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## **Craigforth Mixed-Use Development**

### **Habitats Risk Assessment Report**

Babbity Environmental Ltd.,

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Client:	Original Report	Colin Nisbet
	Author	
Proposal:	Checked by	G Cannibal
Title:	Released by	G Cannibal

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## 1. INTRODUCTION

Babbity Environmental Ltd. was commissioned by the Resources Unlimited LLP to carry out a Habitats Regulations Appraisal (HRA) Screening report in relation to the redevelopment of the mixed-use blue/green development at Craigforth Campus, Stirling.

The Craigforth Site lies next to the River Teith Special Area of Conservation (SAC) which is Internationally designated for nature conservation under the Habitats Directive (Council Directive 92/43/EEC).

### 1.1. Site Location

The site is centred on grid reference NS 77404 95107 and covers an area approximately 0.5km<sup>2</sup>. The M9 Motorway forms the eastern site boundary. The A84 Carriageway and the River Forth abut the northern extent of the site. The River Forth also runs along the western boundary. Arable farmland lies to the south of the site.

## 2. HRA SCREENING MATRIX

The Screening Matrix Table below presents an examination of the development to identify whether there is the potential for Likely Significant Effect (LSE) on the integrity of the River Teith SAC and its qualifying species as determined in relation to the conservation objectives of the SAC).

**Table 2-1: Screening Matrix**

<b>Screening Matrix</b>	
Plan or Project Name:	Craigforth Campus
Natura 2000 Site(s) under Consideration	River Teith SAC
Date:	5 <sup>th</sup> July, 2020
Author (Name/Organisation):	Colin Nisbet/Babbity Environmental Ltd
Verified (Name/Organisation):	Dr Gen Cannibal/Babbity environmental ltd.
Description of Project/Plan Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Site by virtue of:	
Land-take;	The River Teith will remain unaltered by the development. No effects from land-take are necessary.
Distance from the European Site or key features of the site	The River Teith SAC lies approximately 200 m to the north of the Development Site at its closest point. The River Forth, which forms the western site boundary, flows downstream into the River Teith SAC.
Resource requirements (from	N.A.



the European Site or from areas in proximity to the site, where of relevance to consideration of impacts);	
Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution1);	<p>An Environmental Management Plan (EMP) has been produced to cover the works. A detailed Construction Environmental Management Plan (CEMP) will be drawn up and agreed with SEPA, SNH and Stirling Council prior to the commencement of any construction works. This will include measures to safeguard the River Teith and any of its tributaries from pollution related to construction activities.</p> <p>The following SEPA guidance will be adhered to during the construction works:</p> <p>SEPA PPG 1: Understanding your Environmental Responsibilities – Good Environmental Practice; and</p> <p>New GPP 5: Works and maintenance in or near water</p> <p>Following completion of the construction phase the use of the site will be similar to its current use and no additive effects to SAC have been identified following construction.</p>
Excavation requirements (e.g. impacts of local hydrogeology);	N.A.
Transportation requirements;	N.A.
Duration of construction, operation etc;	The construction phase is anticipated to take 12 months.
Other.	N.A.
<p><b>Characteristics of European Site(s)</b></p> <p>A brief description of the European Site should be produced, including information on:</p>	
Name of European Site and its EU code;	River Teith SAC (UK0030263)
Location and distance of the European Site from the proposed works;	The River Teith SAC lies approximately 200 m to the north of the Development Site at its closest point. The River Forth, which forms the western site boundary, flows downstream into the River Teith SAC.
European Site size;	1289.33 ha
Key features of the European Site including the primary	The River Teith SAC is primarily designated on account of its lamprey populations, supporting all three British species as described below. It is



<p>reasons for selection and any other qualifying interests;</p>	<p>also designated on account of its population of Atlantic salmon <i>Salmo salar</i>.</p> <p>The River Teith in eastern Scotland represents part of the east coast range of the sea lamprey <i>Petromyzon marinus</i> in the UK. The River Teith is the most significant tributary of the River Forth and young sea lampreys have been recorded throughout the lower reaches of the main river. The conservation importance of the River Teith is increased by the fact that, unlike many British rivers, it supports populations of all three lamprey species.</p> <p>The river system supports a strong brook lamprey <i>Lampetra planeri</i> population. Brook lampreys have been recorded from the headwaters downstream to the lower reaches. It also supports a strong population of river lamprey <i>Lampetra fluviatilis</i>. The river lacks any significant artificial barriers to migration, has good water quality and the necessary habitat types (extensive gravel beds and marginal silt beds) to support the river lamprey's full life-cycle.</p>
<p>Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways; &amp;</p>	<p>The European Site conservation objectives (listed in the next section) refer to maintaining the populations and qualifying species within the SAC, maintaining the distribution of these species and their key habitats and the avoidance of significant disturbance to qualifying species.</p> <p>The standard data from lists 23 negative impacts from human activities, which have the potential to affect the SAC. The following three are regarded as relevant considerations for the redevelopment of Craigforth Campus, where mitigation will be implemented under the EMP and CEMP to appropriately safeguard the SAC. It should be noted that E01 Urbanised Areas, human habitation is not included here due to the fact the site is currently used as a commercial business park.</p> <p>I01 Invasive and non-native species  E03 Discharges  H01 Pollution to surface waters</p>
<p>European Site conservation objectives</p>	<p>Conservation Objectives</p> <p>The Conservation Objectives of the River Teith SAC are:</p> <p>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</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <p>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</p>



	<p>Structure, function and supporting processes of habitats supporting the species</p> <p>No significant disturbance of the species</p>
Baseline	<p>The western boundary of all three sections of the Development Site is largely comprised by the River Forth, which joins the River Teith SAC approximately 200m north of the site. The river channel meanders naturally along the boundary and varies between 10-15 m in width. The water is deep and slow flowing in this section of the River Forth. There is abundant bankside cover provided by riparian woodland, which largely comprises alder <i>Alnus glutinosa</i>, sycamore <i>Acer pseudoplatanus</i>, ash <i>Fraxinus excelsior</i> and cherry <i>Prunus</i> sp. trees. Between the trees invasive flora is abundant in the form of giant hogweed <i>Heracleum mantegazzianum</i> and Himalayan balsam <i>Impatiens glandulifera</i>. Little in the way of juvenile lamprey habitat (marginal silt) was present along the section of the River Forth which abuts the site. The same can be said for juvenile salmon, which favour shallower, faster flowing sections of channel over stone substrate.</p>
<p><b>Assessment Criteria</b></p> <p>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Site.</p>	
<p>In the absence of any mitigation there is the potential for the following adverse effects as a result of the proposed works. They are identified as:</p> <p>Spread of invasive and non-native species; and</p> <p>Risk of pollution from earth works and construction materials entering the watercourse.</p>	
<p><b>Initial Assessment</b></p> <p>The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts.</p> <p>Describe any likely changes to the site arising as a result of:</p>	
Reduction of habitat area;	There is to be zero loss of SAC habitat as a result of the works.
Disturbance to key species;	N.A.
Habitat or species fragmentation;	N.A.
Reduction in species density;	N.A.
Changes in key indicators of conservation value (water quality etc.); &	N.A.



Climate change.	N.A.
<b>Describe any likely impacts on the European Site as a whole in terms of:</b>	
Interference with the key relationships that define the structure of the site; &	The stretch of the River Forth which lies adjacent to the site is 200m from the River Teith SAC at its nearest point. No instream works are required as part of the development proposals. The flow of water through this section of the River Forth and into the SAC is not predicted to be altered as a result of the works. Furthermore, the structure of the deep and slow flowing riverine habitats which lie adjacent to the site are not considered to be optimal for supporting juvenile salmonids, which favour shallower riffle stretches with small stone substrate; or juvenile lamprey, which favour deep areas of marginal silt. Accordingly, it is not considered that the proposals will interfere with the key relationships that define the structure of the site.
Interference with key relationships that define the function of the site.	For the same reasons outlined above there is not predicted to be any interference with any of the key relationships that define the function of the site.
<b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b>	
Reduction of habitat area;	Not significant
Disturbance to key species;	Not significant
Habitat or species fragmentation;	N.A.
Loss;	N.A.
Fragmentation;	N.A.
Disruption;	N.A.
Disturbance; and	Not significant
Change to key elements of the site (e.g. water quality, hydrological regime etc).	The EMP and the CEMP will set out measures to safeguard the SAC. Between them, these documents will set out in full mitigation measures to ameliorate pollution to surface water via siltation and construction chemicals and materials; and to eliminate the further spread of invasive species. These documents will also be produced in consultation with SEPA, SNH and Stirling Council and the measures therein will not be implemented until all parties agree they are satisfactory for the appropriate mitigation of adverse effects with the potential to occur as a result of construction works.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	
N.A.	





### **3. Conclusions**

The conservation objectives for the SAC relate to the maintenance of the qualifying species populations and their supporting habitats. The riverine habitats adjacent to the site boundary lie at least 200m (at the closest point) from the River Teith SAC and, although there is connectivity with the SAC via this stretch of the River Forth, the habitats present within this section of the Forth are of limited suitability for juvenile lamprey or salmon. An EMP and a CEMP, which will include comprehensive measures and commitments required to safeguard the River Teith SAC from the works, will be drawn up and its content agreed with SEPA, SNH and Stirling Council prior to the commencement of any works. In conclusion, on the basis of this assessment it is considered there will be no likely significant effect on the River Teith SAC resulting from the proposals.