

**Archimedean Screw
Hydropower scheme at
Guyzance Meander**

Environmental Permitting Particulars
(supplementary pages to EA EP Forms B10 & F3)

25th October 2018

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Version control

25.10.2018 first issue

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25.10.2018

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25.10.2018

Executive summary

This document provides supplementary information to, requests for clarification of, and the latest status of documentation referenced in, those forms submitted to the Environment Agency (EA) under Environmental Permitting (EP) regulations for Flood Risk Activities. The forms in question are EA EP Forms B10 and F3. (EA hydropower guidance does not request EP Form A for hydropower schemes, as the same details are provided in WR Form WR317.)

Form B10**3 About your activities****3.b How many activities are you applying for?**

From the charging scheme as it stands, it is not clear how many activities need to be itemised separately in a Bespoke permit, which items count for full fee, and which are reduced or waived. The EA is invited to clarify this. When the FRA EP charges were introduced in 2018, the impact assessment stated that the item prices are set for cost recovery purposes and that the EA is empowered to waive charges at its discretion. In particular it is anticipated that charges will be waived where an activity creates little or no additional administrative overhead (= no separate item cost to recover). These might include charges for e.g. the second instance of two adjacent similar activities on the same reach of river (e.g. two dewatering activities), where there is no separate decision-making process (cost burden to the EA) in considering the second activity. For the purposes of Form B10 3.b (and Form F3 1 – see below), a provisional figure of “5” activities has been entered, but the EA may conclude that the final figure is lower (i.e. the main works with ancillary activities included) - pending advice from the EA.

Other relevant questions:

- Does the EA have any (? national) internal guidance on a standard method of assessing charges for a hydropower scheme (for example) as a single interrelated set of civil works/enabling works?
- What are the charging precedents for other recent hydropower / similar schemes in England?
- Some of the proposed activity items could be “exempt activities” (e.g. under FRA2 cable crossing, FRA7 dewatering, FRA19 eel pass), were it not for limiting conditions which apply to those exemptions. Text in the charging scheme suggests that this factor may reclassify activities to a less costly fee band, if any. Is this correct?

Form F3**1 Working out charges**

Number of Activities 5 (but see above)
Total charge £ 1441 (or more? See above)

£1441 appears to be the item charge for the main works, in assessing which, all submitted documents must be considered. EA please advise whether the other items do or do not incur separate cost for assessment (if so, this will be at FRA 75% deduction rate) - see above – and advise applicant/agent of total cost if different.

Form B10**3 About your activities****3.c Please provide a detailed description of the activities you propose and how you intend to undertake them**

Refer to drawing -110-. A Bespoke permit is sought, to include:

Permanent works of the hydropower scheme: being a new bypass channel of length >30m extending from intake via pipe to turbine, consisting of a continuous concrete structure made within a single line of excavation, with the piped part of works to backfilled and ground surface restored. No significant extension into river channel at each end.

Service crossing of pole-mounted overhead cable, at and from the above works, with onward cable away from the river to be buried to regulation depths.

Dewatering of a temporary cofferdam at upstream end of new works. Line of steel sheet-piles to be inserted close to the bank, total length <20m. During excavation and concrete works, cofferdam to be pumped out and filtered back to river via strawbale traps or equivalent and grassed bank. On completion, piles to be removed and riverbed graded to meet new works. Duration <3months: can be pulled as soon as upper end of completed new works is stopped off.

Dewatering of a temporary cofferdam at downstream end of new works. Line of dumpy-bags (sand clay or gravel) and plastic membrane, to be constructed in an arc close to the bank, total length ~20m. During excavation and concrete works, cofferdam to be pumped out and filtered back to river via strawbale traps or equivalent and grassed bank. On completion, cofferdam materials to be removed and riverbed graded to meet new works. Duration <3months: cofferdam can be pulled as soon as lower end of completed new works stopped off.

(Action to be confirmed, as and if agreed by EA Fisheries during WR licensing:)

Eel and/or lamprey pass, consisting of: manual drill-and-fix to superficially attach plastic substrate eel/lamprey tiles (if required, type/s TBC) to existing surface of fish easement at Guyzance Mill weir. Total max width of new work = ~1m. This work to be done in low water conditions by operatives in PPE, using hand tools and hand-deployed sandbags where required for local temporary flow control during working shift. Duration: <3 days.

NB: EA please advise if any other part of the proposed works as described in the submission documents constitutes an additional activity which the EA must itemise in an EP consent.

Form B10

4 Supporting Information

4.a Please list the plans and documents included with this application

Guyzance-C4-103-V03-20181022-ABC Map.pdf	– plan of NGRs etc for EA licensing
Guyzance-C3-106-V03-20181022-Location Plan.pdf	- site location plan
Guyzance-C1-108-V02-20181022-Application Plans.pdf	- drawings of scheme
Guyzance-109-V01-20181030-Risk Receptor Map.pdf	- risk receptors for EP
Guyzance-110-V01-20181030-FDC-Jobsites and Cofferdams.pdf	- plan of works for EP
0_SUM 20181023 Guyzance Meander 829.pdf	- project summary
1_DES 20181021 Guyzance Meander 829.pdf	- design description
2_HYD 20181020 Guyzance Meander 829.pdf	- Hydrology Assessment
3_ESA 20181020 Guyzance Meander 829.pdf	- Environmental Sustainability Assessment
4_FRA 20181020 Guyzance Meander 829.pdf	- Flood Risk Assessment
5_INF 20181021 Guyzance Meander 829.pdf	- infrastructure & cable routes
6_EPP 20181025 Guyzance Meander 829.pdf	- “extra pages” to EP forms

7_DRA 20181025 Guyzance Meander 829.pdf	– Risk Assessment
8_EMS 20181026 Guyzance Meander 829.pdf	– Environmental Management System
9_SDM 20181031 Guyzance Meander 829.pdf	- Stage/Discharge local impacts modelling
Guyzance Meander_FHS_MH_25102018_Final.pdf	– fisheries assessment
Geomorphology Assessment - Guyzance Meander.pdf	-Hydrogeomorphology Assessment
Ecological Appraisal - Guyzance Meander.pdf	–Ecology Assessment
<i>Other – on request</i>	<i>Environmental Statement (for statutory EIA in planning process)</i>

Form B10**4 Supporting Information****4.b Environmental Risk Assessment**

The supporting document set details the potential risks of this project and how these are addressed. The principal focus is the avoidance of detriment to the Coquet SSSI and to river fisheries ecology and habitats. See documents listed above. Particularly, please refer to:

Guyzance-109-V01-20181030-Risk Receptor Map.pdf	- risk receptors for EP
Guyzance-110-V01-20181030-FDC-Jobsites and Cofferdams.pdf	- plan of works for EP
7_DRA 20181025 Guyzance Meander 829.pdf	– Risk Assessment
8_EMS 20181026 Guyzance Meander 829.pdf	– Environmental Management System