

Explanatory Memorandum to the Prohibition of Keeping or Release of Live Fish (Specified Species) (Wales) Order 2015

This Explanatory Memorandum has been prepared by the Marine and Fisheries Division and is laid before the National Assembly for Wales in conjunction with the above subordinate legislation in accordance with Standing Order 27.1.

Minister's Declaration

In my view this Explanatory Memorandum gives a fair and reasonable view of the expected impact of the Prohibition of Keeping or Release of Live Fish (Specified Species) (Wales) Order 2015. I am satisfied that the benefits outweigh any costs.

Carl Sargeant

Minister for Natural Resources, one of the Welsh Ministers.

28 January 2015

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1. Description

No person may keep or release any live freshwater fish or diadromous species of fish, which is not native to Wales and belongs to a taxonomic order specified in the left hand column of the table in Part 1 of the Schedule, except under the authority of a licence granted by the Welsh Ministers.

2. Matters of special interest to the Constitutional and Legislative Affairs Committee

None.

3. Legislative Background

Section 1(1) of the Import of Live Fish (England and Wales) Act 1980 (1980 Act) enables “the Minister” to make an Order prohibiting (except under a licence) the import into, or the keeping or release (in any part of England and Wales) of live fish, or the live eggs of fish, of a species which is not native to England and Wales and which in the opinion of the Minister might compete with, displace, prey on, or harm the habitat of any freshwater fish, shellfish or salmon in England and Wales. “The Minister” is defined, by section 4 of the 1980 Act as meaning, in relation to Wales, ‘the Secretary of State for Wales’.

However, the functions of “the Minister” under section 1(1) of the 1980 Act are now exercisable by the Welsh Ministers, in relation to Wales, by virtue of the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I 1999/672) and section 162 of and paragraph 30 of Schedule 11 to the Government of Wales Act 2006.

The instrument replaces the Prohibition of Keeping or Release of Live Fish (Specified Species) Order 1998 (“the 1998 Order”) in relation to Wales and is subject to the negative procedure.

Purpose and intended effect of the Legislation

The purpose of this instrument is to provide improved protection against potentially invasive non-native freshwater fish species which are capable of surviving in colder Welsh waters, whilst ensuring the legitimate trade in these non-native fish species continues unaffected.

Non-native fish species pose a significant threat to native species through predation and competition. They have potential impacts on biodiversity of habitats, ecosystems and commercial and recreational fishery waters. A recent report estimated the current cost of all invasive non-native species to the UK economy, at approximately £1.7 billion per year. Freshwater business such as angling sites can also suffer if they have to be closed down in order for an eradication programme to take place. Eradication costs can be significant, for example, in relation to the

eradication of topmouth gudgeon in the two remaining sites in Wales the costs are estimated at £620k (£120k for completion of eradication at Llanelli Millennium Coastal Park (Ashpits Lake) and £500k for the Upper and Lower Lliedi reservoirs, also near Llanelli). There are currently no other known locations of topmouth gudgeon in Wales (the Environment Agency in Wales (as predecessor to the Natural Resources Wales) had already eradicated this species from Sylen Lakes – a commercial, still water fishery, also near Llanelli), however there is always a high risk that illegal movements of fish from affected sites will spread topmouth gudgeon more extensively across Wales.

The risks from non-native fish species has, for many years, been managed by licencing under the Import of Live Fish Act 1980 ("the 1980 Act") and through aquatic animal health rules preventing trade in temperate fish species. However, this changed as a result of the harmonisation of fish health rules under European Commission Directive 2006/88/EC and, consequently, approximately 20,000 non-native fish species capable of surviving in colder British waters can currently be kept in England and Wales. As a result Welsh Government needs to introduce controls to ensure any potentially damaging alien fish species do not become established in waters in Wales.

The 1980 Act provides a vehicle for introducing these necessary controls. The 1998 Order, as amended by the Prohibition of Keeping or Release of Live Fish (Specified Species) (Amendment) (Wales) Order 2003 and regulation 29 of the Alien and Locally Absent Species in Aquaculture (England and Wales) Regulations 2011, prohibits the keeping or release of 47 species of non-native fish without a licence. The proposed Prohibition of Keeping or Release of Live Fish (Specified Species) (Wales) Order 2015 will replace the 1998 Order, as amended, with an improved Order which prohibits the keeping or release, without a licence, of all of the approximately 20,000 non-native fish species. However, we will group these into 24 different taxonomic orders rather than listing individual fish species. This will enable the introduction of a new, more effective, system of regulation that will better protect biodiversity and fisheries against the threats posed by non-native fish, and which will reduce the bureaucratic burden on Welsh Government and industry throughout Wales.

It is intended that all fish species listed which are already established in trade in Wales and those of tropical/sub-tropical origin will be placed on a general licence, permitting their keeping as ornamental fish under appropriate conditions, which will come into force at approximately the same time as the Order. As the new Order will now list non-native freshwater fish at a taxonomical level, any new non-native freshwater fish to be added to the trade can simply be assessed for risk, and then be licenced, if appropriate. Thus there will be no need to change the legislation for each new non-native freshwater fish, and so remove this burden from industry and Welsh Government.

The aim of the policy is to limit the likelihood of the introduction of invasive freshwater fish species into the aquatic environment of Wales. However, it is not possible to quantify the change in probability of introduction of invasive fish resulting from this change in legislation, as it is not known if the costs of eradication of one species are applicable to the eradication of other potential non-native species; and

the geographical scale of any potential spread of non-native species is unknown. However, the Order will allow for a proactive management of non-native freshwater fish species to protect biodiversity whilst still being sufficiently flexible to enable established industries to continue to operate successfully. Also new market opportunities can be exploited without increasing the risks to native species and biodiversity.

This is a specific measure that applies to very specialist sector.

4. Consultation

A consultation exercise was undertaken by Defra on an England and Wales basis from 19 January to 13 April 2010 to seek the views of stakeholders on options relating to the proposal for a new Order made under the Import of live Fish Act 1980 which would establish a comprehensive (and current) list of non-native fish species that might pose a threat to native species.

A total of five responses were received during the original consultation period. Four of the five responses (including the main representative organisations of the affected sectors) explicitly supported this proposal. The fifth respondent broadly supported the need for more control relating to non-native species. Four respondents explicitly recognised the key advantage of the proposed change in requiring temperate (i.e. cold-water) non-native species to be risk assessed prior to their use, thereby reducing the risk of potential invasive new species becoming established. All respondents recognised that the proposal represented an improvement on current arrangements where species have to be specifically listed before any controls can be applied.

Only three of the five responses directly answered the consultation question as to who should bear the costs associated with future risk assessments. Two responses noted that as it is likely that those wishing to import new temperate non-native species would be commercial companies wishing to seek a profit from the enterprise, the industry should bear the cost of risk assessment. One response stated that the cost of risk assessment should be met by Government.

One of the responses expressed some concerns about the impact of the proposed measures on the ornamental trade and stressed the importance of applying controls across all sectors in an even-handed manner.

As a result of the consultation, Defra and the Welsh Government concluded that the industry should finance any full risk assessments of proposed new temperate freshwater species. In some instances, simple pre-screening assessments of selected candidate species may be feasible and previously completed risk assessments might also be available. While this might introduce a financial burden on the industry, this would only apply to new temperate species and is consistent with current arrangements in other industries. This would still allow expansion in the variety of temperate freshwater species where the industry felt there was sufficient demand and suitable species were identified.

The five original respondents were contacted again in May 2013 and asked to reconfirm their views on the proposal. Three of the original respondents confirmed their views remained unchanged (including the main representative bodies of the affected sectors). There was no response from the remaining two respondents. A copy of the consultation documents can be found at:

<http://webarchive.nationalarchives.gov.uk/20100505154859/http://www.defra.gov.uk/corporate/consult/fish-imports/index.htm>

Defra's Fish Health Inspectorate has continued discussions with the respondent who raised concerns relating to the ornamental trade regarding how the new arrangements will be applied practically. The respondent has provided subsequent written confirmation they are content with the proposed approach following the conclusion of these discussions earlier in 2013.

5. Regulatory Impact Assessment (RIA)

Options

Baseline: 'Do nothing' Take no new actions to protect against the introduction and spread of non-native fish

The key measure in controlling the spread of non-native fish has been the Prohibition of Keeping or Release of Live Fish (Specified Species) Order 1998, made under the 1980 Act. The current list of fish controlled under that Order consists of approximately 10 species.

Council Directive 2006/88/EC requires that aquaculture animals and products within EU and third world countries must broadly fulfil similar animal health requirements before they can be moved. This has been enacted in England and Wales law through the Aquatic Animal Health (England and Wales) Regulations 2011 which have made most temperate non-native fish species easily available to trade. This option, where Welsh Government effectively takes no further action to control imports or subsequent keeping of novel non-native species beyond those 100 listed, would be popular with some hobbyists and parts of industry because a greater variety of species would be available to keep and sell with no control or responsibility requirements once they enter Wales other than in respect of release to the wild.

The value of this increased diversity in fish species for the ornamental trade cannot currently be calculated, although this should be viewed against a reported decreasing trend in levels of trade over recent years. It could be speculated that any new species would replace trade in existing species, rather than add to it. The Centre for Environment, Fisheries and Aquaculture Science (Cefas) have reported enquiries from those wishing to experiment with importing new species, who have potentially been freed up by the changes to wider EU Directives and Decisions. Some anglers may also perceive advantages in having novel species available to introduce to fishery sites (experience indicates that introductions are likely to occur, regardless of legal controls, if fish are readily available for sale). However, following Defra's public consultation in 2010, the majority of respondents stated they are in favour of further regulation of invasive non-native species.

This option does not concur with the UK and Welsh Government's current policy position with regard to non-native species. Once established, invasive non-native species are very costly and difficult to eradicate or control. Indeed, removal may well be impractical. Failure to act in the short term could mean that action to eradicate at a later date could be expensive and costly to business and ultimately, ineffective. A recent report estimated the current cost of invasive non-native species to the British economy at approximately £1.7bn per year¹.

For example, top-mouth gudgeon is an extremely invasive non-native fish species that has been introduced to UK waters accidentally but subsequently was available in the ornamental trade for a limited period. It poses considerable health risks to native species, including disease transmission and disruption of natural reproduction. As such, it can have adverse impacts on aquatic ecosystem functions through declining native fish reproduction and consequent changes in food-web structure.

The 'do nothing' option poses a high risk of damage to native species and ecosystems. When taking into account the UK and Welsh Government's policy targets and obligations under national and international frameworks, and given the high cost and likely effectiveness of controlling or eradicating species after their introduction versus the cost of prevention, this is not an effective or robust option.

Option 1: Introduce amendments to the existing 1998 Order on an ad hoc reactive basis, following a risk assessment of all individual non-native fish currently not listed, and any new traded in Wales.

This option involves the creation of new or amending Order(s) under the 1980 Act following the formal risk assessment of species already in trade in Wales. Under this option species would be listed only where they are shown by risk assessment to pose a significant risk to native species or environments, which warranted the placement of specific restriction on their keeping and release in Wales.

This option is broadly the same as the current 1980 Act controls, whereby listed species would be allocated to a number of categories, for which progressively more restrictive controls apply, dependent on the perceived level of risk (or uncertainty).

This approach will require detailed and costly individual risk assessments. The 5000+ species currently available to the ornamental trade would have to be subject to what is termed a rapid risk assessment, with any seen to pose significant risk having to be subject to a further full risk assessment. Full risk assessments would be required for all new species that enter the trade. This option ultimately leaves the Welsh Government with no control over the number of risk assessments that may be required for new species, leading to a reactive approach which would be highly dependent on available resources at any given time. This could lead to serious and lengthy delays for species being cleared for use in the ornamental trade. All costs for risk assessment would fall to the Welsh Government.

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F. Williams, R. Eschen, A. Harris, D. Djeddour, C. Pratt, R.S. Shaw, S. Varia, J. Lamontagne-Godwin, S.E. Thomas, S.T. Murphy. The Economic Cost of Invasive Non-Native Species on Great Britain. CABI 2010.

Another disadvantage of this approach is that, in the absence of evidence to demonstrate that a species poses a risk to native species or habitats, then that species would not be listed. Should an unlisted species then prove to be problematic, an amending order would be required each time to make it subject to appropriate controls. This could potentially lead to numerous legislative amendments, depending on the number of species being traded.

This option also fails to address the risks posed by species before they appear in the trade. As a consequence, there is considerable risk that new species would be imported, and be released, thus becoming established in the wild before any risk assessments could be completed.

In order to prevent such problems, it would be necessary to carry out full risk assessments for around 5000 temperate species, and also a similar number of rapid risk assessments for tropical and sub-tropical species would be required, prior to the introduction of the new Order, which would be prohibitive, both in cost terms and as regards the resources available to carry out this work.

Any type of voluntary agreement in this instance is judged to be insufficient given evidence that new fish have entered the country, despite an existing voluntary agreement being in place with the major trade suppliers.

On balance, this approach would not be cost-effective to pursue. It is a reactive system which relies on the retrospective completion of detailed risk assessments before species are allocated to an appropriate group. Any controls applied, would fail to provide adequate protection and carry the substantial risk that species would become established in the wild before any measures were in place.

As well as being potentially costly to administer, such an approach would also be inconsistent with the precautionary principle as required under international framework agreements. This approach is considered ineffective as the costs and risks would be disproportionate and fundamentally, it would be unable to provide a sufficient level of protection. Also, significantly, following the consultation exercise, the majority of respondents were against this option.

Option 2: Replace the existing 1998 Order to include a schedule of fish at the taxonomic level (rather than at an individual species level). Licences issued will facilitate free trade in tropical and sub-tropical species currently considered to pose a low risk. Licences for new species capable of surviving in Welsh waters will be issued only following an assessment of the risk they pose to native species and habitats.

This option takes a full precautionary approach and proposes the immediate regulation of specified non-native freshwater fish. The amended 1998 Order will prohibit the keeping and release without a licence of specified non-native fish species belonging to 24 different taxonomic Orders. This option is consistent with the GB Non-native Species Strategy and follows the principles used in the European Council Regulation (EC) No. 708/2007, which prohibits the introduction of alien or locally absent species into EU Member States for their use in aquaculture, until they have been subject to an assessment of their risk of invasion and potential harm to

the environment of the receiving Member State. Therefore, it creates a more consistent approach to the keeping and release requirements of non-native fish species. Costs to Government would be reduced, and this also provides a more flexible mechanism by removing the requirement to update legislation at regular intervals, which is in line with the current UK and devolved Governments legislative policy.

Fish will be listed at the taxonomic Order level, without unrealistically having to list them individually, as this provides the most convenient method of ensuring that all relevant species are captured by the legislation, It is proposed to list 24 out of a possible 46 taxonomic order of fish; as opposed to a potential 20,000+ individual species as would be the case under option 1. Other legislative Orders made under the 1980 Act have adopted a similar approach, for example the Order relating to non-native crayfish regulates all species by reference to just three crayfish families (Prohibition of Keeping of Live Fish (Crayfish) Order 1996).

By subjecting all temperate non-native fish species to regulation, there is a requirement for the Welsh Government to immediately address the requirements of established trade and minimise the impact of this regulation wherever possible. The ornamental fish industry worldwide is believed to trade in around 5,500 species at present and significant proportions are tropical species readily available to UK companies. It is recognised that there is an extensive history of the keeping of tropical fish in the England and Wales ornamental trade without such animals becoming established or invasive in natural waters (though they are often discarded into such waters by hobbyists). Therefore, it is appropriate to minimise the impact of the proposed Order on this industry sector.

Defra, on behalf on England and Wales, has instigated a review of the published Ornamental Fish International's list of traded ornamental species to determine which should remain available for unrestricted trade within England and Wales. This review considers any history of benign trade; the geographic origin of the traded species and the native range of related species. It is proposed that the reviewed list of freshwater tropical species would immediately be placed on a general licence permitting their keeping as ornamental animals under appropriate condition. This will enable any new species that the industry wished to introduce into the ornamental trade to be added to the list of species held under a general licence. This is anticipated in minimising any delay in bringing low risk species into the ornamental trade.

Where the initial assessment suggests that the species, by origin, relation or proposed use, may pose a risk of survival in any British natural water, then the potential importer would be required to instigate and fund a more thorough risk assessment for that species should they wish to pursue trade in that species. Following that risk assessment the species may be added to the general licence, and may be subject to individual licence or may be considered not suitable for licensing in the ornamental trade. This process transfers the major costs of risk assessment from the Welsh Government to industry, such that those costs can be directly assessed against the anticipated economic benefits to the industry of their introduction to trade. This will happen if the economic benefits will exceed the costs

of the full risk assessment. However, it will be for industry to decide the most appropriate way forward, based on the principles of market supply and demand.

At present, there is only a small industry holding non-native species live for direct sale as food. It is considered that regulation of any proposed expansion in this trade would follow closely, and that those proposed for the ornamental fish trade, with low risk species being subject to a general licence, and high risk species being prohibited from such trade. Again, the industry would face the cost of risk assessment, relating to the potential risk posed by the escape or release of such fish from this sector, where they wished to establish trade in a species from which there was inadequate existing information about.

In addition, it is proposed that a general licence will be issued to allow the keeping of existing temperate species for ornamental use as per current arrangements; and that the specific licensing provisions under the current 1998 Order would remain unchanged. Licensing policy for any new temperate species proposed for use in any trade would be determined following a full risk assessment of its potential damage to native species and habitats. Industry would be responsible for funding risk assessments for novel species they wish to introduce into England and Wales.

Costs & benefits

Costs

Baseline: 'Do nothing' (Take no new actions to protect against the introduction and spread of non-native fish)

There would be no direct costs from a “do nothing” approach. However, at present, there would be an ongoing risk of possible introduction of new non-native species. These would be potentially damaging to native species and ecosystems and a risk to existing fishing opportunities and biodiversity. There would be costs involved with any subsequent control and eradication programmes resulting from having insufficient controls on the keeping and release of new non-native species. In 2013 a report estimated the cost of invasive non-native species to the British economy at approximately £1.7 billion per year.

Option 1: Introduce amendments to existing 1998 Order on an ad hoc basis following a full risk assessment of any non-native species that have newly entered trade into Wales

Defra considered this approach in the Impact Assessment for The Prohibition of Keeping and Release of Live Fish (Specified Species) (England) Order 2014 but ultimately rejected this option. As a consequence, if this were the chosen approach in Wales all of the costs associated with this option would fall to Welsh Government and businesses in Wales.

There are more than 5,000 species currently utilised by the ornamental trade. These would need to be subject to rapid risk assessment, with an estimated 50 (temperate species) having to be further subject to a full risk assessment. Cefas has advised that approximately 50 species have entered the ornamental trade since the change

in fish health legislation, which would need to be assessed for the initial Order. The estimated costs are £1,800 for a rapid risk assessment for the 5,000 relevant species and £9,000 for a full risk assessment for 50 species, giving a total initial cost of £9.45m.

Should new species be deemed appropriate for inclusion within the 1980 Act regime following risk assessment, their subsequent keeping and/or release would be subject to site-specific licensing requirements. Therefore, potential licensees would have to complete an application form, and may have to have their premises inspected, as part of the process. It is difficult to predict the possible number of such applications; however, based on experience, Cefas estimate that this is unlikely to exceed 5 in any one year.

Based on estimates by Cefas, table 1 (see annex 1) summarises key costs for option 1 (and also for option 2). Assumptions for option 1 to derive cost at the licensing stage are:

- a) 50 new species added to 1980 Act regime, all with immediate trade implications
- b) Species with significant trade will be managed under general rather than individual licences. Former add no significant cost to Government.
- c) Industry will not pursue trade in cold water species for ornamental use, where this requires individual licensing. (This is a rational assumption given history with previous enforcement incidents involving invasive non-native species)
- d) Costs are additional to those for species subject to the existing 1998 Order
- e) Fish Health Inspectorate (FHI) estimates a need for 50 new licences per annum, and a further 100 responses to enquiries about the keeping of listed species.

Should the current legislation be amended to take into account option 1, the Welsh Government and industry would have to potentially deal with thousands of individual species that have been freed-up by changes to wider EU legislation. We have been informed by industry that it is likely there will be considerable interest in expanding trade into new species of non-native species as a result. Therefore, there is the risk that the number of risk assessments required per annum would be far more than already estimated, which would have a significant impact on cost projections.

Under this option, the full cost of risk assessment both for species in the trade and for newly traded species would fall to the Welsh Government. There is also a cost associated with the detection and reporting of the presence of new species in trade, though much of this cost will be reduced by having appropriate agencies report any such occurrences that they become aware of in their routine operation. Dependent on the rate at which species enter trade there will be costs associated with the need to seek further amendments of the 1998 Order. While it is impossible to predict when a new amending Order should be required, it is estimated by Cefas that there have been approximately 50 new ornamental species of concern introduced to Great Britain since 2008, despite the main importers operating a voluntary ban on such imports pending the proposed amendment of the 1998 Order. This equates to an

average of 10 new species per year. Each of these species would require a full risk assessment at a cost of £9,000 each or £90,000 per annum in total.

It is also possible that, since this would operate on a reactive basis, this approach could result in a risk that new species would be imported and could become established in the wild before risk assessments and new legislative Orders made to control their keeping and release could be completed. The costs associated with the control and eradication of non-native species that arrives prior to controls being implemented are difficult to estimate, but are likely to exceed the costs of the risk assessment work required to list species under this Option.

The total direct cost of Option 1 is estimated at £9.45m to create the initial amending Order. There are likely to be ongoing costs in risk assessing newly traded species, which we estimate to be around ten per year, at a cost of £90,000. There will also be an additional cost of £1,800 (see table 1) per annum for licensing and advice services, this is split £1,500 per annum for the Welsh Government and £300 per annum for industry. There is likely to be significant cost in seeking further amendments to the Order to provide keeping controls in respect of those new species for which the risk assessment process has demonstrated significant risk.

Option 2: Revoke and replace the 1998 ILFA Order with a 2015 Order using a list at the taxonomic Order level that prohibits the keeping and release of specified non-native freshwater fish species except under licence until they have been assessed on this risk of invasion and potential to harm the environment.

This is the approach that has been adopted in England. If adopted in Wales then Cefas will undertake the risk assessments and operate the licencing regime on an England and Wales basis. However the power to issue licences will rest with the Welsh Ministers and be undertaken by Welsh Government officials, as is currently the case with the existing system of issuing licences.

The proposed new Order would initially impose very little cost on the industries affected. The species that comprise much of the current ornamental fish trade will be subject to general licences which will enable unimpeded trade. There will be some reduction in the opportunity to introduce novel temperate fish species into the ornamental trade, but it is believed that this will not affect the overall profitability of the sector.

Under this option, there is no requirement for initial assessments similar to option 1. This can be done on an “as needs” basis. Where the industry wishes to introduce a new species into the trade, that species will be subject to an initial risk assessment undertaken by Cefas. Where that initial risk assessment suggests that there is a risk of survival in Great British waters then the potential importer will be required to fund a more thorough risk assessment. Based on scientific advice from Cefas, the number of species requiring an initial risk assessment is not expected to exceed three per annum in England and Wales, with only one requiring the more detailed risk assessment. The cost of the three rapid assessments is estimated to be £5,000 per annum. This cost is currently being incurred by Cefas in undertaking the risk assessments on behalf of England and Wales. Therefore Table 1 shows no

additional cost to Welsh Government for these risk assessments. The cost of the full risk assessments is estimated to be £9,000 per annum. Whether this costs falls to businesses in England or Wales depends upon the identity and location of the importer proposing to introduce a new species into trade.

This option will impose a cost on other industries, where individual licences are required, for example, to keep live fish in the food sector or for educational and research purposes in institutions such as zoos, public aquariums and universities. Costs for this option are present in table 1 (annex 1). These are estimated by Cefas under the following assumptions:

- a) Species with significant trade will be managed under general rather than individual licences. The former add no significant cost to the Welsh Government.
- b) Industry will not pursue trade in cold water species for ornamental use, where this requires individual licensing. (This is considered to be a safe assumption given the history with previous enforcement incidents involving invasive non-native species).
- c) Costs are additional to those for species subject to the existing 1998 Order
- d) Modest growth in “live fish” keeping for the table market, requiring individual licensing.
- e) Research and public aquarium demand for species remains stable.
- f) Fish Health Inspectorate (FHI) estimates 8 licences per annum in Wales and a further 15 responses to enquiries.

Should a new temperate species be approved following risk assessment, their subsequent keeping and/or release will be subject to site-specific licensing requirements (unless the species is covered by the general licence). Potential licensees will have to complete an application form, and may have to have their premises inspected as part of the process.

Benefits

The baseline option could provide some hobbyists and parts of the trade with a greater variety of species to keep and sell. It is not currently possible to put a value on this increased diversity in fish species for the ornamental trade, although this should be viewed against a reported decreasing trend in levels of trade over recent years. It is likely that any new species may replace trade in existing species, rather than add to it.

Benefits for the options are non monetised. The proposed new Order will enable the Welsh Government to control ornamental fish species and will reduce costs to manage the environment. Recent cost examples to control alien species are discussed in previous sections. Benefits for the options are monetised and so net present values are not presented here.

Option 1 provides minimal restriction on the development of new trade, and provides protection for native species through the imposition of controls on non-native species that have been shown by risk assessment to pose a significant risk to native species and environments.

The major drawbacks of option 1 are that it is reactive system which will impose regulatory controls only after trade in a problematic species has already started, and it would not control species for which there was insufficient evidence that they could cause environmental problems in Great Britain. It is also highly dependent on the availability of limited resources at any given time. This Option is the most expensive option for Welsh Government. There are also potential disadvantages from introducing a different approach to England.

Option 2 provides the most comprehensive, practical regulation of the risks posed by non-native freshwater fish. It meets Welsh Government obligations to adopt a precautionary approach to the management of non-native species, without creating obstacles to existing industry. It should, for example, allow the traditional trade in both tropical fish, and long established cold-water species, to continue without any burden being placed on industry, but allow for very rapid control of any problems arising from this industry by simple administrative action, because all the species traded will be subject to the regulatory options available under the amended 1998 order.

A significant advantage of the proposed option is that it provides controls on all species that might pose a risk, yet provides quick and affordable mechanisms for authorising exceptions of those species that will clearly present no risk. Thus, new tropical species could be added to ornamental trade lists by a very simple and quick assessment process, entailing minimal cost. Such a process has operated for a number of years under previous national fish health controls and the modest costs in administering this are not expected to increase substantially as a result of the new measures. This option will allow business immediate access to new, benign species without the need to create the proposed new Order and thereby, improve access to trade.

This option minimises the financial burden on the Welsh Government, and transfers the costs of assessing new business opportunities to the businesses that wish to exploit them. The option also ensures a consistent approach in England and Wales. Businesses will be able to seek the development of new opportunities, both in the ornamental and food sectors, with a risk assessment being used to determine whether such trade should be allowed, and if so under what conditions. Licensing under the proposed new Order provides the flexibility to facilitate reasonable trade while ensuring an appropriate degree of environmental protection.

Competition Assessment

Whilst there are around 6,700 retail outlets in England and Wales that have some involvement with the ornamental fish trade, they are not evenly distributed between the two administrative areas. Therefore whilst it is possible to split the cost between the relative populations this split between England and Wales would not be advisable as the resultant costs would not portray an accurate picture. Of the 6,700 retail outlets, around 950 are wholly dedicated outlets, the remaining being aquatic garden centres and pet shops dealing in a number of domestic species.

In 2004, employment in the sector in England and Wales ranged from 6,610 to 9,940 (these were jobs involved in all stages of industry from importers, producers and

retailers) and total retail turnover ranged from £273m to £474m. The total value of employment ranged from £83m to £248m.) The UK is reported to be the largest importer of ornamental species in the EU with a value of around £16m (based on 2004 figures) (Source: OATA).

Another key source of information has been provided by OATA (Ornamental and Aquatic Trade Association). In 2008, the value of imports was £15.554m for freshwater ornamentals (Source: HMRC); £2.705m for saltwater ornamentals (Source: HMRC) and £2.5m for invertebrates (e.g. corals) (Source: OATA estimate). OATA estimated that the UK production of ornamental fish, mainly coldwater ornamentals, was in the region of £2m in 2008.

The total value of live fish entering trade for England and Wales has been estimated to be approximately £23m with a total retail value ranging from £115m to £460m per annum.

The number of pet shops selling live animals in the country is estimated in the region of 4,000; of these, around 2,000 sell fish. Total employment in pet shops selling live animals has been estimated in the region of 8,000. Employment generated in pet shops selling aquatic dry goods but not fish (e.g. garden centres, hardware stores) has been estimated in the region of 2,000 whilst employment in importers, wholesalers, dry goods manufacturers and distributors is in the region of 2,000. Hence, total employment in the ornamental sector is in the region of 12,000.

The fact that the proposals will have minimal impact on current arrangements will mean that any changes as a result of the proposal being implemented are not likely to have significant impact in the supply or trade of non-native ornamental fish species. The proposals will not impose additional licensing costs (Welsh Government do not charge for issuing licences) or administrative burden for the trade. There will be small increased costs to industry as they will need to fund a full risk assessment estimated at one per year. However, the costs are considered to be appropriate and proportionate in relation to the value of the industry and are equivalent to the costs of testing and imports as covered in other industries.

Traders and suppliers previously had no access to the species that were freed up by the European Union Council Directive 2006/88/EC and the proposal will restrict the number of species available to traders and suppliers in a similar way. The proposal will provide flexibility in that new non-native species could be made available to businesses in the UK, if they are assessed to have a minimal impact on native species and ecosystems.

It is assumed that the proposal will not limit the number or range of suppliers, nor is it expected that the proposal will indirectly limit the number or range of hobbyists. Any increase in the range of species available is unlikely to increase the number of suppliers. Demand for non-native species/ornamentals is assumed to be fairly constant, with any new species made available only likely to lead to a reduction in spending on species currently purchased. The addition of new species is unlikely to increase the average number of pet fish kept (thought to be around 22) or the number of aquaria purchased annually (thought to be around 500,000). New hobbyists are unlikely to take up collecting ornamental species simply because of

new varieties being available. As a result, the spending on non-native fishes/ornamentals is unlikely to increase due to a greater variety of species being available.

It is unlikely that the addition of new species would lead to specialisation or expansion of the sector. The expectation is that any increase in the availability of species would be handled by existing traders and suppliers, with no likelihood of any increase in numbers.

It is not thought that the proposed way forward will limit the ability of suppliers to compete. As the proposal is essentially maintaining the status quo, the ability of traders and suppliers to compete with each other will essentially remain unchanged. There are many thousands of species already available and the proposed measures will not restrict use of new tropical species (assuming these are not subject to other restrictions). Further, as discussed above, the introduction of new species is unlikely to lead to an increase in trade. It is important that any increased availability is balanced against the risks of any new species being released or escaping into the wild and the resultant potential damages to business and ecosystems.

Equally, the proposal is unlikely to reduce suppliers' incentives to compete vigorously." Competition between traders and suppliers is considered to be healthy, and the proposal is not likely to alter that position, nor is the competition situation likely to improve if there was an increase in the availability of species.

Justice Impact

There are no justice Impact issues relating to this legislation.

Conclusion

Having considered the various options outlined above, together with Cefas, the Environment Agency (EA) and the Natural Resources Wales revoking the existing legislative Order and replacing it with a more appropriate one as outlined above represents the most effective option. This would enable Welsh Government to alter the scope of existing controls on the keeping and release of potentially invasive non-native species. It would also provide the ornamental trade with scope to expand into new species with as little regulatory interference as possible, whilst ensuring that biodiversity is given a proportionate and manageable level of protection. As with current 1908 Act measures, the species covered by the new Order would be subject to a licensing policy that reflects their suitability for use across a range of industries, and which places appropriate conditions on the facilities in which they are kept. Following the consultation, this proposal concurs with the preferred option from the majority of respondents. The proposed measures will apply to England and Wales, but will be implemented through separate Statutory Instruments. Defra have already made provision in relation to England (S.I. 2014/143) and will shortly be making amendments to the same to limit its ambit to freshwater fisheries. Scotland implemented their own legislation under the Wildlife and Countryside Act 1981 (Keeping and Release and Notification Requirements) (Scotland) Order 2012.

Annex 1

	Description of Costs	Option 1	Option 2
Risk Assessments	Numbers estimated under each option	50 full RA per annum, 5000 rapid RA for the first year	None this will be carried out by England
Licences	Numbers estimated under each option	5	8
Enquiries	Numbers estimated under each option	10	15
Total Cost to Welsh Government			
Initial cost	Cost to Welsh Government for risk assessments	£9.45m	None
Cost per annum	Cost to Welsh Government for risk assessments	£90,000	None
Advisory costs per annum	0.5 hours each at Cefas for staff	£200	£300
Licensing costs per annum	4 hours for site inspection and 1 hour admin cost	£1,300	£2,000
Total Cost to Business			
Initial cost/License fee		None	None
Cost per annum	Cost to business for risk assessments	None	£9,000
Admin costs per annum	@ £45/hour and 0.25 hours per application	£200	£300
Cost per annum for inspection	@ £20/ hour and 2 hours for staff to accompany enforcement officer for inspection	£100	£150

Note: (1) Unit cost for licences for option 2 is low due to economies of scale as the total number of licences is higher than option 1. (2) Cost based on estimates from Non-native Risk Analysis Panel (NNRAP) Secretariat, Cefas and Environment Agency (EA) in 2013. (3) Labour costs include NI, employer pension contributions and overheads. Estimated labour costs from Cefas and EA are used instead of the ONS Annual Survey of Hours and Earnings (ASHE) as the agencies have experience working in this area and a good idea about costs to this fisheries sub-sector. (4) Site inspection costs at lower hourly rate than administration costs due to wage difference between company owner/office manager and manual site staff.

APPENDIX A

The competition filter test

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some firms substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of businesses/organisation?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No