

Stirling Old Bridge PIC110 - Ecology Note and Habitat Regulations Assessment. Marine Licence Application and Schedule Monument Consent for pier repairs

The proposal by Historic Environment Scotland to repair river scour on two of the bridge piers on Stirling Old Bridge will require consent via a Marine Licence and Scheduled Monument Consent. The applications will need to be supported by a brief paper considering the potential impacts/Likely Significant Effects via scoping and screening under the Habitats Regulations (1994).

It has been clarified via local NatureScot office (email 31.3.26), following the [guidance](#), that the Marine Directorate (as a competent authority) would consult NatureScot, if the Marine Directorate deems it necessary. This Note is intended to supply sufficient information for the processing of the Marine Licence to take a reasoned & proportionate judgement on the scheme of works (the proposal) and its likely effects on the River Teith SAC. It also provides evidence that HES has undertaken due diligence in relation to wildlife legislation.

This note has been prepared by Historic Environment Scotland's Ecologist – Environmental Advisor, Teresa Hughes (MSc.MCIEEM). Teresa has over 35 years' experience in ecology and environmental management in Local Planning Authorities and has worked with HES for over 3 years.

Executive Summary

- Scour protection and repair works are proposed for two of the three piers on Stirling Old Bridge. The works require a Marine Licence and Scheduled Monument Consent.
- This note should be read alongside the full submission from Fairhurst Engineering/HES and the associated plans.
- The European Sites that may be affected are the River Teith SAC and the Firth of Forth SPA/SSSI.
- The River Teith's qualifying features that have been scoped in are Atlantic salmon, river lamprey and sea lamprey. Brook lamprey, due to its limited distribution and home range has been scoped out.
- The Firth of Forth SPA has been scoped out for the qualifying bird species and the Firth of Forth SSSI has also been scoped out in regard to habitats, geomorphology and species.
- These works have temporary impacts during construction.
- They will not result in any blockage/impediment to migration of the fish species either during construction or permanently.
- There will be no change to the flow rate or volume of the river flow during construction or permanently.
- The works will not impact breeding or essential egg-laying or feeding habitat.
- The impacts will only occur as the fish are migrating up or down stream between the sea/estuary and freshwater breeding habitat.
- An Illustrative Method Statement has been submitted with the application for the Marine Licence. It is anticipated that once awarded the contractor will draw up a detailed specification for the works.
- There are significant work scheduling constraints of implementing the scheme in a tidal main river. Works, either preparatory or casting, are to be undertaken manually instream by specialist personnel. They can only be undertaken in low flow rates (<0.5m/s), during periods around the height of the tide, which are often but not exclusively associated with spring tide ranges. Works can only take place for a limited number of hours within each 12-hour tide cycle.
- Works cannot take place during the winter months when flow rates are high and temperatures are low.
- The anticipated timing of implementation is within June – August, but may be outside this into the spring or early autumn. June coincides to a period of the year when none of the anadromous species will be migrating past the proposal site. The latter months are when the two lamprey

species will have metamorphosed to adults and are migrating downstream to feeding areas to mature.

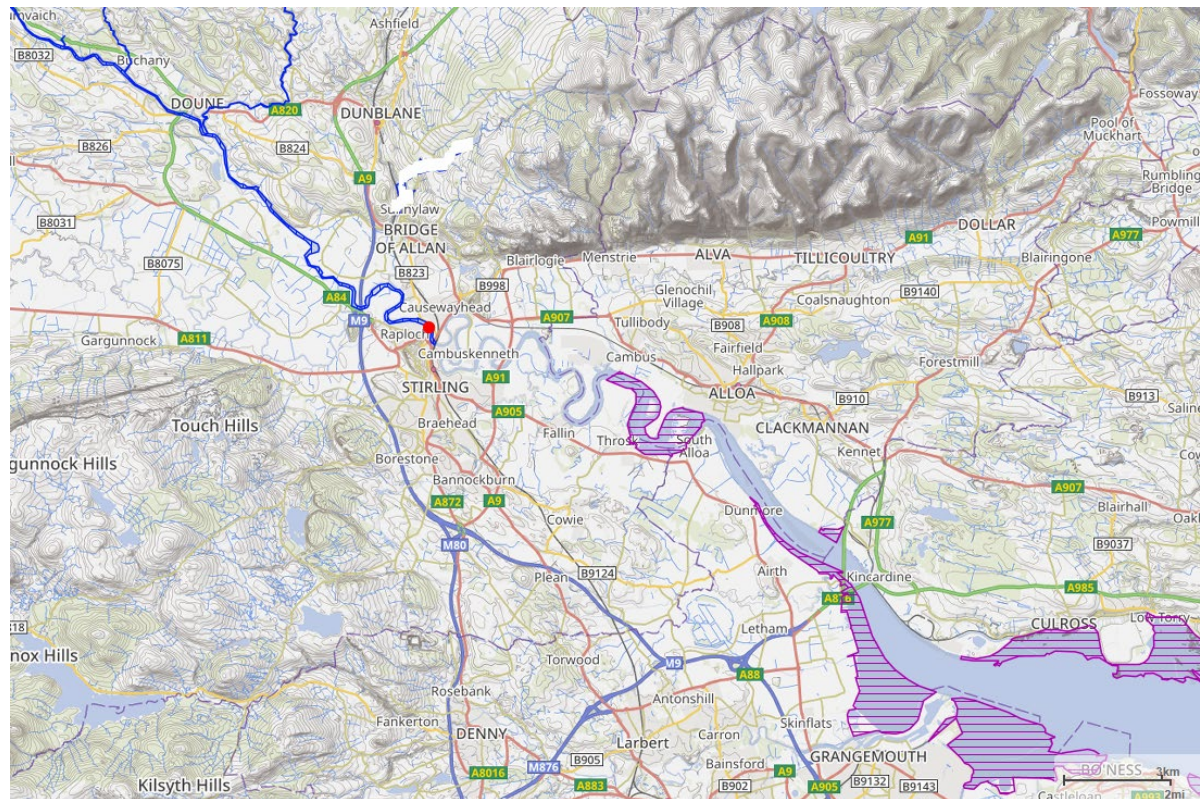
- Local changes to both fine sediment and pH could occur during the concrete casting and venting, but the casting will be of very limited duration.
- It is currently predicated that there will be in total approx 2 working days (10 hours) casting, in a 4-week construction window.
- Likely Significant Effects (LSE, HRA Stage 3) are most likely to occur to individual fish, if the changes to these environmental conditions (pH or sediment) were longer term and/or over a greater volume of works. However, it is concluded that the effects from the proposal will be marginal. In all reasonable scientific probability, the load/increase will be less than the background variation (nugatory) that is commonly observed from adjacent land uses, such as forestry and agriculture (eg clear fell & extraction or ploughing & fertilizing).
- Therefore, it is concluded that works at any time of year, will not result in an Adverse Effect on [site] Integrity (AEOI HRA Stage 4), with suitable precautionary measures translated from the Illustrative Method Statement into the final contractual agreement.
- **Environmental control measures that will be required in the final contract Method Statement** are as follows:
 - Readings of pH levels will be recorded to demonstrate compliance with regulatory environmental authorities. It is anticipated that this would be controlled to a pH level rise of less than 1. This is the accepted pH change allowable for drinking water and rivers with fish stocks.
 - Works are to be arranged to minimise the release of concrete fines and other sediments.
 - Currently, there are no features within the working area that could be used as an otter holt/day couch /lying up area. Prestart checks will be undertaken in advance of works for any changes in the survey results assessed against NatureScot's Standing Advice for otter.
 - Any lighting will be agreed with HES and designed to significantly reduce light spillage onto habitat potentially used as otter cover.
 - Toolbox talk to all staff and contractors regarding otter signs and methods to implement to avoid trapping of animals during the short construction period.
 - The footings of the piers are colonised by giant hogweed. This is an INNS plant and is also injurious to health. HES regularly control this species on the Old Bridge. The site will be cleared of this plant prior to works commencing.
 - Toolbox talk will be provided to warn all staff and contractors of the presence of giant hogweed and necessary PPE and other precautions.
 - Prestart check to ensure no colonisation of the area by Japanese knotweed. If present suitable fencing and signage will be erected with a buffer of 7m from growing stems.
 - In landward compounds for machinery & materials contractors will be required to provide a CEMP (Construction Environmental Management Plan) using standard PPG (Pollution Prevention Guideline). This will include provision of suitable measures such as silt curtains, spill mats under relevant equipment, storage and filling of machinery with fuel located away from river course and emergency protocols.

European Site Details

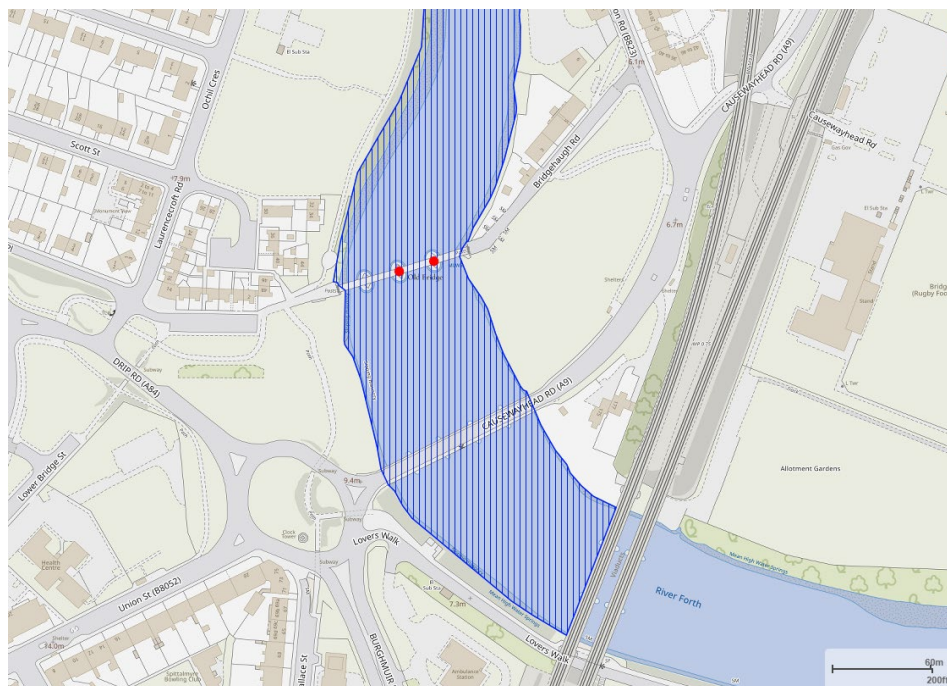
The project is located approximately 250m inside the downstream southern boundary of the River Teith SAC, see plans below.

The project is also approximately 16km from the most northerly upstream boundary of the Firth of Forth SPA and the associated Firth of Forth SSSI.

All three of these sites have been identified via a preconsultation review of the proposals using InformedDECISION ([web link](#)).



Location of proposal (red dot) in relation to River Teith SAC (blue vertical hatch) and Firth of Forth SPA (purple horizontal hatch). Plan taken from <https://map.environment.gov.scot/sewebmap/>



Inset of proposal pier locations (2 x red dots) in relation to River Teith SAC boundary (blue vertical hatch)

Plan taken from <https://map.environment.gov.scot/sewebmap/>

River Teith SAC (Special Area of Conservation)

Qualifying features of the SAC

Brook lamprey (Annex I primary reason for selection)

River lamprey (Annex I primary reason for selection)

Sea lamprey (Annex I primary reason for selection)

Atlantic salmon (Annex II present as a qualifying feature but not primary reason for selection)

Conservation Objectives of River Teith SAC

The Conservation Objectives are taken from the SAC site information ([here](#)). There is no Site Management Statement specifically for the River Teith, so the River Tay SAC Management Action Plan (CMAP 2005¹) alongside scientific assessment and research has been undertaken to consider the Stages 3 & 4 of the Habitats Regulations Appraisal.

The stated Conservation Objectives are: -

“To avoid deterioration of the habitats of the qualifying species 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”*

Firth of Forth SPA (Special Protection Area)

The SPA boundary is entirely contiguous with the boundary to the Firth of Forth SSSI. These boundaries lie just over 16km downstream from the proposal site at Stirling Old Bridge.

Annexe 1 shows a table of qualifying bird species for both the SPA and SSSI and their recognised breeding and non-breeding disturbance distances alongside the InformedDECISION consultation buffer information.

The only species which falls within the InformedDECISION consultation zone is pink-footed goose (20km). It is noted that the estuarine and terrestrial habitat within and adjacent to the proposal site is not suitable for grazing or roosting of this species.

Due to distance from the proposal site and the full estuarine/marine habitat where the SPA birds will occur, Likely Significant Effects at a local or population level have been scoped out from further consideration.

Proposal (Stage 1 & Stage 2)

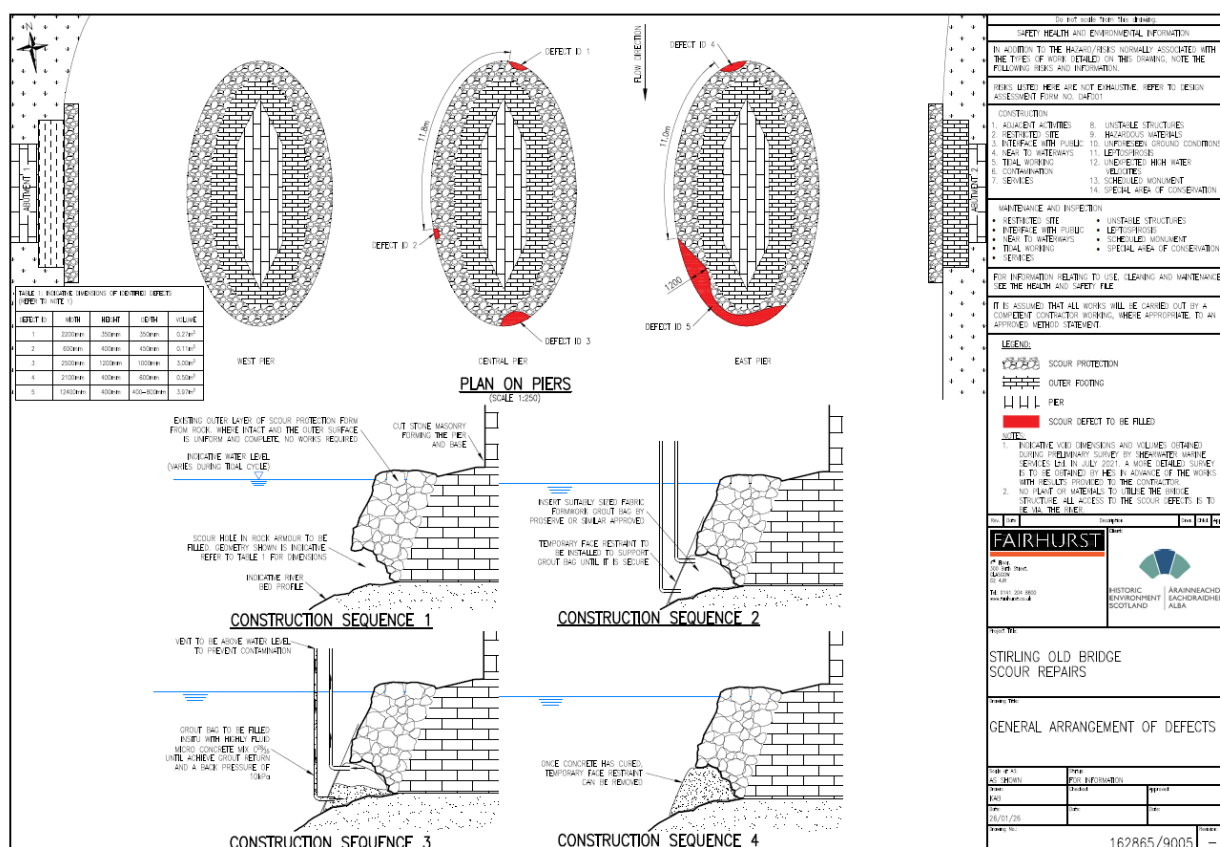
The schemes details are laid out in full in the application submissions (Marine Licence & SMC). The detail below provides a summary of the works and are intended only for explanatory purposes of this ecology note. The proposal is not considered necessary to maintain the conservation objectives of the SAC (HRA Stage 1)

Summary of work proposals: -

- The works are to repair scour identified on 2 of the 3 piers supporting Stirling Old Bridge (see plan below, dwg no 162865/9005 General Arrangement of Defects).
- Works will be undertaken by hand using qualified diving personnel.
- The intention is to erect forms around the defects to contain a series of grout bags.
- Concrete, specified as suitable for this estuarine wet environment, will be pumped into the grout bags under a slight pressure.

¹ River Tay SAC Conservation Management Advice Package, March [2005](#)

- This tremie style pumping is acknowledged to be a suitable technique in this location and a 'vent' is designed to accommodate displaced water as the casting occurs.
- Working windows are restricted to periods of low flows – frequently associated with spring high tides - and when the river is flowing at less than 0.5m/s. This is to accommodate the manual working. This is anticipated to be during the summer months.
- Concrete casting can only occur within specified temperatures, to allow the concrete to cure to the required standards. This excludes working during the winter months in low temperatures (air & water) and episodes of snow melt higher in the catchment.
- Due to the working constraints, it is anticipated that there will only be a short working window of several hours either side of the slack high tide. This is also dependent on rainfall conditions upstream in the catchment and which of the 5 defects being worked on at any given time.
- The works are timetabled to take 4 weeks, with approximately 10 hours of actual concrete casting during the implementation of the scheme period (*pers comm* Fairhurst Engineering 7.4.26 quoting email from ProServe).
- Concrete casting (10 hours) will be spread into phases, as each defect area is prepared for a pour.
- Due to the working constraints, it is not yet known whether night working will be required to complete works during the tide cycles.
- Once the repairs have been completed there will be no ongoing maintenance issues.
- A construction compound will be located on the east bank. The divers will gain access will to the water via the riverbank. All ground for vehicle storage and access will be protected with suitable tracking mats.



General arrangement of defects (red) – shown in plan. For illustrative purposes only, see submission for the full scale drawing.

Identification of Likely Significant Effects (LSE) (HRA Stage 3)

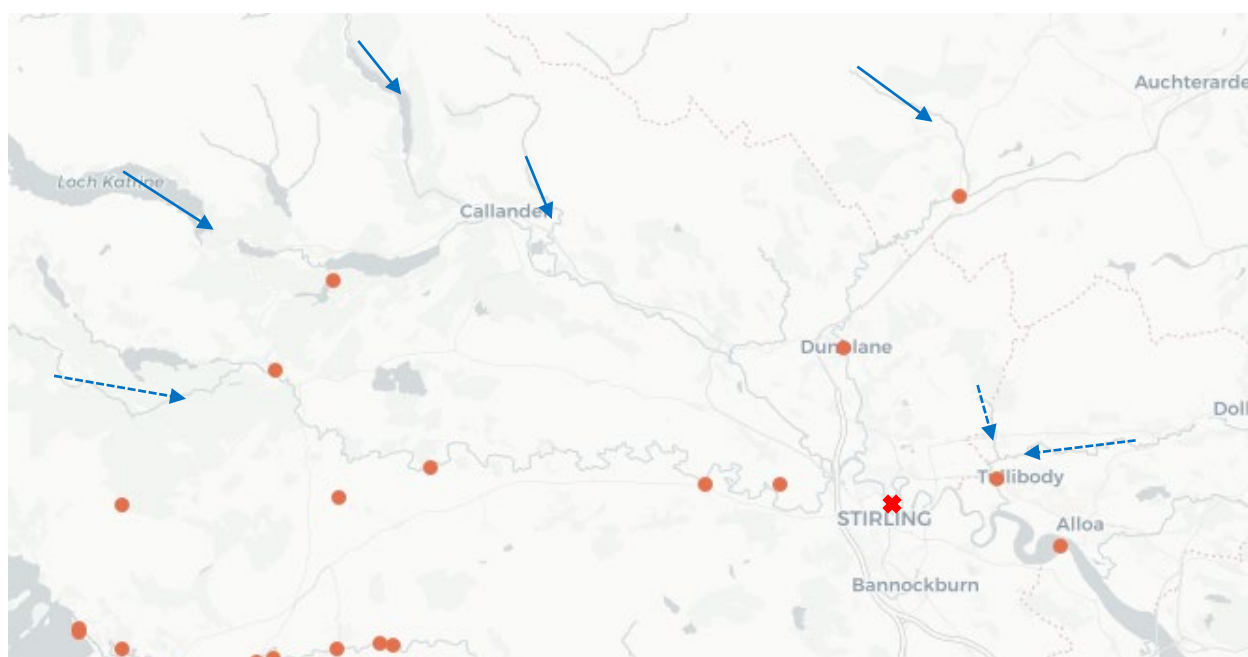
River Teith SAC Potential impacts & LSE

Research to inform this Note on the ecology of the lamprey species and Atlantic salmon was taken from the primary sources compiled in 2003 as part of the Conserving Natura 2000 Rivers series (respectively; IN104, Maitland PS (2003²) and IN106 Hendry K & Cragg-Hine D (2003³).

It has been advised by NatureScot (email 31.3.2026) that the Conservation Management Advice Package for the River Tay (CMAP 2005⁴), can be used as a proxy in identifying Likely Significant Effects, as this SAC has the same qualifying features.

Each individual species' ecological specifications has been used to scope in or out each qualifying species against the threats and pressures of this particular scheme of repair.

Brook lamprey is **not** an amphidromous species, as it spends its entire lifecycle a freshwater in upland/headwaters of river catchments within very specific habitats. It has a very limited dispersal range of generally less than 1km from breeding sites (Maitland 2003). The recorded distribution (NBN) of brook lamprey (see plan below) clearly indicates that on the R. Teith the upper catchment is the priority area. It can be conjectured that the 1990 record at Alloa, is a vagrant washout from an extreme high flow event, as the habitat on the R. Forth in this area is heavily sedimented, estuarine in salinity and it is not considered that it is suitable habitat for brook lamprey's lifecycle. On the basis of its freshwater habitat requirements, **Brook lamprey is scoped out of further consideration.**



Distribution of Brook lamprey (orange dots) on the River Teith catchment, SAC rivers (solid blue arrow), non-SAC rivers (dashed blue lines). Proposal site (red X). Source [NBN](#)

² Report IN104, Maitland PS (2003). *Ecology of the River, Brook and Sea Lamprey*. Conserving Natura 2000 Rivers Ecology Series [No. 5](#). English Nature

³ IN106 Hendry K & Cragg-Hine D (2003). *Ecology of the Atlantic Salmon*. Conserving Natura 2000 Rivers Ecology Series [No. 7](#). English Nature

⁴ River Tay SAC Conservation Advice Package, March 2005

[River and Sea Lamprey](#) are fully migratory species, breeding in freshwater habitats and migrating to the sea to feed and develop to sexual maturity. [Atlantic salmon](#) also exhibit this same migratory amphidromous anadromous behaviour.

Consequently, river & sea lamprey as well as the salmon will be migrating past the proposal site at certain stages of their lifecycle as illustrated in Tables 1 and 2 below.

SAC Qualifying species	Upstream migration to freshwater spawning grounds	Downstream juveniles/ metamorphosing larva, migration to sea/estuary for feeding and maturation
Atlantic salmon (<i>Salmo salar</i>)	October - December	April – June (mostly complete by June)
Sea lamprey (<i>Petromyzon marinus</i>)	April - May	July - September
River lamprey (<i>Lampetra fluviatilis</i>)	October – December (sometimes up to spring)	July - September
Brook lamprey (<i>Lampetra planeri</i>)	Very limited dispersal range from hatching site <1km Scoped out	

SAC Qualifying species	January	February	March	April	May	June	July	August	September	October	November	December
Atlantic salmon												
Sea lamprey												
River lamprey												
Brook lamprey	Very limited dispersal range from hatching site <1km Scoped out											

Table 1 and 2 Detail of qualifying anadromous species' migratory lifecycle

Lighter shaded months indicate that the species may still be migrating but that the majority of the population will have already passed the project site.

The work for the Life Natura 2000 Rivers project (Maitland 2003⁵ [Lamprey](#) and Hendry & Cragg-Hine 2003⁶ [Atlantic Salmon](#)) indicates that a number of similar factors pose threats and pressures for the all the SAC qualifying species populations (river/sea lamprey and salmon). These can be broadly categorised as: -

- Catchment water quality (physiochemical factors) from farming/development discharges with the biggest impact resulting from agriculture in rural upper catchments.
- Siltation caused by either largescale forestry and agricultural activity, or bank modification/flood alleviation works or new housing/industrial development construction.
- Obstruction to migration routes – dams, weirs, channel modifications
- Modification to flow rates and volumes (eg climate change or sustainable power generation or water abstraction).
- Fish farming/aquaculture (both marine and freshwater)
- Destruction or modification to critical lifecycle habitats (eg spawning grounds and areas for larvae or parr to develop).

⁵ Maitland PS (2003). *Ecology of the River, Brook and Sea Lamprey*.

Conserving Natura 2000 Rivers Ecology Series No. 5. English Nature, Peterborough

⁶ Hendry K & Cragg-Hine D (2003). *Ecology of the Atlantic Salmon*.

Conserving Natura 2000 Rivers Ecology Series No. 7. English Nature, Peterborough

The majority of these threats or pressures can be discounted: -

- ❖ Most importantly, the proposals, given their location within the tidal range of the river, will not remove or impact any freshwater breeding areas or freshwater habitat required by the developing juveniles of these species. The proposals are also located at the downstream proximity of any of these freshwater habitats, so there is no upstream connectivity for distal impacts to occur.
- ❖ There will be no temporary (construction) or permanent obstruction to migration routes and no changes to the rivers geomorphology in terms of flow rates, flow volumes, or bankside modifications.
- ❖ The risks associated with the population dynamics or lifecycle of these species might occur when the fish are on migration past the development site during construction, when there may be increases in very fine sediment load and temporary changes in pH (see Proposals above & Illustrative Method Statement).
- ❖ There is some limited potential for downstream dispersal of sediments or pH into related functionally linked habitats⁷ as the animals move to and from the marine environment or stay within the estuarine conditions (eg river lamprey, NRW 2025⁸).
- ❖ Increased sediment loads can affect larval filter feeding (lamprey species, NatureScot 2005). However, as the proposal site is so low in the catchment in the estuarine environment, the larvae of both species will have metamorphosed sufficiently into their adult fish rasping feeding stage at the point any migrating lamprey move past the proposal site.

It can be concluded that the principal risk of impacts could occur during the migration periods (eg seasonal salmon runs or lamprey amphidromous movements). As identified above (Tables 1 & 2) there is only one period within the year (March) when migrating fish may be observably absent, at all other times it is highly probable that some form of movement of the qualifying species will be present.

As explained in the details of the Proposal (Stage 1) the flow modelling⁹ of the river indicates that for safe manual handling works to be undertaken these must occur during low flow periods when the velocity is less than 0.5m/s, at the slack period around high tide/flow heights and in a suitable temperature range for concrete curing. Given these constraints, in order to undertake the necessary repairs, it is not possible to exclude Likely Significant Effects by timing the works outside the migration periods of the SAC's qualifying species.

However, of all the threats and pressures associated with the maintenance of the favourable conservation status of these species, the current proposal could only produce a Likely Significant Effect (LSE) via localised increases in pollutants or sediment accidentally entering the watercourse during construction and affecting the survival of individuals of the species and as a consequence potentially the population.

Very little data is available on the physiochemical data ranges, including pH, for river or sea lamprey in their marine or estuarine territories NRW (2025) and it is an area which has been identified as requiring further study. It is however, observed that negative impacts on these lamprey species occur when the pH lowers and becomes more acidic. The Illustrative Method Statement indicates that any localised changes from the concrete pour, may result in an increase in pH by 1 point (increase in alkalinity), which will be within the normally accepted limit of the environmental authorities for drinking water and rivers stocked with fish. Therefore, using a proxy of the stocked river accepted

⁷ NatureScot definitions of functional connectivity and stepping stones

<https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/habitat-networks/habitat-network-parts-and-connections>

⁸ Wynter, E., Hatton-Ellis, M., Scorey, A., Nielsen, I., Hatton-Ellis, T., Jackson-Bué, M. and Cuthbertson, S. **NRW 2025**. Condition assessments for river lamprey *Lampetra fluviatilis* and sea lamprey *Petromyzon marinus* in Welsh marine special areas of conservation. NRW Evidence Report No: 901, 78pp, Natural Resources Wales <https://cdn.cyfoethnaturiol.cymru/lqin5qby/condition-assessments-for-river-lamprey-and-sea-lamprey-in-welsh-sacs.pdf>

⁹ Cbec Technical Note Stirling Bridge_v1.0_EG velocity modelling

levels, it is considered that there is a measure of uncertainty around LSE on lamprey species, but that LSE can be ruled out for Atlantic salmon.

It is important to note, that during the 4-week working window the concrete casting is anticipated to take approx 10 hours in several phases during this period (*pers comm* Fairhurst Engineering 7.4.26 quoting email from ProServe). Therefore, the significance of any changes in pH will be rapidly diluted by the wider volume of water flow past the site.

Likewise, the fine sediment release will only occur during the concrete casting as the manual erection of forms will release minimal sediment. Comparing this LSE with the likely sediment impacts from large scale agricultural ploughing within the catchment, during susceptible migration periods, the increase from the proposal is likely to be indistinguishable from the background variation and hence can be considered nugatory.

However, given the significant constraints on timing of the works, there is no time of year when the potential for Likely Significant Effects (LSE) of sediment and pollutants (excluding pH) can be avoided for the qualifying species of Atlantic salmon, sea lamprey and river lamprey.

The conclusions of the LSE assessment are presented in Table 3. As guided by [NatureScot](#) an Appropriate Assessment (HRA Stages 4 & 5) is considered necessary where an LSE cannot be ruled out.

SAC qualifying species	Catchment water quality	Catchment pH	Sediment load	Obstruction to migration	Modification of flow rates/volumes	Fish farming aquaculture	Destruction of habitat
Atlantic salmon							
Sea lamprey		?					
River lamprey		?					
Brook lamprey	Very limited dispersal range from hatching site <1km Species scoped out						

Table 3 Conclusion of Likely Significant Effect assessment for River Teith SAC (red scoped in, green scoped out, pale green conclusion made by proxy)

Appropriate Assessment (HRA Stages 4 and 5)

As potential LSEs (fine sediment & pH change) could occur during construction an Appropriate Assessment (AA) has been deemed necessary using NatureScot's guidance. To summarise the LSEs and the conclusions made at Stage 3 (above): -

- ❖ In the current scheme the pier repairs are relatively small and works will take a very small period of time to implement.
- ❖ Once installed no ongoing maintenance has been identified.
- ❖ The critical period for LSEs is during the migration past the piers for Atlantic salmon, river and sea lamprey.
- ❖ It has been identified that due to manual handling for implementation of the scheme and material specifications, works cannot avoid periods when fish will be moving past the proposal site. Table 2 shows the lifecycle stages of each qualifying species, which leaves only a late winter window when none of the fish will be moving past the proposal site. A late winter period is when flow rates and volumes will be high and temperatures (air & water) at their lowest. Consequently, not works will be able to be undertaken.
- ❖ It is important to note, that while a 4-week working window is identified, the concrete casting is anticipated to occur across 10 hours in phases during this period.
- ❖ As discussed above the changes in pH that are likely to occur are within the range that is acceptable to environmental organisations for drinking water and fish stocked rivers. The limited

periods of likely release will be rapidly diluted by the significantly greater proportion of the river's flow past the site.

- ❖ While Likely Significant Effects could occur if sediment releases were longer term and over a greater volume of works, it is concluded that the effects from the proposal will be marginal and in all probability the load/increase is less than background variations (nugatory) that are commonly observed from adjacent land uses, such as forestry and agriculture (eg clear fell & extraction or ploughing & fertilizing).

Environmental control measures have already been identified within the Illustrative Master Plan. There is acceptance that these will be required from any bidding contractor in the tender process and will form part of a contractually agreed Method Statement. The environmental control measures for the SAC are as follows:

- Readings of pH levels will be recorded to demonstrate compliance with regulatory environmental authorities. It is anticipated that this would be controlled to a pH level rise of less than 1. This is the accepted change allowable for drinking water and fish stocks.
- Works to be arranged to minimise the release of concrete fines and other sediments.
- Landward compounds for machinery & materials contractors will be required to provide a CEMP (Construction Environmental Management Plan) using standard PPG (Pollution Prevention Guideline). This will include provision of suitable measures such as silt curtains, spill mats under relevant equipment, storage and filling of machinery with fuel located away from river course, emergency protocols.

It can be concluded (HRA Stage 5) that with appropriate mitigation no Adverse Effect on Integrity (AEIOI) will occur to the qualifying species interests of the River Teith SAC. As no adverse effects (AEIOI) are concluded, no further assessment under the Habitats Regulations are required (Stages 6 – 9, see Stage 5 of NatureScot's guidance [here](#)).

Other species protection measures

It may be necessary to undertake night working, due to the manual working practices and consequent limited working period (a small number of hours either side of the slack of high tide) within each tide cycle.

Any otter or other crepuscular animals that use the watercourse and/or river banks will already be habituated to the high levels of urban human activity and ambient lighting from the adjacent roads and the road bridge where the A9 crosses the River Teith.

NatureScot signposts to the [Standing Advice](#) on otter and the avoidance of disturbance measures during development:

“Provided the applicant [HES] follows the standing advice and European Protected Species (EPS) licensing requirements for otter [here](#), there will be no adverse effect on site integrity”.

It is concluded due to the small scale of the proposal and limited implementation time, that no offences are likely to occur and at this point it is considered that an EPS Licence will not be required. As management measures for this species, a prestart walkover to assess for any changes in site conditions and a strict toolbox talk to staff on site conditions overnight will be implemented. Should it be found that the conditions of the site and/or usage by otter has altered then a disturbance licence will be sought.

Invasive non-native species (INNS)

Both giant hogweed and Japanese knotweed are present within the River Teith catchment. Giant hogweed is present on the footings of the piers and is regularly controlled by HES.

Japanese knotweed has not been observed within the landward working area (compounds) or within 7m (Japanese knotweed) during the walkover surveys.

The treatment and removal of upper leaf parts and stems of giant hogweed will continue in advance of works starting. A toolbox talk will be provided to warn all staff and contractors of the presence of giant hogweed and necessary PPE and other precautions.

A prestart check of the river bank access points will be undertaken to ensure no Japanese knotweed has established. If Japanese knotweed is found to be present a 7m buffer zone with temporary fencing and signage will be established. The use of track matting will help ensure no ground disturbance will occur.

Summary & Conclusion

It has been concluded that there will be no Adverse Effect on Integrity (AEI) for the qualifying features of the River Teith SAC, and that with precautionary measures in place other impacts on protected species can be avoided. The following measures relating to the concrete pour & casting, construction of forms and methodology have already been identified and will be included in the tender documents for contractors to submit against.

Environmental control measures that will be required in the final contract Method Statement are as follows:

- Readings of pH levels will be recorded to demonstrate compliance with regulatory environmental authorities. It is anticipated that this would be controlled to a pH level rise of less than 1. This is the accepted change allowable for drinking water and fish stocks.
- Works to be arranged to minimise the release of cement fines and other sediments.
- Currently, there are no features within the working area that could be used as an otter holt/day couch /lying up area. Prestart checks will be undertaken in advance of works for any in survey results against NatureScot's Standing advice for otter.
- Should night working be considered necessary, any lighting will be agreed with HES and be designed to significantly reduce light spillage onto habitat potentially used as otter cover.
- Toolbox talk to all staff and contractors regarding otter signs and methods to implement to avoid trapping of animals during the short construction period.
- The footings of the piers are colonised by giant hogweed. This is an INNS plant and is also injurious to health. HES regularly control this species on the Old Bridge. The site will be cleared of this plant prior to works commencing.
- Toolbox talk will be provided to warn all staff and contractors of the presence of giant hogweed and necessary PPE and other precautions.
- Prestart check to ensure no colonisation of the area by Japanese knotweed. If present suitable fencing and signage will be erected with a buffer of 7m from growing stems.
- Landward compounds for machinery & materials contractors will be required to provide a CEMP (Construction Environmental Management Plan) using standard PPG (Pollution Prevention Guideline). This will include provision of suitable measures such as silt curtains, spill mats under relevant equipment, storage and filling of machinery with fuel located away from river course, emergency protocols.

ANNEX

Table of Firth of Forth SPA/SSSI qualifying interest, with associated species-specific disturbance distances for breeding and non-breeding.

Distance from Proposal Site to SPA/SSSI boundary is 16km downstream

Firth of Forth SPA qualifying features – NatureScot Conservation Objectives;

<https://www.nature.scot/sites/default/files/special-protection-area/8499/conservation-objectives.pdf>

Firth of Forth SSSI notified interests NatureScot SSSI Citation;

<https://www.nature.scot/sites/default/files/site-special-scientific-interest/8163/sssi-citation.pdf>

Source information on disturbance distances taken from NatureScot (July 2022);

<https://www.nature.scot/doc/disturbance-distances-selected-scottish-bird-species-naturescot-guidance>

Consultation buffer information for NatureScot taken from InformedDECISION (last update 20.3.2026)

<https://www.nature.scot/professional-advice/planning-and-development/our-planning-role-and-consulting-us/naturescots-informeddecisiontm>

Species	Latin name	SPA or SSSI	Breeding status NB – non breeding Br - breeding	NatureScot disturbance distance	InformedDECISION consultation buffer information
Red throated diver	<i>Gavia stellata</i>	SPA/SSSI	NB	<1km	13.5km
Pink-footed goose	<i>Anser brachyrhynchus</i>	SPA/SSSI	NB	200-600m	20km
Shelduck	<i>Tadorna tadorna</i>	SPA/SSSI	Br NB	100-400m	350-450m
Gt crested grebe		SPA*/SSSI	NB	-	350-450m
Lapwing	<i>Vanellus vanellus</i>	SPA*/SSSI	NB	-	3km
Dunlin	<i>Calidris alpina</i>	SPA*/SSSI	NB	150-300m	3km
Curlew	<i>Numenius arquata</i>	SPA*/SSSI	NB	200-650m	2km
Turnstone	<i>Arenaria interpres</i>	SPA/SSSI	NB	-	3km
Slavonian grebe	<i>Podiceps auritus</i>	SPA/SSSI	NB	150-350m	-
Mallard	<i>Anas platyrhunchos</i>	SPA*/SSSI	NB	>100m	-
Wigeon	<i>Anas penelope</i>	SPA/SSSI	NB	200-500m	-
Scaup	<i>Aythya marila</i>	SPA*/SSSI	NB	150-450m	350-450m
Eider	<i>Somateria mollissima</i>	SPA*/SSSI	Br NB	150-450m 200-500m	-
Goldeneye	<i>Bucephala clangula</i>	SPA*/SSSI	NB	150-800m	-
Red-breasted merganser	<i>Mergus serrator</i>	SPA*/SSSI	NB	-	-
Oystercatcher	<i>Haematopus ostralegus</i>	SPA*/SSSI	NB	150-300m	-
Ringed plover	<i>Charadrius hiaticula</i>	SPA*/SSSI	Br NB	100-200m 100-300m	-
Grey plover	<i>Pluvialis squatarola</i>	SPA*/SSSI	NB	150-300m	-
Golden plover	<i>Pluvialis apricaria</i>	SPA/SSSI	NB	200-500m	11km
Knot	<i>Calidris canutus</i>	SPA/SSSI	NB	100-300m	-
Bar-tailed godwit	<i>Limosa lapponica</i>	SPA/SSSI	NB	200-300m	-
Redshank	<i>Tringa totanus</i>	SPA*/SSSI	NB	100-200m	-
Cormorant	<i>Phalacrocorax carbo</i>	SPA*/SSSI	NB	-	-
Long-tailed duck	<i>Clangula hyemalis</i>	SPA*/SSSI	NB	-	-
Common scoter	<i>Melanitta nigra</i>	SPA*/SSSI	NB	-	-
Velvet scoter	<i>Melanitta fusca</i>	SPA*/SSSI	NB	-	-
Sandwich tern	<i>Sterna sandvicensis</i>	SPA/SSSI	passage	-	-

* Indicates an assemblage qualifier only