Habitat and Terrain Survey

The site was visited on 28th March 2011. A walk-over survey was undertaken to identify constraints to the construction of a scheme. General observations of the habitat within the development area will also help to assess the requirement for further, expert ecological surveys.

Habitat

Based upon these observations it is likely that otters will frequent the watercourse at some point and so mitigation must be put in place to protect them. The generally rocky banks and fast flowing channel mean that the affected reach of this watercourse is less likely to support a water vole population. The burn gorge and surrounding terrain is primarily occupied by established native woodland. This could potentially be home to badger, red squirrel, bats and nesting birds (form March to July). Disturbance of such species will be mitigated against in the construction methodologies.

A precautionary principal should be adopted and pre-construction checks at the intake and turbine locations should be carried out to ensure that protected species are not disturbed.

Terrain

The pipe will be laid along the existing outflow channel from the second intake on Harlaw Reservoir. This channel is constructed out of stone so bedding material will need to be imported. Upon exiting the channel the terrain is generally steep with the potential for bedrock below the topsoil. The area is also covered with medium density conifer woodland with significant windfall. Access to this side of the system/dam, for vehicles over 3 tonnes, will be made via Threipmuir and down the existing spillway

It should be noted that there is a shear drop in the spillway so safety measures will need to be implemented during construction.

Around the turbine house the terrain is more open. It was the historic site of hydraulic ram and the existing buildings here are proposed to be demolished and replaced with the turbine house. An existing access path which passes through the woodland from the Ranger Station will require upgrading before construction vehicles can access the site.

The site is a very popular tourist spot frequented by walkers and cyclists, there is a large footpath over the top of the dam which looks down on the turbine house site. There were recent major refurbishment works carried out on the spillway from the dam.

The map below shows the location of key observations and the tables following contain photos and video taken at those locations.

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Figure II.A: Observation Locations (not to scale)

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Location Number:	Grid Reference (if available)
1	
Observations:	
Harlaw reservoir, the two intake towers and footbridge over spillway	
A: Left tower to be used as hydro intake	**B. Spillway and footbridge**
	

Location Number:	Grid Reference (if available)
2	
Observations:	
Overview from top of dam looking down at Bavelaw burn. See dense forestry on each side of the burn	
A: Lower outflow. Hut shows turbine house location	**B: Upper outflow**
	

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Location Number:	Grid Reference (if available)
3	
Observations:	
Harlaw Reservoir and dam and access.	
A: Context	**B. Potential staging area**
	
C. Access to turbine house via track to the left of dyke	**D. Access road to Harlaw**
	

Location Number:	Grid Reference (if available)
4	
Observations:	
Existing track to turbine house location cuts through the trees. Upgrading and the removal of some tree may be necessary.	
A: Context	
	

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Location Number:	**Grid Reference (if available)**
5	
Observations:	
Turbine house to sit on site of existing hut in clearing in the forest.	
A: Context	**B. Looking back up at access track**
	

Location Number:	**Grid Reference (if available)**
6	
Observations:	
Pipe to come down the steep bank and forestry on the far side of the burn. Also see turbine house location	
A: Context	
	

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Location Number:	**Grid Reference (if available)**
7	
Observations:	
Burn gorge. Turbine house to be on the right, pipe coming from the left and crossing river via a pipe bridge.	
A: Context	
	

Location Number:	**Grid Reference (if available)**
8	
Observations:	
Steep terrain from the river crossing up to the spillway (see 7 below) Dense forestry, fallen trees, and boulder/bedrock	
A: Context	**B. Looking at potential pipe bridge to turbine house**
	

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Location Number:	**Grid Reference (if available)**
9	
Observations:	
The existing outflow channel from the reservoir cutting through the forestry	
A: Downstream	**B: Upstream to reservoir outflow and valve house**
	

Location Number:	**Grid Reference (if available)**
10	
Observations:	
Existing outflow from lower intake and Scottish Water scour outflow.	
A: Context	
	

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Location Number:	**Grid Reference (if available)**
11	
Observations:	
Intake tower	
A: Context	**B. Intake tower**
	

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