

**European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)**

**Fourth Report by the United Kingdom
under Article 17**

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

**H91E0 - Alluvial forests with *Alnus glutinosa* and
Fraxinus excelsior (*Alno-Padion*, *Alnion incanae*,
Salicion albae)**

NORTHERN IRELAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, <https://jncc.gov.uk/article17>, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	UK (Northern Ireland information only)
1.2 Habitat code	91E0 - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padío)

2. Maps

2.1 Year or period	2013-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Complete survey or a statistically robust estimate
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	Atlantic (ATL)
3.2 Sources of information	<p>Cooper, A. & McCann, T. (2001). The Northern Ireland Countryside Survey 2000. Environment and Heritage Service, Belfast</p> <p>Cooper, A., McCann, T. and Rogers, D. (2009) Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007. Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 09/06. Belfast. 58 pp.</p> <p>McCann, T., Rogers, D. and Cooper, A. (2009) Northern Ireland Countryside Survey 2007: Field methods and technical manual. Northern Ireland Environment Agency. Northern Ireland Environment Agency, Research and Development Series No 09/07. Belfast.</p> <p>Murray, R., McCann, T. and Cooper, A. (1992). A Land Classification and Landscape Ecological Study of Northern Ireland. Department of the Environment NI and Department of Environmental Studies, University of Ulster, Coleraine.</p> <p>Rodwell, J.S. (1991). British Plant Communities. Volume 1, Woodlands. Cambridge: Cambridge University Press</p> <p>NIEA. Internal Condition Assessment Reports (various sites and years).</p> <p>Rodwell, J.S., Dring, J.C., Averis, A.B.V., Proctor, M.C.F., Malloch, A.J.C., Schaminee, J.H.J & Dargie, T.C.D. 1998. Review of Coverage of the National Vegetation Classification. Lancaster: Unit of Vegetation Science report to the Joint Nature Conservation Committee.</p> <p>Data on aerial Nitrogen deposition taken from Air Pollution Information System website - http://www.apis.ac.uk/</p> <p>NIEA. Internal Survey Reports (various sites and years).</p> <p>Graham, T. (1975). Private Woodland Inventory of Northern Ireland. (1975). Forest Service, Belfast.</p> <p>Forest Service woodland register - data available online https://www.daera-ni.gov.uk/articles/forest-service-woodland-register</p> <p>McCracken, E. 1971. The Irish Woods Since Tudor Times: Their Distribution and Exploitation. Insititute of Irish Studies, Belfast.</p> <p>Rackham, O. 1995 Looking for Ancient Woodland in Ireland in Woods, Trees and Forests in Ireland, pp. 1-12. Pilcher, J.R. and Mac an tSaoir, S. S. (eds). Royal Irish Academy, Dublin.</p> <p>Rodwell, J. & Dring, J. 2001. European significance of British woodland types. English Nature Research Report No. 460 (Volumes 1-2). English Nature,</p>

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

Peterborough.

4. Range

4.1 Surface area (in km ²)	
4.2 Short-term trend Period	
4.3 Short-term trend Direction	Stable (0)
4.4 Short-term trend Magnitude	a) Minimum b) Maximum
4.5 Short-term trend Method used	
4.6 Long-term trend Period	
4.7 Long-term trend Direction	
4.8 Long-term trend Magnitude	a) Minimum b) Maximum
4.9 Long-term trend Method used	
4.10 Favourable reference range	a) Area (km ²) b) Operator c) Unknown No d) Method
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:

4.12 Additional information

5. Area covered by habitat

5.1 Year or period	2013-2018
5.2 Surface area (in km ²)	a) Minimum 2.5 b) Maximum c) Best single value 2.5
5.3 Type of estimate	Minimum
5.4 Surface area Method used	Complete survey or a statistically robust estimate
5.5 Short-term trend Period	2007-2018
5.6 Short-term trend Direction	Increasing (+)
5.7 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
5.8 Short-term trend Method used	Complete survey or a statistically robust estimate
5.9 Long-term trend Period	1994-2018
5.10 Long-term trend Direction	Increasing (+)
5.11 Long-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
5.12 Long-term trend Method used	Complete survey or a statistically robust estimate
5.13 Favourable reference area	a) Area (km ²) b) Operator c) Unknown No d) Method
5.14 Change and reason for change in surface area of range	No change The change is mainly due to:
5.15 Additional information	

6. Structure and functions

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

6.1 Condition of habitat	a) Area in good condition (km ²)	Minimum 0	Maximum 0
	b) Area in not-good condition (km ²)	Minimum 1.687	Maximum 1.687
	c) Area where condition is not known (km ²)	Minimum 0.813	Maximum 0.813
6.2 Condition of habitat Method used	Complete survey or a statistically robust estimate		
6.3 Short-term trend of habitat area in good condition Period	2007-2018		
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)		
6.5 Short-term trend of habitat area in good condition Method used	Complete survey or a statistically robust estimate		
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period?		
6.7 Typical species Method used	No		
6.8 Additional information			

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Waste management practices in agriculture (A24)	M
Other invasive alien species (other than species of Union concern) (I02)	H
Intensive grazing or overgrazing by livestock (A09)	M
Increases or changes in precipitation due to climate change (N03)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	M
Modification of hydrological flow (K04)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Forest management reducing old growth forests (B15)	M
Agricultural activities generating air pollution (A27)	H
Threat	Ranking
Agricultural activities generating air pollution (A27)	H
Waste management practices in agriculture (A24)	M
Other invasive alien species (other than species of Union concern) (I02)	H
Intensive grazing or overgrazing by livestock (A09)	M
Increases or changes in precipitation due to climate change (N03)	H
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	H
Modification of hydrological flow (K04)	M

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Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01) H

Forest management reducing old growth forests (B15) M

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures Measures identified and taken

8.2 Main purpose of the measures taken

Maintain the current range, population and/or habitat for the species

8.3 Location of the measures taken

Both inside and outside Natura 2000

8.4 Response to the measures

Medium-term results (within the next two reporting periods, 2019-2030)

8.5 List of main conservation measures

Management, control or eradication of other invasive alien species (CI03)

Implement climate change adaptation measures (CN02)

Reduce/eliminate air pollution from agricultural activities (CA12)

Adapt mowing, grazing and other equivalent agricultural activities (CA05)

Other measures related to agricultural practices (CA16)

Stop forest management and exploitation practices (CB06)

Reduce impact of multi-purpose hydrological changes (CJ02)

Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land (CA01)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters

- a) Range
- b) Area
- c) Structure and functions

9.2 Additional information

10. Conclusions

10.1. Range

10.2. Area

10.3. Specific structure and functions (incl. typical species)

10.4. Future prospects

10.5 Overall assessment of Conservation Status

10.6 Overall trend in Conservation Status

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

10.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

No change

The change is mainly due to:

b) Overall trend in conservation status

No change

The change is mainly due to:

10.8 Additional information

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/marine region)

a) Minimum

b) Maximum

c) Best single value 1.647

11.2 Type of estimate

Best estimate

11.3 Surface area of the habitat type inside the network Method used

Complete survey or a statistically robust estimate

11.4 Short-term trend of habitat area in good condition within the network Direction

Stable (0)

11.5 Short-term trend of habitat area in good condition within network Method used

Complete survey or a statistically robust estimate

11.6 Additional information

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

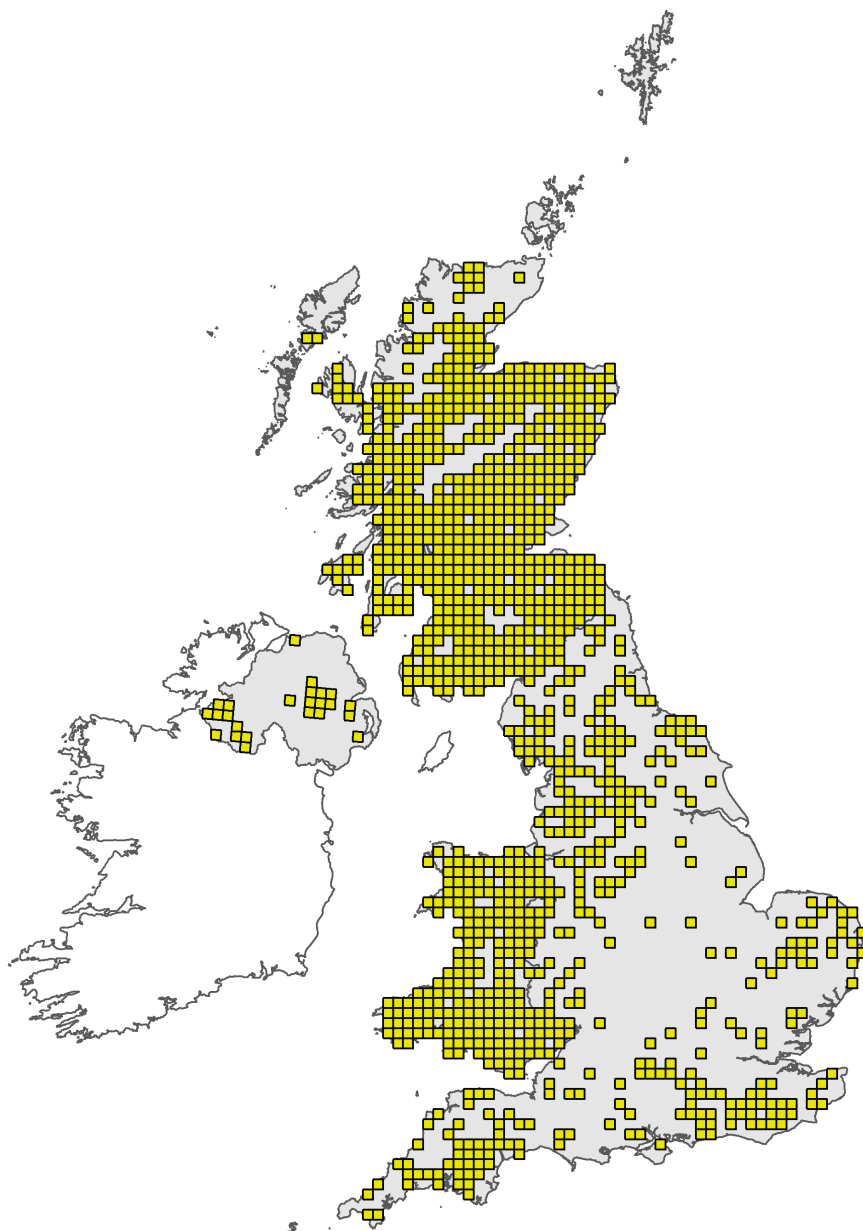


Figure 1: UK distribution map for H91E0 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

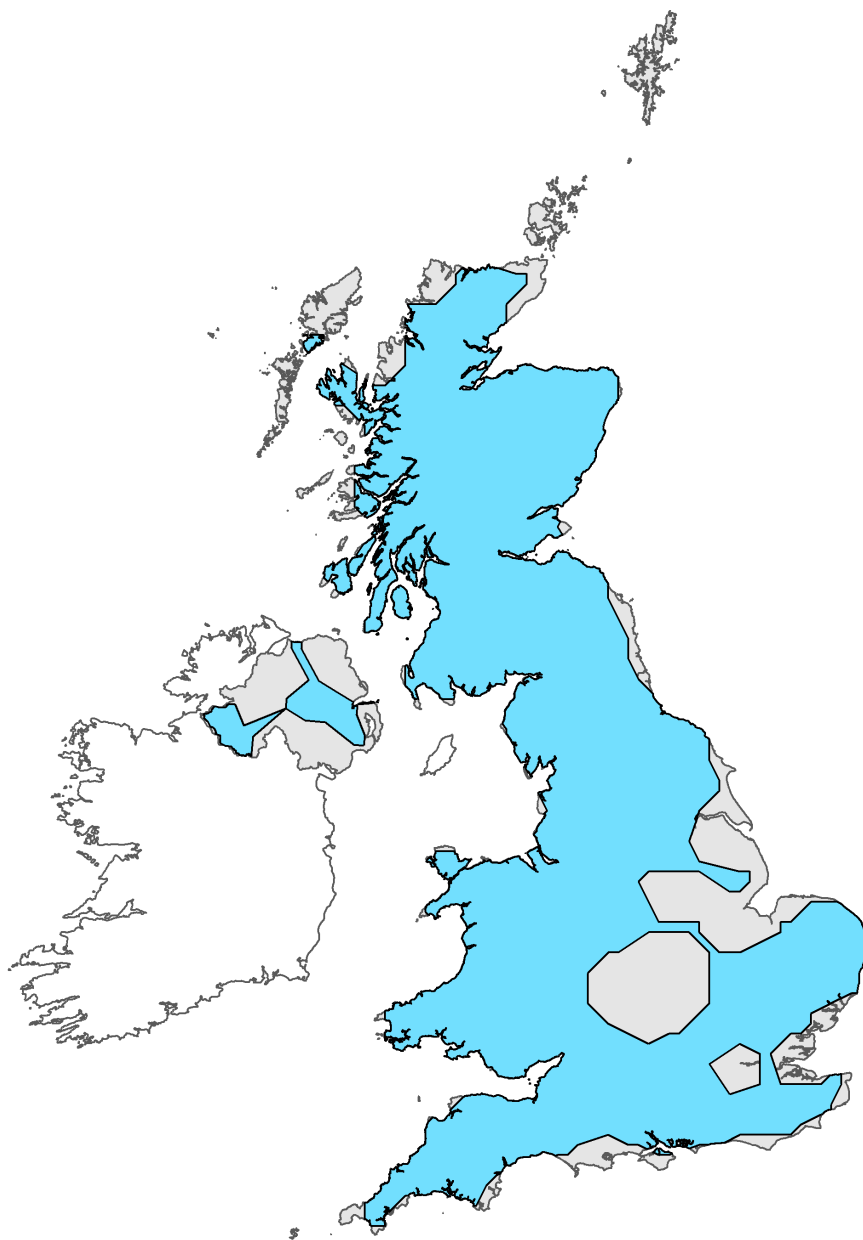


Figure 2: UK range map for H91E0 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 91E0

Field label

Note

2.2 Distribution map

Alnus glutinosa woods are found on floodplains in a range of situations from islands in river channels to low-lying wetlands alongside the channels. Many alder woods are part of a dynamic system, being in some cases part of a successional series of habitats. Their structure and function are best maintained within a larger unit that includes the open communities of earlier successional stages. In other situations the alder woods occur as a stable component within transitions to surrounding dry ground forest. These transitions from wet to drier woodland and from open to more closed communities provide an important part of the ecological variation. This habitat comprises woodland dominated by alder *Alnus glutinosa* and willow *Salix* spp. on flood plains, in a range of situations from islands in river channels to low-lying wetlands alongside the channels. It typically occurs on moderately base-rich, eutrophic soils subject to periodic inundation. On the drier margins of these areas other tree species, notably ash *Fraxinus excelsior* and elm *Ulmus* spp., may become abundant. Riparian trees are excluded from the Annex I type except where these form part of a wider network of alluvial woodland and wetland communities. Many H91E0 forests are dynamic, being part of a successional series of habitats. Their structure and function are best maintained within a larger unit that includes the open communities, mainly fen and swamp, of earlier successional stages. In other situations the alder woods occur as a stable component within transitions to surrounding dry-ground forest, sometimes including other Annex I woodland types. These transitions from wet to drier woodland and from open to more closed communities provide an important facet of ecological variation. The ground flora is correspondingly varied. Some stands are dominated by tall herbs, reeds and sedges, for example common nettle *Urtica dioica*, common reed *Phragmites australis*, greater tussock-sedge *Carex paniculata*, and meadowsweet *Filipendula ulmaria*, while others have lower-growing communities with creeping buttercup *Ranunculus repens*, common marsh bedstraw *Galium palustre*, alternate-leaved golden-saxifrage *Chrysosplenium oppositifolium* and marsh-marigold *Caltha palustris*. Clearance of riverine woodland has eliminated most true alluvial forests in the UK. Many surviving patches, as elsewhere in Europe, are fragmentary and often of recent origin. Residual alder woods frequently occur in association with other woodland types or with other wetland habitats such as fens. In the UK this Annex I habitat falls mainly within the NVC types W2a *Salix cinerea* - *Betula pubescens* - *Phragmites australis* woodland, *Alnus glutinosa* - *Filipendula ulmaria* sub-community, W5a-c *Alnus glutinosa* - *Carex paniculata* woodland, W6a-e *Alnus glutinosa* - *Urtica dioica* woodland and W7a-c *Alnus glutinosa* - *Fraxinus excelsior* - *Lysimachia nemorum* woodland (Rodwell 1991), though not all examples of these types are covered (W7 slope alderwoods in the uplands, small alder stands of W6 along ditches, and possibly some W5 and W2a stands do not qualify). H91E0 covers a part of the Wet Woodland priority habitat type. However, a substantial part of the Wet Woodland priority habitat type is excluded, as it comprises willow scrub (W1, W3), wet birch woodland (W4), and stands of the other types in other situations, for example alderwoods on slopes, along ditches, etc. Some comprises bog woodland, which falls within the H91D0 Annex I type. Northern Ireland contains a relatively high proportion of the UK resource of wet woodland; however, much of this consists of relatively young seral succession around freshwater margins or in cutover bog. SAC selection has been focused on sites where more mature wet woodland has become established in riverine or \riverine-type\ situations and appears to be in a relatively climax situation - Hollymount SAC (within the Quoile River floodplain), Rea's Wood and Farr's Bay SAC (on Lough Neagh but adjacent to the Main and Six Mile Water Rivers) and Upper Lough Erne SAC (with slow flowing waters and narrow channel for much of its extent a riverine-type lake).

2.3 Distribution map; Method used

Map based upon fieldwork by NIEA staff at SACs and ASSIs. During the reporting period, NIEA staff have generally visited SACs and ASSIs.

Habitat code: 91E0 Region code: ATL

Field label

Note

10.6 Overall trend in Conservation Status	see comments under 9.1
4.1 Surface area	Although survey work has covered the larger and better-developed sites with Alluvial forests habitat in NI, the complete resource has not been surveyed. However, there is no reason to believe that there has been a loss in range; certainly no loss in range has been recorded in the habitat on SACs or ASSIs since the condition assessment programme was introduced in 2002.
4.5 Short term trend; Method used	Based upon regular condition monitoring of protected Alluvial Forest sites. These cover the main sites that are known for the habitat in NI.
5.2 Surface area	There are no precise data on the extent of H91E0 in the UK or NI. Although the habitat occurs within the Priority Habitat Wet Woodlands, this takes in a much broader range of wet woodland types than H91E0. Even for wet woodland, there are no accurate figures on extent. A crude estimate places the total between 50,000 - 70,000 ha (JNCC, 2001). The historical large-scale clearance of woodlands in Northern Ireland means that much of the current wet woodland resource is largely secondary and of relatively recent origin (less than 100 years old). Wet woodlands are now a scattered habitat, tending to be small stands 3-5 ha in size (Cabot, 1999). It has been estimated that wet woodland occupies in the region of 2,600 ha in Northern Ireland (EHS unpublished estimates, based upon Graham, 1975). This figure represents something of an underestimate given that the habitat has a scattered distribution and has been under-recorded in the past. For example, a more recent estimate of the extent of \fen carr\ is 3,265 ha (Cooper and McCann, 2002) but this does not include Downy Birch regeneration on cut-over bogs, which is considered to make up a significant percentage of the total wet woodland resource. The N.I. Countryside Survey estimated 1272 ha for the habitat. This was a statistical calculation based on NI Countryside field mapped parcels of W48 Fen Carr habitat selected by spatial location - i.e. association with rivers. The estimate was based on field mapping within 288 25ha sample squares from NI Countryside Survey. The Standard Error of the estimate is 548 ha. This figure is likely to be an overestimate of H91E0; it will include recently developed wet woodland that lacks the structural characteristics of H91E0. However, the Annex 1 habitat is likely to represent a subset of this. Hence, given this and the high standard error associated with the estimate, we propose to continue to use the figure of 250 ha of H91E0 for NI, as published in the 2007 Report, until more detailed analysis can be carried out.
5.6 Short term trend; Direction	Analysis of NI Countryside Survey data showed that there was a slight increase of 1.23 km ² (10.7%) in the Fen Carr habitat between 1998 and 2007. This increase occurred as a result of conversion from reedbeds and fen. Note that although this change was not statistically significant and was based on a small number of sample parcels, we are fairly certain that the increase is a real one. Abandonment of grazing in wetlands has been a consistent trend here in NI, so we believe that the expansion of wet woodland is a genuine change.

5.8 Short term trend; Method used	Trend is estimated from the Northern Ireland Countryside Survey (NICS). This is a sample survey of Northern Ireland vegetation communities used to estimate the extent and distribution of broad habitats such as broad-leaved, semi-natural woodland, including wet woodland. Repeat surveys are used to assess land-use change. The first phase in the process was carried out in 1988 (Murray et al., 1992). The NICS 2000 (Cooper & McCann, 2001) repeated the survey in 1998. NICS 2000 indicates a 9 % increase in the extent of woodland and scrub between 1988 and 1998. This estimated increase of 11,211 ha is a result of tree planting, both broad-leaved and coniferous, and natural regeneration. Within this broad habitat, broadleaved semi-natural woodland (which includes both oakwood and mixed ashwoods, in addition to some wet woodland) increased by 1,249 ha and now covers 1.7 % (23,027 ha) of Northern Ireland (Cooper et al., 2002). \Fen carr\ was estimated to have increased by 14% between 1991 and 1998. H91E0 makes up a significant proportion of this. For \Fen Carr\ associated with rivers, the increase from 1998 to 2007 was 11%. H91E0 is likely to make up an even more significant proportion of this. Hence, it is reasonable to assume that H91E0 has increased in area in both the short and longer term.
5.10 Long term trend; Direction	see 5.6 and 5.8 above.
6.1 Condition of habitat	Recent condition assessment data for the SACs that contain Alluvial forest as a selection feature show that the habitat is currently in favourable condition. Beneficial management regimes have been put in place in some/parts of some sites specifically aimed at maintaining and enhancing the features for which they are designated, and to address some of the threats and pressures listed.
6.2 Condition of habitat; Method used	Condition has been largely assessed from data taken from the most recent condition assessment on SACs and ASSIs that contain Alluvial forests. This represents a relatively high proportion of the overall estimated resource, hence recorded as Complete survey or a statistically robust estimate.

7.1 Characterisation of pressures/ threats

The main pressures and threats to Alluvial forest are similar to other woodland types. These include - Grazing in woodland (including domestic livestock feral goats and deer) which can lead to changes in the woodland structure, impoverished the ground flora, damaged the soil structure, and prevent regeneration; hydrological impacts (i.e. (i) lowering of water-tables through drainage or water abstraction, which results in a transition to drier woodland types; (ii) flood prevention measures, river control and canalisation, which leads to a loss of dynamic disturbance-succession systems and invertebrate communities, and possible reductions in the extent of individual sites); water pollution (i.e. poor water quality arising from eutrophication, industrial effluents or rubbish dumping, which changes the composition of the ground flora and invertebrate communities) and insensitive forestry operations (i.e. clearance and conversion of alluvial forests for other land-uses, cessation of coppice management in some sites, which reduces their wildlife value and may encourage succession to drier types of woodland). Several invasive non-native species have invaded or been introduced into H91E0 Alluvial forests. These include Himalayan balsam *Impatiens glandulifera*; giant hogweed *Heracleum mantegazzianum*, and Japanese knotweed *Fallopia japonica*, with Sycamore often invading the woodland canopy. A number of severe plant diseases have been accidentally introduced into the UK's forests and gardens, and these have increased in number in recent years. Some of the tree and plant pests and pathogens have emerged as significant risks to native woodland in Britain and Ireland - e.g. the fungal-like pathogen, *Phytophthora ramorum*, otherwise known as 'sudden oak death', and *Chalara fraxinea* (*C. fraxinea*), which has caused widespread damage to ash tree populations in continental Europe and has recently been discovered in both Great Britain and Ireland. *Chalara* is particularly destructive of young ash plants, killing them within one growing season of symptoms becoming visible. Older trees can survive initial attacks, but tend to succumb eventually after several seasons of infection. Although Alder is often the dominant canopy species in H91E0, Ash may be a significant component. It is likely that this, and other potential pathogens, may become even more of a threat in the future with climate change. NOTE - This should be reported under IO5 - plant and animal diseases, pathogens and pests. Other important factors include Climate change, which is considered a major threat to the future condition of this and other water-dependent habitats, especially in the long term. Although there is a high degree of uncertainty in defining future climate threats on habitats and species, the potential for increased periods of drought could upset the delicate water balance of this woodland type (similar to Bog Woodland). Aerial deposition of Nitrogen - an assessment of relevant literature and exceedence of critical loads (see A.P.I.S. data) indicates that this habitat is not considered sensitive to nutrient nitrogen deposition or acidification. Given the generally rich natural character of soils in alluvial forests, additional nitrogen input or increased acidity are unlikely to be major problems. However, the assessment did not explicitly consider concentrations of atmospheric pollution from ammonia and oxides of nitrogen, which are considered to have potentially damaging impacts on the bryophyte and lichen communities of wet woodland habitats. Parts of the range of H91E0 are certainly within areas where high levels of these substances occur.

7.2 Sources of information

Threats and pressures assessed from the most recent Common Standards Monitoring of the habitat at SACs, in addition to data from assessments of other woodland types, and the NI Countryside Survey. Threats based upon current pressures and expert judgement on future trends.

8.1 Status of measures	Recent monitoring shows that the habitat within SACs is in unfavourable condition. Management plans for some of the sites which contain the habitat are being prepared, and it is likely that measures will be put in place through several delivery mechanisms - e. g. direct management intervention on those woods that NIEA manages (such as Rea's Wood and Farr's Bay, and Hollymount SACs), the use of NIEA's Environment Fund and Management of Special Sites Scheme (MOSS) to encourage proactive management on other sites, and the Environmental Farming Scheme (EFS) administered by DAERA.
8.2 Main purpose of the measures taken	Measures aimed at reducing damaging impacts from current pressures and future threats. Range and extent are considered to be more or less adequate, so the main purpose of the measures is to improve condition. Hence this is reported as Maintain the structure and functions, including the status of typical species (related to 'Specific structure and functions').
8.3 Location of the measures taken	Management measures have been taken at a number of woodland sites containing the habitat (e.g. control of invasive alien species at Hollymount and Rea's Wood and Farr's Bay SACs). In addition, Rural Development Plan (RDP) funds are being used to develop Conservation Management Plans at other SACs that may contain Alluvial forests. Other areas of Alluvial forest across NI - both within designated sites and outside - may be entered into the Environment Farming Scheme (EFS), which aims to implement sympathetic management.
9.1 Future prospects of parameters	Although range and extent appear Favourable, and positive management measures are in place on designated sites, these potential improvements must be offset against the current unfavourable condition of the habitat, and the potential impacts of climate change. Hence an assessment for Structure and Function Future Prospects of Negative - slight/moderate deterioration.
10.1 Range	In NI, although there have been huge historical woodland losses (as in the rest of Britain and Ireland) - generally to felling and conversion to agriculture - it is not believed that these have had any impact on the range of Alluvial forests in the recent past. Available evidence from survey and monitoring work, suggests that the range has remained stable since 1988 and therefore assessed as Favourable.
10.2 Area	Despite large historical losses in all woodland types, it is likely that the area of Alluvial forests in NI has not declined in extent since the Habitats Directive was adopted. Indeed, evidence from the NI Countryside Survey would suggest that the habitat has increased in extent over that period. Hence extent judged to be Favourable.
10.3 Specific structure and functions	The resource is reported as Unfavourable Bad for structure and function. Within the SAC/ASSI network, the bulk of the habitat is in Unfavourable condition. Outside the protected sites network condition is largely unknown, but likely to be unfavourable.
10.4 Future prospects	Although conservation measures are already in place and further measures likely in the future, the structure and function of the habitat is currently Unfavourable Bad and may well remain so for some time, given the current threats to the habitat. Given further uncertainty concerning the potential impacts from climate change, the Future Prospects are assessed as Unfavourable Bad.
10.5 Overall assessment of Conservation Status	Range and Extent are Favourable, with Structure and Function, and Future Prospects currently Unfavourable Bad. Hence an overall bad assessment.
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	There are 3 SACs for Alluvial Forests in NI. These cover around 160 ha of the habitat. This represents a high proportion of the estimated extent of the habitat in NI.
11.3 Surface area of the habitat type inside the network; Method used	Area estimates for SACs have been refined by field survey. CSM of SACs is undertaken on a regular basis and no recent loss in extent has been recorded.

11.4 Short term trend of habitat area in good condition within the network; Direction	The assessment of stable is based upon recent condition assessment data; the habitat is in unfavourable condition, although management measures have been implemented at the three sites.
11.5 Short term trend of habitat area in good condition within the network; Method used	Assessment based upon recent condition assessment data. Note that the habitat in SACs is currently unfavourable, but management measures to tackle some of the pressures are in place at these sites.