planning to visit should contact the marina office in the days before any intended arrival. The Marina Office maintains a 24-hour listening watch on Ch M (37A) and Ch 80 P: +353 1 83292777, E: marina@hyc.ie

#### NORTHERN APPROACHES

Vessels approaching from the north, or indeed seaward from the east, will find offshore details

available in eastern Ireland's Coastal Overview from Strangford Lough to Dublin Bay (https://eoceanic.com/sailing/routes/21/). On closer approaches, the conspicuous reef-fringed island of Ireland's Eye will be seen immediately north of Howth Harbour. A prominent Martello Tower standing on the island's northwest extremity makes for positive identification. The island rises abruptly on its north side to a height of 99 metres, and slopes down to its southern extreme. From the southern end shelving rocks, that cover at high water only, extend to the Thulla that is a small patch elevated 2 metres above high water. To the southwest of this, there are some rocky patches called the North Rowan, uncovering to a distance of 300 metres from the Thulla.

Howth Harbour may be accessed by passing around either side of Ireland's Eye. The normal route is to pass around the island's eastern side and approach the harbour around its southern end. The north and east sides of Ireland's Eye are steep-too, with 8 and 12 metres water 100 metres out from the rocks. Those taking this approach should use the southern approach directions and the 'Howth Buoy initial fix'.



Image: John Kavanagh via CC BY-SA 2.0

Passing through Howth Sound which lies west of the island and east of the Baldoyle Spit extending from the mainland is a little more involved but nothing overly complex. The west of Ireland's Eye is shallower with not more than 2.7 metres of water in the middle. At low water, Howth Sound is about half a mile wide with depths decreasing towards each side. But this should not present any difficulty for a leisure yacht.



Martello on Ireland's Eye with the head of the East Pier in the foreground Image: Tourism Ireland

Those taking the inshore route should use the Howth Sound fairway initial fix. When closing on the fix identify 'The Steer' on the north-westernmost point of Ireland's Eye, close north of the Martello tower.

Ireland's Eye Martello tower - position: 53° 24.500 N, 6° 04.200W

Keep two hundred metres off the northwest corner of the island as although the island is steep-to there are a couple of off lying dangers on this corner. A rock dries to a height of two metres approximately one hundred metres northeast of 'The Steer' plus there is a sunken rock close to the west of 'The Steer'.



Vessels drawing more than 1.8 metres should not use Howth Sound at low water after a strong easterly gale has developed a swell.

'From Howth Sound fairway the initial fix follows a line of bearing 158°T through the fairway. This aligns the mainland Martello Tower, situated in the southeast corner of Howth Harbour, against the eastern side of the harbour entrance.



Howth Martello Tower Image: William Murphy Martello via CC BY-SA 2.0

This transit may be difficult to see owing to the amount of building infrastructure in the harbour area. If the transit cannot be located keep ½ mile off the west side of Ireland's Eye in about 2.5 metres LWS channel. Maintain a careful depth sounder watch to make certain the vessel is not coming inshore and proceed with caution. On closer approaches, the tower coming into line with the outer end of the pier will be more readily apparent.

On transit, it passes to the west of Carrigeen Rock, a rocky outcrop extending from the southwest side of Ireland's Eye, and to the west of South Rowan Light buoy.

South Rowan Buoy - Starboard Hand Q G position: 53° 23.790'N, 006° 03.941'W

The entrance is less than 400 metres from South Rowan Buoy.



Fishing boat entering from the north Image: Brian Lennon

#### SOUTHERN APPROACHES

Vessels approaching from the south will find details in eastern Ireland's coastal overview from Dublin Bay to Rosslare Harbour VV (https://eoceanic.com/sailing/routes/18/). The Ben Of Howth is the key mark rising abruptly on the north side of Dublin Bay and is the most prominent feature. The east side of the Ben of Howth is steep-to as is most of the headland around to the Nose of Howth. The exceptions are close in 400 to 1,200 metres north of the Bailey, and at Casana Rock situated 800 metres south of the Nose where a distance-off of 50 metres is recommended. Immediately northwest of the Nose there is a drying rock that lies about 50 metres outside Puck's Rocks.



Baily Lighthouse on the southeast corner of the Ben Of Howth Image: Giuseppe Milo via CC BY-SA 2.0

A mile to the north-west of the nose is Howth Harbour that is easily distinguished by its east pier light tower. This is a 13 metre tall white and red beacon at the end of the harbour's northernmost breakwater.

Howth East Pier - FI (2) W.R. 7.5 sec 13m W12M position: 53° 23.647'N, 006° 4.012'W

The small island of Ireland's Eye is situated close north of the harbour. A quarter of a mile southeast of Ireland's Eye, or more appropriately Thulla the small 2 metres high outcrop, is the Rowan Rocks east cardinal buoy. Between this and Howth East Pier is the starboard hand Howth Buoy, F1.G 5, where the initial fix is positioned.

Howth Buoy - Starboard hand F1.G 5 sec position: 53° 23.727N, 6° 03.593W

From Howth Sound fairway the initial fix harbour access is very clear-cut. Simply keep all buoys to starboard to pass south of the shoals extending from Ireland's Eye and round the head of the new breakwater extension to port.

At night a Light House marking the north end of the new breakwater extension; beacon F1. (2) W.R. 7.5 sec 13m W12M provides a white sectored light that leads through the passage clear of Rowan Rocks.



Eastern approaches to Howth between the pier and the shoals extending from Ireland's Eye Image: Superchilum via CC BY-SA 3.0 e



South Rowan as seen over the breakwater extension Image: Brian Lennon

On final approach do not turn into the harbour until it is well open and enter taking a central path, keeping an eye out for departing fishing vessels. The harbour entrance is 100 metres wide with a least charted depth of 3.7 metres and 3.4 metres in the harbour. In easterly gales, a heavy sea can be experienced outside the entrance, but once around the breakwater extension, a leisure vessel is well protected.

#### HARBOUR



The entrance to Howth Harbour Image: Brian Lennon

V Inside the entrance there are swinging moorings and two channels as the harbour is divided into two halves. To the south is the marked channel into the yacht club marina and to the west, between two lit bull nose marks, is the entrance to the trawler dock. The western fishing fleet is based in the western inner harbour, and the adjoining eastern and southern section of the harbour is the pleasure boat area.



Pleasure craft are not accommodated in the Trawler Basin and the Harbour Master controls movement and berthing within the harbour.



Lateral marks in the outer harbour leading into the marina Image: Brian Lennon

The marina's dredged channel is clearly marked with a series of port and starboard markers. It is important to keep between these as the harbour dries on either side at low water.

Depths of 2.6 metres are available in the marina area but deep draft vessels should stay in the middle of the entrance fairway at low water springs. Berth as directed in advance and upon arrival register at the Marina Bridge.

A speed limit of 4 knots is in force in the Harbour and Marina area.

Anchorages at Howth may be found immediately outside of the entrance to the west of the West Pier head.

#### Why visit here?

Howth, pronounced to rhyme with 'both', derives its name from the old Norse word of höfuth meaning 'head' or 'headland'. Its name speaks of its peninsula nature, jutting out almost island-like into the Irish Sea, and a long Viking heritage. Its Irish name of *Benn Étair* predates this referring to the ancient Irish name for the Hill of Howth *Benn Étair* meaning "Éadar's peak".

The Vikings first invaded Howth in 819 and it was not long after that Howth was colonised as part of a chain of east coast bases, which included Dublin, to provide a strategic pathway from Scandinavia to the Mediterranean. The 'Danish' occupation reign came to an end in 1014 when Brian Bonú, the High King of Ireland, managed to unify the Irish regional leaders to overthrow the Vikings. Howth, however, was to be the last Viking holdout as many fled to regroup here after the defeat. Their power remained in force until a final defeat in Fingal in the middle of the 11th century and the area then came under the control of a



#### The marina and its approaches Image: Brian Lennon



Howth Marina Image: Brian Lennon

In 1169 the Anglo-Normans landed in Wexford and began to extend their conquest in earnest the following year. Without the support of either the Irish or Scandinavian powers, Howth was isolated and fell to the Normans in 1177. The winning Norman, Armoricus, or Almeric, Tristam took his prize of the lands between the village and Sutton. Thanking God for the victory Tristam took on the name St. Lawrence, the feast day of the saint on which his battle



of the saint on which his battle was won. Henry II of England bestowed the title of 'Baron of Howth' to Almeric St. Lawrence in 1181. He built his first castle near the harbour and the St. Lawrence link remains to this day.

By the 14th-century Howth had developed as a trading port which can be seen in the duty collections that officials supervised from Dublin. The substantial harbour we see today was commenced in 1807 to receive the packet boats, or postal service vessels, from



Nineteenth century postcard of Howth Photo: Public Domain

importance was short lived.

The replacement of sailing packets with steam packets in 1819 reduced the transit time from Holyhead to seven hours and spelt the end of Howth. It was a shallow harbour with a rocky bottom that precluded any dredging. As larger ships were built, and in particular the introduction of steam packets, it became increasingly unsuitable. Worse as early as 1813 the harbour was already showing signs of silting up and needed to be frequently dredged to accommodate the packet. The 'writing on the wall' came for Howth in 1807 with the loss of the 'Rochdale' and 'H.M. Packet ship



euceanic

England. It was completed in 1809 and with this investment, including the construction of Howth Road to Dublin that was built to ensure

rapid transfer of incoming mail to

the city, Howth started to take off. However, Howth's period of

Imprint of George IV's footsteps on the West Pier Photo: Public Domain

Prince of Wales' which created the catalyst for the creation of a safe deep water Dublin Bay harbour in the construction of Dún Laoghaire. Dún Laoghaire's construction commenced in 1817 and lasted until 1859 but by 1833 the packet service had already relocated to Dún Laoghaire. The Dún Laoghaire harbour advocate King George IV arrived at Howth in 1821 departing again from Dún Laoghaire after examining the work and giving the harbour the new name of Kingstown. His Howth visit was noted for how he weaved his way off the boat in an intoxicated state. The footprints at the point where he stepped ashore are recorded to this day on the West Pier.



Childers in uniform 1899 Photo: Public Domain

Almost a century later, in July 1914, another extraordinary Englishman, with an equally remarkable wife, stepped over King George IV's footsteps risking his life to set Ireland free from England and King George V. This was the keen sailor and ardent Republican Erskine Childers the author of the sailing favourite "The Riddle of the Sands". He arrived in Howth with his partially handicapped wife Mary "Molly" Alden Childers in his 28-ton yacht Asgard. Aboard was a cargo of 900, elderly but serviceable, Mauser Model 1871 rifles and 29,000 black powder cartridges to arm the nationalists. The Irish Volunteers unloaded the arms in daylight at the harbour, in front of a crowd. The Dublin Metropolitan Police (DMP), aided by troops of the 2nd King's Own Scottish Borderers, tried unsuccessfully to confiscate the weapons. On their return to their barracks in Dublin, some troops baited by a hostile crowd killed three people and wounded 38. A fourth man died later. Nationalists interpreted the contrast between the inactivity of the police and military in Larne  $\widehat{V}$ 

(http://inyourfootsteps.com/sailing/harbours/145/larne\_harbour\_county\_antrim\_ireland), that took place in

the middle of an April night, and the heavy-handed response in the middle of the day in Dublin, that authorities were biased in favour of the UVF. The corresponding episodes heightened tensions in Ireland, pulling it closer to the brink of north-south civil war. Partition prevented the north-south war from occurring but brought instead a civil war within the Free State that would, in turn, embroil Erskine.

Eight years later, in 1922, a bitter twist of fate caused Erskine to be arrested by the nascent Free State forces for being in possession of a small semi-automatic pistol. At the height of the civil war, this was in violation of the Emergency Powers Resolution that banned firearms. Childers had vehemently opposed the Irish Treaty agreement, particularly the clauses that required Irish leaders to take an Oath of Allegiance to the British king and went against the agreement. Ironically the pistol had been a gift from Michael Collins, the leader of the pro-treaty Provisional Government, and had been given to him when the two men were close friends on the same side. Court-martialled by his former comrades he was sentenced to execution which was carried out by firing squad on November 24th. Before his execution, in a spirit of reconciliation, Childers shook hands with each of the firing squad. He also obtained a solemn promise from his then 16-year-old son, Erskine Hamilton Childers, to seek out and shake the hand of every n who had clanad his fathar's death warrant . His



Erskine and his wife cruising Asgard 1910 Photo: Public Domain

nan who had signed his racher's deach warrand, his last words to the firing squad, were

characteristically in the nature of a joke: "Take a step or two forward, lads. It will be easier that way. "

The Asgard was acquired by the Irish government as a sail training vessel in 1961, stored on dry land in the yard of Kilmainham Gaol in 1979, and finally becoming a static exhibit at The National Museum of Ireland in 2012. His son Erskine Hamilton Childers became the fourth President of Ireland serving from 1973 until his death in 1974.



Howth's old western granit pierhead light Image: Giuseppe Milo

Today Howth is a much less war-like suburb of Dublin, a busy fishing and yachting port, that has all the cafes, hotels, fish restaurants and public houses that one would expect of a popular suburban resort. Of particular interest here is the Howth Head peninsula for the more energetic. Coming up from the pier and taking the leftmost road from the harbour will lead to a signposted walking trail commencing to the east of the town. From here hikers can choose from a wide range of routes, including the Cliff Walk or make for the ancient caim on one of Howth's several summits. The southern part of the cliff walk as a whole takes between 3 and 4 hours but it is well worth the walk as the views it presents are breath-taking. On clear days, the Wicklow Mountains can be seen, with Dublin city below. Along the way, walkers will come across

Dublin's most visible lighthouse, the Bailey Lighthouse.



Baily Lighthouse terminating the southeast extremity of the Ben of Howth peninsula Image: Tourism Ireland

Closer to the harbour and lying slightly inland the 16th-century Howth Castle, which is partly in ruins, is also worth a visit. It is one of the oldest occupied buildings in Ireland, and its estate with fine rhododendron gardens and the Deer Park are key features of the area. In the grounds of Howth Castle lies a collapsed Dolmen known locally as Aideen's Grave and within the castle is a small, but impressive, voluntary run transport museum. The Martello tower overlooking Howth harbour is now open as a visitor

centre containing the 'Ye Olde Hurdy Gurdy' Museum of vintage radio. It offers a fine collection of exhibits chronicling the history of telecommunications from the 1840s to date.



Resting place of Philip Lynott Photo: John Navanagh via CC Bir 2.0

Those who loved Ireland's rock legend Phil Lynott (1949 - 1986) may also take the opportunity to pay their last respects to the artist during a visit to Howth. Lynott was an Irish musician, singer and songwriter and his most successful group was 'Thin Lizzy', of which he was a founding member, the principal songwriter, lead vocalist and bassist. He later also found success as a solo artist. Sadly his last years were to be dogged by drug and alcohol dependency that caused his life to end at the young age of 36. Lynott's final resting place is in St. Fintan's Cemetery located in Sutton on the opposite side of the Ben of Howth that looks over Dublin Bay. It is just off a circular walk of the Ben of Howth and around 4 KM, or 50 minutes' walk, from Howth.

From a coastal sailing perspective, Howth has just about everything a visiting yachtsman could want.

It is a national centre for yachting with easy access, excellent protection, copious facilities, a direct connection to the capital via a regular commuter rail service plus it has an attractive surrounding cruising area. This is an ideal location to attend to boat work, provisions, and to explore not only Howth but Dublin itself. Howth Yacht Club is particularly welcoming and can trace its origins back to 1895. Today it has the largest yacht-club membership in Ireland combining the modern with the traditional.

#### What facilities are available?

From a boating perspective lift-out, repair, fuel, provisioning, chandlery, and general shopping etc. are all available. Howth is a major yachting centre and it has virtually everything.

Fresh water can be obtained at the Club Marina, electricity at the pontoon, toilets and showers are available, and diesel is supplied 24 hours a day. Local shops, supermarkets and restaurants will cater for food supplies.

Howth is at the end of a regional road from Dublin City and is one of the northern termini of the DART suburban rail system. It is also served by Dublin Bus. Dublin international airport is very close to Howth and is only a short taxi ride away, ideal for crew changes.

#### Any security concerns?

Access to the Clubhouse and Marina, and to the Marina gate, is gained by using the intercom system located at the main entrance and by security keys.

#### With thanks to:

Charlie Kavanagh - ISA/RYA Yachtmaster Instructor/Examiner. Photography by Brian Lennon, Superchillum, William Murphy, Phillipp Weissenbacher, Christine Matthews, Ana Rey, Gluessppe Milo, Michael Harpur, Christian Torissen, John Kavenagh, Keith Salvesen and Vistor Grigas.



https://eoceanic.com/sailing/harbours/72/howth



Please zoom out to see the 'initial fixes' for this location. The above plots are not precise and indicative only.

Expand to new tab

(map.php? latitude=53.3941154&longitude=-6.0668669&zoom=16) or fullscreen



Howth Harbour Photo: inyourfootsteps.com than! s Fáilte keland



Howth, County Dublin, Ireland Photo: inyourfootsteps.com thanks William Murphy via CC ASA 2.0



Howth marina Photo: inyourfootsteps.com thanks Ana Rey via CC B (-SA 2.0



Howth marina at low water Photo: Inyourfootsteps.com thankis William Nurphy via CC ASA 2.0



 $\label{eq:howth} \begin{array}{c} \mbox{Howth's East Pier} \\ \mbox{Photo: inyour footsteps.com thanks Christine Matthews via CC BY_SA 3.0} \end{array}$ 



Howth Harbour, Ireland's Eye and Lambay Island Photo: inyourfootsteps.com thanks William Murphy via CC ASA 2.0



.

.....

.

eOceanic



Howth Harbour Photo: inyourfootsteps.com thanks Fáilte Ireland



 $\label{eq:output} Old \mbox{ fishing boat alongside Howth's east pier} \\ Photo: inyour footsteps com thant is Philipp Weissenbacher via CC B 7-SA 2.5. \\$ 



https://eoceanic.com/sailing/harbours/72/howth

I have been added and a family of provider

Old Howth lighthouse on the east pier Photo: inyourfootsteps.com thanks William Murphy via CC ASA 2.0



Martello Tower situated above the southeast corner of Howth harbour Photo: inyourfootsteps.com thanks William Numphy via CCASA 2.0



The view from the north side of the Ben Of Howth peninsula Photo: inyourfootsteps.com thanlis Superchillum via CC B7-SA 3.0

.

eOceanic



It eland's Eye from Howth Photo: inyourfootsteps com than! is Superchilum via CC B7-S4 3.0



Howth, County Dublin, Ireland Photo: inyourfootsteps.com thanks Fäilte Ireland

Flying Over Howth Harbour

3/28/	201	9
-------	-----	---

An aerial overview of the harbour area.



Phil Lynott and Thin Lizzy performing their rock version of 'Whiskey in the jar'



(/share/photos?source=https://eoceanic.com/sailing/harbours/72/howth)A photograph is worth a thousand words. We are always looking for bright sunny photographs that show this haven and its identifiable features at its best. If you have some images that we could use please upload them here (/share/photos?source=https://eoceanic.com/sailing/harbours/72/howth). All we need to know is how you would like to be credited for your work and a brief description of

the image if it is not readily apparent. If you would like us to add a hyperlink from the image that goes back to your site please include the desired link and we will be delighted to that for you. (/share/photos)

#### Add your review or comment:

Please log in (/login?prevpage=/sailing/harbours/72/howth&params=ID%3D72) to leave a review of this haven.

Please note eOceanic (http://www.eoceanic.com) makes no guarantee of the validity of this information, we have not visited this haven and do not have first-hand experience to qualify the data. Although the contributors are vetted by peer review as practised authorities, they are in no way, whatsoever, responsible for the accuracy of their contributions. It is essential that you thoroughly check the accuracy and suitability for your vessel of any waypoints offered in any context plus the precision of

# THE EAST COAST OF IRELAND,

FROM

## CARNSORE POINT TO DUBLIN BAY.

**P**OINT CARNSORE is the S. E. point or extremity of Ireland, and lies about 42 leagues from Cape Cornwall, bearing N. by E.  $\frac{1}{2}$  E.; from the Small's Light N. by W.  $\frac{1}{2}$  W., distant 35 miles; and from St. David's Head N. W.  $\frac{1}{2}$  N., distant 41 miles.

TUSKAR. About E. S. E.  $\frac{1}{2}$  E. from Carnsore Point, distant 7 miles, lies the Tuskar, a very remarkable rock, 20 feet above the level of the sea at high water, upon which stands a lighthouse similar to that on the Eddystone, elevated 105 feet from its base. The light revolves, and has three faces, two of which appear bright successively, every two minutes, and one of a deep red colour, visible every six minutes. In foggy weather a bell is tolled every half minute to warn vessels of their proximity to the rock. This rock bears from the Smalls Lighthouse N.  $\frac{1}{2}$  W. distant 11 leagues. Shins coming from the westword and house for 0 for

11 leagues. Ships coming from the westward, and bound for St. George's Channel, should endeavour to see this rock before they shape their course to the northward. About half a mile S. W. of Tuskar are some sunken rocks of 5 feet water, to avoid which keep a mile from the S. W. side of Tuskar. Between the Tuskar and the Main is a long, narrow sand, called the Baillies, of 6 feet water, the south end of which bears W. I N. from that rock, and E. S. E. from Carnsore Point; it thence extends N. by E. I E. 24 miles, and has 1 to 3 fathoms on it. You will avoid the Baillies on the east side, by keeping nearer to the Tuskar than to the Main. In this about 2 of a mile from shore, you may anchor in 6 or 7 fathoms.

THE SPLOUGH is a rocky shoal of 3 feet, lying a mile S. E. from Greenore Point: there are also two small rocks near the above point, called the Carricks, the northernmost a cable's length from the shore, the other twice as distant. St. Mary's Rock lies off St. Mary's Bay, and is dry at half ebb: it is  $\frac{1}{2}$  of a mile S. by W. from HOLDER

HOLDEN'S BED. Two miles N. E. from Greenore Point is Holden's Bed, a shoal running E. N. E. and W. S. W., 24 miles long, and one broad: on its S. W. end are 6 feet, and on its other parts 2 and 24 fathoms. To sail clear of the S. W. end of it, keep the southernmost of two high hills N. W., or the northern hill N. W. by N.

THE NEW GROUNDS is a sandy shoal, lying N. E. by E. and S. W. by W., about 31 miles in length, and half a mile wide; the least water over it is near its S. W. end, where there are 3 feet, but at its northern part there are 4 fathoms. Its south-west end bears East 4 miles from Greenore Point, and N. by E. 4 miles from the Tuskar. Roslare White House in one with the south extremity of Fort Mountain, is the mark for its southern extremity; and Greenore Point, S. W. by W. and entrance of Wexford Harbour, is about 2 miles long from N. E. to S. W. nearly: gradually.

WEXFORD HARBOUR is capacious, and sufficiently sheltered, but is obstructed by a Bar extending across it, over which there are at times not more than 7 feet water. Formerly the entrance was at the north end of the Dogger Bank, towards the Spit off Raven Point, but it is now more to the southward. Buoys are laid in the deepest water across the Bar. To enter this harbour a pilot is always TIDES.

TIDES. The tide flows in Wexford Harbour, at full and change, until 8 o'clock; spring-tides rise 4 feet, and neap-tides 3 feet: but 2 or 3 miles from the coast, the flood-stream from the south-westward runs 11 hour longer; half-way between the Tuskar and Wexford, its velocity is 2 miles an hour.

With westerly winds and moderate weather, vessels may stop on the south side of Roslare Bay, in 21 and 31 fathoms: the ground one mile off shore is good, and

THE BLACKWATER BANK is a narrow bank, running nearly in the direction sheltered from W. and S. W. winds. of the coast, distant from 4 to 5 miles: its southern end lies E. 1 S., distant 61 miles from Raven Point; and its northern part lies S. I E. distant 5 miles from Glasscarrick Point : on its southern part are 4 fathoms, and it gradually becomes shal-

lower, until at its northern extremity there are only 8 feet. A beacon buoy is placed at each end of the Blackwater Bank; that off the north end lies in 44 fathoms with the Arklow Rock (southward of Arklow) N. N. E. 16 miles; the Arklow Bank Light Vessel N. E. 144 miles; and a beacon buoy on Glasgorman's Bank, N. N. E. & E., 141 miles. That off the south end is moored in 5 fathoms, with the north point of the entrance to Wexford Harbour W. 1 N. 64 miles; and the Tuskar Lighthouse S.S.W. 1 W. 101 miles. The name of the bank is painted in large white letters on the broad end of each buoy.

THE MONEYWEIGHTS are two small Knolls, one of 4, the other of 6 feet water, lying about a mile to the northward of the Blackwater Bank, and in a direction nearly between it and the Rusk and Ram of Glasscarrick; these are said to have lately grown up, and supposed to have shifted from some of the old shoals in

THE RUSK AND RAM is a narrow sand-bank, within a quarter of a mile of Glasscarrick Point, and extends S. W. by S. about 4 miles. The least water on it their vicinity.\* is 6 feet, which is towards the North end of the bank, about half a mile from the The South end is about 2 miles from the shore, and abreast the north end of the Red Clay Cliffs, are 7 feet water. To sail without, or along the east side of the Rusk and Kam, keep Tarrow Hill open to the eastward of Glasscarrick Point. To sail from the southward between the North end of it and Glasscarrick Point, when you are about half a mile from the latter, keep within two cables' length of the shore,

GLASGORMAN'S BANK begins about 14 mile S. E. from Kilmichael Point, and extends in a narrow ridge about 4 miles S. W. 1 S.; the depth on it, at low and take your soundings from the shore. water, is from 7 to 15 feet; the northernmost half is the shallowest, and is avoided while Tarrow Hill bears west. Tarrow Hill brought N.W. by N. will clear its southern extremity; and Wicklow Head N. E. 1 N., will carry you outside of it. Wicklow Head bearing N. N. E. will lead mid-channel between Glasgorman and Arklow Banks; but if the new-discovered shoal, mentioned in the margin, really does exist, this latter mark may probably lead upon, or too near the danger, and

A beacon buoy is moored off the N.E. end of Glasgorman's Bank, with Arklow should therefore require great caution. Rock bearing N. by W. 21 miles; and Arklow Bank Light Vessel S. E. 41 miles.

KILMICHAEL BANK consists of two spits of shallow ground: the southern one, lying opposite Tarrow Hill, has but 9 feet water over it; the northern Knoll is a little to the eastward of Kilmichael Point, and has only 6 feet water upon it: they

both lie near the shore, and must be carefully avoided. ARKLOW BANK is a narrow sand-bank off Arklow Bay, about two leagues from the land, and nearly 10 miles long from N. N. E. to S. S. W., and from half to three-quarters of a mile broad, the shallowest part is near the north end, where the

least water is 4 feet: the south end has from 8 feet to 3 fathoms on it, and except at slack water, you will perceive its ripple; near to its east side are from 13 to 20 fathoms; approach it no nearer than 30 fathoms. The marks for its southern end are Arklow Rock N. W. 1 W., distant 7 miles, and in one with the northern declivity of the Copper Ore mountains; and the Great Sugar Loaf open to the eastward of the Ballynacarrig Hills, and also of Mizen Head, bearing about N. 1 E. The marks

<sup>•</sup> According to recent information, it appears that other sands have shifted, and formed shallows on this part of the coast, one of which is said to lie to the north-eastward of the Blackwater Bank, and to extend censiderably further out than any of the Banks off Glasscarrick: another extensive shoal is reported to lie about midway between the Arklow Bank and the shore, where hitherto deep water has been found. Of these dangers we have no perfect information, but notice them, that mariners navigating these parts may be on their guard, and by a good and timely look-out, may be enabled to avoid them, if

for its northern end are the top of Carrig Mc Rely just open to the northward of Maughry Point, bearing N. W. ‡ N. and the Great Sugar Loaf open to the eastward of Wicklow Head, N. ½ W. Wicklow Head bearing N. N. W. clears it. Off this end of the Bank, a beacon buoy is moored in 144 fathoms, with Wicklow Head bearing N. ‡ W. 5 miles, and Mizen Head West 5 miles.

By a Notice from the Ballast Office, Dublin, dated 22d May, 1834, we are informed that a Light Vessel, which was first stationed in 1825 within the southern end of the Arklow Bank, is now moored one mile southward of the south end of it, with the following bearings and distances: Wicklow Head and Lights, N. N. E.  $\frac{1}{4}$  E. 17 miles; Arklow Rock, N. W.  $\frac{3}{4}$  N. 7 miles; Tara, or Tarrow Hill, W. by N.  $\frac{1}{4}$  W. 9 miles; and the Tuskar Rock Light, S. W.  $\frac{1}{4}$  S. 32 miles. The vessel is now moored in 13 fathoms, carries a flag, and is fitted with three masts, shewing from the mainmast one steady bright light, 25 feet above the sea, and visible 8 miles off. In the day time a flag is hoisted at the mast-head, and during foggy and dark weather a gong is continually struck both day and night, to warn ships of their proximity.

THE WOLVES lie near the shore south of *Machri*; the south end dries about half-ebb; the rest gradually till low water. Keep a mile from this part of the coast, and you will avoid them, and pass in 7 or 8 fathoms.

THE HORSESHOE BANK begins at Wicklow Head, about half a cable's length from the shore, and extends S. S. W. along the land, above a mile. The shallowest part is near the north end, where the least water is 4 or 5 feet; on the other parts there are from 9 feet to 3 fathoms. To sail without the Horseshoe, or along the east side of it, keep Bray Head well open of Wicklow Head: to sail between it and the shore, you must keep a cable's length from the latter, until you are near the extremity of the Head; then within half a cable's length, until you have passed it.

WICKLOW HEAD. On Wicklow Head are two lighthouses, each exhibiting a bright fixed light; the upper light is elevated 250 feet above the level of high water, the lower light 121 feet, the first may therefore be seen at 21, and the latter 16 miles off. The lights shew seaward between N. by E. and S. S. W.; and when brought in one, lead in the fairway between the Arklow and India Banks.

WICKLOW HARBOUR lies about 2 miles N. W. from Wicklow Head; it is fit for small craft only, there being but 9 feet in the entrance at high water, springtides, and 6 at neap-tides.

TIDES. On the shores between Wexford and Wicklow the tide rises but little: off Wicklow Head it appears to be high water at 9, and at Wicklow at 10. Springtides between the Tuskar and Wicklow rise 4 feet, neap-tides  $2\frac{1}{2}$ . Along this part of the coast the stream of flood sets N. N. E. across the banks, and the stream of ebb S. S. W.; so that the flood stream keeps ships that are without the banks from them, and the ebb-stream carries them toward the banks. In sailing from the Tuskar towards Dublin, in the night time, or dark weather, this direction of the stream of flood and ebb should be carefully attended to. Near the Tuskar, and in the principal stream of tide from thence, spring-tides run about four miles an hour, when strongest, and neap-tides one and a half. On Arklow Bank, spring-tides, when strongest, run three miles an hour, within it about one; and near Wicklow Head about  $4\frac{1}{4}$  miles an hour.

Stopping places between Tuskar and Wicklow :-

The places of anchorage between Tuskar and Wexford are Roslare Bay and Wexford Harbour. Between Wexford and Wicklow, a vessel, in moderate weather, may stop any where within the banks, or within a league of the shore, when the shoals near it are avoided, on clean ground. Off Arklow, about a mile east, or S. E., of the river's mouth, the ground is reckoned as good as any along this part of the coast, there being clay in several parts below the sand. Anchor in from 5 to 8 fathoms water.

ARKLOW HARBOUR is capable of admitting boats only, or vessels that draw not above 4 feet water; and such cannot go in without high water, spring-tide. The *channel* is crooked and liable to vary.

THE WICKLOW BANKS are two narrow patches of sand, lying about 5 miles east from Wicklow Head. The Southern Patch, called the India Bank, is about 2 miles long, N. E. and S. W., and three-quarters of a mile broad; on its middle are 2 fathoms, on its N. E. part 3 fathoms, and on its S. W. end 4 fathoms: at its south-western extremity is a black buoy, from which Wicklow Head Lights bear W.  $\frac{1}{2}$  N. 4 miles. The lights in one, bearing N. W. by W.  $\frac{3}{2}$  W., lead 14 mile to the

S 2

southward of this buoy, in from 20 to 30 fathoms; and the buoy is a guide to pass between Wicklow Head and the Banks. To sail between this Bank and Wicklow Head, bring Wicklow Head Lights in one, and keep them so until the Sugar Loaf Hill bears N.  $\frac{1}{2}$  W.; then steer on that course, and you will go clear, and considerably to the southward and westward, of the India Banks. To sail between the India and Ridge Banks, bring the Sugar Loaf Hill to bear N.N.W.  $\frac{1}{2}$  W. Be careful, in advancing, to avoid the Dalgany or Moulditch Bank, which lies off the Giant's Bed, with 2 to 4 fathoms on it. To clear this bank, keep Wicklow Town open of Five Mile Point, or Poolbeg Light, in Dublin Bay, between Dalkey Island and the shore.

THE SOUTH RIDGE lies about 2 miles north-easterly from the India Bank; it is 2½ miles long, and nearly one mile broad, with 4 and 5 fathoms water on it: its direction is N. W. by N. and S. E. by S., and its N. W. end is nearly 6 miles S. E. by E. ½ E. from Five Mile Point.

THE CODLING BANK is about 3 miles to the N. E. of the South Ridge, and extends nearly N. W. to within one mile of the southern boundary of the Bray Bank: there were three separate banks, now joined, having only from 4 to 9 feet on them, with a black buoy on each extremity. At the S. E. buoy, Wicklow Head Lights bear W. S. W.  $\frac{1}{2}$  W., distant 11 miles: its N. W. buoy bears from Bray Head S. E. by S., distant 7 miles; and from Five Miles Point E.  $\frac{1}{2}$  N., distant  $6\frac{1}{4}$  miles. To sail between the South Ridge and the Codling, bring the Great Sugar Loaf to bear N. W.

THE BRAY BANK lies N.E. by E., and S.W. by W.; is 2 miles long and half a mile broad, with 6 feet water on it. In the *Channel*, between the N.W. end of the *Codling*, and south end of the *Bray*, there are 10 fathoms, gravelly ground: the mark to lead through is the top of *Carrig Alligan* open to the northward of *Bray Head*, bearing N.W.  $\frac{1}{4}$  N. In the channel between the *India Bank* and *Ridge*, are 8, 9, and 10 fathoms; between the *Ridge* and *Codling*, 6, 7, 8, and 9 fathoms; in *Bray Swashway*, 7, 9, and 10 fathoms; and between the *Bray* and *Kish*, from 6 to 10 fathoms. There is a white buoy at the north end of the *Bray Bank*, bearing from the *Great Sugar Loaf* E.S. E.

THE KISH is a long, narrow sand, stretching N. by E. I E., and S. by W. I W. about 51 miles, and is from half to one-quarter of a mile broad; on its southern extremity is a black buoy, distant from that on the Bray Bank 2 miles. From it Dublin or Poolbeg Lighthouse bears N. N. W., distant 111 miles; Howth Head Light N. 1 W., 101 miles; and Bray Head W. N. W. 1 W., 6 miles. On the Kish are from 4 feet to 3 fathoms; the latter depth being near its northern end: here a white buoy is placed, which lies with Howth Head Lighthouse N. N. W., distant 6 miles, and Dalkey Island W. 1 N. about the same distance. Three-quarters of a mile, from the northern extremity of the Kish, a Floating Light Vessel is moored, with the following mark and bearing :- Ireland's Eye a little open of Howth Head, and Dublin Lighthouse N. W. IN., distant 8 miles. This vessel bears three lights or lanterns, on three separate masts, equi-distant from each other, the centre lantern being the highest. This Light Vessel lies with Poolbeg Lighthouse bearing N. W. 4 W. 74 miles; Howth Baily Lighthouse N. N. W. 4 W. 44 miles; and Malpas Obelisk W. 1 N. Three miles to the southward of the white buoy is a beacon buoy, lying in 14 fathom water, and points out the middle and most dangerous part of the Kish : at this spot the Great Sugar Loaf Hill appears on the saddle of Bray Head, bearing W. 1 S., and Ireland's Eye just open, and shut with the Head of Howth, bearing N. 1 W.

At the Kish Light Vessel it is high water on full and change days at 10h. 30m.; spring-tides rise 10 to 11, and neaps 6 to 9 feet.

BENNETT'S BANK. The S. E. end of this bank lies about 2 miles N. E. IN. from the North Buoy of the Kish, and 6 miles S. E. from Howth Head Lighthouse; it is about 21 miles in length, and has 5 to 51 fathoms on it: at half a mile to the southward of it are 8 or 9 fathoms.

THE BURFORD BANK is at the entrance to Dublin Bay: it is narrow, and runs in a N. N. E.  $\frac{1}{2}$  E. and S. S. W.  $\frac{1}{4}$  W. direction, being about  $1\frac{1}{2}$  mile long, but not a quarter of a mile broad. Nelson's Pillar kept open to the southward of the Pigeon House on Dublin Quay, will lead clear of its southern extremity in  $4\frac{1}{4}$  and 5 fathoms water; and the same pillar, or Shallows Bath Light open to the northward of Poolbeg Lighthouse, will clear its northern end in  $5\frac{1}{4}$  and 6 fathoms water. There

#### CARNSORE POINT TO DUBLIN BAY.

is a shallow part of this bank, over which there is not more than 13 feet at low water; this lies with Malpas Obelisk in one with the Signal Station, and Sutton Tower just open of Sheep's Hole Point; on all other parts of the bank are from 3 to 4 fathoms. The mark to go clear to the eastward of it, is Ireland's Eye, open of the Nose of Howth.—Upon each end of this bank is a buoy; that on the southern end is chequered red and black; that on the northern black and white.

The North Ground lies to the northward of Bennett's Bank, distant about 3 miles. This is a small Knoll of 5 fathoms water, with 7, 8, 9, and 10 fathoms round it. When you are upon this Bank, Howth Head Lighthouse will bear west a little southerly, and Ireland's Eye N. W. by W.  $\frac{1}{2}$  W.

Sailing within the banks along shore, you leave Dalgany or Moulditch Bank, already described, to the westward. Dalkey Island lies on the southern entrance to Dublin Bay, and has near it several rocks above water; to the northward of it are two small islets called Lamb's Island and the Maiden Rock; near the former is a sunken rock with 5 feet water over it. Between these and the main is a narrow channel called Dalkey Sound, with from 4 to 9 fathoms water in it: in sailing through this, keep about one-third from the main, and two-thirds from the islands, on account of the sunken rock before mentioned, and you will pass with safety.

Nearly one-quarter of a mile to the eastward of Dalkey Island is the Muggin, a large rock above water, with several smaller ones about it. In sailing between it and Dalkey, keep one-third of the distance from Dalkey, and you will have 12 and 13 fathoms water.

Sailing for Dublin Bay from the southward. From the Tuskar to Wicklow Head the bearing and distance are N. E. by N. nearly 46½ miles, but to pass to the eastward of the Arklow Bank the course is N. E.  $\frac{1}{4}$  N. observing to make due allowance thereon for the set of the tide, whether flood or ebb, as before noticed. When Wicklow Head Lights bear N.  $\frac{1}{4}$  W. or N.  $\frac{1}{4}$  W. you will be clear of the Arklow Bank: then to sail within the Wicklow or India Banks, bring the Great Sugar Loaf Hill well open of Wicklow Head, bearing N. by W., or Wicklow Lights in one; either of these will lead between the Arklow and India Banks; and when within 2 or 2½ miles of the shore, a N. by E.  $\frac{1}{4}$  E. course will carry you past Moulditch Bank and Dalkey Island.

In working up between the *Banks* and the shore with a flood-tide and northerly wind, do not stand further from the land than 4 miles; for at about that distance the stream turns off to N. E. by E., and with little wind may drift you upon the *Banks*; while near the shore the stream commonly makes to the southward one bour and a half before high water.

ANCHORAGES.—In moderate weather vessels may stop almost any where within the banks between Wicklow and Dublin: except off the Giant's Bed, where lies the Moulditch Bank; the best part, with westerly winds, is between Bray Bank and the main, from  $\frac{1}{2}$  to 2 miles from the shore. Here is very little stream of tide, and the violence of the sea is considerably broken by the banks. All the shore southward of Bray Head is soft beach, and almost steep-to: so that if a ship was driven on shore, there would be little hazard of losing lives. There is no safe way of getting to this anchorage, but either between Wicklow Head and the India Bank, or the Kish and Dublin Bay.

In Killynee Bay vessels may anchor in 5 or 6 fathoms, sheltered from W. N. W. to N. N. E. winds.

DUBLIN BAY.—There is good anchorage in the entrance of Dublin Bay, when the wind does not blow hard from the E. and S. E.; with these winds a great sea sets in when it blows hard, so that vessels are obliged to run for some place of safety; with north-easterly winds, vessels run for Dunleary, now called Kingstown Harbour, which lies on the south side of Dublin Bay; and is inclosed by two large piers, which effectually secures the shipping; on the head of the eastern pier, which is 2,800 feet long, is a lighthouse 19 feet above its base, which shows a bright revolving light 31 feet above high water, and appears full once in every 55 seconds, being visible 8 miles off. The entrance to this Harbour faces the N. E. and has 4 fathoms water; within, the depths are from 4 to 24 fathoms at low water, all clean sand.

This port is now considered one of the safest on the eastern *Coast of Ireland*, by the above new *Harbour*, where vessels will always find safe and convenient anchorage in the worst of weather.

When going in, leave the *lighthouse* on the larboard hand, and round it close to, if the wind should be from the North or the N. W.