Cyfoeth Naturiol Cymru
Natural Resources Wales

Marine Safety in the Dee Conservancy

A guide to safe navigation

We are Natural Resources Wales the principle adviser and delivery partner to the Welsh Government on the environment. Our purpose is to ensure that the environment and natural resources of Wales are sustainably maintained, sustainably enhanced and sustainably used, in a way that is good for people, good for the environment and good for the economy, now and in the future.

NRW is committed to promoting good management of its available resources, and so we will:

Undertake and regulate marine operations in a way that safeguards the Dee Conservancy, its users, the public and the environment to achieve the standard of marine safety required by the Port Marine Safety Code.

Promote the use of the Dee Conservancy and ensure that its economic development considers and balances the views and needs of all stakeholders with regards to the use of natural resources and conservation of the environment.

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Foreword by our Chief Executive

Introduction to the Dee Estuary

The Dee estuary can be a dangerous place, with shifting sands and strong tidal currents. It has been an important route for trading ships for over two thousand years and remains an important area. Those that navigate there need to be aware of the dangers and be ready to deal with them safely.

Since 1889 the Dee Conservancy has regulated navigation in the estuary and provided aids to help vessels to travel through safely. This duty is now the responsibility of Natural Resources Wales and we continue to take Health and Safety very seriously.

Modern trade brings larger ships to the estuary, which once more is playing an important part in the area's economy. Commercial fishing, recreational sailing and water sports also take place throughout the estuary.

To promote maritime safety, we have produced this information to help all users of the estuary to understand the hazards, to know what to look out for, what to avoid and how to respond in an emergency. I hope that you will find this useful and, whether you are afloat to make a living or just for fun, you will continue to use the estuary safely.

Clare Pillman
Chief Executive

Contents

The Dee Conservancy

The Dee Conservancy is the formal name given to a defined area for which Natural Resources Wales is the conservancy, harbour and local lighthouse authority. This area includes the River Dee and its estuary, extending from Wilcox Point downstream of the weir at Chester, seawards to an imaginary line linking the Point of Ayr on the Welsh coast to Hilbre Point on the Wirral peninsular.

Dee Conservancy is used for commercial and recreational activities including navigation, fishing, sailing, power boating, water skiing, wind-surfing, bird watching, wildfowling and walking.

The shifting nature of the sandbanks in the estuary, strong tidal streams and changeable weather, are all hazards that may pose a high level of risk to the safety of people who participate in these activities. The level of risk is particularly high to those who are inexperienced and lack knowledge of local conditions.

Natural Resources Wales as conservancy, harbour and local lighthouse authority has prepared this information following a formal assessment of risk, to draw attention to the hazards identified and to promote and encourage safety amongst all those who use the Dee Conservancy in line with the standards set out in the Port Marine Safety Code.

Policy Statement

Natural Resources Wales has developed, documented and implemented a Safety Management System for the Dee Conservancy.

As the conservancy, harbour and local lighthouse authority for the Dee Conservancy, Natural Resources Wales is committed to promoting good management of its available resources to:

- Undertake and regulate marine operations in a way that safeguards the Dee Conservancy, its users, the public, and the environment, to achieve the standard of marine safety required by the Port Marine Safety Code, and

- Promote the use of the Dee Conservancy and ensure that its economic development takes into account and balances the views and needs of all stakeholders with the use of natural resources and conservation of the environment.

Figure 1 Estuary channels between extensive sandbanks

General safety considerations for users of the Dee Conservancy

Natural hazards have the potential to cause harm or injury to inexperienced and unwary users of the Dee Conservancy. Strong tidal streams, frequent changes in the navigable channel, adjacent drying sandbanks and changeable weather conditions, are particularly significant.

Recreational activities such as walking are concentrated over the low water period when many of the sandbanks are exposed and appear attractive, particularly in sunlight. However, in some parts of the estuary there are areas of soft sand and mud where it is dangerous to walk, and dangerous for those who may be requested to render assistance in an emergency.

The term spring tides refers to the tides that coincide with the new and full moon each month, when the highest rise and lowest fall of tide may be expected. In the Dee estuary, the in-coming (flood) tide enters the gullies and shallow channels first, rising rapidly on spring tides and isolating extensive areas of higher sandbanks.

In such conditions, the unwary may find themselves quickly cut-off from the shore and safety. For this reason, those intending to engage in such recreational activities should first familiarise themselves with the times of tides and periods during which they may safely access appropriate parts of the estuary, such as the area between West Kirby and the Hilbre Islands.

It is also important to ensure that you are properly equipped and have reliable means of communication. Information about the estuary and tides can be found on Local Authority notice boards located adjacent to public access points such as West Kirby, or by contacting the relevant council, (see number listed in the Contact Information on page 30).

Information can also be obtained during office hours from the Dee Conservancy Harbour Master or the pilotage authority (see numbers listed in the Contact Information on page 30).

General Advice to Vessels

Because of frequent changes in the navigable channel and adjacent sandbanks, the navigation buoys marking the high-water channel are moved as necessary. Anyone in charge of a vessel without local knowledge should not enter the estuary without first seeking advice from the pilotage authority (Port of Mostyn). It is considered dangerous for vessels to ground in certain positions in the navigable channel on an out-going (ebb) tide, as the sand may be washed away leaving the vessel liable to keel over.

Although the waters of the Dee estuary may be relatively sheltered, strong winds blowing in the opposite direction to the tidal stream can rapidly generate sea conditions that pose a hazard to small craft. The person in charge of any vessel intending to use

the Dee Conservancy should be competent to do so and obtain up to date information on present and forecast weather conditions. They should also ensure that the vessel is properly manned and equipped in compliance with the appropriate Regulations or Code of Practice, where applicable. Information and guidance in these matters is available from the Maritime and Coastguard Agency **(see page 30 – Contact Information)**. Advice may also be obtained from Natural Resources Wales as conservancy and harbour authority.

Cockle Fishery

Anyone in possession of the appropriate permit and authorised to harvest shellfish in the Dee estuary should be particularly aware of the hazards posed by the speed of the in-coming tide, and changeable weather and sea conditions, before engaging in that activity. Anyone in charge of any vessel used to transport shellfish and / or anyone involved in harvesting, should ensure that the vessel is entirely suitable for the purpose intended and, as a minimum, is equipped with the following:

• One lifejacket per person (or buoyant clothing if worn at all times).

• One commercial anchor of appropriate type and weight, with 2 metres of 6mm chain plus appropriate warp of 15 metres length with one end secured to a strong point in the vessel.

• Two red parachute flares and two smoke signals.

• One gas canister foghorn or other means of making appropriate sound signals.

• Baler or container that could be used for that purpose, (this may contain the flares, smoke signals and foghorn).

• Waterproof torch and batteries.

These requirements are outlined in the Natural Resources Wales / Harvesting shellfish in the Dee Estuary which is issued with Cockle Permits. The Safety Direction available on Natural Resources Wales website.

Tidal Considerations

The bed of the river rises from the mouth of the estuary towards Chester. This means that the rise of tide found in the outer estuary is much greater than that experienced in the canalised section of the River Dee.

On a spring tide, a rise of about 8.0 metres (26.2 feet) can be expected near the entrance to the estuary. This would correspond to a rise of tide of about 3.0 metres (9.8 feet) upriver at Chester.

Figure 2 The bore in the canalised section of the river approaching Queensferry at the start of the spring flood tide

The tidal regime in the canalised section of the river is therefore very different from the outer estuary, where the in-coming (flood) tidal stream runs for about 5.5 hours and the out-going (ebb) for about 6.5 hours.

In the canalised section of the river, the in-coming stream is of about 2 hours duration and the out-going stream about 10 hours. During this long period of ebb the tidal waters flow out completely, leaving the natural level of the river flowing into the estuary. On a spring tide, the strength of the in-coming tidal stream meeting the out-going river produces a low moving 'wall' of water known as a bore. The bore may attain a height of about 0.5 metres (1.6 feet) and associated strong tidal streams pose a hazard particularly for small vessels.

Floating and semi-submerged debris may be found in the river, particularly in the confines of the canalised section where it is carried up and down on the tide. This can typically include trees and other lengths of timber that have become detached from one of the derelict jetties and wharves on the banks of the river, as well as empty gas cylinders and other containers, garden furniture and domestic refuse. These items pose a hazard, particularly to small vessels.

The conservancy authority makes arrangements for regular removal and disposal of floating debris when this has been reported. However, on a tidal river with a constant source of debris also coming downstream over the weir at Chester, it is not possible to keep the canalised section clear at all times. Users of the Dee Conservancy are therefore urged to exercise particular caution with regard to this hazard.

Small vessels should where possible avoid using the river in darkness or conditions of restricted visibility when items of floating debris may not easily be seen, particularly when semi- submerged.

From time to time harbour works are undertaken in the Dee Conservancy. These works may involve construction of new berthing areas or the repair and maintenance of existing structures such as bridges over the river. Harbour works may include commercial diving activities or involve persons working at a height on a structure directly over the river. In such circumstances safety boats are usually provided and are required to ensure that other users of the river are kept well clear of the work area. All users are required to proceed with particular caution when navigating in the area of the harbour works and heed the advice given by a safety boat.

Figure 3 Photograph of a safety boat in attendance during harbour works at the Queensferry Blue Bridge.

Outfalls

Within the canalised section of the River Dee from Connah's Quay to Wilcox Point, thirteen large tidal sluice outfalls discharge surface water from inland watercourses adjacent to the river. When tidal conditions prevent discharge to the river, land drainage pumping stations over pump surface water trapped behind the sluices into the main river to reduce the risk of flooding to land and property within the floodplain. Users of the Conservancy should keep clear of such outfalls at all times.

Navigational safety in the Dee Conservancy

Responsibility for safety of navigation in the Dee Conservancy is presently split between Natural Resources Wales, as the conservancy, harbour and local lighthouse authority, and Mostyn Docks Ltd. as pilotage authority and statutory harbour authority for the Port of Mostyn, which is the defined area immediately surrounding the Port, and the western approaches to the estuary.

General considerations

Changes to the Aids to Navigation referred to in this publication may be made from time to time and additional Aids to Navigation may be established in the future. Anyone intending to navigate within or through the Dee Conservancy, should ensure that they first obtain up to date information on all Aids to Navigation from the Dee Conservancy and Port of Mostyn Harbour Masters.

While this publication gives a guide to navigation within the Dee Conservancy, it can only supplement and not be a substitute for good seamanship. Anyone in charge of the navigation of a vessel must remember that they have the prime responsibility for that vessel's navigational safety at all times.

All vessels navigating within the Dee Conservancy shall comply with **The International Regulations for Preventing Collisions at Sea 1972,** as amended. Anyone in charge of a vessel must ensure that they are familiar with the requirements of these regulations and their correct application. This is particularly important with regard to the conduct of a vessel when underway, display of internationally understood navigation lights and shapes, use of sound signals and collision avoidance actions in close quarter situations.

Anyone in charge of the navigation of a vessel must also take into account the presence of other craft and users of the Dee Conservancy when determining a safe speed. Small craft are moored in many parts of the estuary and river and the wake caused by a vessel may pose a hazard to others, including anyone on the estuary foreshore or river banks. Information concerning safety of navigation is published in **Dee Conservancy Local Notices to Mariners issued by the Dee Conservancy, Harbour Master.** Natural Resources Wales / Notices to Mariners

These Notices are distributed to all known users of the Dee Conservancy or their representative bodies and are also available on the Natural Resources Wales website. Anyone intending to navigate the area should ensure that they are aware of the contents of all Local Notices to Mariners in force at the time.

Figure 4 Windfarm jack up rig outward bound under tow from the port of Mostyn through the Mostyn Operational Area.

Navigational warnings are also issued by Mostyn Docks Ltd. to provide information that may affect the safety of any vessel navigating or intending to navigate within their area of jurisdiction or responsibility. Navigational warnings may be broadcast by Mostyn Docks Ltd. On VHF channel 14, or through the local Coastguard station. Where necessary a navigational warning will be followed by a Port of Mostyn Local Notice to Mariners. These Notices are issued by the Port of Mostyn Harbour Master and are also available on the Port of Mostyn website.

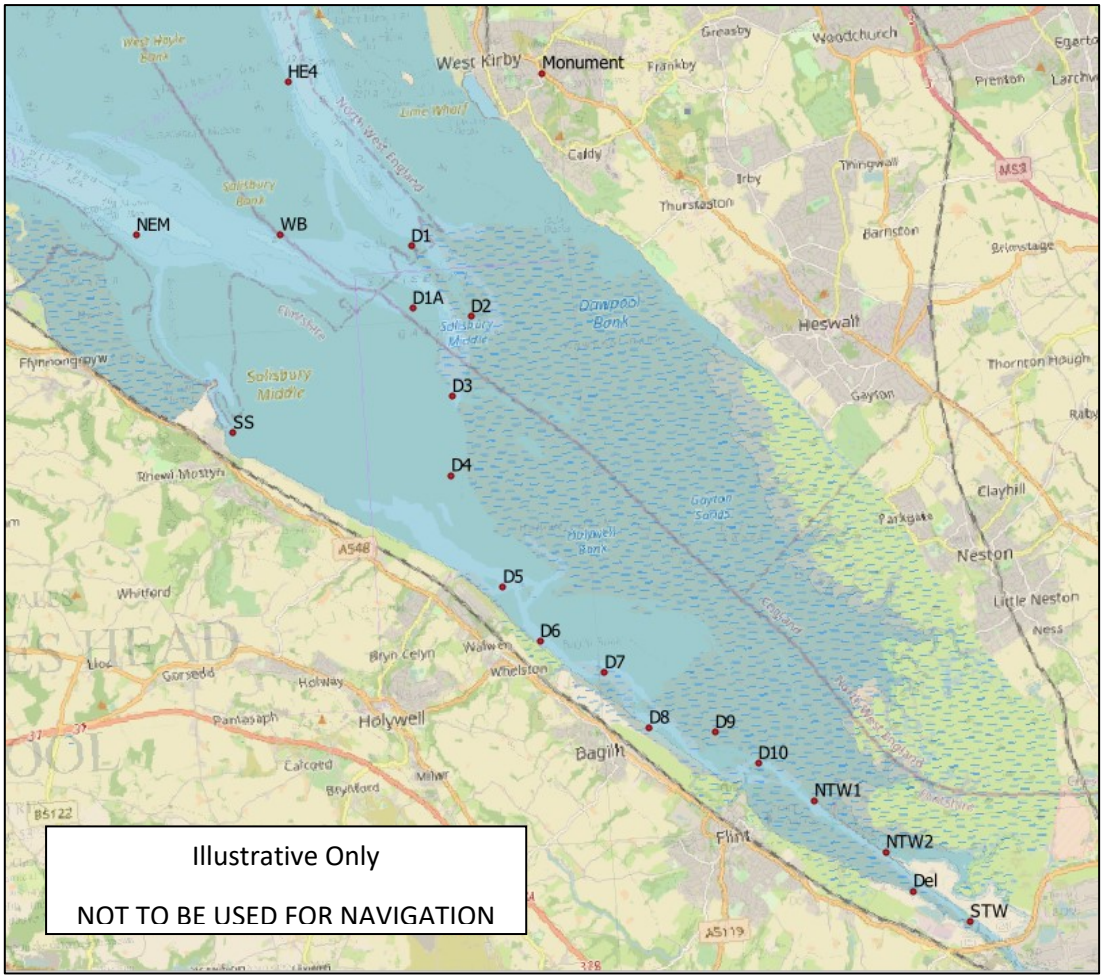

Figure 5 Navigation aids marking the high-water channel through the Dee Estuary.

Please note that the diagram of the high-water channel reproduced in this booklet should not be used for navigation and is provided for illustrative purposes only. Details of the up to date positions of all lighted buoys marking the high-water channel and unlit temporary buoys are maintained by, and available on request from, the Dee Conservancy Harbour Master.

The Outer Estuary

All vessels entering or leaving the Dee estuary, navigating to and from the Port of Mostyn must pass through a part of the Dee Conservancy known as the **Mostyn Operational Area (MOA).** This area extends from the outer limit of the Port of Mostyn to the seaward limit of the Dee Conservancy. Within this area Mostyn Docks Ltd. conduct their operations in accordance with procedures agreed with Natural Resources Wales.

Numerous vessels associated with the construction and operation of offshore wind farms operate daily in and out of the Port of Mostyn. This can include large sea going ferries and jack up rigs under tow. Due to frequent movements of traffic using the Port of Mostyn, shifting nature of sandbanks, tidal constraints and strong tidal streams, local knowledge is considered essential for navigation of the River Dee and its estuary.

Under present **Pilotage Directions** that are issued by Mostyn Docks Ltd. pilotage is compulsory for all vessels of 20 metres or more in length and for all ships carrying explosives or a bulk cargo of dangerous substances. All enquiries about pilotage should be addressed to Mostyn Docks Ltd. **(see page 30 – Contact Information)**

The **western entrance** to the Dee estuary leading to the inner dredged channel of the Port of Mostyn, mainly used by commercial vessels, is marked by lighted buoys and other aids to navigation. Details can be found on the latest edition of British Admiralty Chart 1953 and in Admiralty List of Light Signals Vol.A. (NP37). Information relating to navigation of the area is also provided in the latest edition of Admiralty Sailing Directions 'West Coasts of England and Wales Pilot (NP37)'.

The **northern entrance** to the estuary, also marked by buoys and a navigation light, is through Hilbre Swash. This entrance is normally only used by small craft such as those proceeding to and from moorings off the Wirral foreshore at West Kirby, Thurstaston or places further upstream.

At appropriate stages of the tide vessels may navigate the high-water channel above the Port of Mostyn. This channel leads through the estuary to enter the canalised section of the river at Oakenholt above Flint, between the North and South Training Walls **(see diagram - High water channel through the estuary)** From the lighted 'West Bar' buoy in the outer estuary the high-water channel is marked by Dee Conservancy lighted buoys numbered 1 to 10. Due to changes in the position of the channel, these buoys are moved as required.

Unlit temporary buoys are also used from time to time to mark the channel where frequent changes occur, particularly between Dee No.8 buoy and the South Training Wall Light. Other various unlit buoys may be encountered throughout the estuary, notably along the Wirral coastline where yacht moorings, racing and other marks are placed by leisure clubs, and also off the entrances to the gutters on the Welsh side where private moorings are laid in the cockle fishing season, July to December. It is not unknown for these buoys to be submerged or partially submerged on high spring tides. Extra caution should be exercised when navigating in these areas.

The diagram of the high-water channel produced here should therefore not be used for navigation and is provided for illustrative purposes only. Details of the up to date positions of all lighted buoys marking the high-water channel are available on request from the Dee Harbour Master.

The Inner Estuary

The River Dee flows into the estuary between the **South and North Training Walls.** These are constructed of packed rock and cover on all tides. **(see diagram – Canalised section of the River Dee)**. The North Training Wall extends for approximately 0.85 kilometres (0.53 miles) in a north- westerly direction into the estuary and is a continuation of the embankment that forms the north bank of the navigable river.

At the seaward end of the North Training Wall there is a tower structure from which is exhibited a flashing red navigation light, Fl.R.2s. The upstream end where the North Training Wall meets the higher grass covered embankment is marked by a perch exhibiting a flashing red navigation light Fl.R.5s. and a red (port hand) daymark. Along the remainder of its length it is marked by 10 pole perches, each surmounted by a red top mark. On the Welsh side of the channel between the Flintshire Road Bridge and Flint point there lies a sunken wreck marked by a lighted isolated danger buoy, Fl.2s.

Figure 6 North Training Wall light tower and piles looking seaward over submerged wall.

Figure 7 South training wall light structure.

The South Training Wall essentially forms the south bank of the navigable river and extends from below Connah's Quay seawards for approximately 1.2 kilometres (0.7 miles). It is marked along its length by 9 pole perches each surmounted by a green (starboard hand) top mark. Near the seaward end of the South Training Wall, marking the position of the intake / outfall of the gas fired power station at Kelsterton, there is a structure from which is exhibited a flashing green navigation light, Fl.G.5s. and a green conical daymark.

Both North and South Training Walls cover at high water with only top marks on perches remaining visible. Extra caution should be exercised when navigating in their vicinity.

On the Welsh side of the channel between the Flintshire Road Bridge and Flint Point there lies a sunken wreck marked by a lighted isolated danger buoy, Fl.2s.

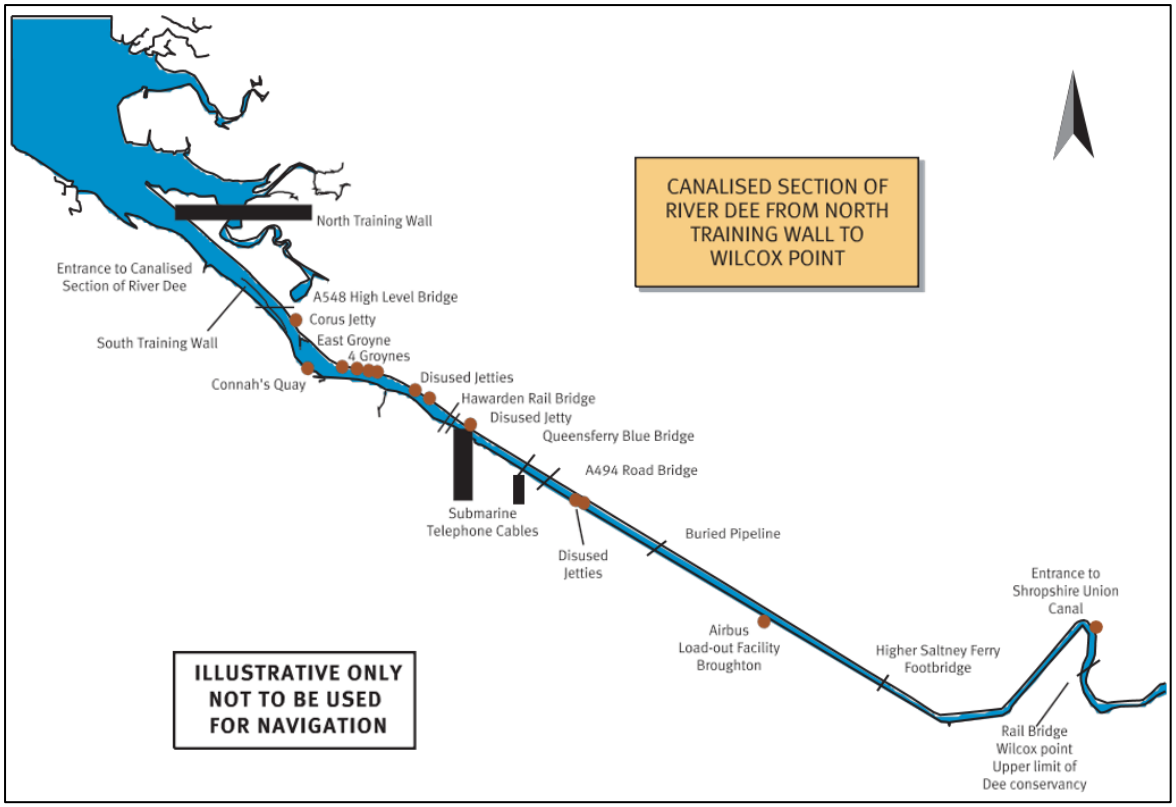

Figure 8 Canalised section of the River Dee from the North Training Wall to Wilcox Point.

A **high-level bridge** carrying the A548 spans the river below Connah's Quay and provides a vertical clearance for vessels of about 18 metres (59.0 feet) at high water on a spring tide. Redundant air draft gauges are located upstream and downstream of this bridge, not to be used for navigation.

Corus jetty is located immediately upstream of the A548 bridge on the north bank of the river. The jetty is privately owned and was previously used by sea- going vessels that loaded steel products from the nearby works at Shotton. The upstream and downstream ends of the Corus Jetty are each marked by two fixed red navigation lights vertically disposed. A layby berth is located on the Corus Jetty and is marked by flashing red lights, Q. F1.R, at its extremities.

Immediately upstream of Corus jetty, a groyne extends from the north bank into the river in a southerly direction, for approximately 130 metres (427 feet). This structure known as the **East Groyne** is constructed of packed rock and covers on all tides. The groyne is marked along its length by two pole perches each surmounted by a red top mark and at its seaward end by a perch exhibiting a flashing red navigation light, Fl.R.4s. and red daymark.

Figure 9 Structure on south side of river opposite Tata Jetty with air draught gauge immediately downstream and A548 High Level Bridge in the background.

There is an extensive and steep bank of sand and mud on the north side of the river behind and immediately upstream of the East Groyne. All vessels must follow the bend in the river around this bank keeping to seaward of the lighted perch marking the end of the East Groyne.

Immediately upstream of Corus jetty on the south side of the river is a substantial timber structure, originally constructed for the intake/outfall of the previous coal fired power station at Connah's Quay, exhibiting a flashing green navigation light Fl. G 4s. One of the air draft gauges for the high-level bridge is located close to this structure that is a hazard to navigation.

The River at Connah's Quay

Upstream of the East Groyne, on the bend and south bank of the river at **Connah's Quay** is a piled wharf owned **by Flintshire County Council.** This facility which has varying depths of water alongside dries at its upstream end at low water.

Underwater obstructions exist at various locations along the wharf and local information should be sought before mooring alongside. Local fishermen and owners of other small craft normally use this wharf and there is restricted access to the vertical ladders provided. All vessels moored alongside should be tended and

inspected regularly, particularly in strong north westerly winds which against an ebb tide can create hazardous conditions for small craft.

Figure 10 Small craft alongside at Connah's Quay on high water

Any enquiries about use of the wharf at Connah's Quay should be addressed to Flintshire County Council **(see page 30 – Contact Information).**

Immediately upstream of Connah's Quay and on the same side of the river there is a purpose-built concrete slipway / launching area with restricted access from the shore that is normally locked. This facility is used by the locally based **Dee Water Ski Club** and when required in an emergency it is also used for launching and recovery of **RNLI inshore rescue lifeboats.** These are based within the estuary at Flint and West Kirby. Opposite and upstream of Connah's Quay on the north bank of the river there are four groynes. These are also constructed of packed rock and cover on all tides.

The downstream groyne is marked at its seaward end by a perch exhibiting a red flashing navigation light, Fl.R.2s and red daymark. The other three groynes are each marked by a pole perch surmounted by a red top mark.

Upstream of these perches also on the north bank of the river and immediately below **Hawarden Rail Bridge** are two disused jetties or landing stages, both in poor state of repair. These structures are a hazard to navigation, particularly during the hours of darkness and in any conditions that restrict visibility. Vessels should at all times keep well clear of these and other similar structures in the canalised section of the river, from which timbers may become detached. Under no circumstances should vessels moor alongside the structures or use them as a means of access.

Hawarden Rail Bridge crosses the river approximately 1.85 kilometres (1.15 miles) above Connah's Quay and the main span that originally opened for navigation is now fixed in position. This provides a vertical clearance for vessels of about 4.5 metres (14.7 feet) on a spring high tide.

Figure 11 A view of A494 road bridge looking downstream towards Queensferry Blue Bridge.

The pier on the north side of the bridge is protected by a timber structure that extends downstream and upstream of the bridge. This structure is marked at both ends by a red flashing navigation light exhibiting Fl.R.5s. The redundant tide boards with vertically disposed red, yellow and green segments are also displayed at each end of this structure on the north side of the bridge. The markings on these boards were vessel specific and will not be appropriate for other vessels. The pier on the south side of the bridge is also protected by a much smaller timber structure, marked by a green flashing navigation light exhibiting Fl.G.5s.

A Canalised River

A submarine telephone cable crosses the river immediately upstream of Hawarden Rail Bridge and its position is marked by a notice board on each bank.

A navigation light on the downstream side of the main span of the bridge mark the ‘Best Point of Passage’ approximately in the centre of the river and exhibits a white flashing light, Morse letter “A”. A reflective red and white triangle is mounted in lieu of a light on the upstream side of the bridge. Low wooden shuttering extends along the line of and close to the south bank of the river in the vicinity of Hawarden Rail Bridge. The shuttering is covered by the tide and marked at each end, downstream and upstream of the bridge, by a pole perch surmounted by a green top mark.

Figure 12 Disused jetty on the north bank of the rover upstream on Hawarden Rail Bridge

Another disused jetty in poor state of repair is located on the north bank of the river, approximately 0.48 kilometres (0.29 miles) upstream of Hawarden Rail Bridge. This is a hazard to navigation, particularly during the hours of darkness and in any conditions that restrict visibility.

Queensferry Blue Bridge carrying the B5441 spans the river approximately 1.35 kilometres (0.84 miles) upstream of Hawarden Rail Bridge.

The main span that originally opened for navigation is now fixed in position and provides a vertical clearance for vessels of about 4.0 metres (13 feet) on a spring high tide. Navigation lights on the upstream and downstream sides of the main span of the Bridge mark the ‘Best Point of Passage’ approximately in the centre of the river and these exhibit a white flashing light, Morse letter “A”. A redundant coloured tide board is displayed on the downstream side of the south pier of this bridge.

A submarine telephone cable crosses the river immediately upstream of the Queensferry Blue Bridge and its position is marked by a notice board on each bank.

Figure 13 The A494 road bridge viewed from upstream at low water. Coloured tide board can be seen on the North pier.

The A494 Road Bridge spans the river approximately 170 metres (558 feet) upstream of the Queensferry Blue Bridge. The A494 Bridge is fixed in position and provides the least vertical clearance for vessels of about 3.8 metres (12.5 feet) on a spring high tide. The upstream and downstream ends of the concrete pier on the north side of this bridge are each marked by a red flashing navigation light exhibiting Fl.R.5s.

The ends of the pier on the south side are each marked by a green flashing navigation light exhibiting Fl.G.5s. A navigation light marking the 'Best Point of Passage' under this bridge, approximately in the centre of the river, exhibits a white flashing light, Morse letter "A". A coloured tide board providing information for the Dee River Craft is also displayed on the upstream end of the concrete pier on the north side of this bridge.

The remains of another two disused jetties are located approximately 750 metres (2460 feet) upstream of the A494 Road Bridge close to the south bank of the river. These structures are hazards to navigation, particularly during the hours of darkness and in any conditions that restrict visibility.

A buried pipeline crosses the river approximately 1.7 kilometres (1.05 miles) upstream of The A494 Road Bridge and its position is marked by a notice board on the north bank.

Figure 14 Redundant Airbus load-out facility at Broughton

The Redundant Airbus Load Out Facility

The redundant Airbus load-out facility is located on the south bank of the river at Broughton, approximately 3.5 kilometers (2.17 miles) upstream of the A494 Road Bridge. This private purpose-built facility owned by Airbus UK was provided for the exclusive use of the Dee River Craft wing barge, which no longer operates, the berth and associated infrastructure remains in place, but is no longer maintained.

The facility includes an underwater grid, the supporting structure (on which the wing barge vessel sat aground) extends into the river about 15 metres (49 feet). This structure is covered at all states of the tide and poses a hazard to any vessels navigating close to the south bank. notices are displayed immediately upstream and downstream of the load-out facility to warn other users of the underwater obstruction. Two pile structures immediately upstream and downstream of the load-out facility and the downstream pile of the adjacent lay-by berth are each marked by two fixed green navigation lights vertically disposed and surmounted by a green cone shaped daymark.

Higher Saltney Ferry Footbridge crosses the river approximately 1.83 kilometres (1.13 miles) upstream of the load-out facility. The vertical clearance under this bridge exceeds that of the Queensferry Blue Bridge and the A494 Road Bridge. The river upstream of Broughton is only used by small recreational craft and fishing vessels and there is no requirement for navigation lights to be installed on this bridge. Sandbanks extend into the river at the bends of this section, and these can extensively reduce the amount of available water.

Figure 15 Higher Saltney Ferry Footbridge viewed from downstream.

The Shropshire Union Canal

The lock gates at the entrance to the basin of The Shropshire Union Canal are located immediately downstream of Crane Wharf on the north bank of the river. These gates define the boundary between the tidal river and fresh water canal. Persons in charge of vessels intending to enter or leave the canal through this lock should first obtain all information required, particularly regarding length, beam and draft restrictions, tidal limitations and safe navigation of the river and estuary (see page 30 – Contact Information).

Figure 16 Lock gates at the entrance to the Shropshire Union Canal.

The River upstream of the Conservancy

A rail bridge approximately 0.5 kilometres (0.3 miles) upstream of Crane Wharf crosses the river at Wilcox Point, and marks the upstream limit of the Dee Conservancy.

Above Wilcox Point the Navigation Authority for the River Dee is Cheshire West & Chester Council. Persons in charge of vessels intending to navigate the River Dee upstream of Wilcox Point should ensure that they are fully aware of the requirements of relevant Byelaws made by Cheshire West & Chester Council (see page 30 – Contact Information).

Figure 17 Rail bridge at Wilcox Point marking the upstream limit of the Dee Conservancy.

Emergency Reporting Procedure

Method of contact

HM Coastguard: VHF Channel 16,
Landline or mobile telephone dial 999 and ask for “the Coastguard”.

Police, Fire or Ambulance

Landline or mobile telephone dial 999 and ask for the appropriate service(s).

Emergency situations in the Dee Conservancy

In this context an **emergency situation** should be considered as an occurrence which has, or may have, an adverse effect upon human life, property or the environment. Such an occurrence may for example arise as a result of an accident, incident or potentially dangerous situation involving one or more vessels. These occurrences are defined in regulations that set out the **Statutory Reporting Requirements** for ships, fishing vessels and recreational craft in such circumstances.

Reports under these regulations are separate from, and in addition to, requirements to report accidents to the Department for Transport Marine Accident Investigation Branch (MAIB). In this respect, anyone in charge of a vessel navigating in the Dee Conservancy should ensure that they are fully aware of and comply with the Statutory Reporting Requirements, applicable to their vessel.

Information on this subject, relevant to all types and sizes of vessels, may be obtained from the Maritime and Coastguard Agency, and from Local Notices to Mariners on Statutory Reporting and Emergency and Incident Reporting in the Dee Conservancy, available on the Natural Resources Wales website **(see page 30 – Contact Information).**

Persons in charge of a vessel not required to report under regulations, and other users of the Dee Conservancy, may also find themselves involved in an emergency situation. In all cases it is vitally important that appropriate assistance is requested without delay **(see Emergency Reporting Procedure).**

The guide to responding to emergency situations and the questionnaire on the following pages have been developed to provide guidance in such circumstances and to ensure that the emergency services receive the information that they will require. All users are encouraged to study these documents and, where practicable, refer to them in any emergency situation.

The Dee Conservancy Harbour Master will be informed of any emergency situation that occurs in the Dee Conservancy if it has been reported to the Emergency Services, Natural Resources Wales or Mostyn Docks Ltd.

After each emergency the Dee Conservancy Harbour Master undertakes an investigation to determine the immediate and underlying cause. This investigation may

include inspection of a vessel, its equipment and on-board records, interviews of any injured parties, witnesses and representatives from the emergency services.

All users of the Dee Conservancy are encouraged to report any ‘potentially dangerous situation’, where harm to people or damage to property or the environment could have occurred. These reports should be submitted in writing to the Dee Conservancy Harbour Master who will investigate the matter to determine whether any action should be taken to avoid recurrence **(see contact list page 30).**

Responding to an Emergency

There is an emergency situation:

Step 1 – Prepare a summary of the emergency situation

(Use Emergency Questionnaire on Page 30)

Step 2 – Does the emergency situation involve a vessel, person in the water, or person cut off by the tide?

If YES: Use VHF Channel 16 or telephone 999 to notify the Coastguard, providing a summary of the emergency situation.

If NO: Telephone 999 to notify Police, Fire or Ambulance services, providing a summary of the emergency situation.

Step 3 – Without further endangering life attempt to mitigate the emergency situation.

Ensure personnel are properly attired. If possible follow directions of the Dee Conservancy Harbour Master and/or the emergency services.

Step 4 – Once there is no longer an immediate threat to life or property the emergency situation can be considered closed.

Emergency Questionnaire

Your Name…….

Name of vessel/casualty…….

Position of vessel/casualty……..……

N.B. The position of the vessel/casualty should ideally be given as a latitude and longitude (e.g. from a GPS receiver) or, as a bearing and distance from a recognised landmark (e.g. "1 mile south west of Hilbre Island").

Summarise the type of emergency that has arisen…….
…….

……...

N.B. Briefly describe the situation that exists e.g. is there a person 'over-board', is a vessel on fire or sinking, has there been a collision or grounding or are people stranded on a sandbank?

Your description of the situation will help determine the most appropriate response by the emergency services.

State the number of persons involved…….…….

If any people are missing give the number of people missing and a brief description of them…….…….
……..

What is your most immediate concern?…….…….

Finally provide a mobile phone number(s), and/or most the suitable method of communicating with you/the casualty……..……
……..……

Contact Information

Natural Resources Wales

(As conservancy, harbour and local lighthouse authority for the Dee estuary)
www.naturalresourceswales.gov.uk search for 'Dee Estuary'

Incident Reporting (24 hours) - 0300 065 3000
Non-Emergency Customer Contact - 0300 065 3000

Dee Conservancy, Harbour Master

Dee Conservancy Harbour Master
c/o Strategic Marine Services Ltd.
12, Chapel Court
Wervin Road
Chester
CH2 4BP
Tel: 01244 371428
e-mail: harbourmaster@deeconservancy.org

Mostyn Docks Ltd.

(statutory harbour authority for the Port of Mostyn and pilotage authority)

e-mail: harbourmaster@portofmostyn.com
Port of Mostyn Harbour Master
Tel: 01745 560324
Port of Mostyn – Port Information
Call VHF Channels 16 & 14

Cheshire West & Chester Council

(Navigation authority for River Dee above Wilcox Point)

www.cheshirewestandchester.gov.uk
e-mail: enquiries@cheshirewestandchester.gov.uk
Tel: 0300 123 8 123

Wirral Borough Council

Wirral Country Park Visitor Centre,
Thurstaston (open 7 days/week)
Tel: 0151 648 4371 or 0151 606 2000
e-mail: wcp@wirral.gov.uk

Flintshire County Council

www.flintshire.gov.uk
Contact relevant department
Tel: 01352 752121

Canals and River Trust

(Shropshire Union Canal)
website: North Wales and Borders
e-mail: enquiries.northwalesborders@canalrivertrust.org.uk
Tel: 0303 040 4040

Maritime & Coastguard Agency (MCA)

(UK Maritime Safety Policy and Search and Rescue)

www.mcga.gov.uk/

In Emergency
Tel: 999 – ask for 'Coastguard' or
call VHF Channel 16

Non-Emergency MCA Infoline (24 hours a day)
Tel: 0203 817 2000
e-mail: infoline@mcga.gov.uk

Local Coastguard Station
Holyhead Operations (24 hours a day) providing local advice, weather conditions etc,
Tel: 01407 762051
Call VHF Channel 16

Find out how to get in touch with

Natural Resources Wales:

enquiries@naturalresourceswales.gov.uk

Telephone - 0300 065 3000*

Natural Resources Wales
Tŷ Cambria
29 Newport Road
Cardiff
CF24 0TP

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*Calls to 03 numbers cost no more than a national rate call to a 01 or 02 number and will count towards any inclusive minutes on your phone contract in the same way as 01 and 02 calls. These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone.