



EASR Application

Proposed Variation Details

Shin Hydropower Scheme
CAR-L-1011463

Introduction

Overview

This document provides supporting information for the proposed amendment to CAR-L-1011463 Shin.

The document includes the following:

- The location of the new Hands of Flow (HoF) release point
- The volume associated with the new HoF release.
- The measuring location of the new HoF.

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Location of the New Hands-Off Flow (HOF) Release Point

Figure 1: B8 Intake is located at NC 5128 2645. The new HOF will be released at the same location (NC 5128 2645).

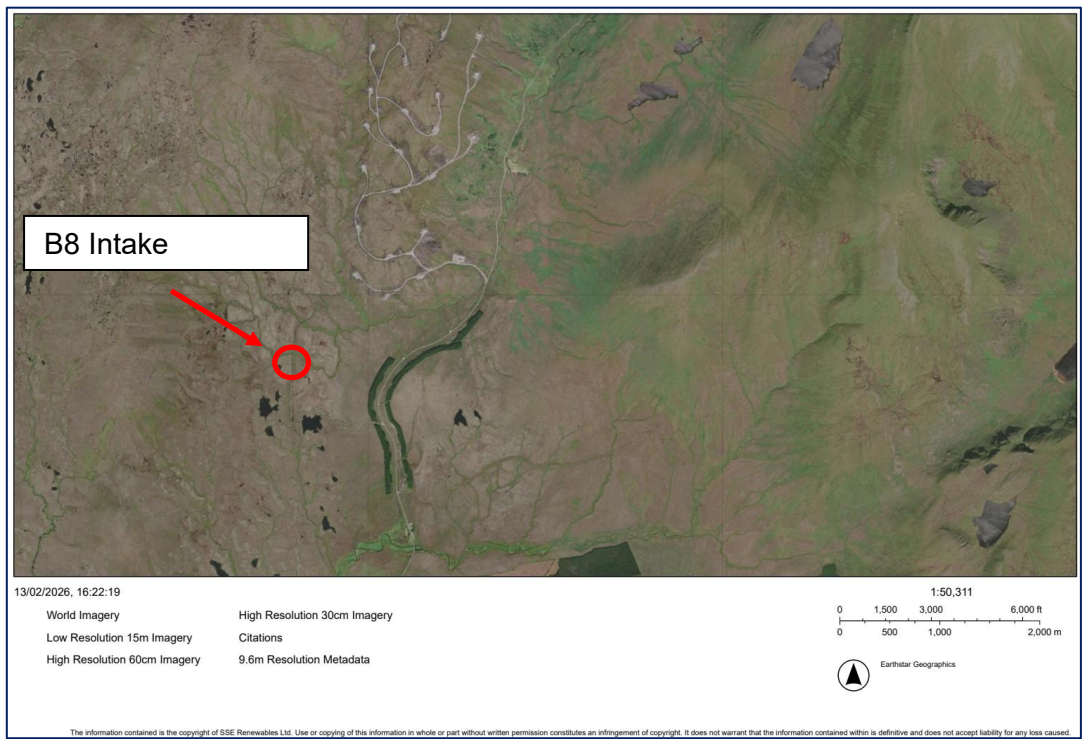


Figure 2: Aerial photography of the HoF location – B8 Intake.



Figure 3: B8 Intake aerial photography.

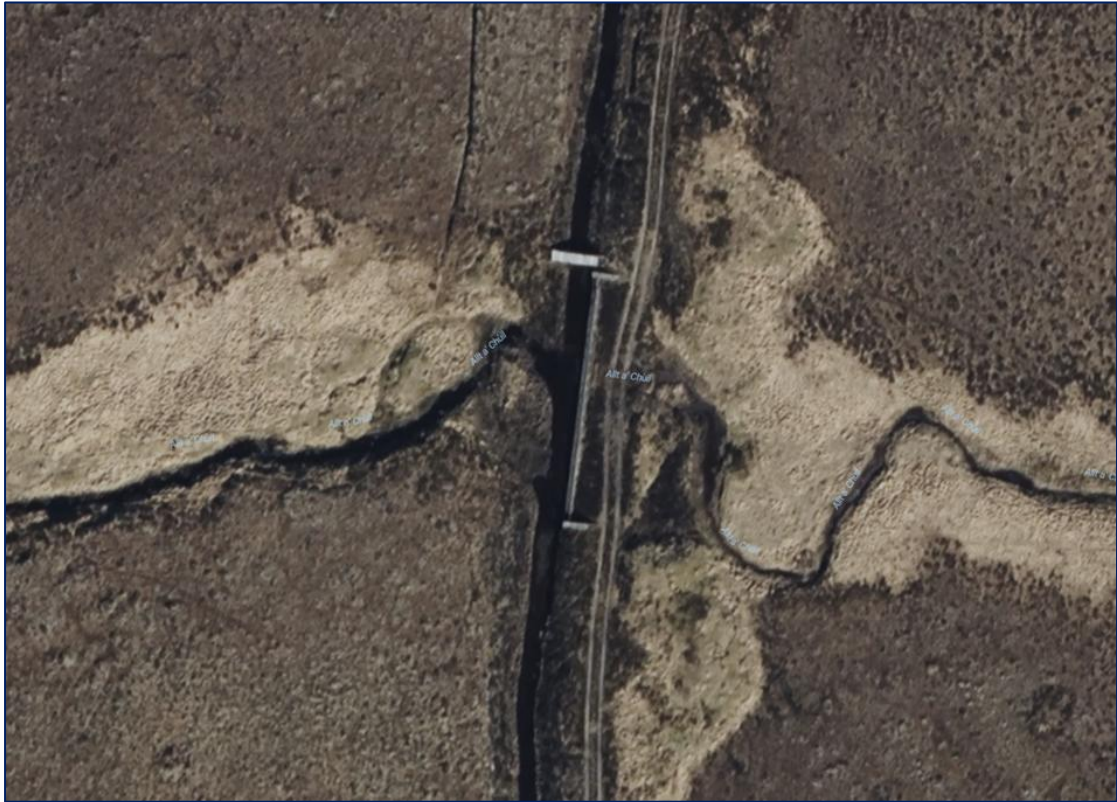


Figure 4: B8 Intake photo.



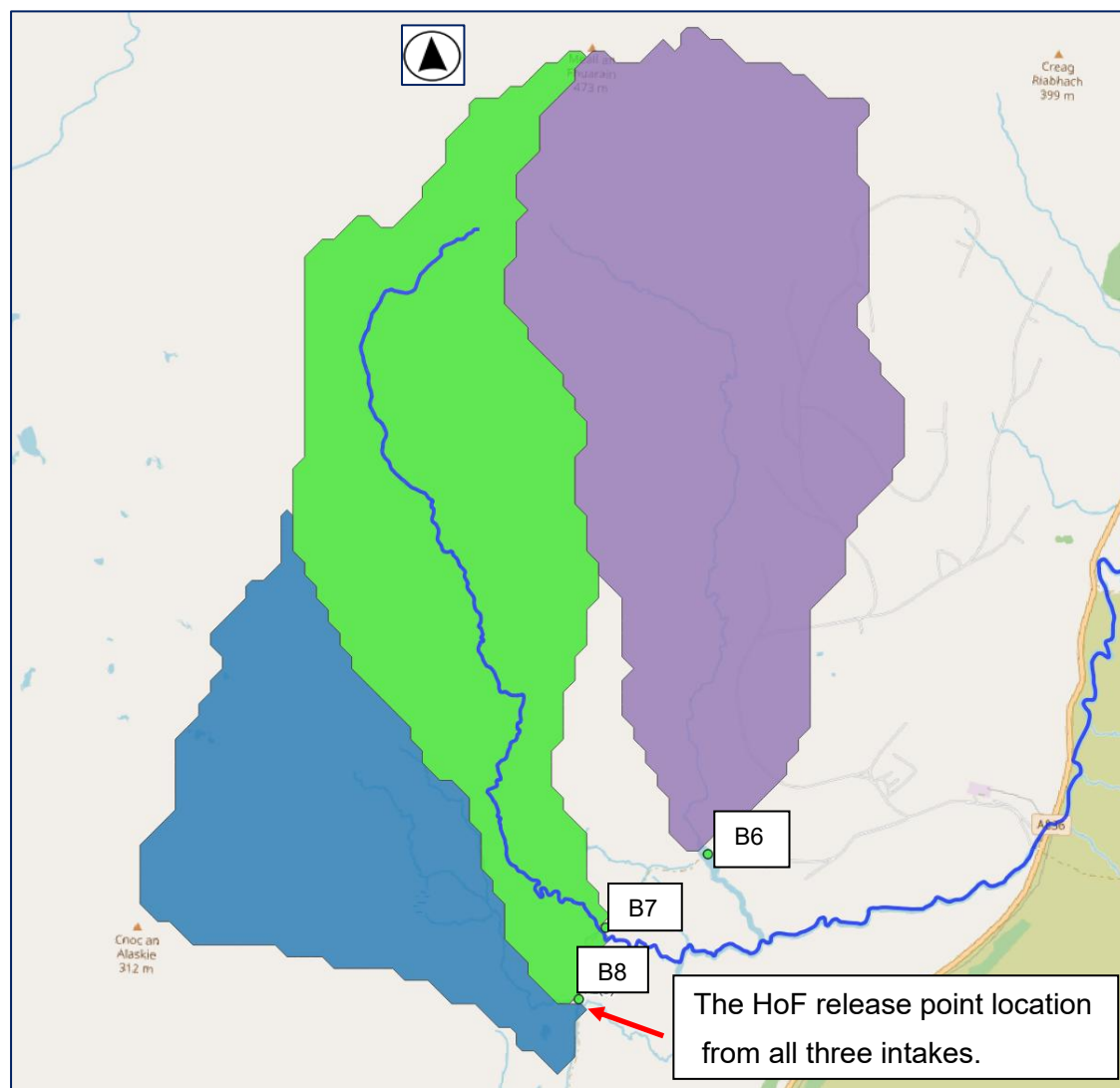
Hands-Off Flow (HOF) Volume

The Hands-Off Flow (HOF) volume was estimated using the Qube hydrological modelling application (2025), a tool widely adopted by SEPA for flow estimation and water resource assessments. Qube is specifically designed to simulate river flows in both gauged and ungauged catchments, incorporating natural hydrological processes as well as artificial influences such as abstractions and discharges.

In this case, the modelled release flow, referred to as the HOF, was calculated by summing the estimated natural flows from each of the abstracted sub-catchments within the relevant area (*Figure 5*). These sub-catchments were delineated using Qube's mapping interface, and their flow contributions were derived based on regional hydrological data and catchment characteristics.

The final HOF value corresponds to the Q96 flow statistic as defined within Qube. This means it represents the flow that is equalled or exceeded 96% of the time under natural conditions.

Figure 5: The abstracted catchment as the summary of Intake B6, Intake B7 and Intake B8 sub catchments.



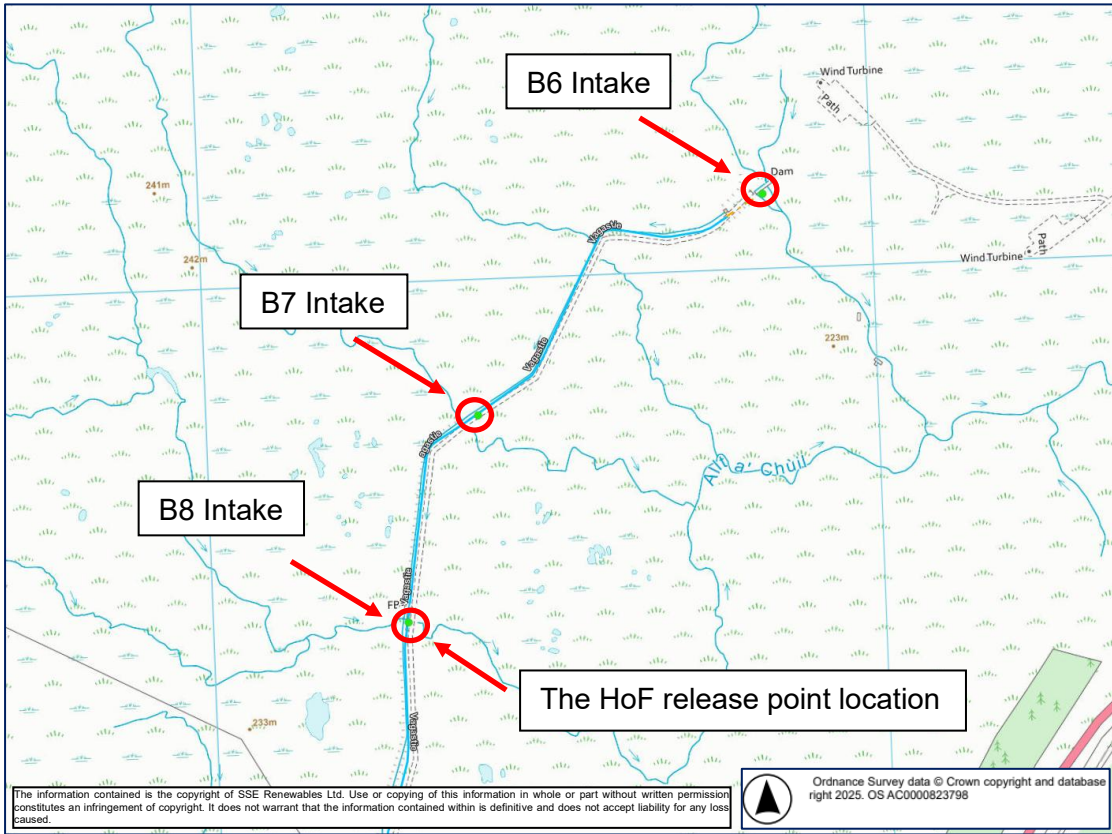
Suggested text to be added to the licence:

Vagastie Intakes

3.3.6 From 21 December 2027, no abstraction may be carried on at the locations described in Table below, when the flow in the Allt a' Chuil at National Grid Reference NC 5128 2645 is less than 0.033m3/second.

Table 3.3: A new table to be added to the CAR/L/1011463 licence

NGR	Name/Reference	Associated Waters
NC 5182 2711	Intake B6	Allt Bealach an Fhuarain
NC 5138 2679	Intake B7	Allt Meadhonach
NC 5128 2645	Intake B8	Allt a' Chuil



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