



## Revaluation 2010

### Public Buildings Committee

#### Practice Note 14 River Gauging Stations

### 1.0 Introduction

- 1.1 This Practice Note deals with the valuation of river gauging stations occupied by Scottish Environment Protection Agency (SEPA), Government Departments, Universities and Colleges. Gauging stations occupied by Hydro Electric Boards and Water Authorities and used for operational purposes should not be entered in the local Roll.
- 1.2 Gauging stations are designed to monitor the state of the waterway on which they are located and assist in the collection of statistical information. They can range from a simple post which can be inspected as required, to equipment which will automatically record river levels, flow, temperature, pollution, etc.
- 1.3 The majority of gauging stations are operated by SEPA. Details of gauging stations operated by other bodies should be available from SEPA.

### 2.0 Method of Valuation

- 2.1 The Contractor's Basis should be employed using the appropriate statutory decapitalisation rate.

### 3.0 Types of Gauging Stations

- 3.1 The most common gauging stations operated by SEPA comprise a small hut on the riverbank over a vertical concrete well, connected by horizontal pipes to the river. Water enters the well and variations in level, etc can be recorded on instruments in the hut. It is understood that instrumentation has been moving in the direction of electronic and smaller scale equipment with automatic signalling to a "centre". Many have a cable extending over the river from which instruments can be suspended to measure mid-river flow, etc. SEPA stations can be divided into four main groups:-
  - 3.1.1 **Modern** built since mid-1970s (but see 3.1.2 below). Hut is usually of timber measuring 6-9m<sup>2</sup> covering a well 900mm internal diameter and connected to the river by two 100 mm internal diameter pipes. The riverbed and banks often require stabilisation, usually with concrete or fibreglass. Any cableway across a river is usually supported at one end by the hut and at the other by a metal, concrete or timber post set in concrete and stayed to concrete anchor blocks. This tensioned steel wire allows a travelling block and trapeze to be winched across for velocity measurement of river flow.

- 3.1.2 **Basic modern** variant of 3.1.1 built in 1990s. Only known to have been provided to monitor the River Tay following severe flooding. Smaller hut, usually of timber (but one example in a town provided with a brick and concrete building to resist vandalism). Well of PVC, 400mm in diameter, connected to the river by a PVC pipe of 100mm diameter. Otherwise similar.
- 3.1.3 **Built in 1960s.** Smaller hut than 3.1.1 above and well only 760mm internal diameter, restricting use of some modern instruments (possibly overcome by the use of electronic equipment).
- 3.1.4 **Ex-DAFS stations,** taken over by River Boards (who were superseded by SEPA) in 1970. Small hut approx 3m<sup>2</sup> over 380mm diameter well, incapable of accommodating modern instruments. Cable across river, but no winch.
- 3.2 Gauging stations operated by other bodies such as universities normally comprise a box mounted on posts over river. A copper capillary tube fitted with a rubber diaphragm is suspended into the river. The diaphragm is affected by variations in water pressure and an instrument in the box records the effect of this. These stations usually also have a cableway.
- 3.3 The basic gauging station is a post in the river on which the water level can be visually measured, as required. Unless substantial siteworks have been undertaken, such as a separate channel or river, these stations are considered to be of little value and should not be entered in the Roll

#### 4.0 Costs

- 4.1 Due to the considerable degree of civil works involved in construction and the individual nature of each location, costs may vary considerably. It is recommended that actual costs should be used where available, adjusted as necessary to April 2008 levels.
- 4.2 In cases where no costs are available, comparison should be made with similar stations where costs are known and appropriate adjustments made for construction, depth of well, etc.
  - 4.2.1 **Modern** – On the evidence available to the Committee, the style of station described in 3.1.1, assuming no adverse site conditions, would cost approx £14,500 and this rate should be adopted.
  - 4.2.2 **Basic Modern** – On the evidence available, the style of station described in 3.1.2, assuming no adverse site conditions, would cost of approx. £8,250 and this rate should be adopted.
  - 4.2.3 **1960's** – These should be taken at the modern type rate at of £14,500 less 25% for narrow well, etc.
  - 4.2.4 **EX DAFS** – These should be taken at the modern type rate of £14,500 less 70% for very small well, small hut etc.

## **5.0 Contract Size, Professional Fees & External Works**

Due to the size and nature of river gauging stations, no adjustments are necessary for contract size, professional fees or external works. The costs quoted include these elements.

## **6.0 Obsolescence Allowance**

The appropriate obsolescence allowance should be given. The buildings allowances should be used.

## **7.0 Decapitalisation Rate**

The appropriate decapitalisation percentage should be used.

## **8.0 Site**

It is understood that a right of access, a right to build the station and to gauge the river was commonly granted free of charge or for a nominal rent by the owner of the land. Available rental evidence is limited but in the absence of local rents, it is suggested that a figure of £115 per annum may be used.