Q & A - Policy on stocking non fertile (triploid) and local origin trout to Scottish Inland Waters

Q1: Why is the policy on stocking triploid fish in open waters necessary?

A: The policy decision was taken after careful consideration of the available scientific evidence, which indicates that interbreeding between wild and farm reared brown trout can lead to a reduction in native brown trout genetic diversity over time. Interbreeding can also lead to poorer survival and lowered reproduction rates in wild populations. Additionally, the ability of the species to adapt to changing environmental conditions could be impacted.

Q2: When will the policy be implemented?

A: The policy will be phased in from January 2016 to 2020 using the timetable below;

Type of water	Stocking history ¹	Implementation date	Arrangements until implementation date
Rivers, streams and canals*	Not stocked since 2008	1 January 2016	Stocking with fertile (diploid) and non-local origin trout will continue to be permissible until the stated
	Stocked since 2008	1 January 2017	implementation date subject to assessment by Marine Scotland Science.
Open still-waters	Not stocked since 2008	1 January 2016	
	Stocked since 2008	1 January 2020	

Stocking history will be determined by introductions recorded and/or consented by Marine Scotland since August 2008.

Open still-water is defined as any still-water that is directly connected to another watercourse and that is not screened to contain all lifecycle stages for the species concerned.

Q3: Why not just have one overall implementation date?

A: It was decided that the policy should be phased in based on :

- the risks to native brown trout
- recognition that the majority of trout stocking occurs in stillwaters which have regularly been stocked. The timetable aims to provide time both for commercial suppliers and other producers to adjust stock production to meet requirements.

Q4: What does 'fully enclosed' stillwater mean?

A: In order to be considered fully enclosed, waters must either have no connection to another watercourse or be screened to contain all potential lifecycle stages for the species to be introduced. If this is not the case waters are defined as 'open'. Stillwaters which have screened inflows and outflows need to be able to contain all lifecycle stages that may be produced, (including ova, alevins and fry) not just larger fish, in order to be considered 'fully enclosed'.

Q5: Can you give an example of 'open' water?

^{*}Rainbow trout may only be stocked in stillwaters

¹ For the species and ploidy applied for.

A: Waters are open if they are directly connected to any other watercourse. Rivers, streams and canals fall into this definition but stillwaters, lochs and ponds are also 'open' waters if they have connections to other watercourses.

Q6: What size of screens would be needed to ensure all lifecycle stages are contained and meet the criteria for a fully enclosed water?

A: Your supplier should be able to advise on the size of screen required. You should keep in mind however that the mesh sizes involved are likely to be very small and may require regular and thorough cleaning to remain effective. It should also be noted that alteration or introduction of screens are likely to require the prior consent of SEPA.

Q7: My trout fishery is a stillwater connected to a stream. The connections to other watercourses are screened but not at a small enough size to contain all life stages. It's been stocked before but not by me. I want to stock farmed diploid brown trout. When will the new policy affect me?

A: This depends on whether the previous tenant or owner has had consent from Marine Scotland to stock since 2008 and what species and ploidy was consented. If previous consent to stock diploid brown trout into the fishery has been granted, then you can continue to stock diploid fish until January 2020 subject to assessment.

Q8: I want to stock a stretch of river and haven't had previous consent to stock. I want to stock farmed diploid brown trout. When will the policy affect me?

A: Marine Scotland will check its records for the location you want to stock. If it's previously been stocked with diploid brown trout you can apply to stock diploid fish again until January 2017. However we may encourage you to use triploid fish if we consider there is a particular benefit or requirement at the stocking site concerned. Alternatively, if no previous consented stocking has occurred, only triploid or local origin diploid fish can be stocked.

Q9: The time of implementation of the triploid only policy is informed by previous stocking of diploid trout. How will Marine Scotland determine the stocking history of waters where an applicant wants to stock diploid trout and there are no records held – can a fishery self- certify it's stocking history?

A: Self certification will not be admissible. Only introductions recorded and/or consented by Marine Scotland since August 2008 will be taken into account in determining when the triploid trout policy is implemented in an individual fishery.

Q10: I don't know whether my fishery is open or fully enclosed – can I still apply to stock it?

Applicants are required to describe the type of stillwater they are stocking within the application form. Marine Scotland then checks this information with information gained from any previous applications/consents for the water in question and against GIS and other mapping tools. Where diploid fish are requested and there is any doubt on whether the water is open or fully enclosed, Marine Scotland will contact the applicant for further details and may carry out a site visit where required.

Q11: Can diploid brown and rainbow trout be stocked into stillwaters which are connected to other watercourses?

A: Diploid trout may still be able to be stocked, subject to assessment by Marine Scotland if:

- the water is screened to contain all lifecycle stages for the species to be introduced, or;
- evidence is supplied that there are scientific or conservation grounds for the introduction
- in the case of brown trout, the fish to be introduced are local origin fish from the same river catchment and in the case of large rivers, from the same sub-catchment
- previous consent to stock diploid brown trout into the fishery has been granted since 2008.
 The interim arrangements in cases of previously stocked waters are detailed in question 2 and allow for stocking of previously stocked stillwaters until January 2020.

Q12: How does a fishery demonstrate that it has no connections to places with "wild" fish

A: Evidence could be supplied that the fishery either has no connections to another watercourse or that it is screened to contain all lifestages of the fish to be introduced and is not liable to flooding. A fishery could decide to commission a survey of connected watercourses to establish whether wild fish are present. If there is any doubt as to the status of the fishery and surrounding fish population, Marine Scotland may carry out a site visit.

Q13: What scientific or conservation grounds might be acceptable for the stocking of diploid trout in open waters?

A: The basis of an application to stock diploid trout on conservation grounds might include:

- That the proposals form part of a properly researched and evidence based re-introduction programme.
- Where evidence is provided that natural re-colonisation is not possible.
- After fish kills or pollution incidents.
- Fish rescue projects.

Q14: In a river which has a long history of stocking brown trout, can it be said to have any indigenous strain which needs protecting?

A: Whilst some interbreeding will have occurred between wild and farmed stock, there is evidence that wild populations can recover from the impact of stocking over a period of time, provided sufficient native genetic make-up remains. In addition, the extent of introgression of farm fish genes into wild populations has been shown to be variable and unpredictable and that the risk posed to wild trout stocks by breeding with domesticated farm fish is not restricted to identifiable rivers or catchments. This being the case, whilst recognising the experience and good intentions behind local stocking operations, the policy must therefore be applied equally, Scotland wide.

Q15: Many small stillwaters, especially natural lochans on moorland in the North and the Isles of Scotland, have historically been stocked periodically on an ad hoc basis, using local wild trout. If owners or tenants can certify those which have been stocked in the past, can these waters continue to be available for further stocking?

A: Yes, stocking with local wild origin trout (or triploid farmed trout) could continue subject to assessment and provided the water is not naturally fishless.

Q16: If fertile brown trout, or their progeny, have been obtained regularly in the past from a wild source population above an impassable waterfall, and used for stocking in carefully controlled stillwaters within the same overall sub-catchment of the main river system, but not above the same waterfall, would this now be banned or require an SNH licence under the Wildlife and Countryside Act?

A: If the species is naturally present in the catchment then a licence from SNH is not required. However, if stocking is to take place, the source of broodstock should always be from as close to the area to be stocked as possible. The type of introduction of fish that may be permissible in smaller catchments may not be the permissible in larger catchments. Each would need to be assessed on an individual basis. A question to ask would be; could these fish have naturally contributed to the population?

Q17: There are no wild rainbow trout. Why do we need to stock triploid fish if there's no chance of interbreeding with wild fish and why can't we stock rainbow trout in a river?

A: Rainbow trout are a non-native species introduced to the UK for angling. Although there is no evidence that rainbow trout have established self-sustaining populations in Scotland, there is no guarantee that they will not successfully breed and establish themselves in future. The majority of rainbow trout already stocked in Scotland are either all female or triploid which is considered to be a contributory factor to their lack of success in breeding so far. In addition they are highly mobile in running water and are capable of adversely impacting other fisheries.

Q18: When will all commercially reared trout in the UK be triploid? Otherwise how can we be sure that the stocked or escaped farmed trout are triploid?

A: The current policy does not set out to ensure that all commercially reared trout are triploid and it is not possible for the Scottish Government to say when all trout will be triploid. Diploid farmed trout will still be able to be stocked into fully enclosed waters or if there are scientific or conservation grounds for doing so. The move to triploid production will be driven by consumer demand, however the vast majority of trout stocking for angling purposes are likely to be triploid by January 2020. The consumer must satisfy themselves that they have sourced a reputable supplier.

Q19: Will my supplier be able to give me triploid stock?

A: Fish suppliers in Scotland are aware of the change to policy on stocking triploid trout and the likelihood of increased demand for triploid fish. A key reason for the phasing in of the policy over 4 years from 2016 to 2020 is to provide suppliers with the necessary time for adjustment of triploid stock production to meet demand.

Q20: Which fish farmers can supply triploid stock in our part of Scotland?

A: We are not in a position to be able to provide a list of triploid trout suppliers.

Q21: Where can a fishery gain further information and guidance on how the current policy on triploid brown trout will affect them?

A: Potential applicants should read both the <u>guidance notes</u> which accompany the <u>stocking</u> <u>application form</u> and the <u>Policy on Introduction of Fish to Scottish Inland waters</u> prior to applying. If further guidance is required applicants can contact Marine Scotland Science, Freshwater Fisheries Licencing Team on 01224 294400 or at <u>mssffintroductions@gov.scot</u> or by post at:

Freshwater	Fisheries	Introductions	&	Licensing	Team
------------	-----------	---------------	---	-----------	------

MSS Freshwater Laboratory

Faskally

Pitlochry

PH16 5LB