Development of the Scottish river gauging network

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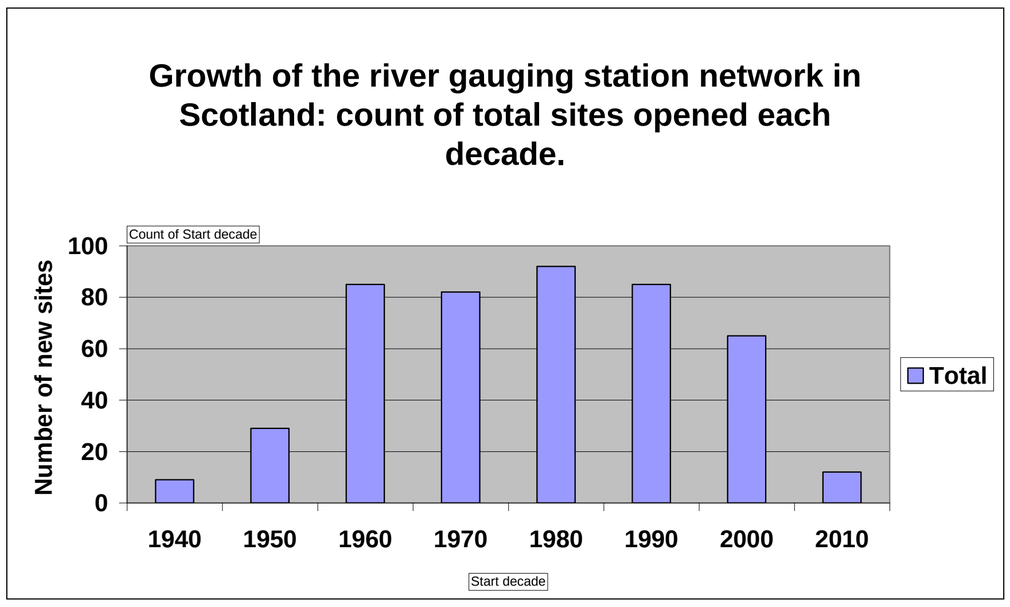
This poster depicts the growth of the river flow gauging network across Scotland. The drivers for this started with the need to understand the available water resources in major catchments but have also included pollution monitoring, flood warning, and the monitoring of specific activities, as various legislative changes have demanded, gradually pushing the development of sites upstream and into smaller catchments. SEPA currently operates 371 river monitoring stations of which 315 deliver flow data, some restricted in calibration, but most providing data over the full range of flows: only 200 of these sites are considered to deliver flows sufficiently “near-natural” that they can be used as analogue sites. Whilst the aim has always been to develop monitoring that represents the range of catchment characteristics in Scotland, it is acknowledged that there is still a lack of small catchments, urban catchments, and extreme upland catchments in the network. Those sites which do meet the last criterion are increasingly impacted by development of small hydropower schemes to meet demands for renewable energy. Data from 168 sites are currently submitted to NRFA under the SLA; 139 sites are used in Hi-Flows UK.



More than 31% of the above sites are no longer operating.

SEPA also operates 8 loch-level monitoring sites (ecological impacts), 12 tide gauges (coastal flood warning), and 391 raingauges of which 217 monitor rainfall intensity.