

# MARINE BIOSECURITY PLAN

## Conwy Quays Marina



QUAY  
M·A·R·I·N·A·S



**Site Name:** Conwy Quays Marina – Part of the Quay Marinas Limited Group

**Site Location:** Conwy, LL32 8EP, 01492 593000

## ABOUT INVASIVE SPECIES

### **What are Non-Native and Invasive Non-Native Species?**

Non-Native Species are those species outside their normal or native range. Some of these have been moved around the world accidentally for example on boat hulls or in ballast water or via the transport of goods and materials. Some species have been intentionally released for food or sport, for example rabbits or for horticulture e.g. garden plants such rhododendron. Some species may have been introduced many times before they have become established in the UK.

When a species is established and then thrives aggressively becoming a problem to the local ecology and economy, it is termed 'Invasive'.

### **Why should we worry about them?**

Invasive Non-Native Species can often grow at tremendous rates, out competing native species for food, space and light. They can smother native species and lead to a mono culture which can destroy entire ecosystems. They can also clog or damage important infrastructure such as roads and buildings on land or water intakes, fish cages, propellers and lock gates in the marine environment. INNS are thought to be one of the greatest threats to biodiversity and Defra have estimated that they cost the UK economy at least £2 billion per year.

### **What is Biosecurity?**

Biosecurity is a way of managing and lowering the risk associated with non-native species. There are almost always sensible steps we can take to reduce the risk of moving species from one place to another and to reduce the likelihood of the species becoming established and therefore invasive. The GB Invasive Non-Native Species Framework Strategy has a three-tier approach:

- Prevention – most effective and least environmentally damaging
- Rapid Response – early detection and surveillance, potential eradication
- Control & Containment – where the INNS is widespread and eradication is not feasible, control of the population and mitigation against negative impacts

Given the high costs for the mitigation, control and eradication of INNS once they are established prevention is the obvious first choice and biosecurity planning is an excellent way to achieve this.

## POLICY AND LEGISLATION

A detailed description of the various international, EU and UK policies and legislation relevant to NNS is given in the Marine Biosecurity Guidelines for England and Wales<sup>1</sup> and in the legislation section of the GB NNS website<sup>2</sup>. The most significant of these are:

- The 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediment (enters force in September 2017),
- The European Strategy for Invasive Alien Species,
- The European Water Framework Directive (WFD),
- The European Marine Strategy Framework Directive (MSFD),
- The EU Invasive Alien Species regulation (2015) and,
- The Wildlife and Countryside Act 1981.

## BIOSECURITY PLANNING AND MARINE LEISURE SECTOR

Although biosecurity planning is a voluntary measure now it is recommended as best practice by Natural England, Natural Resources Wales, DAERA in N Ireland and Scottish Natural Heritage. Major port groups as well as harbour authorities and others marine users are developing biosecurity plans relevant to their operations and it is appropriate for the marine leisure sector to do the same. A biosecurity plan should not be cumbersome or onerous; it should focus on awareness raising, monitoring and practical actions which will protect the organisation and site from the threats associated with INNS.

## REPORTING AND FURTHER INFORMATION

- Record known species - [www.brc.ac.uk/irecord/enter-non-native-records](http://www.brc.ac.uk/irecord/enter-non-native-records)
- Report high alert species – [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk)
- Check Clean Dry campaign: [www.nonnativespecies.org/checkcleandry/index.cfm](http://www.nonnativespecies.org/checkcleandry/index.cfm)
- The Green Blue : [www.thegreenblue.org.uk](http://www.thegreenblue.org.uk)
- Impact of marine INNS : <http://publications.naturalengland.org.uk/publication/5091100843311104>

<sup>1</sup> Cook, E.J., Macleod, A. Payne, R.D., and Brown, S. (2014) edited by NE and NRW (2015). *Marine Biosecurity Planning – Guidance for producing site and operation-based plans for preventing the introduction and spread of non-native species in England and Wales* - [www.nonnativespecies.org/downloadDocument.cfm?id=1401](http://www.nonnativespecies.org/downloadDocument.cfm?id=1401)

<sup>2</sup> [www.nonnativespecies.org/home/index.cfm](http://www.nonnativespecies.org/home/index.cfm)

## **Introduction**

**Site Name: Conwy Quays Marina – Part of the Quay Marinas Limited Group**

### **Brief Description of Site:**

Conwy Quays Marina is a half tide accessible 475 berth marina.

There are approximately 250 river moorings made up of swinging mooring and pontoon berths owned and maintained by Conwy County Borough Council.

Fuel, water and sewage waste pump out are available at the marinas.

Visitor berths are available and the marina can accommodate up to 20 visiting boats of varying lengths during a summer weekend totalling circa 2000 nights per annum.

Most visiting vessels are regional from the North West and North Wales with little or no international traffic.

Deganwy Quays Marina is situated on the other side of the estuary and is a 165-berth marina also operated by the Quay Marinas group and given that each sites annual berth holders are entitled to free reciprocal berthing between the marinas there is inevitably a lot of traffic between the two marinas.

Conwy marina has an onsite accredited RYA training centre (Sea wake).

An annual dredging programme is undertaken using our own cutter suction dredger 'The Little Orme'.

There is a boat hoist which can lift up to 30 tonnes. Hulls are washed on the designated concrete wash apron with a diesel operated power washer. Excess barnacle, weed and growth is gathered and disposed of in our general waste receptacles. At present, there is no wash down interceptor in place. Quay Marinas are currently considering its purchase and implementation.

The Yacht Brokerage (Network Yacht Brokers) operates at the marina on a tenancy agreement. Vessels wishing to sell are usually from the North West and North Wales catchment area and are predominantly lifted out for sale.

Many surrounding beaches are heavily used for tourism and recreation.

**Plan period: March 2017 – March 2020**

**Biosecurity Manager/Officer: Jon Roberts**

### **Environmental Information**

The site and approaches are designated as medium to low density recreational use areas routes by the RYA and it is designated a 'general boating area'.

Conwy Quays Marina sits within the Menai Strait and Conwy Bay marine SAC. The area is famed and protected for its sub-tidal and inter-tidal reefs, the sand and mud flats and further up river there are important salt marsh habitats.

Directly adjacent to Conwy Quays Marina are three Sites of Special Scientific Interest

- Aber Afon Conwy
- Great Orme's Head
- Traeth Lafan

Great Orme's Head is identified as an area of heritage coast and a Local Nature Reserve (Great Orme's Head and Traeth Lafan)

Gwynt Y Mor is a 160-turbine wind farm located 10 miles off the coast of Llandudno and Wales' largest wind farm which became fully operational exporting power in 2014.

The SAC management plan states that there are concerns about the possible invasion of the slipper limpet *Crepidula fornicata* and that several activities have the potential for accidental introductions of invasive non-native species including recreational craft entering the area from Ireland and elsewhere around the UK and through the use of live bait by recreational anglers.

In 2006 the invasive non-native slipper limpet was inadvertently introduced into commercial mussel lays within the eastern Menai Strait with mussel seed from the English Channel. Eradication operations were undertaken to remove the species and prevent its spread. Surveys to date indicate that these operations were successful but investigations suggest that individuals in the Menai Strait may have spawned before they were removed, so it may be some time before it is clear whether a population may subsequently become established in North Wales.

Deganwy Quays Marina and Conwy Quays Marina have completed The Green Blue Marine Toolkit; an online self-assessment toolkit that helps marine organisations identify and action environmental improvements.

### **Dredging**

Conwy Quays Marina is dredged annually by our in-house cutter suction dredging plant 'The Little Orme'. We currently have in place a three-year licence issued by Natural Resources Wales (Licence Number DML 1533) which provides us with licence to remove 28000 tonnes of silt per annum.

One quarter of the marina is dredged each year allowing the entire marina to be dredged over a four-year period. We dredge to a current depth of approximately 3.20 metres. All dredged material is pumped through a closed pipe system out to a discharge point in the Estuary on an ebbing tide. Strict conditions are imposed within the licence to which we must be fully compliant and adhere to.

Although previously we have carried out a variety of sediment sampling there has never been sampling or visual inspections to establish the presence of INNS.

The dredger generally operates for 6 months of the year (November to March inclusive) and is then lifted ashore, cleaned and stored for the remaining down time.

### **Construction**

There are no planned or imminent construction works.

## Salinity

The salinities recorded at the surface on 11/06/2014 were 31.1 for both Conwy and Deganwy Quays.

On average seawater is 34.7ppt.

## Tidal Influences

There is a large tidal range of circa 8 metres in the estuary with strong tidal flows of up to 6 knots on a Spring tide which move significant amounts of sediment through each tidal cycle.

The water depth in the marina is maintained by a half tide sill and has a tidal range of approximately 4 metres.

## Underwater structures/features

The marina uses driven piles for securing the pontoons. The pontoon structures are generally 25 years old. The pontoons are timber on steel frames and wrapped polystyrene floats. The pontoons are fixed in position with steel pile guides. The marina is bounded by stone breakwaters. The landward boundaries are a mix of sloped banks and stone embankments.

There are several public slips locally including namely The Beacons, Conwy, Rhos-on-Sea, Eirias Slipway, Victoria Pier Slipway, Colwyn Bay, Fryars Bay, Beaumaris, Gallows Point and Menai Bridge.

## Non-native species known to be present

By Christine A. Wood, Bishop Group, Marine Biological Association of the UK, 20/12/2016

Non-native species (NNS) Rapid Assessment Survey Results			
Conwy Quays & Deganwy Quays			
Scientific name	Common name	Conwy	Deganwy
Sea squirts			
<i>Styela clava</i>	Leathery sea squirt	x	x
<i>Asterocarpa humilis</i>	Compass sea squirt	x	x
<i>Ciona robusta</i>		x	x
<i>Corella eumyota</i>	Orange-tipped sea squirt	x	x
<i>Botrylloides violaceus</i>	Orange cloak sea squirt	x	x
<i>Botrylloides diegensis</i>	San Diego sea squirt	x	x
<i>Botrylloides</i> species 'X'		x	x
<i>Didemnum vexillum</i>	Carpet sea squirt	x	x
<i>Perophora japonica</i>	Creeping sea squirt	x	x
<i>Aplidium</i> cf. <i>glabrum</i>		x	x
Sea mats (Bryozoans)			
<i>Tricellaria inopinata</i>	Tufty-buff bryozoan	x	x
<i>Bugula neritina</i>	Ruby bryozoan	x	x
<i>Bugulina simplex</i>		x	x
<i>Bugulina stolonifera</i>		x	x
<i>Watersipora subatra</i>	Red ripple bryozoan	x	x
<i>Schizoporella japonica</i>	Orange ripple bryozoan	x	x
Barnacles			
<i>Austrominius modestus</i>	Darwin's barnacle	✓	✓

Amphibalanus amphitrite	Striped barnacle	x	x
Amphibalanus improvisus	Bay barnacle	✓	✓
Hesperibalanus fallax		x	x
<b>Other animals</b>			
Caprella mutica	Japanese skeleton shrimp	x	x
Ammothea hilgendorfi	Japanese sea spider	x	x
Crepidula fornicata	Slipper limpet	x	x
Urosalpinx cinerea	American oyster drill	x	x
Crassostrea gigas	Pacific oyster	x	x
Ficopomatus enigmaticus	Trumpet tube worm	x	x
Hydroides ezoensis			
Hemigrapsus spp.	Asian shore/brush-clawed crab		
Diadumene lineata	Orange-striped anemone	x	x
<b>Seaweeds</b>			
Undaria pinnatifida	Wakame	x	x
Sargassum muticum	Wireweed	x	x
Grateloupia turuturu	Devil's tongue weed	x	x
Codium fragile fragile	Green sea fingers	x	x
Colpomenia peregrina	Oyster thief	x	x
Chrysymenia wrightii	Golden membrane weed	x	x

**High risk species known to be present and to assess during monitoring for changes/spread.**

No high-risk species have been identified for the Conwy and Deganwy Quay Marinas sites.

**Horizon scanning – high risk species to look out for.**

**Crepidula fornicata, Slipper limpet**

**Didemnum vexillum, Carpet sea squirt**

**Eriocheir sinensis, Chinese Mitten Crab**

**Hemigrapsus spp., Asian shore/brush-clawed crab**

**Undaria pinnatifida, Wakame**

Styela clava, Leathery sea squirt

Sargassum muticum, Wireweed

Urosalpinx cinerea, American oyster drill

Crassostrea gigas, Pacific oyster

Amphibalanus Amphitrite, Striped barnacle

Caprella mutica, Japanese skeleton shrimp

Bonnemaisonia hamifera, Hook weed

**Biosecurity Action:** Put together a short guide to species for staff. **Underlined and in bold species are of particular concern.** Include Species Information Sheets and copy write free images from GB Non-Native Species Secretariat. [www.nonnativespecies.org/home/index.cfm](http://www.nonnativespecies.org/home/index.cfm)

**Potentially High Risk vessels/types of vessel using the site - Include information about any slow or stationary periods, events or other aspects that may increase biosecurity risk.**

<b>Vessel/vessel type</b>	<b>Vessel name</b>	<b>Photo reference Y/N</b>	<b>Risk factors e.g.</b>	<b>Risk Assessment</b>
CCBC Barge	Jac Y Do	No	Prolonged stationary periods	Medium/High
<i>Dredging equipment</i>	Little Orme	No	Prolonged stationary periods. The dredger generally operates for 6 months of the year (November to March inclusive) and is then lifted ashore, cleaned and stored for the remaining down time.	Low (due to mitigating factors including local operations only and 6 months dry storage)
Annual berth holders	Various	No	Inspection history. Some will sit for prolonged stationary periods, some vessels are used regularly and are well maintained	Low/Medium
Visiting Yachts	Various	No	Although we have the opportunity to record port of origin it is not usually recorded for operational reasons. Most vessels come from within the local area/region.	Low/Medium
Commercial vessels	Various	No	Inspection history. Unknown previous Prolonged stationary periods working locations.	High



**Site Activities which have a significant risk of introducing or spreading non-native species**

Activity	Timing and Site Lead	Scale of Works	Risk Factors and Actions*
<i>Pontoons installation</i>	No date set	As yet unknown	<p>Only use reputable marine contractors who have well maintained plant. Write a biosecurity measure into standard contracts (see text below)</p> <p>Notify contractor that the pontoons will be refused if not cleaned. Check, clean, dry on receipt of pontoons. See <a href="http://www.nonnativespecies.org/checkcleandry/">www.nonnativespecies.org/checkcleandry/</a></p> <p>Consider replacement with new pontoons only.</p>

**Biosecurity Action:** during procurement for any new works ensure that contracts include appropriate biosecurity clauses. Example text :

- The contractor must submit a Biosecurity Risk Assessment for written approval at least 6 weeks prior to commencement of the works.
- The contractor must submit an updated Biosecurity Risk Assessment for written approval by the 31 January each year.
- The contractor must ensure that all equipment, materials, machinery and PPE used are in a clean condition prior to their arrival on site to minimise risk of introducing non-native species into the marine environment.

**Biosecurity Control Measures – Instructions for staff/contractors/site users**

Who	What	Where	When
<i>Marina staff/berthing manager/Marina manager</i>	Be aware of long distance, slow moving or inactive craft and take steps to assess risk. Make a note in the Biosecurity Log Book of any vessels of concern. Staff to be given toolbox talks.	Marina	Ongoing
<i>Marina manager</i>	Write into any event/regatta plans that biosecurity needs to be considered prior to boats arriving. This is to/could include: <ul style="list-style-type: none"> <li>• ensuring that participants in an event receive 'Check/Clean/Dry' message when they register.</li> <li>• That boats with considerable fouling will be removed and cleaned at the owner's expense or will be refused</li> </ul>	Marina	Ongoing

	launch/berth.		
<i>Marina manager</i>	Check all relevant contractors are aware of the need for clean hulls on workboats.	Marina	Ongoing
<i>Marina manager</i>	Check all relevant tenants are aware of the need for clean hulls on vessels including those in the brokerage and that any associated vessels etc. are inspected and/or cleaned prior to launch.	Marina	Ongoing
<i>Marina manager</i>	Include biosecurity information in communications with berth holders e.g. in the annual handbook, Facebook, Equay, notices.	Marina	Ongoing
<i>Marina manager</i>	Seek opportunities to work with The Green Blue to develop useful messages for berth holders.	Marina	Ongoing
<i>Marina/Yard manager</i>	Encourage staff to be aware of and report any heavily fouled vessels. Carry out toolbox talks.	Marina	Ongoing
<i>Marina staff</i> <i>Marina/Yard manager</i>	Encourage ethos of Check/Clean/Dry where possible – check pontoons, clean boats, dry kit.	Marina	Ongoing
<i>Marina manager</i>	Talk to Natural Resources Wales about biosecurity and seek a knowledgeable volunteer to help with identification and reporting.	Marina	Ongoing
<i>Marina manager</i>	At present, there is no wash down interceptor in place. Quay Marinas are currently considering its purchase and implementation.	Marina	2017/2018
<i>Marina manager</i>	Discuss with the Harbour Master dropping river mooring buoys to the seabed when not in use. This lowers the amount of man-made items in the water column and minimises risk from INNS.	River	2017

### **Site surveillance and reporting procedures**

<b>Who</b>	<b>What</b>	<b>When</b>	<b>Outcome</b>
<i>Yard Manager</i>	Lifted vessels	Daily at time of lift out	Photograph any unusual species and record in biosecurity log book.  Monitor over time and collect samples for analysis or send on photos for identification if concerned.
<i>Yard Manager</i>	Wash down area	Quarterly at Mean	Photograph any unusual species and

		Low Water Springs	record in biosecurity log book.  Monitor over time and collect samples for analysis or send on photos for identification if concerned.
<i>Duty Berthing Master</i>	Pontoons	Quarterly at Mean Low Water Springs	Photograph any unusual species and record in biosecurity log book.  Monitor over time and collect samples for analysis or send on photos for identification if concerned.  Pay particular attention to higher risk areas such as the fuel berth, back of the sill gate.  Consider moving liveaboards to lower risk areas such as G and H pontoons
<i>Duty Berthing Master</i>	Breakwater	Annually at Mean Low Water Springs	Photograph any unusual species and record in biosecurity log book.  Monitor over time and collect samples for analysis or send on photos for identification if concerned.

### Contingency Plan

<b>Scenario</b>	<b>Lead Person</b>	<b>Location of Equipment</b>	<b>Action</b>
<i>Heavily fouled boat departs after refusing wash down</i>	Marina Manager	Biosecurity email group (see list of interested parties)	Alert local harbours of vessel name and planned route (if known). Make a note in the Biosecurity Logbook. Consider implementing a requirement that all vessels must be hull washed when lifted ashore.
<i>Heavily fouled vessel arrives to berth or undertake work on site</i>	Marina Manager	Contact list	Contact Natural Resources Wales and ask advice about hull cleaning before proceeding. Enforce requirement for vessel to have hull cleaned.
<i>Known INNS is suddenly found to have significantly grown and covered a large area in a short space of time.</i>	Marina Manager	Contact list	Take photographs and discuss with/alert Natural Resources Wales. Marina yard staff to be provided with information and photographs of known INNS.

## Interested parties

- Penmaenmawr Sailing Club
- Llandudno Sailing Club
- Bay of Colwyn Sailing Club
- Welsh Yachting Association
- Llanfairfechan Sailing Club
- Royal Anglesey Yacht Club
- North West Ventures' Yacht Club
- Siliwen Sailing Association
- Menai Bridge Boat Club
- Traeth Coch Sailing Club
- North Wales Cruising Club
- Sea wake Powerboat Training
- Boom Sail, Power and Race Training
- Conwy Marinas Berth Holders Association
- Conwy Yacht Charter
- Conway Yacht Club Ltd
- Snowdonia Sailing School

Marina management are also members of the Conwy Sailing and Water sports Group with most the aforementioned parties are also members of and who meet quarterly. I will discuss biosecurity with the management group at the next meeting and consider a communication protocol in the event of a new species being identified locally.

## Location of biosecurity logbook

Conwy Marina office

## Signed

Jon Roberts

Date: 28 February 2017

