## CHECK, CLEAN, DRY BIOSECURITY PARTNERSHIP 2017-2020 FINAL REPORT

































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## **Executive summary**

Invasive non-native species are one of the world's biggest environmental threats and cost the GB economy nearly £2 billion each year. They are a significant problem for water companies, costing over £7.5 million per annum, and costs are expected to rise as increasing numbers of aquatic species arrive in GB.

In 2017, the *Check, Clean, Dry* biosecurity partnership was formed between government, water companies and environmental NGOs. Eight water companies (Anglian Water, Northumbria Water, Severn Trent Water, South East Water, South West Water, Southern Water, Thames Water, and

Yorkshire Water) generously invested around £450k to support a three year work programme with the aim of mitigating the threat to water companies from invasive nonnative species, by improving aquatic biosecurity.

The work programme was led by the GB Non-native Species Secretariat (NNSS), overseen by the partnership.

Over the three years of the project aquatic biosecurity has been significantly improved in GB. Five of the six main objectives have been completed in full, with the remaining in progress. Key achievements have included:

## The work programme consisted of six key areas:

- 1. Border campaign:
- 2. Survey
- 3. Communications products
- 4. Practical biosecurity
- 5. Training
- 6. European work
- An annual *Check, Clean, Dry* border biosecurity campaign to reduce the risk of recreational water users introducing new INNS to Britain from mainland Europe.
- An assessment of key stakeholder awareness and behaviour, showing a significant increase in uptake of good biosecurity behaviour amongst recreational water users since 2008, and exploration of optimal mechanisms to bring about further behaviour change.
- Redevelopment of Check, Clean, Dry, creating bespoke materials targeting a range of recreational water users, and dissemination to priority sites, including water company assets.
- Implementation of biosecurity measures at large kayaking competitions, and development of guidance for event managers, including those using water company assets.
- Development of free online biosecurity training for water company staff.
- Collaboration with neighbouring countries to help reduce the risk of introducing yet more INNS from mainland Europe.

In order to maintain the substantial momentum built by the project, the steering group has recommended that this is extended for five years (2020-2025).

### Ministerial recognition

The project received ministerial recognition in October 2017 when Lord Gardiner, Parliamentary Under Secretary of State for Rural Affairs and Biosecurity, led a reception at the House of Lords to thank partners for their contributions. In March 2020 Lord Gardiner again thanked partners in the project:

"I am grateful to the eight water companies that have supported the current Check, Clean, Dry Biosecurity Partnership project, which has played such a significant role in helping to prevent new arrivals and stop the spread of invasive species already here."

#### Introduction

Globally invasive non-native species are one of the biggest threats to biodiversity and the environment. In addition, they cost the GB economy nearly £2 billion annually. The cost to water companies is a minimum of £7.5 million per annum, expected to rise as increasing numbers of aquatic species arrive in GB. Aquatic invasive species are particularly invasive and Government has spent around £8 million on these since the launch of its invasive species strategy in 2008, and is currently spending over £900k on them annually.

Despite this expenditure, the threat is still growing. There are nearly 100 non-native freshwater species established in GB, and in recent decades the rate of arrival has dramatically accelerated. Recent arrivals include the killer and demon shrimps and quagga mussel and there are about 15 species in the Netherlands poised to invade the UK. In addition, invasive plants such as *Crassula*, floating pennywort and water primrose cause substantial negative impacts both environmentally and economically.



Invasive aquatic species such as floating pennywort (pictured) are particularly invasive.



Many can spread from a tiny fragment and survive out of water on damp clothing and equipment for over two weeks.

Recreational water users are a key pathway of introduction and spread of invasive aquatic species. The *Check, Clean, Dry* campaign, a partnership between Government and key stakeholders including angling and boating organisations, was launched in 2011 to provide simple biosecurity guidance for water users.

In 2017, a partnership was formed with the aim of improving aquatic biosecurity and mitigating the significant threat to water companies posed by invasive non-native species (INNS). Eight water companies generously invested £450k to support a three year enhanced *Check, Clean, Dry* work programme (see Annexes A-B for details of contributions and spend). This was led by the GB Nonnative Species Secretariat (NNSS), overseen by a steering group of water companies and key *Check, Clean, Dry* partners.

## Partnership working to improve biosecurity

In order to maximise the impact of the project, a partnership was formed between government, water companies and environmental NGOs, see overleaf for details of individual organisations.

## Membership of the Check, Clean, Dry Biosecurity Partnership

Note: see Annex A for details of contributions from individual organisations

#### Government

GB Non-native Species Secretariat (NNSS)

Defra

**Environment Agency** 

#### **Contributing water companies**

Anglian Water

Northumbrian Water

Severn Trent Water

Southern Water

South East Water

South West Water

**Thames Water** 

Yorkshire Water

#### Check, Clean, Dry partners

**Angling Trust** 

**British Canoeing** 

**British Rowing** 

Royal Yachting Association

## Work programme

The work programme consisted of six key areas:

- 1. Border campaign: running a Check, Clean, Dry campaign at the border.
- 2. **Survey**: assessing the current level of awareness and exploring optimal mechanisms to bring about behaviour change.
- 3. **Communications products**: refining our communication products (such as signage) and tailoring them to different recreational user groups.
- 4. **Practical biosecurity**: providing demonstrations at major sporting events and possibly procuring mobile cleaning stations.
- 5. **Training**: delivering training (including development of existing biosecurity elearning), talks and articles in specialist magazines.
- 6. **European work**: working with Belgian and Dutch partners to develop and deploy communication tools for use at high risk jump-off sites on mainland Europe.

The following pages contain details of the activities undertaken in each key area.

## 1. Border campaign

Aim: run a Check, Clean, Dry campaign at the border.

- Priority in year one: run a Check, Clean, Dry campaign at the border in 2017.
- **Priority in year two:** run a *Check, Clean, Dry* border campaign from March September 2018 (i.e. extending this from ten weeks to six months).
- **Priority in year three:** run a six month *Check, Clean, Dry* border campaign from March September 2019.

#### **Background**

In recent years the rate of new introductions of invasive freshwater species to GB has increased dramatically following the creation of a canal linking the Danube and Rhine in 1992, which facilitated the spread of species from the Ponto-Caspian basin through Western Europe. The most likely introduction pathway of these species is via recreational water use, i.e. anglers and boaters on contaminated clothing and equipment. In GB there are around 3.2 million boaters and 4 million anglers (RYA, 2015 & EA, 2004). A recent (2015) survey found that around 44% of anglers travel abroad to fish: 33% of those visit France, the most popular destination, and overall 50% visit France, Belgium or the Netherlands.

In order to reduce the risk of further introductions of INNS to GB, the NNSS and Defra jointly led a pilot summer border campaign in 2016, based on *Check, Clean, Dry.* The campaign targeted anglers travelling abroad with their own equipment to areas of Europe with invasive aquatic species not yet present in GB. A2 sized awareness-raising posters were displayed in Border Force holdings at nine ports in the UK and France for four weeks in August 2016.

#### **Project achievements**

Through the project we have been able to significantly build on the initial pilot campaign, with an annual six month campaign including advertising in high impact positions at ports and in relevant media (see Annex C for examples of materials).

#### Year one (2017-18)

In 2017 the campaign was expanded to run for ten weeks at eight GB ferry ports, delivered by a contractor. The NNSS also procured advertisements in relevant media including

specialist angling and boating publications and websites. This was supported by a social media campaign by the NNSS and *Check, Clean, Dry* partners.

#### Materials at ports

24 (12 each of two designs) awareness-raising posters and 24,000 leaflets were displayed at all eight GB ferry ports with links to France, Belgium and the Netherlands for ten weeks from 7 July – 15 September 2017. Leaflets were also displayed onboard DFDS Seaways ferries travelling between Newhaven and France during this time.

#### Print media

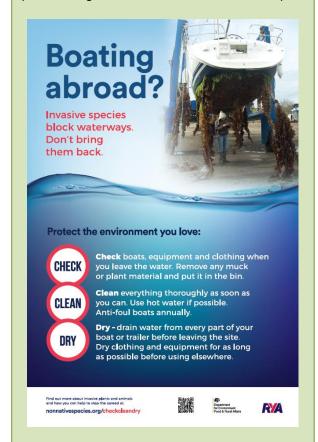
Adverts were placed in high impact positions in eight angling and sailing publications during August and September.

#### Digital Media

- Adverts linking to the Check, Clean, Dry website were displayed on five angling websites throughout August, and seen by over 61.5k anglers exceeding the industry standard click through rate.
- An HTML email promoting the campaign was sent to the Angling Times mailing list of 16k anglers.
- 18 posts on the @CheckCleanDryGB Twitter account during July and August reached
   50.5k Twitter feeds.



Posters have been displayed in key locations at ports in England with links to mainland Europe.



Materials are tailored to different recreational user groups to increase engagement.

#### Year two (2018-2019)

The campaign was expanded to run for six months, from March – September 2018. The materials were updated and new materials developed for canoeists / kayakers. Due to procurement delays and no suitable contractor being found to run the campaign, the NNSS contacted ports directly to procure advertising space. Four ferry ports linking to France and Holland (Dover, Portsmouth, Newcastle and Plymouth) were selected as they accounted for 82% of all incoming passenger vehicle traffic entering the UK from mainland Europe by ferry. Advertisements were also commissioned in EasyJet magazine, as a result of the findings of the survey of stakeholder and public awareness - that anglers are

equally likely to travel by car ferry, Eurotunnel and plane. Further advertisements were placed in relevant media including specialist angling and boating publications and websites:

#### Materials at ports

14 large (1200 x 1800 mm) posters were displayed at Dover, Portsmouth, Newcastle and Plymouth. Posters at Dover were displayed from March – end of Sept, and all others from June to the end of Sept.

#### Print media

- Adverts were placed in EasyJet magazine during July and August.
- Further adverts were placed in high impact positions in eight angling and sailing publications during July, August and September.



Adverts promoting the campaign have been displayed in specialist publications read by anglers and boaters, and magazines provided on EasyJet and Brittany Ferries to target travellers.

#### Digital Media

- Adverts linking to the Check, Clean, Dry website were displayed on five angling websites throughout July and August
- Two HTML emails promoting the campaign were sent to the Angling Times mailing list of 16k anglers.

#### **Year three (2019-2020)**

The activities carried out in year two were repeated from March – September 2019. In addition, the NNSS developed a resource pack with ready-made communications content and circulated this to key stakeholders for use through their own communications channels, and promoted the campaign on Twitter throughout.

#### Materials at ports

Fifteen large posters were installed at four key ports in England (Dover, Plymouth, Newcastle and Portsmouth) from March – end of September. The posters in Plymouth and Portsmouth were funded by RAPID LIFE.

#### Print media

- An advert was placed in EasyJet magazine during July.
- Further adverts were placed in high impact positions in eight angling and sailing publications during July, August and September.

#### Digital Media

- Adverts linking to the Check, Clean, Dry website were displayed on five angling websites throughout July and August
- Two HTML emails promoting the campaign were sent to the Angling Times mailing list of 16k anglers.

#### **Summer 2020**

Due to COVID-19 and restrictions on travel, the campaign will be reduced significantly during summer 2020. Prior to the current situation the

NNSS had already commissioned posters to be displayed at Dover and Newcastle Port from March – September 2020, and an advert in Spring / Summer issue of the Brittany Ferries on board magazine.

## **AnglingTimes Fishing** invasive species kill fish. Don't bring them back. the environment, and damage boats. As an angler, you could be spreading them from one vaterbody to another without realising, as they can be small and hard to spot so are easily spread on damp equipment and clothing. Once established in a new waterbody they can become Protect the environment and fishing you love by remembering to Check, Clean, Dry to keep your kit free of invasive plants and animals. It's important to do this every time you fish, but particularly if you've been abroad as you could bring back new invasive plants and animals on your kit. Make sure everything is clean and has been dried thoroughly before you fish again at home. Find out more about invasive plants and animals and how you can help to stop the spread at www.nonnativespecies.org/checkcleandry **Check** your equipment, clothing and footwear when you leave the water. Remove any muck CHECK or plant material and put it in the bin. Clean everything thoroughly as soon as you can. CLEAN Use hot water if possible Dry everything for as long as you can before DRY using it at home as some species can live for over two weeks in damp conditions. Over 16k anglers received information about the campaign via the Angling Times mailing list.

#### **Evaluation**

The NNSS was working with the RAPID LIFE project to evaluate the campaign through a survey of anglers, but following discussions between the Angling Trust and RAPID this was delayed until September 2020 to avoid survey fatigue. British Canoeing and the University of Leeds are currently collaborating on a similar survey of paddlers. The results of each survey will be shared with the group when they are available.

#### Port survey

In 2019, the NNSS used APHA staff to carry out a survey investigating the volume of boats coming through key UK ports (Dover, Hull and Eurotunnel, Folkestone). Key findings include:

- 0.5% of vehicles surveyed were carrying at least one of the following: kayak / canoe, sailing boat, motorboat, jet-ski, rowing boat, surfboard / windsurfing board (140 vehicles of 28,087 surveyed).
- Canoes / kayaks were most commonly carried (0.21% of vehicles), followed by surfboards (0.15% of vehicles), sailing boats / dinghies (0.05% of vehicles), and motorboats / zodiacs (0.05% of vehicles).
- Overall around 80% of vehicles carrying boats were from the UK.
- If extrapolated to the total volume of vehicles per year, over 14,000 vehicles carrying boats could enter the UK each year from the continent through passenger ports.

## 2. Survey

**Aim:** assess the current level of awareness and explore optimal mechanisms to bring about behaviour change.

- **Priority in year one:** commission survey to assess current levels of awareness.
- **Priority in year two:** publish the results of the survey on the GB NNSS website and use these to inform communications work.
- **Priority in year three:** continue to improve communications work using the findings of the survey.

#### **Background**

In 2008 Defra commissioned a survey of key stakeholder (anglers and gardeners) and public attitudes towards non-native species in England. The findings of this survey, published in 2009, helped to inform the development of two awareness-raising campaigns to improve aquatic biosecurity amongst key stakeholder groups (*Be Plant Wise* aimed at gardeners and pond owners, and *Check, Clean, Dry* aimed at recreational water users).

Key stakeholders of the campaigns recommended that a follow-up survey should be carried out in order to:

- assess the impact of the two awareness-raising campaigns
- measure current levels of awareness of non-native species amongst key stakeholders and the public
- gain an understanding of the risk posed by key stakeholders and their current biosecurity practices
- refine messaging and materials for future communications

#### **Project achievements**

We have carried out an assessment of key stakeholder awareness and behaviour, which showed a significant increase in uptake of good biosecurity behaviour amongst recreational water users since 2008. The survey also explored optimal mechanisms to bring about further behaviour change which has enabled us to refine our communications materials and approach.

#### Year one (2017-2018)

Following an open tender process, in January 2018 the NNSS commissioned a follow up survey. Fieldwork took place through March and April 2018. Fieldwork included two elements:

- (i) Qualitative
  - four focus groups with anglers and boaters to review drafts of updated Check, Clean, Dry materials and messaging
- (ii) Quantitative
  - surveys of anglers, boaters, gardeners and exotic pet owners (around 150 of each group were surveyed, around 600 individuals in total)
  - surveys of the general public (around 600 individuals were surveyed).

#### Year two (2018-2019)

The final report was completed and published on the NNSS website in July 2018 (available here: <a href="https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=1709">https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=1709</a>, see Annex D for key findings). The NNSS used the findings of the report to inform relevant communications work, including the border biosecurity campaign and *Check, Clean, Dry* review.

#### Insight into recreational water users traveling abroad to fish, paddle or sail.

The survey provided important information on the number of anglers and boaters (including paddlers) traveling to waterbodies abroad for their hobby. A quarter of anglers and boaters surveyed stated that they had been fishing or boating overseas. For both, the most commonly visited country was France (Figure 1).

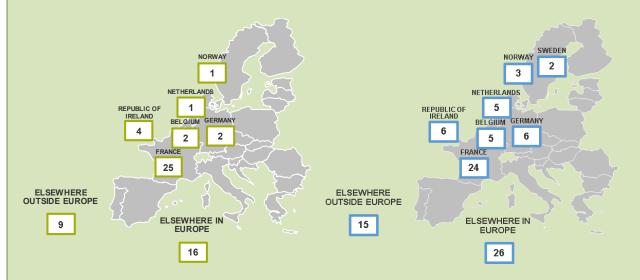


Figure 1. Countries visited by anglers (left, green) and boaters (right, blue). Figures are number of anglers and boaters

#### Year three (2019-2020)

The NNSS continued to use the findings of the survey in ongoing communications work, including redevelopment of the *Be Plant Wise* campaign and planning for *Invasive Species Week* 2020 (the latter postponed due to COVID-19).

## 3. Communications products

**Aim:** refine our *Check, Clean, Dry* communication products (such as signage) and, where necessary, tailor them to different recreational user groups.

**Priority in year one:** review and update *Check, Clean, Dry* materials (using funding from RAPID LIFE).

**Priority in year two:** print new materials and install these at key sites. Develop further materials for canal boats, nature reserves, and water asset managers.

**Priority in year three:** continue to install *Check, Clean, Dry* materials at key sites and develop further materials for nature reserves, events, and tour operators. Review and update the *Be Plant Wise* campaign.

#### **Background**

Following the arrival of the Killer shrimp (*Dikerogammarus villosus*) in September 2010, a freshwater biosecurity campaign *Check, Clean, Dry* was launched in March 2011, based on a similar campaign in New Zealand. A number of awareness-raising materials were developed on an ad-hoc basis to promote the campaign. Key partners of the campaign called for these to be refined before printing further materials, to maximise their impact.

#### **Project achievements**

We have redeveloped the *Check, Clean, Dry* awareness-raising campaign, creating bespoke materials targeting a range of recreational water users, and dissemination to priority sites, including water company assets.

#### Year one (2017-2018)

Using funding obtained through the RAPID LIFE project, the NNSS commissioned two focus groups with anglers and boaters to test existing biosecurity messaging and materials, held in December 2017. Key stakeholders, including the project steering group, and communications experts were also asked to review the campaign.

Based on this feedback, the NNSS updated the campaign messaging and commissioned a designer to refresh existing materials, and develop bespoke materials for different recreational user groups. These were tested in further focus groups held through the survey of key stakeholder and public attitudes and recirculated to key partners.

#### Year two (2018-2019)

New materials were completed and published on the NNSS website:

- Check, Clean, Dry signage / posters, leaflets, stickers, and pop-up banners for key audiences (anglers, boaters, canoeists / kayakers, canal boats, marine anglers and marine boaters), and a poster for water asset managers, available from <a href="http://www.nonnativespecies.org/checkcleandry/help-support-the-campaign.cfm">http://www.nonnativespecies.org/checkcleandry/help-support-the-campaign.cfm</a>. Hard copies are available from the NNSS.
- 400 A3 signs were printed and sent to members of the Check, Clean, Dry Biosecurity Partnership for installation at key sites. Four A2 signs were printed for South East Water. The NNSS arranged to have old signage stock re-covered to reduce costs and prevent them going to waste.
- Updated *Check, Clean, Dry* border biosecurity posters and adverts were used in the border campaign (see above).
- The Angling Trust and Anglian Water developed pre-event Check, Clean, Dry guidance for attendees of angling competitions, in Croatian, Czech, French, Hungarian, Italian, Latvian, Lithuanian, Polish, Romanian, Russian and Ukrainian, available from: https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?pageid=596.



#### Year three (2019-2020)

With help from the Angling Trust and RYA, the NNSS developed the following new *Check, Clean, Dry* materials:

- A sign for game anglers, available here: <a href="https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=2061">https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=2061</a>
- A further pop up banner for inland boating for use by the RYA at member events, available here:

https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=2103

Further *Check, Clean, Dry* materials have been disseminated through partners. 520 fixed signs have been sent out through the project to date and a further 500 signs have been funded and printed by RAPID LIFE and distributed by regional coordinators.

Based on Action 10 of the Angling Pathway Action Plan, the NNSS asked APHA staff to carry out an assessment of current biosecurity measures (e.g. signage in place), and how these could be improved, at sites meeting the following criteria:

- Containing critical invasive aquatic species, quagga mussel (*Dreissena bugensis*) and killer shrimp.
- Where angling takes place.

The NNSS is working with key stakeholders to redevelop the *Be Plant Wise* campaign for gardeners and pond owners, to be relaunched in autumn 2020.



The Be Plant Wise campaign was launched in February 2010, to educate pond and aquarium owners on the impacts of invasive aquatic plants and simple ways to help prevent their spread. Following feedback from stakeholders, the campaign is currently being updated and will be relaunched in autumn 2020.

## 4. Practical biosecurity

**Aim:** provide demonstrations at major sporting events and possibly procure mobile cleaning stations.

**Priority in year one:** identify large events at which biosecurity could be implemented in 2018.

**Priority in year two:** train additional LAGs in running biosecurity at large events, commission LAGs to do this at priority events in 2018.

Priority in year three: commission LAGs to carry out biosecurity at key events in 2019.

#### Background

Large competitions often bring together high numbers of recreational water users (anglers, boaters, paddlers) from across GB, and sometimes further afield. This carries a high risk of new INNS being introduced to the competition location, or spread from the host waterbody to those normally frequented by participants. In order to reduce these risks, biosecurity should be considered in event planning, for example installing temporary wash down stations that participants can use to clean their equipment.

Across GB there are a number of Local Action Groups (LAGs) that carry out work on nonnative species, including practical management, awareness-raising and training. Some are also experienced in implementing biosecurity at competitions and events, and have developed generic biosecurity guidance for event organisers.

#### **Project achievements**

Through the project we have been able to commission LAGs to run biosecurity stations at eight large events. Three further events were planned but cancelled due to COVID-19. LAGs are also developing bespoke biosecurity protocol for angling and paddling events, which will be used to develop training for event managers.

#### Year one (2017-2018)

The group identified a number of priority events taking place during year two of the project at which assistance with biosecurity from LAGs was required.

#### Year two (2018-2019)

The NNSS commissioned the Dee INNS LAG to run a biosecurity / wash down station at the following events, under guidance from British Canoeing:

- HPP Open (1-2 September 2018)
- EURO Kayak polo (8-9 September 2018)
- Sprint Regatta (30-31 March 2019)

Further LAGs were trained in delivering biosecurity at events (see Training, below).

#### Year three (2019-2020)

The NNSS commissioned the Dee INNS Local Action Group (LAG) to run a biosecurity / wash-down station at eight large events in 2019/2020:

#### 2019

- British Canoeing (BC) Sprint Regatta (April 27 - 28)
- BC Sprint Regatta (1-2 June)
- BC Sprint Regatta (29-30 June)
- BC Sprint Regatta (31 Aug -1 Sept)
- Yorkshire Water event

Two suggested angling events were ruled out after consideration by the Angling Trust due to practical issues, these took place along long stretches of canal and no obvious entry / exit points were available.



A wash-down station at a large canoeing event (image: NWWT).



Participants were asked to arrive with clean clothing and equipment, and to wash this before leaving, to prevent the spread of invasive aquatic species (image: NWWT).

#### 2020

- British Canoeing Slalom Paddle Sport (March 21-22) cancelled due to COVID-19
- British Canoeing Rafting Paddle Sport (March 28-29) cancelled due to COVID-19
- British Canoeing Sprint Regatta (April 25-26) cancelled due to COVID-19

The NNSS also commissioned LAGs to develop biosecurity protocol for angling and canoeing events from which a training package will be developed and deployed (delayed due to COVID-19, now expected in autumn 2020).

## 5. Training

**Aim:** deliver training (including development of existing biosecurity e-learning), talks and articles in specialist magazines.

**Priority in year one:** review existing e-learning modules in preparation for development of a universal module for water company staff.

Priority in year two: develop biosecurity e-learning for water companies.

**Priority in year three:** develop a training package, and network of trainers, in biosecurity for asset managers, event organisers and clubs (including event biosecurity).

#### **Background**

Field staff working in and around the aquatic environment are a potential pathway of introduction and spread of invasive aquatic species which can easily be transferred on clothing and equipment.

In 2013 the NNSS, Natural England, Scottish Natural Heritage and Natural Resources Wales developed an online training module in biosecurity for government field staff, based on a module developed by the Environment Agency. Anglian Water have since produced a similar training module to improve biosecurity amongst their staff.

#### **Project achievements**

A subgroup of the steering group consisting of the NNSS, South West Water and Yorkshire Water, led by Anglian Water, has developed a free online biosecurity training module for water company staff.

#### Year one (2017-2018)

The steering group reviewed both training modules (developed by Anglian Water, and the NNSS / Environment Agency) in preparation for development of a universal module for all water company staff in year two.

#### Year two (2018-2019)

The subgroup (Anglian Water – leading the group, the NNSS, South West Water, and Yorkshire Water) developed an e-learning module for water company staff based on the existing Anglian Water module.

The NNSS commissioned the Dee and Cumbria Freshwater INNS LAGs to run one day training sessions for other LAGs on 19 September and 3 October, to increase the number of groups available to run biosecurity / wash down stations at events.

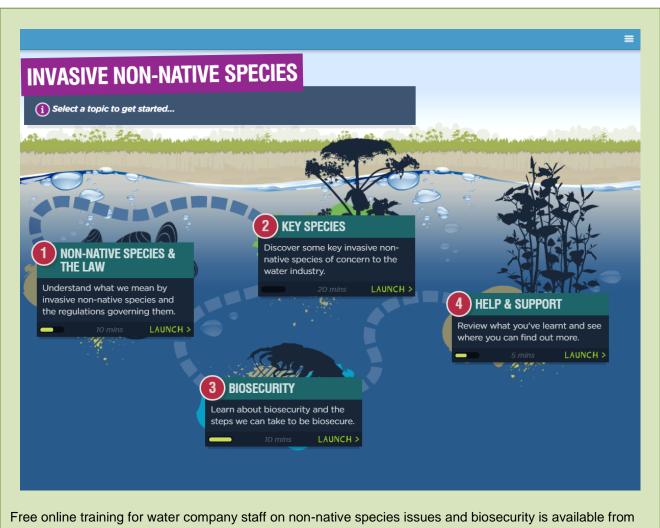
Nine LAGs received the training, along with representatives from British Canoeing, RYA and the Angling Trust.

A further training session was held at the NNSS LAG workshop.

#### Year three (2019-2020)

The NNSS built a webpage for the water company e-learning (available here: http://www.nonnativespecies.org/elearning/course/view.php?id=14) and shared this with the Environment Agency to disseminate it to staff involved with WINEP / water companies.

The NNSS commissioned development of biosecurity protocol (see practical biosecurity, above) which will be adapted into a training package for key events.



www.nonnativespecies.org/elearning.

## 6. European work

**Aim:** work with Belgian and Dutch partners to develop and deploy communication tools that can be used at high risk jump-off sites on mainland Europe.

**Priority in year one:** work with colleagues from across the British Irish Council administrations to expand the reach of *Check, Clean, Dry.* 

**Priority in year two:** begin to work with Belgian and Dutch partners to improve aquatic biosecurity in mainland Europe.

**Priority in year three:** work with Belgian, French and Dutch partners to improve aquatic biosecurity in mainland Europe including developing and displaying materials on the continent.

#### **Background**

Since 2011 government has promoted the *Check, Clean, Dry* campaign across GB. *Check, Clean, Dry* has also been promoted in Northern Ireland, while a separate biosecurity campaign, *Inspect, Remove, Dispose, Clean, Notify* was adopted in the Republic of Ireland.

No aquatic biosecurity campaign is currently promoted in neighbouring countries in mainland Europe (France, Belgium and the Netherlands). A number of invasive aquatic species are present in these countries which have not yet been introduced to GB, and they are popular destinations for recreational water users travelling abroad who could introduce these species on their equipment and clothing. Key stakeholders have called for *Check, Clean, Dry* to be extended to these countries to reduce the risk of introduction of novel invasive aquatic species.

#### **Project achievements**

We have begun to collaborate with neighbouring countries to help reduce the risk of introducing yet more INNS from mainland Europe. *Check, Clean, Dry* has been adopted across England, Guernsey, Isle of Man, Jersey, Northern Ireland, Republic of Ireland, Scotland, Wales, and is being adapted by France, Belgium and the Netherlands.

#### Year one (2017-2018)

In 2017 the NNSS and Defra met with colleagues from across the British Irish Council administrations to begin to expand the reach of *Check, Clean, Dry*.

In March 2018 the campaign was formally adopted across the eight British Irish Council administrations:

- England
- Guernsey
- Isle of Man
- Jersey
- Northern Ireland
- · Republic of Ireland
- Scotland
- Wales

The joint approach to biosecurity was announced by Ministers at the British Irish Council meeting in Dublin on 23 March 2018. To further enhance cooperation, Ministers from Ireland and the UK agreed to pursue a proposal to include a number of Ponto-Caspian species on an EU Regional List under the IAS Regulation, and to strive to bring in countries on the near continent to reduce the risk of invasion of these species.



Ministers announced a joint approach to biosecurity across England, Guernsey, the Isle of Man, Jersey, Northern Ireland, the Republic of Ireland, Scotland, and Wales at the British Irish Council meeting on 23<sup>rd</sup> March 2018.

#### Year two (2018-2019)

The NNSS met with colleagues from Belgium, the Netherlands and the European Commission on 10<sup>th</sup> October to discuss cooperation on aquatic biosecurity. The Dutch and Belgians are keen to adopt the *Check, Clean, Dry* campaign (or something similar) and the NNSS has shared *Check, Clean, Dry* materials to facilitate this. A series of other actions were agreed to help progress this cooperation and expand it to other countries in the future.

#### Year three (2019-2020)

The NNSS, accompanied by the Angling Trust, met with colleagues from Belgium, the Netherlands and Ireland at a meeting hosted by the European Commission on the 27<sup>th</sup> September.

All countries agreed to promote *Check, Clean, Dry* and to attend an annual meeting to update on progress with their aquatic pathways. They all also agreed in principal to try to link the relevant parts of their pathway action plans.

The group agreed to identify a small number of important international competitions/events – 2 - 3 events for each of angling, kayaking, sailing etc. in BE, NL, UK (and FR) to target for increased biosecurity.

The NNSS commissioned the translation of key *Check, Clean, Dry* guidance (for anglers, boaters, paddlers) into French, Dutch and German in preparation for the meeting. Mock up posters are available here:

https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=2107.

Following the meeting, the NNSS shared the editable *Check, Clean, Dry* artwork with the group for adaptation. The French IUCN and French Government are developing adapted *Check, Clean, Dry* posters for use in France.

The NNSS and South West Water attended a cross-border information exchange in Concarneau, France on 16<sup>th</sup> – 17<sup>th</sup> May. The event was organised by the RAPID LIFE project and the French IAS Resource Centre to share knowledge, expertise and ideas around biosecurity between countries and stakeholder groups.

## **Summary of achievements**

Key area	Progress
Border campaign: run a Check, Clean, Dry campaign at the border.	Objective met: Annual Check, Clean, Dry border campaign held in summer 2017, 2018, 2019 and 2020.
Survey: assess the current level of awareness and explore optimal mechanisms to bring about behaviour change.	Objective met: Survey of awareness of non-native species issues of key stakeholders and public in England carried out. Findings of the survey have been used to inform ongoing communications work.
Communications products: refine our communications products (such as signage) and, where necessary, tailor them to different recreational user groups.	Objective met: Check, Clean, Dry campaign updated and bespoke products created for different recreational user groups. Over 520 signs disseminated to priority sites including water company assets. A similar review of the Be Plant Wise campaign is in progress.
Practical biosecurity: provide demonstrations at major sporting events and possibly procure mobile cleaning stations.	Objective met: Biosecurity measures including wash-down stations and biosecurity demonstrations implemented at eleven major sporting events (three further events were postponed due to COVID-19).
<b>Training:</b> deliver training (including development of existing biosecurity e-learning), talks and articles in specialist magazines.	Objective met: Online biosecurity training package developed for water company staff (led by Anglian Water). Local Action Groups trained in event biosecurity, and training materials for event managers in development.
European work: work with Belgian and Dutch partners to develop and deploy communication tools that can be used at high risk jump-off sites on mainland Europe.	Objective partially met: Check, Clean, Dry formally adopted across England, Guernsey, Isle of Man, Jersey, Northern Ireland, Republic of Ireland, Scotland and Wales in 2018. Actions agreed with Belgian and Dutch partners to improve biosecurity across Europe. French Government and IUCN are developing adapted CCD materials.

#### **Ministerial recognition**

The partnership has received ministerial recognition for its work. In October 2017 Lord Gardiner, Parliamentary Under Secretary of State for Rural Affairs and Biosecurity, led a reception at the House of Lords to thank partners for their contributions (see Annex E). In March 2020 Lord Gardiner again thanked partners in the project:

"I am grateful to the eight water companies that have supported the current Check, Clean, Dry Biosecurity Partnership project, which has played such a significant role in helping to prevent new arrivals and stop the spread of invasive species already here."

## **Next steps**

In order to maintain the substantial momentum built by the biosecurity partnership the NNSS has proposed a further work plan for the next five years:

- 1. Border campaign: run an annual six month *Check, Clean, Dry* campaign at the border between March and September to target UK anglers and boaters bringing their equipment back from the Continent and continental anglers/boaters bringing equipment to the UK.
- **2. Communications products:** continue to improve communications work (for *Check, Clean, Dry* and *Be Plant Wise*). Refine our communications products, continuing to develop bespoke materials for key audiences (for example, young water users), and deploy products at optimal locations to influence behaviours.
- **3. Practical biosecurity:** provide demonstrations at key sporting events and possibly procure mobile cleaning stations.
- **4. Training:** continue to deliver biosecurity training (e.g. for water asset managers, event organisers, and clubs) and develop a network of trainers, talks and articles in specialist magazines. Develop further training materials as required.
- **5. European work:** expand the work with Belgian, French and Dutch partners to improve aquatic biosecurity in mainland Europe, targeting key events and the most significant European ports.

# Annex A: Contributions to aquatic biosecurity from the *Check, Clean, Dry* biosecurity partnership

#### Government

Government has spent a minimum of £7.85 million (£714k per annum overall and £949k in each of the last 3 years) on aquatic biosecurity related matters since 2008 when the GB Strategy was launched. This figure does not include government and agency staff time (including on issues such as sales bans etc.) and is broken down as follows.

#### Biological control and other research

Government has spent at least £2.75 million since 2008 on biological control for Japanese knotweed, Himalayan balsam, Australian swamp stonecrop, and floating pennywort. Two of the bio-control agents have been released, the others are in the pipeline. A further £343k was spent on other research related to aquatic invasive species including on crayfish control (£191k), killer shrimp control (£90k), Ponto-Caspians (£37k) and investigating biosecurity practice (£25k).

#### Eradications and long-term control

Government is leading on rapid response eradications to seven aquatic species: water primrose (ongoing), variable-leaved water milfoil (ongoing), topmouth gudgeon (ongoing), American bullfrog (complete), black bullhead (complete), fathead minnow (complete) and African clawed toad (complete). The total cost of these eradications to date has been £1.62 million and the cost of long term control of species like floating pennywort is an additional minimum of £1.65 million.

#### Risk assessments

Government runs a risk analysis mechanism to assess the risk posed by existing and novel species and assess options for management. 48% of the risk assessments carried out to date have been on freshwater and riparian species at a total cost of £518k.

#### Sales ban

In 2014 Government banned the sale of five aquatic plant species - water primrose, parrot's feather, New Zealand pigmyweed, water fern and floating pennywort.

#### Public Awareness

Government has spent £960k developing and running two awareness-raising campaigns, both directed at reducing the spread of invasive aquatic species. This amounts to £90k per annum (most on *Check, Clean, Dry*), coordinated by a post in the NNSS. To date, the *Check, Clean, Dry* campaign has deployed over 3,300 biosecurity signs and distributed

60,000 leaflets, 5,500 posters, 35,000 waterproof stickers across GB and funded permanent exhibits and stands at events.

Be Plant Wise, a campaign aimed at discouraging gardeners from disposing of their aquatic plants in waterways, was launched in 2010. This campaign has seen the distribution of 160,000 leaflets and 1,000 packs, and has been promoted at events such as Chelsea Flower Show and Aqua.

#### **RAPID Life**

RAPID Life, a three-year EU and UK Government funded project on INNS management in freshwater and coastal environments in England, has invested £50k in *Check, Clean, Dry* to help develop, update and disseminate materials.

## Water companies

The following contributions were made by water companies to the project (£405,476 in total):

	Contribution received in FY:				
Water company	2017/18	2018/19	2019/20	Total over project	
South West Water	£15,227	£15,227	£15,227	£45,681	
Southern Water	£18,165	£18,165	£18,165	£54,495	
South East Water	£7,246	£7,246	£7,246	£21,738	
Anglian Water*	£50,000	£0	£0	£50,000	
Essex and Suffolk Water (Northumbrian Water)	£10,000	£5,000	£0	£15,000	
Severn Trent Water	£26,243	£26,243	£26,243	£78,729	
Yorkshire Water	£20,368	£20,368	£20,368	£61,104	
Thames Water	£26,243	£0	£52,486	£78,729	
Total	£173,492	£92,249	£139,735	£405,476	

<sup>\*</sup>Anglian Water made a greater contribution in year one of the project and paid directly for the development of the water company e-learning so have made no contribution in year two / three.

#### **Key partners**

Angling and boating organisations including The Angling Trust, Royal Yachting Association and British Canoeing have been key supporters of *Check, Clean, Dry* since the campaign was launched in 2012. Together they have contributed over £120k to this partnership. Their estimated financial contributions are detailed below.

Note: these figures are likely to be an underestimate as they do not include time contributed by other members of staff within each organisation.

#### **The Angling Trust**

The Angling Trust has been a key supporter of the *Check, Clean, Dry* campaign since its launch. Over the first two years of this project it spent £72.5k on an invasive non-native species manager and resources, helped to disseminate 200 *Check, Clean, Dry* signs, and trained 95 members of staff / coaches / voluntary bailiffs in biosecurity.

Previously it has funded biosecurity stickers and signage for angling clubs and posters for use in airports, provided stand space at events including the CLA Game Fair, funded a PhD assessing angler movements to and from the Continent, and promoted *Check, Clean, Dry* to the angling community through dissemination of over 640 biosecurity signs, information in their communications, and training.

#### **Royal Yachting Association / The Green Blue**

In the first year of the project the RYA spent £38k on The Green Blue (a joint environmental project with British Marine) and materials, and helped to disseminate over 100 *Check, Clean, Dry* signs.

Previously the RYA has funded production of materials including interactive displays to promote *Check, Clean, Dry* at large events, biosecurity stickers for boats, leaflets for the boating community, biosecurity pledge boards and stickers celebrating the fifth anniversary of the campaign. They have disseminated materials including over 130 biosecurity signs to member clubs, and have incorporated *Check, Clean, Dry* into their training and communications.

#### **British Canoeing**

British Canoeing has spent over £10k over the three years of the project, predominantly on staff time and helped to disseminate over 55 *Check, Clean, Dry* signs. They funded biosecurity training for their staff based on the *Check, Clean, Dry* campaign, and produced an awareness-raising materials for canoeists. They disseminate *Check, Clean, Dry* signage to member clubs and have incorporated the campaign into their membership communications.

## Annex B: Total spend during each year of the project

A total of £355,265 was spent over the three years of the project, details below. £50,211 remains and has been allocated for spend in first year of the second phase of the project.

#### Year one

Key area	Expenditure in year one	Cost (inc VAT)
	Design	
	Boating poster	£108
	Angling poster	£36
	Leaflet	£156
	Angling advert (4x)	£240
	Boating advert	£96
	Advertising at ports	
	Printing / installation of posters and leaflets, site rent (2017 campaign)	£23,496
	Printing and installation of five posters at Dover Port (2018 campaign)	£1,134
	Advertising	
Border campaign	Angling Times full page (x3)	£4,140
	Trout Fisherman full page	£1,320
	Trout & Salmon full page	£1,650
	Improve your Coarse Fishing full page	£1,380
	Sailing Today half page	£1,764
	Powerboat & RIB half page	£918
	HTML email to Angling Times database of 16k anglers	£540
	Angling websites	£936
	Printing of additional copies for use in awareness raising	
	Leaflets and posters	£550
	Total (border campaign)	£38,464
Survey	Survey of stakeholder and public attitudes and awareness (additional funding allocated for spend in year two)	£54,000
,	Total (survey)	£54,000
Communications products	No spend (review funded through RAPID LIFE project)	£0
Practical biosecurity	No spend	£0
Training	No spend	£0
European work	No spend	£0
	TOTAL (2017/18)	£92,464

#### Year two

Key area	Expenditure in year two	Cost (inc VAT)
	Design	
	Artwork for border campaign and adverts	£1,152
	Advertising at ports	
	Printing / installation of posters and site rental (2018 campaign)	£15,168
	Printing / installation of posters and site rental (2019 campaign)	£7,488
	Advertising	
	EasyJet on-board magazine full page (x2)	£14,940
	Angling Times full page (x6)	£11,040
	Trout Fisherman full page (x2)	£3,300
Border campaign	Trout & Salmon full page (x2)	£2,640
Campaign	Improve your Coarse Fishing full page	£1,380
	Sailing Today half page (x2)	£2,822
	Powerboat & RIB half page (x2)	£3,240
	HTML email to Angling Times database of 16k anglers (x2)	£540
	Angling websites	£1,872
	Port survey	
	Staff time for planning and carrying out survey	£13,315
	Data on boat movements	£3,775
	Total for border campaign	£82,672
	Survey of stakeholder and public attitudes and awareness	£34,789
Survey	Total for survey	£34,789
	Printing	
	Posters	£3,601
	Leaflets	£1,315
	Signs	£11,543
Communications	Re-covering old signs	£1,392
products	Other (pop up banners, flag, CCD website updates)	£4,332
	Development of new materials	
	Additional artwork	£1,326
	Pre-event guidance for anglers (translation)	£791
	Total for communications products	£24,300
Practical	Local Action Group running biosecurity at three events	£13,822
biosecurity	Total for practical biosecurity	£13,822
Training	Three training sessions for Local Action Groups	£2,374
-	Total for training	£2,374
European work	No spend	£0
-	Total for European work	£0
	TOTAL (2018/19)	£157,957

### Year three

Key area	Expenditure in year three	Cost (inc VAT)
	Design	
	Updates to adverts	£66
	Advertising at ports	
	Printing / installation of posters and site rental (2019 campaign)	£11,934
	Printing / installation of posters and site rental (2020 campaign)	£18,828
	Advertising	
Border	EasyJet on-board magazine full page (2019)	£7,800
campaign	Angling Times full page x6, Trout Fisherman full page x2, Trout & Salmon full page x2, Improve your Coarse Fishing full page x2, HTML email to Angling Times database of 16k anglers, Angling websites (2019)	£18,768
	Sailing Today half page (2019)	£2,822
	Powerboat & RIB half page and social media bundle (2019)	£2,304
	Brittany Ferries on-board magazine full page (2020)	£4,050
	Total for border campaign	£66,572
	Printing	
	Posters	£342
	Leaflets	£476
	Stickers	£998
	Pop up banners	£1,872
Communications	Signs	£1,122
products	Postage	£464
	Development of new materials	
	Additional artwork	£718
	Surveys of key sites	
	Staff time and expenses for survey of key sites for angling	£5,255
	Staff time and expenses for survey of slipways	£12,728
	Total for communications products	£23,975
Practical	Local Action Group running biosecurity at five events	£13,850
biosecurity	Total for practical biosecurity	£13,850
Training	No spend	£0
	Total for training	£0
European work	Translation of CCD materials into French, Dutch and German	£446.76
	Total for European work	£446.76
	TOTAL (2019/20)	£104,844

## All years

Total (2017/18)	£92,464
Total (2018/19)	£157,957
Total (2019/20)	£104,844
TOTAL SPEND OVER PROJECT	£355,265

# Annex C: Examples of *Check, Clean, Dry* border biosecurity materials

Border biosecurity poster for anglers, displayed at key ports in England with links to France and the Netherlands:



Find out more about invasive plants and animals and how you can help to stop the spread at: nonnativespecies.org/checkcleandry







Border biosecurity poster for boaters, displayed at key ports in England with links to France and the Netherlands:



Find out more about invasive plants and animals and how you can help to stop the spread at:

nonnativespecies.org/checkcleandry







Border biosecurity poster for canoeists and kayakers, displayed at key ports in England with links to France and the Netherlands:



Find out more about invasive plants and animals and how you can help to stop the spread at:

nonnativespecies.org/checkcleandry







#### Examples of posters in place at ports:





#### Check, Clean, Dry border biosecurity adverts

Adverts appeared in prominent positions in the following issues:

- EasyJet Traveller magazine (carried on all flights) x2 July and August
- Improve your Coarse Fishing x2 (3, 31 July)
- Trout and Salmon x2 (26 July, August)
- Angling Times x7 (June, 3, 17, 31 July)
- Trout Fisherman x2 (18 July, August)
- Sailing Today x2 (August, Southampton Boat Show Issue)
- Powerboat and RIB x2 (June/July, August/September)

Below are two page spreads (including the adverts) from seven of the issues:

### EasyJet Traveller July 18



#### EasyJet Traveller August 18



## Angling Times (31 July 2018)



## Powerboat and RIB (August / September 2018)



#### Trout and Salmon (autumn 2018)



#### Check, Clean, Dry online advertising

Email to the Angling Times mailing list:



Invasive plants and animals can carry diseases that kill fish, block up waterways and banks, harm the environment, and damage boats. As an angler, you could be spreading them from one waterbody to another without realising, as they can be small and hard to spot so are easily spread on damp equipment and clothing. Once established in a new waterbody they can become unmanageable.

Protect the environment and fishing you love by remembering to *Check, Clean, Dry* to keep your kit free of invasive plants and animals. It's important to do this every time you fish, but particularly if you've been abroad as you could bring back new invasive plants and animals on your kit. Make sure everything is clean and has been dried thoroughly before you fish again at home.

Find out more about invasive plants and animals and how you can help to stop the spread at <a href="https://www.nonnativespecies.org/checkcleandry">www.nonnativespecies.org/checkcleandry</a>



# Annex D: Key findings of the 2018 Stakeholder and public attitudes survey

#### General public (including gardeners)

- Since 2008 there has been a decrease in levels of awareness and understanding of the term 'non-native species' (59% in 2018, 68% in 2008) and no change for 'invasive non-native species' (67% in 2018, 67% in 2008).
- Levels of support for killing INNS have fallen significantly since 2008.
- One in five recalled seeing / hearing publicity about INNS, no change since 2008.
- One in five had come across the term 'biosecurity', but understanding was mixed.
- Only 7% had heard of *Be Plant Wise*.

#### Exotic pet owners

- 5% of the general public own an exotic pet.
- Awareness and understanding of terms is significantly higher than in the general public.
- One in four recalled seeing / hearing about INNS.
- Willingness to support killing INNS that pose a threat to human health is significantly lower than in the general public.

#### **Anglers**

- Awareness and understanding is significantly higher than in the general public and have increased significantly since 2008 (87% in 2018, 78% in 2008).
- One in four recalled seeing / hearing about *Check, Clean, Dry*.
- There has been a significant increase in the number claiming to wash equipment after every use (61% in 2018, 44% in 2008), but also an increase in those claiming to never wash equipment (16% in 2018, 2% in 2008).

#### Boaters

- Levels of awareness and understanding are significantly higher than in the general public (83%).
- One in four recalled seeing / hearing about *Check, Clean, Dry* (especially canoeists / kayakers).
- Fewer (49%) claim to wash equipment after every use than anglers.

# Annex E: Reception to celebrate collaboration on *Check, Clean, Dry*

A reception was held at the House of Lords on Monday 16 October 2017 to celebrate collaboration on the *Check, Clean, Dry* campaign.

Lord Gardiner, Parliamentary Under Secretary of State for Rural Affairs and Biosecurity opened proceedings and thanked partners for their work.

#### Programme

#### 12:30 Speeches

- Lord Gardiner of Kimble, Parliamentary Under Secretary of State for Rural Affairs and Biosecurity
- Niall Moore, Chief Non-native Species Officer
- Chris Gerrard, Anglian Water representing all water companies involved

#### 12:55 Standing buffet

13:45 Assemble in the Old Palace Yard for photographs

#### 14:00 Depart

