AGENDA ITEM 6

APPENDIX 1

2014/00232/DET

H R A REPORT

Cairngorms National Park Authority

Habitats Regulations Assessment (projects)- Consultation Draft:

Planning Application No: **2014/0232/DET**

The development is for the New Processing building (including additional distillery facilities) replacement bio plant, alterations to evaporator and associated plant and landscaping at Glenlivet distillery, Glenlivet, Ballindalloch, AB37 9DD.

Date 4th December 2014

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Introduction

This is a record of the assessment under regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) for the planning application 2013/0119/DET made by Chivas Bros Ltd. The development is for the The development is for the New Processing building (including additional distillery facilities) replacement bio plant, alterations to evaporator and associated plant and landscaping at Glenlivet distillery, Glenlivet, Ballindalloch, AB37 9DD.

Methodology

There is no prescribed methodology within Scotland for HRAs for projects. The CNPA has based its methodology on those prepared by D Tyldesley Associates for the Welsh Assembly in conjunction with guidance from the EU. We have derived a 10 stage process, from the initial decision to assess a project to section 49 derogation procedures, though these are not needed in this case.

Screening

The screening exercise looks at which Natura sites may be affected by the development. It then considers what effects there may be and if they are a 'likely significant effect' (LSE). This showed that there were LSEs on one Natura site:

- River Spey

Lastly the screening considered the possible combination of effects between the proposal and other plans and projects.

Appropriate Assessment

The Appropriate Assessment considered in more detail the nature of the effects identified in the screening process. Its purpose is to determine if there are any adverse effects upon the conservation objectives for the Natura sites and then to see if there was an adverse effect upon the integrity of any of these sites.

Summary of effects

- There will be no adverse effect on species or habitat integrity if mitigation measures are implemented accordingly.

Summary of mitigation measures

- A Construction Environmental Management Plan (CEMP) is required to include the Pollution Prevention Plan, Construction Method Statement and recommendations from the Environmental Statement this will address pollution risk and species and habitat protection during the construction and operational phase and must be adhered to;
- Pre-construction checks for otter are required;

- Otter mitigation is required to prevent disturbance during the construction phase; and
- Limits set by SEPA under the CAR licence for abstraction and discharge must be adhered to, to prevent negative impacts on site integrity.

Summary of residual effects for other HRAs

- There are no residual effects from other HRA's in the wider Spey catchment

Conclusion

The assessment shows that, with the additional mitigation measures, there is no likely significant effect from the proposed development upon the qualifying features or the conservation objectives for: River Spey SAC. We conclude therefore that there is not an adverse effect upon the integrity of any Natura site.

Section One

Introduction

This is a record of the assessment under regulation 48 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) for the planning application Chivas Bros Ltd 2014/0232/DET. These regulations are otherwise known as "the habitat regulations". It is the purpose of this assessment to inform the decision making body (the CNPA) on the effects of the above development upon the relevant Natura sites to allow them to determine the application in accordance with the European Habitats Directive 92/43/EEC.

European Directive 92/43/EEC is transposed into law in Scotland by the habitat regulations. This requires that plans and projects considered by competent authorities that could have a likely significant effect on a Natura site, should be subject to an assessment of their potential impacts upon the site. Regulation 48 directs that:

"48.-(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which –
(a) is likely to have a significant effect on a European site in Great Britain (either alone or in combination with other plans or projects), and
(b) is not directly connected with or necessary to the management of the site, shall make an appropriate assessment of the implications for the site in view of that site's conservation objectives."

It further states that:

"48 - (5) In the light of the conclusions of the assessment, and subject to regulation 49, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site."

The Cairngorms National Park Authority, as the determining and therefore competent authority, is therefore required in law to undertake this assessment in order to comply with these regulations.

Within the Habitats and Birds Directives there are two categories of protected sites, both of which are found within the Cairngorms National Park. In addition, in Scotland, sites designated for protection under the Ramsar Convention (1971) are also Natura sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes. Sites put forward for designation under Natura (provisional sites) are also fully protected until the time when the designation is either confirmed or refused. The types of site considered for this appraisal are therefore:

- Special Area of Conservation (SAC and pSAC) – a European designation which protects natural habitats and wild flora and fauna other than birds;
- Special Protection Area (SPA and pSPA) – a European designation which protects wild birds; and

- Ramsar Site –Sites designated under the Ramsar Convention 1971 which protects wetlands

This process of assessment is known formally as a Habitats Regulations Assessment (HRA). This is not to be confused with an Appropriate Assessment (AA), which is one component of the process of the HRA.

Background to the assessment

The proposed development which is the subject of this assessment is for planning permission for a scheme which includes:

- A new process building to house the principal distillery activities and including malt silos, mash houses, tun rooms and stillhouses;
- A replacement distillery effluent treatment plant (bioplant) to be constructed on land adjacent to the existing bioplant and next to the River Livet, approximately 500m south east of the main distillery site;
- Demolition of the existing bioplant (once the replacement facility is constructed and operational) and demolition of a distillery warehouse and small agricultural shed at the northern end of the site;
- An underground cooling water pipe between the distillery and the river (via the bioplant) to follow the route of existing effluent and cooling water pipelines;
- Three new drainage detention ponds to provide additional capacity for surface water drainage management on the site associated with the new building and hard standing areas and roads; and
- Landscape screening of the new process building and tank farm using material arising from excavation of the platform for the new process building and new tree planting.

There are some key elements of the scheme that have the potential to impact on the River Spey SAC these include:

- The expanded distillery operation would result in an increase in the daily quantity of effluent to the river (no change to the proposed location of the bioplant effluent discharge point into the River Livet (NGR NJ 203288) or to the existing discharge pipe which would be connected to the new bioplant;
- A new submerged cooling water discharge pipe would be constructed in the River Livet close to the current water abstraction point at NGR NJ 203287. This would involve some in-river works to lay and secure the pipe under the river bed;
- The existing cooling water abstraction would be upgraded with a new intake secured to the river bed at NJ203287 and a replacement pipe under the river bed from the intake to the cooling water system;
- There would be an increase in daily water abstraction quantity from the river however the quantity of returned water flow to the river would only be slightly less than current;
- A reduction in the volume of cooling water discharged via the existing cooling water outfall from the minor watercourse which drains from the northern part of the distillery to the River Livet approx. 600m downstream of the bioplant (NJ197293); and
- The existing cooling water discharge point will be upgraded.

Further detail on the proposals for water abstraction/discharge and effluent discharge are presented in Chapter 7, Water Quality & Drainage of the Project Environmental Statement . Annex B provides details of the engineering works required within the water environment for the cooling water abstraction and discharge pipes and also a draft method statement for construction of these works. Further information on the proposed mitigation is provided in the Environmental Statement Chapter 9 (Ecology & Biodiversity). The document 'The Glenlivet distillery Expansion River Spey SAC: Information to inform and appropriate assessment (Natural capital, 2014) also provides supporting information for the HRA.

The principal documents which have been taken into account for this assessment are:

- Planning application forms;
- Environmental Statement Chapter 5 Land Use;
- Environmental Statement Chapter 7 Water Quality & Drainage;
- Environmental Statement Chapter 9 Ecology & Nature Conservation;
- Drainage impact assessment and Suds strategy;
- Abstraction and discharge statement;
- Site Plan;
- SEPA response;
- SNH Natura response;
- Spey Fishery Board-River Livet Salmonid & Lamprey Habitat Survey;
- Ecology Report;
- Surface Water Management Plan;
- Proposed Abstraction Point;
- Existing Abstraction Point;
- Natural Capital Ltd (2014) River Spey SAC: Information to inform an appropriate assessment; and
- CNPA Natural Heritage response.

Section Two

Methodology

There is no prescribed method for a Habitats Regulations Assessment. The CNPA has therefore consulted the guidelines prepared by David Tyldesley and Associates for the Welsh Assembly. These are contained within TAN 5 'Nature conservation and planning' and, where necessary, have been adapted for the situation in Scotland. In addition EU guidelines have also been consulted in this process (see references for details).

Table 1. Stages of Assessment

Stages of Assessment	
Stage 1	Decide whether proposal is subject to HRA

Stage 2	Identify Natura Sites that should be considered and gather information about the Natura Sites
Stage 3	Consultation on the method and scope of the appraisal with SNH and others. Request additional information from applicant if required.
Stage 4	Screening the proposal for likely significant effects on Natura sites including mitigation measures included within the proposal
Stage 5	Screen for "in combination effects" with other plans or projects
Stage 6	Appropriate Assessment to determine effect upon conservation objectives. Preliminary conclusion about adverse effect upon the integrity of any site.
Stage 7	Consultation with SNH (and others if considered appropriate)
Stage 8	Apply additional mitigation measures, if required, via conditions or agreements to ensure that there is no adverse effect on site integrity
Stage 9	Conclusion on Integrity test
Stage 10	Regulation 49 derogation procedures. This only applies if adverse effects remain and Competent Authority still wishes to approve the application

Further details of the methodology applied during screening and appropriate assessment are given in the relevant sections.

Section Three

Stages 1-5 describing the Natura sites and Screening

Stage 1: The development proposal and the decision to screen

The proposal is in a Natura sites and is within the definition of a project under Regulation 54 of the Natura regulations.

Regulation 54(2) states that:

"Regulations 48 and 49 (requirement to consider effect on European site) apply, in Scotland, in relation to–

(a) granting planning permission on an application under Part III of the Town and Country Planning (Scotland) Act 1972."

The proposed development is not wholly concerned with the necessary management of a European site for nature conservation and requires planning permission and so the plans must be subject to assessment under the terms of Directive 92/43/EEC.

Stages 2: Identification of Natura Sites and gathering their details

An assessment of all possible sites affected by the proposed development has been undertaken. This has considered any possible outcomes of the development together with any conceivable effect. The list below is those sites that have been taken forward to screening for likely significant effects. See Appendix 1 for details on each site and its qualifying features.

Apart from the River Spey SAC, there are no Natura sites which could be impacted on by the proposal but there are other designated sites in the area.

National Designations

- Lower Strathavon Woodlands is a Site of Special Scientific Interest (SSSI) designated for wet woodlands, upland oak and birch woodlands. The site is some 1.7km north west of the distillery.
- Bochel Wood SSSI located 4km south east from the distillery site boundary is also designated for its upland birch woodlands.

Local Designations

- Site of Interest to Natural Science (SINS) Carn Liath (now replaced by Local Nature Conservation Sites). SEPA advise that impacts on Carn Liath are unlikely unless increased abstraction or drainage exacerbate hydrological movements and change wetness. This site is especially sensitive at NJ195284 where ponds with wet areas are present, the site overlooks the Glenlivet Distillery.

Special Area of Conservation (SAC)

- River Spey

Stage 3: Discussions on the method and scope of the appraisal and requests for additional information

Advice has been sought from SNH and SEPA relating to abstractions and discharges on the qualifying features and from RSPB with respect to mitigation options. The applicant held a meeting on the 16th September to provide HRA information which involved representatives from CNPA, SEPA, Spey Foundation and SNH.

Summary of Advice

SNH

SNH advise that 'This proposal could be progressed with appropriate mitigation. However, because it could affect internationally important natural heritage interests, we object to this proposal unless it is made subject to conditions so that the works are done strictly in accordance with the mitigation detailed below and presented in the applicant's submissions. We would advise that the proposal is a likely to have a significant effect on all four species from indirect impacts to freshwater pearl mussel and Sea Lamprey and direct and indirect impacts on Atlantic Salmon and Otter. '

SEPA

The applicant needs to be able to meet the environmental standards required to enable SEPA to grant CAR licences for the abstraction of water and discharge of effluent (Cooling water and bioplant effluent water) As of 2nd December 2014 SEPA were still in the process of modelling the impacts of water quality and quantity and awaiting results for impacts from copper. However it is anticipated that the results will confirm that there would be no effect on the R. Spey SAC. Water quantity assessments indicate there would be no effect on the River Spey SAC. The applicant has been in constant consultation with SEPA to ensure abstraction and discharges meet the required standards.

RSPB

RSPB have been consulted on the wader interest of the application site and surrounding area. They have provided guidance on the development of compensatory habitat which will benefit wader species.

Spey Foundation

The Spey Foundation conducted a Salmonid and Sea Lamprey survey in the River Livet, recommendations from this report included riparian planting to reduce water temperature levels and fencing to control cattle access to the river and its banks to reduce pollution.

Stage 4: Screening the proposal for likely significant effects

The test in regulation 48 is whether the proposal is likely to have a significant effect, either alone or in combination with other plans or projects, on the Natura sites identified in stage 2 above. This clearly requires an initial assessment, or screening, for Natura site interest features which may be affected and whether this would be likely or significant.

In considering what is 'likely' the CNPA is mindful of existing case law in relation to the application of the habitats regulations. The CNPA notes the ruling of the ECJ in case C-127/02 (often known as the Waddenzee judgement). This rules (in paragraph 45) that an appropriate assessment must be undertaken if "it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects". Consequently we take the word 'likely' not to mean 'probable' but 'possible'.

The ruling also gives useful clarification for the word 'significant'. In Paragraph 47 it states that: "where such a plan or project has an effect on that site but it is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the

site concerned." The CNPA draws from this that it must be confident that any significant effects can be excluded on the basis of objective information in order to conclude that there will be no effect on the conservation objectives.

In considering the part of the test which is "alone or in combination with other plans or projects" we understand that this refers to proposed or incomplete plans or projects. Completed developments will also be considered but as part of the baseline for assessment if they have continuing effects on any site and "point to a pattern of progressive loss of site integrity ". If a development would have a possible likely significant effect (LSE) alone then it is to be assessed alone. An in combination assessment is therefore not required, until it is no longer considered to have an effect alone. In addition to direct LSEs, there can also be indirect LSEs.

When considering in combination tests only projects and plans that are relevant to the effected sites will be included. Furthermore they will be excluded unless the effects they have are related to the effects of the development being assessed here.

The first step of the screening process will consider what the level of any effect these may be: no effect, likely insignificant or likely significant. If likely insignificant effects are found they will be further screened at stage 5 in combination with other plans or projects. If there are any significant effects found, either alone or in combination, then these will be considered in detail within an Appropriate Assessment.

Table 2. The four possible outcomes from the screening process

Screening outcome	**Description**	**Stage of process outcome found**
No effect	There is no effect at all upon the qualifying interests	Stage 4
No likely significant effect in combination	There is an insignificant effect from the development itself and even in combination with other plans and projects, it does not amount to a significant effect.	Stage 5
Likely significant effect in combination	There is an insignificant effect from the development itself but in combination with the insignificant effects of other plans and projects, it becomes significant.	Stage 5
Likely significant effect alone	There is a possible significant effect from the development by itself. This may be direct or indirect.	Stage 4

The Glenlivet Distillery extension and new bioplant has the potential to affect the qualifying features on the site listed above. The effects identified were, in summary, as follows:

- Physical harm from water intake structures
- Reduced water availability
- Increased water temperature
- Decrease in water quality
- Disturbance from construction activities
- Pollution from construction activities

Screening of this application considers these and any additional possible effects that would arise from the granting of planning permission for development at Glenlivet Distillery.

Table 3. Screening for LSE from Glenlivet Distillery expansion development

Name of Natura Site -River Spey SAC					
Qualifying Feature Affected	**Possible effect of development**	**Likely significant effect**	**Duration**	**Screening assessment**	**Screening outcome**
Freshwater pearl Mussel (FWPM)	Reduced water availability resulting from abstraction from the Livet	FWPM can die within a few hours if left exposed, they are especially vulnerable during high summer temperatures and low flow conditions	Permanent	FWPM are not found in the Livet, a tributary of the River Spey. They are found in the R. Spey mainstem which is 11.5km downstream. The proposed development will have a planned average water regime return rate of 96% of that abstracted. The return rate permitted to maintain ecologically favourable flows under WFD is 87% and therefore the development is not expected to have an impact (Natural Capital, 2014) The Glenlivet Distillery will require a CAR licence from SEPA to ensure water volume return rate.	Likely significant effect alone
	Increase in water temperature from increased volumes of cooling water discharge into the Livet	A prolonged increase in water temperature above 23^0C can cause death to FWPM	Permanent	FWPM are not found in the Livet, a tributary of the River Spey. They are found in the R. Spey mainstem which is 11.5km downstream. The proposed development has modelled a maximum temperature uplift of 1.69^0C resulting from cooling water discharge during low flow conditions which is projected to be within the modelled ecological capacity of the river. There is a 50% reduction in thermal loading when then cooling water is discharged into the river but no distances for a reduction to 'normal' river	Likely significant effect alone

				temperature have been provided (Natural Capital, 2014).	
	Decrease in water quality from increased volume of effluent discharge	FWPM are known to be sensitive to water quality and require low nutrient water quality, it is thought that even a single high nutrient episode can impact on juvenile mussel populations. A recent report recommends an annual median level of <0.005mgL^{-1} SRP with no peaks greater than 0.02mgL^{-1} (Cooksley & Blake, 2014). Increased nutrient concentrations can support the growth of Ranunculus which traps sediments within its roots and negatively impact on mussel populations.	Permanent	FWPM are not found in the Livet, a tributary of the River Spey. They are found in the R. Spey mainstem which is 11.5km downstream. Concentrations of key pollutants in the effluent load would reduce through dilution with river water in the mixing zone downstream of the discharge point. The effluent dilution factor is considered to be sufficient to reduce nutrient levels below the ecological threshold to achieve good ecological status with reference to WFD requirements within 25m of the discharge point. The Glenlivet Distillery will require a CAR licence from SEPA to ensure discharge quality. Discussions with SEPA have suggested that the water quality standard will be met by the scheme proposed and water quality modelling analysis is underway. Surface run-off from the distillery site will pass through a new SUDS before discharge in accordance with the site drainage plan.	Likely significant effect alone
	Disturbance from construction activities	FWPM are at risk from damage from activities undertaken on the river bed which could cause death or injury	Permanent	FWPM are not found in the Livet so will not be physically harmed or disturbed by construction activity. The CMS and ES produced details mitigation and methods and must be incorporated within a CEMP.	No effect

	Pollution from construction activities	FWPM are at risk from the release of silts and sediments during construction which could settle on mussel beds and smother them	Permanent	The mitigation measures described in the ES and CMS must be incorporated into a CEMP to ensure that there is no release of sediments or chemical pollution downstream during construction activities. The location of the new discharge outfall for cooling water should be micro-sited prior to construction to a position with least potential for bank destabilization or creation of sediment during its construction.	Likely significant effect alone
Atlantic Salmon	Physical harm or death from cooling water intake structure	Salmon fry are at risk of death or injury if they are taken through the uptake pipe structures.	Permanent	The cooling water intake pipe will be fitted with a 3mm fish fry screen. The abstraction point is located approximately 80m upstream of the nearest area of identified Salmon spawning habitat.	No effect
	Reduced water availability resulting from abstraction from the Livet	There is a requirement for sufficient flow to allow migration, spawning and to support young fish.		The proposed development will have a planned average water regime return rate of 96% of that abstracted. The return rate permitted to maintain ecologically favourable flows is 87% (Natural Capital, 2014). The Glenlivet Distillery will require a CAR licence from SEPA to ensure water volume return rate.	Likely significant effect alone
	Increase in water temperature from increased volumes of cooling water discharge into the Livet		Permanent	The proposed development has modelled a maximum temperature uplift of 1.69^0C during low flow conditions which will be within the modelled ecological capacity of the river (Natural Capital, 2014). The nearest area identified as suitable Salmon spawning habitat is 100m downstream of the proposed cooling water discharge point.	Likely significant effect alone

	Decrease in water quality from increased volume of effluent discharge	Salmon egg survival is reliant on a continuous supply of well oxygenated water. A reduction in water quantity coupled with an increase in organic nutrients can result in low levels of dissolved oxygen, leading to death of Salmon eggs.	Permanent	Concentrations of key pollutants in the effluent load would reduce through dilution with river water in the mixing zone downstream of the discharge point. The effluent dilution factor is considered to be sufficient to reduce nutrient levels below the ecological threshold to achieve good ecological status with reference to WFD requirements within 25m of the discharge point. The nearest identified area suitable for Salmon spawning is 30m downstream of the discharge location. It is expected that the high levels of dissolved oxygen will be maintained within the riffle areas which are suitable for Salmon spawning. The Glenlivet Distillery will require a CAR licence from SEPA to ensure discharge quality. Discussions with SEPA have suggested that the water quality standard will be met by the scheme proposed. Effluent quality will be routinely monitored during plant operation. Surface run-off from the distillery site will pass through a new SUDS before discharge in accordance with the site drainage plan.	Likely significant effect alone
	Disturbance from construction activities	Construction activities within the river have the potential to disturb spawning adults and juveniles	Construction period	Abstraction points and any works in the River Livet will be located away from known Salmon spawning locations. Work within the River Livet will be programmed between the end of May and the end of September to ensure Salmon spawning interests are protected. Young fish present should be mobile enough to	Likely significant effect alone

				move away during the works period and return after completion. There will be no loss of habitat within the river channel as a result of construction activities as all river bed materials removed to form pipe trenches will be replaced and the local hydrology and morphology of this section of the river will remain unchanged. The design and the methods of installation for new or up-graded river infrastructure (abstraction and discharge outfalls) should be agreed prior to construction, to ensure they are appropriate to minimise disruption to natural river processes and avoid impact on Salmon and their supporting habitats. The CMS and ES produced details mitigation methods and should be incorporated within a CEMP.	
	Pollution from construction activities	Spawning Salmon require clean gravels free from silt	Permanent	The location of the new discharge outfall for cooling water will be micro-sited prior to construction to a position with least potential for bank destabilization or creation of sediment during its construction. The CMS and ES details the measures taken to reduce the likelihood of pollution of the watercourse arising from construction activities. This requires agreement with SEPA and incorporation within a CEMP.	Likely significant effect alone
Otter	Destruction of resting or		permanent	An Otter survey did not identify any resting places or holts within the development area but	Likely significant effect

	sleeping places			there are signs of Otter activity in the area. A pre-construction check for Otters will be required.	alone
	Disturbance during construction activity		Construction period	An Otter survey did not identify any resting places or holts within the development area but there are signs of Otter activity in the area. A construction phase mitigation plan has been detailed in Chapter 9 to reduce Otter disturbance. Measures include not leaving uncovered holes or drains overnight. Lighting of the site will be minimised to reduce disturbance. Otter mitigation as detailed must be implemented to ensure no disturbance during the construction phase.	Likely significant effect alone
Sea Lamprey	Reduced water availability resulting from abstraction from the Livet			Sea Lamprey are unlikely to be found in the Livet, but are found in the River Spey mainstem, 11.5km downstream. It is likely that Brook lamprey are present and suitable juvenile habitat downstream of the intake and discharge points was observed (Spey Foundation, 2014). The proposed development will have a planned average water regime return rate of 96% of that abstracted. The return rate permitted to maintain ecologically favourable flows is 87% (Natural Capital, 2014)	No effect
	Increase in water temperature from increased volumes of cooling water discharge into the			Sea Lamprey are unlikely to be found in the Livet, but are found in the River Spey mainstem, 11.5km downstream. It is likely that Brook lamprey are present and suitable juvenile habitat downstream of the intake and discharge points was observed (Spey Foundation, 2014).	No effect

	Livet			The proposed development has modelled a maximum temperature uplift of 1.69^{0}C resulting from cooling water discharge during low flow conditions which will be within the modelled ecological capacity of the river (Natural Capital, 2014). Modelling has demonstrated that water temperature in the River Spey mainstem will not be impacted by Glenlivet Distillery cooling water discharge.	
	Decrease in water quality from increased volume of effluent discharge			Sea Lamprey are unlikely to be found in the Livet, but are found in the River Spey mainstem, 11.5km downstream. It is likely that Brook lamprey are present and suitable juvenile habitat downstream of the intake and discharge points was observed (Spey Foundation, 2014). Concentrations of key pollutants in the effluent load would reduce through dilution with river water in the mixing zone downstream of the discharge point. The effluent dilution factor is considered to be sufficient to reduce nutrient levels below the ecological threshold to achieve good ecological status with reference to WFD requirements within 25m of the discharge point. Effluent quality will be routinely monitored during plant operation. the The Glenlivet Distillery will require a CAR licence from SEPA to ensure discharge quality. Discussions with SEPA have suggested that the water quality standard will be met by the scheme proposed.	Likely significant effect alone

	Disturbance from construction activities			Sea Lamprey are unlikely to be found in the Livet, but are found in the River Spey mainstem, 11.5km downstream. It is likely that Brook lamprey are present and suitable juvenile habitat downstream of the intake and discharge points was observed (Spey Foundation, 2014). The CEMP produced details mitigation and methods and should be implemented.	No effect
	Pollution from construction activities			Adherence to the Construction Environment Management Plan will ensure that there is no chemical spillage downstream during construction activities. In addition to clean gravels to spawn, Sea Lamprey require silty habitats so will not be so sensitive to siltation arising from construction.	Likely significant effect alone

Stage 5: In-combination effects

Regulation 48(1)a. is clear in setting out a requirement to include the assessment of the impacts of any development *in combination* with other plans and projects. This is to ensure that any cumulative and synergistic effects that are likely to be significant to the conservation objectives are identified. The plans and projects in Table 4 have been searched for any likely significant effects that may combine with those identified the proposed development.

There were no residual effects on the Glenlivet distillery proposal when taken in combination with any of the plans or projects below. Some of the plan and project conclusions are summarised below as examples.

- Cairngorms nature Action Plan

  This HRA identified a small number of likely significant effects but no residual effects upon the Natura Sites within the Cairngorms National Park. Mitigation measures have been identified within the HRA and taken forward into the CNAP. We are confident that there will be no effect upon the integrity or the qualifying features of any European Designate site within the Cairngorms National Park through the provisions of the plan.

- An Camas Mor

  The assessment shows that, with the additional mitigation measures, there is no likely significant effect from the proposed development upon the qualifying features or the conservation objectives for any Natura sites. We conclude therefore that there is no adverse effect upon the integrity of any Natura site.

Table 4: Other Plans, Policies and Strategies

Policy Plan or Project *Examples shown below*	**Aspect**	**MRE (aka Likely Insignificant Effects)**
Cairngorms National Park Local Development Plan - draft March 2013	Settlement allocations	River Spey SAC
Cairngorms Nature Action Plan 2013-2017	Priority habitats & species	River Spey SAC
River Spey Catchment Management Plan	River Spey Management	River Spey SAC
Highland Structure Plan	Settlement allocations	River Spey SAC
Highland wide Local Development Plan	Settlement allocations	River Spey SAC
Moray Structure Plan	Settlement allocations	River Spey SAC
Moray Local Plan	Settlement allocations	River Spey SAC

Tamnavoulin Distillery	Water abstraction and effluent discharge	River Spey SAC
Glenlivet Water Company	Water abstraction	River Spey SAC
Dorenell wind farm extension (pre-application/scoping	Sediment run-off	River Spey SAC
The new distillery at Carron on the Old Imperial site Moray Council planning ref(s): 12/02060/APP and 14/00059/APP	Water abstraction and discharge	River Spey SAC
New distillery building at Mortlach, Dufftown	Water abstraction and discharge	River Fiddoch, River Spey SAC
New bioplant at Glendullan, Dufftown	Water discharge	River Fiddoch, River Spey SAC
Anaerobic digestion plant energy facility at Glenfiddich Distillery, Dufftown planning ref: 13/01781/EIA	Water abstraction and discharge	River Fiddoch, River Spey SAC
New Distillery and visitor centre at Macallan, Craigellachie planning ref: 14/00662/APP	Water abstraction and discharge	River Spey SAC
Paul's Hill Windfarm	sediment runoff	River Spey SAC

Section Four

Stages 6–10 Assessment and Conclusions

Stage 6: Appropriate Assessment

The proposals have been screened in Stages 4 and 5. It was found that for some Natura sites there were likely significant effects upon the qualifying interests. Consequently the following appropriate assessment is required to ascertain the implications for the conservation objectives for each site. The affected sites identified are:

- River Spey SAC

River Spey SAC

Qualifying species and conservation status

Atlantic Salmon, 2005 Unfavourable recovering

Freshwater Pearl Mussel, 2005, Unfavourable recovering

Otter, 2007, Favourable maintained

Sea Lamprey, 2011, favourable maintained

Conservation objectives

To avoid deterioration of the habitats of the qualifying species (listed above) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species, including range of genetic types for Salmon, as a viable component of the site
- Distribution of the species within the site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting process of habitats supporting the species
- No significant disturbance of the species
- Distribution and viability of freshwater pearl mussel host species
- Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species

Is the operation likely to have a significant effect on the qualifying interest? Consider each qualifying interest in relation to the conservation objectives

- Freshwater Pearl Mussel (*Margaritifera margaritifera*)
  FWPM are not thought to be present in the River Livet, their presence has been confirmed within the mainstem at a distance of 11.5km downstream of Glenlivet Distillery. These species will not be directly affected but changes in water quality and quantity, either individually or cumulatively cold have indirect consequences and should be considered further.
- Atlantic Salmon (*Salmo salmar*)
  Atlantic Salmon are present in this section of the River Livet and could be directly and indirectly affected by this proposal. Physical damage from construction of outflow or inflow structures or unplanned events during the construction phase may lead to the disturbance and/or distribution of the species and its supporting habitat.
  Accidental pollution arising from incidents during construction may affect the distribution of the species and its supporting habitat
  Atlandtic Salmon can also be affected by levels of soluble nutrients, particularly at egg stage which can affect habitat quality and the levels of algae and macrophytes in the water. Atlantic Salmon are considered less sensitive to changes in nutrient levels in the water than freshwater pearl mussel.
- Otter (*Lutra lutra*)
  Otter are present on the River Livet and could be affected by the proposal, there is a risk to disturbance to Otters that are passing the area during the construction phase.
- Sea Lamprey (*Petromyzon marinus*)
  Sea Lamprey are not thought to be present in the River Livet, their presence has been confirmed within the mainstem at a distance of 11.5km downstream of Glenlivet Distillery (Laughton & Burns, 2003). These species will not be directly affected but changes in water quality and quantity, either individually or cumulatively cold have indirect consequences and should be considered further.

Will the development adversely affect the site's conservation objectives?

In this assessment, the implications of the planning application for the site's conservation objectives are assessed in order to answer the question: "Can it be ascertained that the proposal will not adversely affect the integrity of the site?"

The over-arching conservation objective of SAC is to avoid deterioration of the habitats of the qualifying species, or significant disturbance to the qualifying species, thus ensuring that the integrity of the sites is maintained. This over-arching conservation objective can be broken down into the following detailed elements:

To ensure that the following are maintained in the long term for the qualifying species:

1. Population of the species as a viable component of the sites

   Distribution of the species within sites

2. Distribution and extent of habitats supporting the species

   Structure, function and supporting processes of habitats supporting the species

3. No significant disturbance of the species

In-combination effects

As described at Stage 5 (screening); identification of in-combination effects is required to identify where cumulative and synergistic effects are likely to be significant. There were no relevant in-combination effects for this Natura site.

Assessment against the Conservation Objectives

Freshwater Pearl Mussel (FWPM)

1. Population of the FWPM as a viable component of the sites and distribution of the FWPM within the Special Area of Conservation

- FWPM are not present within the River Livet and it is not anticipated that there will be any direct or indirect impacts on these species arising from in-river or riparian works if the mitigation described in the Construction method Statement is followed, this includes a Pollution prevention Plan and a Construction Surface Water management Statement.

- In the operational phase it is not anticipated that the slight reduction in water volumes and increase in temperature and nutrients will impact on FWPM located 11.5km downstream. The reduction in water volume is within WFD ecological thresholds modelled for the Livet. The increase in water temperature will be buffered by the colder water of the Livet (50% reduction in thermal loading as it enters) and modelling has demonstrated that the levels of nutrients will be below ecological threshold values within 20-25m of the discharge point. The applicant states they will operate within the CAR licence boundaries.

Conclusion

It is concluded that there will be no negative impact on the population of FWPM arising from this proposal with full adherence to the mitigation methods and operation within the CAR licence terms.

2. Distribution and extent of habitats supporting FWPM and structure, function and supporting processes of habitat supporting FWPM

- FWPM are not present within the River Livet and it is not anticipated that there will be any direct or indirect impacts on the downstream habitat supporting these species as a result of construction activities if the mitigation measures in the Construction Method Statement are adhered to.

- Nutrient increase within the River Spey can support Ranunculus growth, Ranunculus presence has been negatively associated with mussel populations because the roots can trap sediments. Water quality models provided by the applicant demonstrate that water quality will reach WFD thresholds for good status within 26m of the discharge point. It is expected that SEPA water quality models will confirm this. The applicant states they will operate within the terms of the CAR licence to maintain water quality and will monitor routinely.

Conclusion

It is concluded that there will be no negative impact on the habitats supporting FWPM arising from this proposal with full adherence to the mitigation methods and operation within the CAR licence terms

3. No significant disturbance of FWPM

- FWPM are not present within the River Livet and it is not anticipated that there will be any direct or indirect impacts on these species arising from in-river or riparian works.

Conclusion

It is concluded that the there will be no significant disturbance of FWPM arising from this proposal

Atlantic Salmon

1. Population of the Atlantic Salmon as a viable component of the sites and distribution of the Atlantic Salmon within the Special Protection Areas

- Fish screens have been designed with a 3mm wedge wire screen considered small enough to prevent the uptake of Salmon fry and eggs. The entrance velocity will be <0.15ms^{-1}. The intake is located approx. 80m upstream of the nearest identified suitable spawning habitat.

- Works must take place outwith the spawning and incubation season (October – April) as eggs are very sensitive to siltation which may arise from construction activities.

- It is not anticipated that the slight reduction in water volumes and increase in temperature and nutrients will impact on the Salmon population. The reduction in water volume is within WFD ecological thresholds to support movement of Salmon populations. The increase in water temperature will be buffered by the colder water of the Livet and modelling has demonstrated that the levels of nutrients will be below ecological threshold values within 20-25m of the discharge point. It is expected that SEPA water quality models will confirm this.The applicant states they will operate within the terms of the CAR licence to maintain water quality and will monitor routinely

Conclusion

It is concluded that the construction works or operational phase will not adversely affect Salmon populations with full adherence to the mitigation methods and operation within the CAR licence terms.

2. Distribution and extent of habitats supporting Atlantic Salmon

and structure, function and supporting processes of habitat supporting Atlantic Salmon

- The locations of new instream infrastructure (new cooling water discharge point and existing abstraction and discharge points) have been selected to avoid sensitive areas of instream habitat which would provide Salmon spawning habitat: The cooling water discharge pint is 100m upstream and the abstraction point is 80m downstream of suitable spawning habitat; and the mixing zone to achieve good status for effluent discharge water quality is 20-25m, the nearest identified suitable spawning habitat was 30m downstream. It is expected that SEPA water quality models will confirm this.The applicant states they will operate within the terms of the CAR licence to maintain water quality and will monitor routinely.

- The river habitat will continue to support Salmon providing instream works and works immediately on the riverbank adopt measures to minimise pollution risk to young fish, the measures outlined in the CEMP must be adhered to.

Conclusion

It is concluded that the construction works or operational phase will not adversely affect Salmon habitat with full adherence to the mitigation methods and operation within the CAR licence terms.

3. No significant disturbance of Atlantic Salmon

- Indicative details have been provided for the new instream structures, these have a 3mm mesh screening which is considered suitable to protect fry and eggs during operation.

- It is expected that any disturbance to young fish during construction will be temporary and that they will return once the inflow outflow structures are in place.

Conclusion

It is concluded that the construction works or operational phase will not disturb Salmon with full adherence to the mitigation methods and operation within the CAR licence terms.

1. Population of the Otter

as a viable component of the sites and distribution of the Otter

within the Special Protection Areas

- No effect – see Table 3

2. Distribution and extent of habitats supporting Otter

and structure, function and supporting processes of habitat supporting Otter

- No effect – see Table 3

3. No significant disturbance of Otter

- Mitigation to reduce the risk of disturbance and physical harm should be adopted to minimise the risk to passing Otters.

- Pre-construction checks would ensure that the level of Otter use remains unchanged ie no new rest sites or holts have been established.

Conclusion

If the accepted Otter mitigation strategy is strictly adhered to then the impact on Otters would be minimal and would not amount to significant disturbance.

1. Population of the Sea Lamprey

as a viable component of the sites and distribution of the Sea Lamprey

within the Special Protection Areas

- Sea Lamprey are not present within the River Livet and it is not anticipated that there will be any direct or indirect impacts on these species arising from in-river or riparian works.

- It is not anticipated that the slight reduction in water volumes and increase in temperature and nutrients will impact on Sea Lamprey located 11.5km downstream. The reduction in water volume is within WFD ecological thresholds. The increase in water temperature will be buffered by the colder water of the Livet and modelling has demonstrated that the levels of nutrients will be below ecological threshold values within 20-25m of the discharge point. It is expected that SEPA water quality models will confirm this. The applicant states they will operate within the terms of the CAR licence to maintain water quality and will monitor routinely.

Conclusion

It is concluded that the proposals will not adversely affect Sea lamprey populations if the mitigation measures are adhered to and operation is within the terms of the CAR licence.

2. Distribution and extent of habitats supporting Sea Lamprey

and structure, function and supporting processes of habitat supporting Sea Lamprey

- No effect – see Table 3

3. No significant disturbance of Sea Lamprey

- No effect – see Table 3

Additional mitigation

- Provision of a cattle drinking trough and fencing to prevent cattle access to the Livet would reduce bank erosion in the area of the cooling water intake and discharge and effluent discharge point and generally improve water quality within the Livet.

Likely insignificant effects

None

Conclusion on site integrity

There will not be an adverse effect upon the integrity of the River Spey SAC if the mitigation measures detailed within the Construction Method Statement and Environmental Statements are incorporated within a Construction Environmental Management Plan and the terms of the CAR licence for abstraction and discharge are adhered to.

Stage 7: Consultation

Regulation 48(3) requires the authority to consult with the appropriate conservation body and to have regard to their representations. In Scotland this is SNH. This report and its conclusion will be subject to such consultation.

Wider consultation of the draft report is at the discretion of the competent authority. In the case of the Glenlivet Distillery expansion it has been decided to consult with: SEPA as they deal with licensing discharges and abstractions in Scotland; and, the Spey Fisheries Board & Spey Foundation because of the interest in preserving Salmon and FWPM habitat condition and the relevant data they hold.

Consultation Response Summary

SNH response received 20/11/2014

- no changes required

Spey Fisheries Board and Spey Foundation – response received 24/11/2014

- Clarification required within the HRA that the River Livet has suitable habitat to support juvenile lamprey, even though none were found during the survey – this has been amended

- Clarification that the screen on the uptake pipe is present to prevent salmon fry from being sucked in as any salmon eggs found outwith their redds would be dead – report amended

SEPA – response received 3/12/2014

- SEPA are still awaiting the results of copper modelling to inform water quality however they state that they would not expect this to have a negative impact

Stage 8: Additional mitigation

Natura site regulation 48(6) requires the competent authority to:

"(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given"

In cases where significant effects have been identified upon the qualifying features the authority must give consideration to what additional measures may be applied by way of a condition or agreement to ensure that there are no adverse effects so that the integrity of the site is maintained. The Appropriate Assessment details a number of mitigation measures which are summarised below:

1. **A Construction Environmental Management Plan (CEMP) will be a condition**

- The CEMP will contain other relevant plans such as Construction Method statements, pollution prevention plans and mitigation measures described in the Environmental Statements but will be the over-arching document to ensure planned mitigation is implemented. The CEMP will address issues of pollution risk and wildlife protection. If the measures contained within the CEMP are implemented they will provide a level of protection that should give a high level of protection to the SAC's interests.

2. **The design and methods of installation for new or upgraded inriver infrastructure (abstraction and discharge outfalls) should be agreed prior to construction**
- This is to ensure that designs and methods are appropriate to minimise disruption to natural river processes and to avoid impacting on Atlantic Salmon and their habitats

3. **Pre-construction checks for Otters must be carried out**
- This is to ensure that any offences are avoided. Although survey work has been undertaken recently there are Otters active in the area and during the period between surveying and construction new Otter structures could be established

4. **Otter mitigation must be implemented** (as detailed in the applicants ecological chapter 9)
- If the Otter activity remains similar in the area then this mitigation will avoid the risk of significant disturbance and avoid the need for licensing.

Stage 9: Conclusion on the integrity test

This assessment based upon the best available scientific evidence and advice offered from SNH and others has shown that, with the additional mitigation measures, there is not a likely significant effect from the proposed development upon the qualifying features or the conservation objectives for the following Natura sites:

- River Spey SAC

We therefore conclude that the proposed development, subject to the mitigation measures identified in this appropriate assessment and applied to any consent, will not adversely affect the integrity of any of these sites.

Stage 10: Section 49 (derogation)

The conclusion that there is no adverse effect upon the integrity of any of the Natura sites covered in this report means that regulation 49 is not relevant.

Summary of residual effects

There are no residual effects

References

Habitat Regulations process

Council Directive 92/43/EEC "the Habitats Directive" EEC adopted 1992

Managing Natura 2000 sites – EU communities 2000

Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC - EC 2007

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)

Welsh Assembly Government TAN 5: Nature Conservation and Planning - 2009

Habitat Regulations Appraisal of Plans – Guidance for Plan Making Bodies in Scotland SNH/DTA August 2012 (Version 2.0)

Other sources

Cooksley, S & Blake, L.J. (2014) River Spey water quality and effluent chemistry. Report to CNPA.

Hendry K & Cragg-Hine D (2003). *Ecology of the Atlantic Salmon*.
Conserving Natura 2000 Rivers Ecology Series No. 7. English Nature, Peterborough.

Laughton, R., and Burns, S. (2003). Assessment of Sea Lamprey distribution and abundance in the River Spey: Phase III. Scottish Natural Heritage Commissioned Report No. 043 (ROAME No. F02AC604).

Maitland PS (2003). *Ecology of the River, Brook and Sea Lamprey*.
Conserving Natura 2000 Rivers Ecology Series No. 5. English Nature, Peterborough.

Appendix 1
Details of Natura 2000 sites within, or adjacent to, the proposed development site

Name of European Site	River Spey SAC
Site Type	
Conservation Objectives	To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and To ensure for the qualifying species that the following are maintained in the long term: • Population of the species, including range of genetic types for salmon, as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species • Distribution and viability of freshwater pearl mussel host species • Structure, function and supporting processes of habitats supporting freshwater pearl mussel host species
Qualifying Species	• Otter *Lutra lutra* • Freshwater pearl mussel *Margaritifera margaritifera* • Sea lamprey *Petromyzon marinus* • Atlantic salmon *Salmo salar*
Site Condition	• Atlantic Salmon, 2005 Unfavourable recovering • Freshwater Pearl Mussel, 2005, Unfavourable recovering • Otter, 2007, Favourable maintained • Sea Lamprey, 2011, favourable maintained
Factors currently influencing site	The FWPM population has seen massive declines in the last few years, this could be from reduced water availability or increased nutrients within the River Spey. Nutrient enrichment can come from farms, Sewage treatment Works and roads. Abstraction throughout the catchment is an on-going pressure affecting

	water availability and in turn low flows exacerbate the effect of increased nutrients and higher water temperature.
Vulnerabilities to change/potential effects of the Plan	FWPM, Salmon and Sea Lamprey are vulnerable to increases in nutrients and temperature and reduction in water flow and levels.

Appendix 3

Glossary of terms and abbreviations

Appropriate Assessment (AA)	The part of the Habitats Regulations Assessment process that considers the effects of an aspect of a plan upon the conservation objectives for a Natura site.
CEMP	Construction Environmental Management Plan
CMS	Construction Method Statement
CNPA	Cairngorms National Park Authority
CNAP	Cairngorms Nature Action Plan
Competent Authority	The decision making body required under the Habitats Directive to undertake HRA. This includes Scottish Government, National Park Authorities, SNH , SEPA or Local Authorities.
CPP	Core Paths Plan
ES	Environmental Statement
Habitats Regulation Assessment (HRA)	The whole appraisal process for determining effects upon Natura Sites. It includes Appropriate Assessments. It is a requirement by the Habitats Directive that competent authorities carry out HRAs where a plan or project affects a Natura site.
CLDP	Draft Cairngorms National Park Local Development Plan
Likely Significant Effect	An adverse effect of the development upon a qualifying interest or conservation objective that is considered to be potentially severe enough as to threaten the integrity of the Natura site itself.
Natura Sites	Collective term for Special Protection Areas and Special Areas of Conservation
Ramsar sites	Ramsar sites are wetlands of international importance designated under the Ramsar Convention 1971. Not technically Natura sites they are however usually also SPAs. They are included within the HRA process by policy.

Special Area of Conservation (SAC)	An area designated for the protection of habitats and species. Authorised under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (commonly called the "Habitats Directive"). One of three designation to be considered in a HRA
Special Protection Area (SPA)	An area designation for the protection of birds. Authorised by the Directive 2009/147/EC of the European Parliament and of the Council (commonly called the "Birds Directive"). One of three designation to be considered in a HRA