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Background

Yorkshire Water and Kelda Group understand that the long-term sustainability of water is fundamental to the long term sustainability of our business. To this end, our vision is 'Taking responsibility for the water environment for good'. Our corporate operations and philosophy are shaped by this through six Strategic Business Objectives, including our commitment to Excellent catchments, rivers and coasts, where we seek to carry out projects that maintain and improve the environment from source to sea.

You, our stakeholders, have told us a key outcome from our performance should be for us to take steps to minimise the effect of our operations on the environment, and our Blueprint for Yorkshire is focused on delivering this. Invasive non-native species (INNS) are a major challenge to be addressed to ensure we can meet our vision and deliver our Blueprint.

INNS are one of the biggest environmental threats worldwide and have a large economic impact – costing the UK economy about £1.8 billion per year (Williams et al., 2010). Although most non-native species in Britain are terrestrial, aquatic invasive species are estimated to cost the UK economy over £100 million per year. These costs are primarily borne by sailors, anglers, water companies and other utilities. To date around 60 non-native freshwater species have become established in Britain; however, in recent decades the rate of arrival has dramatically accelerated. We now see one new species invade every two years. These include the killer shrimp (discovered in 2010), demon shrimp (2012) and quagga mussel (2014) (NNSS, 2016).

INNS pose a very real risk to Yorkshire's environment and wildlife. They can also impact on our ability to provide safe drinking water and return waste water safely to the environment. They can destabilise river banks and exacerbate flooding, cause direct harm to human health, reduce local biodiversity, block pipes and valves, and diminish people's enjoyment of nature.

The Wildlife and Countryside Act (1981, as amended), identifies a number of INNS and places a duty to ensure we do not cause them to grow in the wild (for plants) or escape or be released (for animals).

Scope

Yorkshire Water manages over 70,000 acres of land, as well as over a hundred reservoirs and a multitude of river abstractions, water treatment works and waste water treatment works. Our operations are diverse and include treating water and waste water, managing land for recreation and composting sludge and green waste.

As such, our operations interact with invasive species on numerous levels, as well as being a potential vector to allow or catalyse their spread. This position statement is intended to provide high level direction as to the aims of the company, to ensure operationally specific asset management plans consider biosecurity and the management of INNS.

Aspirations

- For Yorkshire Water to prevent the introduction and spread of INNS from and to our sites
- For Yorkshire Water and key partners, to have the ability to detect and eradicate newly introduced INNS before they become established
- For existing established INNS to be managed at a catchment scale
- For the Company to work with and support regional stakeholders to coordinate strategy and management programmes.

Primary focus

We recognise that our sites and operations do not exist in isolation, and that INNS do not respect ownership boundaries. We are committed to working at a catchment level, with partners, to develop evidence based coordinated plans for Yorkshire's rivers. We do not want our sites to be sources of INNS in areas where other groups are expending effort and time in management programmes. However, we also recognise that we cannot successfully treat our sites on their own, when INNS exist nearby.

There are nearly 2,000 INNS established in the UK, and management and biosecurity has to be proportionate to the risk of their spread to the wild and their potential impacts. As such, our programmes are focused on species deemed to be of high risk to human health, to our assets and services and to biodiversity. They will only focus on species where there is a clear pathway to succeed in the objectives of the programme (be that eradication or management to prevent expansion).

To give a practical example, giant hogweed is a threat to human health and will be prioritised for treatment. Conversely, grey squirrel is an INNS but can be considered naturalised within Yorkshire and would not be a priority for the company.

In accordance with the Great Britain Non-native Invasive Species Strategy, we will place a strong emphasis on prevention of species arrival through biosecurity measures ahead of management of established populations.







Objectives

Objective 1. To put in place appropriate levels of biosecurity for our assets and services

Action 1.1 Identifying key invasion pathways (e.g. water transfer)

Action 1.2 Establishing appropriate levels of biosecurity infrastructure and training for YW staff

Action 1.3 Working with tenants and visitors to introduce appropriate levels of biosecurity education and infrastructure across our estate

Action 1.4 Assuring biosecurity measures are implemented across the governance and decision making processes of Asset Management,

including consideration in standards, specifications, policies and procedures

Action 1.5 Integrating biosecurity best practice within our capital delivery programme

Action 1.6 Supporting applied research projects to ensure our practices are evidence based

Action 1.7 Communicating, learning from and sharing best practice with our tenants and 3rd party rights owners, regional stakeholders and other water companies.

Objective 2 Ensuring we can respond adequately and proportionally to any new incidences of INNS

Action 2.1 Liaise with other water companies, the Environment Agency, Forestry Commission and the Non Native Species Secretariat to keep up to date with recent evidence, publice Alert Species and develop a proportionate response plan

Action 2.2 To undertake risk based monitoring programmes to understand current distribution of INNS across our estate

Action 2.3 To establish an early warning system for staff and interested parties to report INNS through

Objective 3 Long term control, or where feasible, eradication of priority INNS

Action 3.1 Undertake a risk analysis in order to prioritise species and sites

Action 3.2 Establish internal databases to manage and monitor control programmes

Action 3.3 Draw up management plans for key sites

Action 3.4 Run strategic management programmes focused on key species and sites

Action 3.5 Work with other interested parties to coordinate joint control programmes at a catchment scale

Action 3.6 Develop our understanding of future INNS risks associated with our long term business strategy

Objective 4 Working with regional stakeholders to coordinate strategy and management programmes

Action 4.1 Support and work with the Yorkshire Invasive Species Forum to coordinate management and share best practice

Action 4.2 Identify key partners at a catchment scale, to build resilience into our management programmes through enabling upstream treatment of INNS

Action 4.3 Supporting the DEFRA Check Clean Dry campaign at our sites

What are we doing now?

We have now recruited a permeant Biosecurity and INNS advisor to support the company in delivering these objectives.

We are a member of the Yorkshire Invasive Species Forum and provide funding to support its activities. This forum enables coordination of management programmes across many of Yorkshire's rivers, and has since 2014 managed INNS across over 250 km of Yorkshire's rivers, as well as successfully engaging with around 200 other landowners. The Forum, through the Yorkshire Wildlife Trust, has trained volunteers in Japanese Knotweed treatment who have contributed over 33 days to the project.

We are working with the Esk and Coastal Streams Partnership and North York Moors NPA to deliver volunteer training and INNS management in the Esk, Seph and Rye catchments. We are also a member of the Yorkshire Dales and Nidderdale AONB INNS and Biosecurity Steering Group.









We have supported the Yorkshire Floating Pennywort Forum in their successful work treating and eradicating outbreaks, and CABI in their work in trialling biological agents for control of Himalayan Balsam.

We are rolling out management plans across our larger sites, recognising that INNS management is a long term process that must be embedded within the business as usual operations of a site. We undertake treatment of a variety of invasive species across our estate, for example removing rhododendron through SSSI recovery programmes and Himalayan balsam and Japanese Knotweed as part of our Ancient Woodland restoration schemes. We have undertaken surveys across the majority of our reservoirs and critical assets to understand the risk INNS may pose to our operations.

Review of 2019-2020 Targets

This document will be updated annually to summarise progress against the position statement objectives. The below information reflects progress against work undertaken in the 2019-2020 financial year.

Objective 1 targets:

- To continue development of biosecurity training packages to roll out amongst key staff
- To have undertaken post training surveys to assess the effectiveness of the training
- To continue work with tenants and visitors to develop appropriate awareness and implementation of practical biosecurity measures
- To use the identified key pathways by which INNS can spread to produce pathway management plans to reduce the risk they pose
- Understand movement of staff and contractors to build evidence for practical biosecurity requirements

Summary of actions undertaken: Biosecurity training has been developed in collaboration with Anglian and South West Water and the GB Non Native Species Secretariat. This will be rolled out from 2020 across the industry. Using survey data we have identified our assets at high risk from INNS and have begun to liaise with tenants to introduce biosecurity practices for their activities including running workshops for key tenants, and installing biosecurity infrastructure as appropriate. This will be fully developed from 2020. We have integrated standard biosecurity practices into our internal management system, this has included an engineering specification reference and a biosecurity methods statement for capital schemes. We have developed pathway management plans which have become the core component of our 2020-2025 OFWAT Performance Commitment on Biosecurity.

Objective 2 targets:

- To continue development of a longer term proportionate monitoring plan for INNS
- To develop awareness, reporting and management of INNS/ Biosecurity for key YW staff

Summary of actions undertaken: Survey data has highlighted our assets at a substantial risk from INNS. In addition to this we are working in partnership with others to develop new innovative methods of monitoring and are supervising a PhD student investigating the use of eDNA as a tool in this area. Using data and project work we will continue to develop a longer term proportionate monitoring plan. There have been no relevant species alerts issued by the NNSS for distribution, however we are distributing information about INNS that may impact our assets or cause harm to our staff, contractors and the public.

Objective 3 targets:

- To use internal and external data to identify priority areas for INNS management, and where possible support joint control
- To continue development of at least 5 key site INNS management plans



- To continue external projects to improve our knowledge on long-term control and eradication of specific INNS
- To develop a basic framework to initiate the Water Industry National Environment Programme (WINEP) in 2020

Summary of actions undertaken: The current data on our systems has been organised to ensure appropriate use. While we do not have an established system to collect INNS data, we have an internal system to store and map data. We have now developed INNS management plans at a large number of sites, covering over 270 ha in total. We are also working with the Environment Agency to manage Japanese knotweed, giant hogweed and floating pennywort across all the main rivers in Yorkshire. We have developed a strong PR19 business plan by liaising with our regulators and stakeholders to ensure we mitigate the risk of INNS impacting on our operations.

Objective 4 targets:

- To continue to work with and help fund the Yorkshire Invasive Species Forum and other key regional stakeholders
- Support the development of regional and national projects through the RAPID LIFE project

Summary of actions undertaken: We continue to work with the Yorkshire Invasive Species Forum together with other key local groups such as the Yorkshire Dales and Nidderdale AONB Biosecurity and INNS Steering Group. Collaborative work with the University of Hull and Leeds will develop a strong evidence base for change in management and biosecurity practices.

AMP7 (2020-2025) targets

Due to the importance Yorkshire Water places on managing invasive species, we have committed to making Biosecurity one of our OFWAT Performance Commitments during AMP7. As such, it becomes a regulated commitment and details on our targets, monitoring and outcomes now falls within our Annual Performance Report (https://www.yorkshirewater.com/reports/)

References

- Great Britain Invasive Non-native Species Strategy, 2015, DEFRA
- Non-native Species Information Portal, accessed 2016 (http://www.nonnativespecies.org/factsheet/index.cfm)
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