Appendix: SEPA's response to the Ythan Fishery Management Plan 2011-2015

General points

SEPA welcomes the wide ranging aims and objectives outlined in the document. The plan covers many approaches to management which will make an important contribution to maintaining and improving the ecological status of the local water environment, such as valuing native species, maintaining native genetic diversity and targeting management effort using an evidence-based approach. The plan is therefore in broad accord with SEPA's principles, and with the aims of the Water Framework Directive.

The fisheries management plan aligns with a number of SEPA's priorities and we are please to see this acknowledged in several places within the plan. There is scope for further cooperation and data sharing particularly with SEPA's data on pollution, hydrology morphology and alien species.

SEPA is pleased that the River Ythan Trust emphasises the importance of habitat surveys of the catchments within the Ythan area. These surveys can yield information on a range of areas of concern, including major obstructions, invasive non-native species, overgrazing, forestry impacts etc. Habitat surveys would also identify the minor barriers to migration that exist in the area which are probably numerous but easily dealt with. SEPA would be very interested in bringing together morphology and barrier data held by SEPA with that held by River Ythan Trust. Our Restoration Fund (further information at www.sepa.org.uk/water/restoration_fund.aspx) may also be of interest when considering restoration of the catchment.

Partnership working

SEPA recognises that the Ythan Fishery Trust (YFT) is in an early stage of development. In light of this, SEPA welcomes the ambition and wide ranging goals revealed within the plan. To achieve them it will be important to maximise partnership working with other Trusts and organisations with an interest in the sector, including SEPA. This is particularly relevant to the sections of the plan which cover impacts on the freshwater environment and measures to address these. In many respects, these aspects of the plan have much in common with SEPA's own aims, and with the River Basin Management Planning (RBMP) process, making partnership working particularly valuable for both organisations. There is only one direct reference to the RBMP process in the document however. The plan could benefit from identifying where actions to address certain knowledge gaps and issues can be supported by information contained in the RBMP, and consideration could be given to exploring further specific links.

SEPA is keen to work with the RYT to deliver improvements in the water environment and we welcome the mention of the Water Framework Directive and the river basin management planning process in the plan. We would recommend that the key objectives of the Water Framework Directive are explicitly mentioned to highlight the need to improve the water environment but also to protect it from further deterioration.

We are pleased that reference is made to the North East Area Management Plan, and would suggest that the River Ythan Trust and YDSFB could increase their links with the North East Area Advisory Group who produced this plan. We would be

happy to send further information on this group and to meet with a RYT representative.

We would also like to suggest that the fisheries management plan could give increased information on the classification results for the area. This would provide the most up to date picture of the current status of the catchment in WFD terms. It would also enable the actions of the plan to be put into context in terms of their potential contribution to improving water bodies to good status or preventing deterioration. The classification results will be updated each year based on new monitoring data and developments in the classification process.

Further information on river basin management planning, including specific details of waterbodies in the Ythan catchment, can be viewed at: http://www.sepa.org.uk/water/river_basin_planning.aspx, and we would welcome the inclusion of this reference in the plan.

Specific points

***Section 1 Introduction* (Page 6)**

It is important to include a summary of how the monitoring and protection of the natural environment in Scotland is driven legislatively by the Water Framework Directive, and how this Fisheries Management Plan (FMP) fits into this process i.e. by feeding information on the Ythan Salmon Fishery District (YSFD) into the local Area Management Plan (AMP) which aims to address issues involving all stakeholders and prioritise actions and measures to reduce impacts.

Links to SEPA's website (as above) could also be useful to provide the reader with easy access to Ythan catchment information, which reveals the classification status of waterbodies, identified pressures, and the measures and objectives in place or planned to address them.

***Section 2.1 Phase 1 Strategy* (Page 7)**

Whilst the need for comprehensive habitat survey is listed as the first objective in Section 10 (page 33) and said to be an 'important first step' and 'priority', it is not listed here, other than determining 'quality and quantity of juvenile salmonid habitat'. For consistency this would be well placed in the list of bullet points, and towards the top to show its importance.

It could be useful to include specific reference to the way data collected will also inform the river basin management plan (RBMP) process, more specifically the local AMP, as this will be the driver for addressing many impacts that the survey work potentially identifies within the catchment. Links to work that are addressing similar issues would be useful here, so specific reference to identifying and mapping obstacles or non-native species, for example, would be good as this an important factor for SEPA's assessment and classification of waterbodies as well as for effective management of the YSFD.

Section 2.2 (Page 7)
We welcome the reference in section 2.2 to the North East Scotland Area Management Plan. However, we would ask that you refer to it as 'co-ordinated by SEPA', as this will reflect the partnership development of this document. A hyperlink reference could also be provided, as follows:

http://www.sepa.org.uk/water/river_basin_planning/area_advisory_groups/north_east_scotland.aspx

Section 3 Ythan Salmon Fishery District **(Page 7)**

In reference to the sea trout, its Latin name starts with a lower case in the document (‘*salmo trutta’*), whereas it should be *Salmo trutta*.

Section 4.1 Commercial netting **(Page 14)**

‘Figure 1.5’ is not really a figure but a bullet point list. The document would be improved by changing this/removing the caption. (Subsequent figures are actually titled 1.5 upwards so removing this caption wouldn’t affect formatting later on).

Section 4.2 Angling **(Page 15)**

The penultimate paragraph ends in a colon – unsure whether this is for the 17 individual beat proprietors to be listed at a later date, or if should be a full stop.

Section 4.3 Angling statistics **(Page 16&17)**

Reference in the text to Figures 1.6 and 1.7 requires attention. The text on Page 16 refers to them both as Figure 1.6.

There is good detail explaining the rod catch statistics in first few decades however there is little comment for Figure 1.5 (salmon and grilse) past 1987, and for Figure 1.7 (sea trout) past the crash in the late 60s/early 70s.

The Mills *et al* reference on Page 16 lacks a date and is not included in the references section (?).

Section 4.4 Aquaculture, still water fisheries and lochs **(Page 18)**

This contains the first reference to Rainbow trout and so the Latin name should be included here.

No species details are given for the Ythan Valley Fishery – is it known what species are present?

Section 5.1 Fish species present within the Ythan Salmon Fishery District **(Page 19)**

Tables 1, 2 and 3 shown here should be re-titled 2, 3 and 4, as table 1 already occurs on Page 11.

In ‘Table 1‘, ‘*Esox Lucius*’ should be corrected to *Esox lucius*.

Section 5.2 Ythan stock components **(Page 20)**

SEPA supports the view stated here, which highlights the importance of understanding the structuring of fish stocks to allow appropriate management.

Section 5.4.1 Stocking **(Page 20)**

The use of the term 'sea trout fry' may be better put as trout fry from anadromous/migratory parents/origin, as it is not possible to know whether they will become sea trout or resident trout as adults.

SEPA does not support the use of fish sourced from outside of the district for stocking purposes, and would recommend that if fish are stocked they are from broodstock that has been collected from the immediate area into which the progeny are to be stocked.

Section 5.4.5 Stock monitoring **(Page 22)**

SEPA supports stock monitoring work, however it would be useful to highlight the methods that have been used and the findings of the electrofishing programme so far.

Section 5.4.6 Education **(Page 22)**

SEPA is strongly supportive of the YDSFB in its role of using education to increase awareness of the importance of waterbodies and aquatic ecosystems and encourage their protection.

Section 6.1 (Page 23)
The final paragraph states that: *Input of silt from arable farming can be controlled by leaving uncultivated areas (ideally several metres wide) alongside the stream and any feeder tributaries. This also satisfies the requirement for bankside cover. Further, avoiding access by cattle in intensively grazed areas (except for limited drink areas) can prevent damage to bankside vegetation and to banks themselves.*

With regard to the comment, '*except for limited drink areas'*, we suggest that this could be reduced further by providing watering troughs wherever possible.

Section 6.2 Fish access **(Page 23)**

It might be useful to end the penultimate sentence with an explanation that any in-stream works, such as removal or easing of barriers to migration, require consultation and consent from SEPA, and that there is potential for funding through the Restoration fund that SEPA operates.

Section 6.3 Angling and netting exploitation **(Page 23)**

In this assessment section, the impact of netting (one fixed engine fishery and one non-commercial sweep net) is detailed but no comment is given as to its potential impact, or any concern as to the fact that most of the non-operational net fisheries could become operational again at any time. If this is due to knowledge that they won't recommence this could be included to give better assessment of likely risk. If they respond to any increases in returning adult numbers by fishing again, possibly

due to improvement works that the Trust has initiated, this may result in adverse impacts to fish stocks again and wasted efforts by the Trust. What is the Trust's view on the netting operations? Is there any ability to buy-out the nets, as has happened on many other rivers that have suffered declines?

It is understood that this is not necessarily an easy task, however developing closer relationships with netting operators could provide an important source of data from captured fish, particularly re timings and to add to genetic studies.

SEPA is happy to see significant numbers of fish being returned after capture in the Ythan district, and would welcome thoughts on how well this may be increased even further if the voluntary conservation code became mandatory. Or is it felt that people are happier not to be told what to do, and so voluntary code is more effective??

***Section 6.4*: *Water Quality* (Page 24)**

SEPA recommends that you provide more information on the classification of the Ythan catchment here. In summary, the Ythan catchment contains 11 surface water bodies, and only one (the Burn of Sessnie) achieved good ecological status in the River Basin Management Plan (2009) for the Scotland river basin district. The key reasons for water bodies being at less than good status are diffuse source pollution and alterations to beds and banks (morphology).

An extract of data relating to the Ythan catchment and to the Ythan DSFB area can be provided on request. Please contact Eilidh Johnston (Eilidh.johnston@sepa.org.uk).

To provide readers with more detailed information, it would be helpful if you could also provide a hyperlink to our interactive map at gis.sepa.org.uk/rbmp/.

***Section 6.6 Non-native invasive species* (Page 25)**

It would be useful to say from the outset here that the Trust will be developing a Biosecurity Plan to address the issues detailed in this section. In addition, it would be useful to include a reference to The Invasive Non-Native Species Framework Strategy for Great Britain[1].

SEPA supports measures to minimise the spread and where possible eradicate invasive non-native species such as the North American Signal Crayfish. Any survey of invasive non-native species in the catchment is welcome and will be useful to inform classification. SNH is leading on data for invasive non-native species assessments, and we would ask you to forward any information on the location and extent of invasive non-native species to them.

***Section 6.6.1 Non-native fish species* (Page 25)**

The reference to Rainbow trout 'O. mykiss' needs to be italicised.

***Section 6.6.2 American mink* (Page 25 & 26)**

This is the first reference to the Latin name for mink. Ideally this should be put at the first point in the document where mink are mentioned. The abbreviated form of the latin would still be ok here, however it is *M. vison* (*M. vision* in text).

[1] www.nonnativespecies.org

‘Figure 1’ showing mink distribution data should be corrected (to 1.8?) as figures previously run to 1.7.

Section 6.6.3 American signal crayfish **(Page 26)**

For consistency it would be good to include the Latin name for signal crayfish here (*Pacifastacus leniusculus*).

SEPA supports the view that everything possible should be done to prevent them from entering the Ythan district. It would be useful to include the risk of their introduction through transfers of fish into the district, whether for farming, recreational or fishery restocking purposes. This should be included in the Biosecurity Plan also and can hopefully give more weight to managing movements of fish and reducing any imports of fish from outside of the district through highlighting the risks this poses.

Predating is written as ‘pre-dating’ in the text so this needs correcting.

Section 6.6.4 Invasive Non-native plants **(Page 27)**

These are the first references here to the Latin names for the non-native plants so should ideally be written in full.

SEPA holds some data on invasive non-native plants which may be useful for the plan. However as there are plans to survey the length of the Ythan, it is likely that this will pick up much more detail than is available from SEPA’s specific sampling sites.

Section 6.9 Marine mortality **(Page 28)**

Whilst it is recognised that issues at sea fall outside of the Trusts remit, it is important that contact and liaison with bodies involved with research at sea, such as the Atlantic Salmon Trust (AST) and North Atlantic Salmon Conservation Organisation (NASCO) is possible and maintained. Being in touch with and understanding the issues at sea can help with evaluating management actions in freshwater, for example it may show that efforts can be better directed into increasing spawner escapement rather than stocking or increasing available spawning habitat.

With reduced sea survival being such a significant impact this may be better placed earlier in section 6 to highlight this.

Section 7 Insufficient data **(Page 28)**

SEPA agrees that it would be very useful to collect data in the areas where it is currently lacking, particularly into genetic analysis of stocks, finding a way of monitoring numbers of returning adults, tagging work to estimate exploitation rates, and determining how best to monitor juvenile stocks in the large mainstem channel of the Ythan and determine spawning locations of different stock components.

It is understood that at this stage of the Trusts development getting the required plan in place just to monitor salmonids will be demanding, however it is important that acknowledgement is given in the FMP to the need to widen the scope to all species, especially eel and lamprey, and that issues within the YSFD are assessed based on

all species needs, particularly when considering access problems but also in terms of habitat requirements i.e. the lampreys' requirement for slow flowing nursery areas of sandy silt needs to be considered when assessing habitat, rather than just seeing coarse substrate as being the optimal habitat for fish and fine sediments as detrimental.

Section 8 Deforestation and cultural oligotrophication **(Page 29)**

Should the first bullet point end 'margins of the river' rather than 'margins of the woodland'?

Section 9 Climate change **(Page 30)**

Whilst hatcheries may help offset some losses caused by flooding and washout events, useful points to put here should include developing more sustainable land use practices, reverting to a more naturalised environment, and increasing the awareness of the issue to make this all possible. In its education role this is something that the Trust can champion.

Section 10 Ythan salmon fishery district action plan and objectives **(Page 33)**

For consistency and to highlight more its importance, SEPA recommends that Biosecurity Plan production is added to the list of objectives here. It is listed currently in table 'Figure 2.0' with a timescale for production so commenting on the need for it and what it would cover would be sensible here.

Section 10.1 Objective I – Habitat survey **(Page 33)**

SEPA agrees that a comprehensive habitat survey of YSFD is an important priority and first step to helping to understand the catchment better and that the findings will be significant for other areas of work.

Section 10.1.3 **(Page 35)**
SEPA's Restoration Fund (more information at www.sepa.org.uk/water/restoration_fund.aspx) could also provide a source of funding for habitat restoration work.

SEPA would emphasis that riparian clearance work should be carefully planned, as this may have negative implications for the riparian and aquatic zone. Poorly managed and unsustainable management of riparian vegetation can have implications for downgrading the ecological status of water bodies. In addition, there may also be CAR license implications for some restoration work. These works should always be done in consultation with SEPA, who may also be able to provide hydromorphological advice to make sure that sustainable benefits are maximised.

Section 10.2 Objective II – Electro-fishing survey **(Page 35)**

SEPA recognises that time based surveys allow for more widespread and numerous sites to be investigated, and that this is the most practical option for local trusts to take, and indeed may be most suitable method for investigating impacts of obstructions or taking spot samples from wider rivers. We are supportive of what is described in section 10.2.2, that the initial surveys will be superseded by quantitative surveys in carefully chosen locations to provide absolute numbers of fish abundance.

An advantage of this is that this data is more useful on the wider scale, and can be used for classification of the waterbodies by SEPA as part of the WFD process.

Section 10.3.1 Genetics **(Page 37)**

This work is to be encouraged. It may be useful to mention the FASMOP and SALGEN studies here.

Section 10.3.4 Catch returns and scale analysis **(Page 37)**

Increasing the value and usefulness of this data in the ways mentioned would be very beneficial to the work of the Trust. It is hoped that individual proprietors and fisheries will see the benefits of giving their permission to allow this to happen. Increasing the number of scales collected, by training select fishermen to take scales safely and effectively, and possibly as routine for all fishermen with regard to kept fish, would also be a very useful and easy source of data.

Section 10.4 Objective IV- evaluate current stocking programme **(Page 38)**

The use of the term 'sea trout fry' may be better put as trout fry from anadromous/migratory parents/origin, as it is not possible to know whether they will become sea trout or resident trout as adults.

SEPA does not support the use of fish sourced from outside of the district for stocking purposes, and would recommend that if fish are stocked they are from broodstock that has been collected from the immediate area into which the progeny are to be stocked. Therefore any stocking with fish from outside of the YSFD should be stopped as soon as possible.

The practice of stocking has been shown to use a big resource with potentially little gain overall in many situations, so SEPA support moves to revise the stocking policy in light of best practice at the soonest opportunity. The text suggests evaluation is urgently required, however it is timetabled for 2013? It would be useful for stocking to cease so that the baseline surveys to be carried out report on the natural situation rather than enhanced.

Section 10.5 Figure 2.0 Proposed timescale for projects **(Page 41)**

As a table, 'Figure 2.0' would be better labelled as such. For clarity the placement of this table would be better at the end of the summary of objectives (e.g. under section 10.8) rather than in the middle under heading 10.5, as currently objectives I-IV are sensibly headed 10.1, 10.2, 10.3 and 10.4, whilst objectives V, VI and VII fall under headings 10.6, 10.7 and 10.8 respectively.

Section 10.9 Continued management by YDSFB **(Page 43)**

It could be useful to state the DSFB's other roles here, such as being a statutory consultee to developments in the district, particularly in light of increased interest in renewable energy generation which could potentially impact upon fish populations.

Section 10.9.2 Biosecurity **(Page 43)**

Biosecurity should also be part of the Trusts remit, so including it here under the continuing YDSFB management, albeit explaining their role in raising awareness, is potentially confusing. It is understood that the Trust will have limited resources in this early stage of its development and that tasking objectives is therefore a difficult process, however it is considered very important that a Biosecurity Plan is produced for all river catchments.

It would be useful to say here that issues with all non-native species and their control would fall under this Plan, not just fish disease, however it is recommended that this topic of Biosecurity is moved to earlier in the document – it is a very important issue and being placed at the very end of the FMP doesn't help to show this.

Section 12 References **(Page 44)**

Use of such a wealth of references to produce this report is commended, however listing of them in alphabetical order would improve the presentation of this document.