

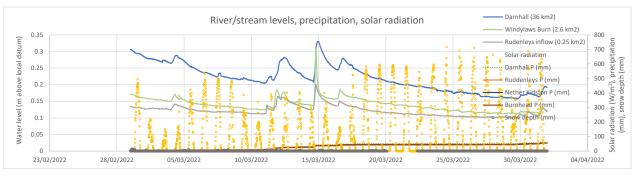
University of Dundee

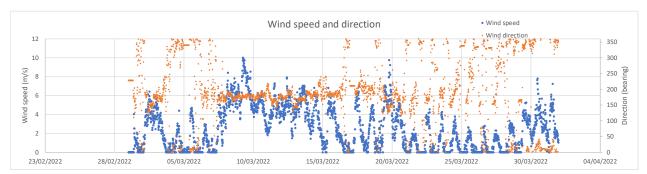
Eddleston Water Project Monthly weather and hydrology report

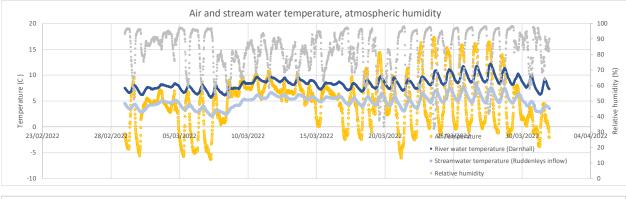
March 2022



Monthly statistics	Hourly values		Daily values				Month	
	Max Day/time	Min Day/time	Max	Day	Min	Day	Average	Total
Precipitation (Darnhall Mains) (mm)	5.4 14 @ 16:45		15.6	14				62.0
Precipitation (Wester Deans) (mm)	3.6 31 @ 10:15		11	11				50.4
Precipitation (Ruddenleys) (mm)	3.6 11 @ 02:45		12.6	11				55.2
Precipitation (Nether Kidston) (mm)	3.8 31 @ 10:15		12.8	11				55.0
Precipitation (Burnhead) (mm)	3.4 14 @ 16:30		13	11				56.0
Runoff depth (Darnhall Mains) (mm)								74.5
Air temperature (Darnhall Mains) (C)	17.2 23 @ 14:00	-6.3 7@7:0	8.5	11	-0.4	6	4.7	
Relative humidity (Darnhall Mains) (%)							81.2	
Sunshine hours			9.7	19			5.0	155.5







Notes:

A much drier month of March compared to February. Air temperatures were seen to increase through the duration of the month, starting with lows of -6.3°C on the 7th at 7 am and reaching a high of 17.2 °C on the 23rd of the month at 2 pm. Solar radiation levels picked up during the month and a total of 155.5 sunshine hours were recorded, with new sunshine records being achieved for this March within Scotland nationally. River water temperatures at Darnhall reached 12°C towards the end of the month, but never dropped below 5.5 °C. Although a fairly warm and sunny March, still 18 frost events occurred.

After a wet February, March rainfall is 80% of long-term average. Hourly precipitation values reached a maximum of 5.4 mm at Darnhall on the 14th, following this we can see a modest change in the water level at Darnhall increasing from 0.2 m to 0.33 m above the local datum through the day. A monthly total runoff depth of 74.5 mm is calculated, although this estimate may be slightly high. All other rainfall sites recorded maximum precipitation levels on the 11th with daily precipitation values ranging from 11 to 13 mm. Snow accumulation reached 13 cm at the start of the month, but was short-lived at low elevation at least.

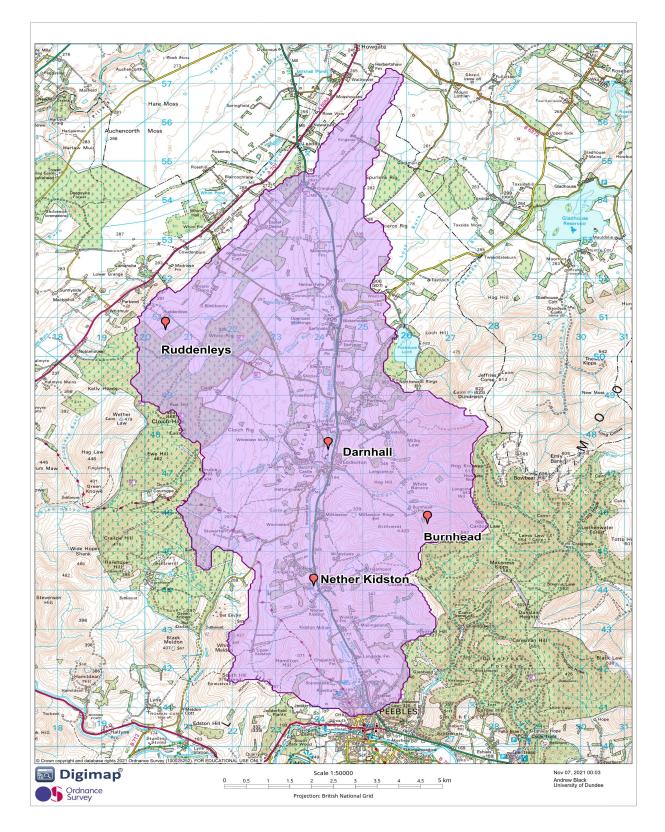
Real-time data available at: https://hydro-data.dundee.ac.uk/eddleston











The Eddleston Water Project

Funded by the Scottish Government, Interreg and the Scottish Environment Protection Agency (SEPA), this project aims to reduce flood risk and restore the Eddleston Water for the benefit of the local community and wildlife.

The project involves river re-meandering, the planting of over 300,000 trees and the creation of new wetlands. This should slow the speed and impact of floodwaters as well as creating new wildlife habitat, such as improved spawning for salmon. Our project partnership is closely monitoring the results, including any reduction in flood risk for downstream communities.

The project is a partnership initiative led by Tweed Forum, with the Scottish Government, SEPA and University of Dundee. Other key partners include British Geological Survey, Nature Scot, Scottish Borders Council, the Forestry Commission, National Farmers' Union of Scotland, the Tweed Foundation, Forest Carbon and the Woodland Trust. Tweed Forum works closely with landowners and the local community so that everyone can contribute ideas and follow the project's progress.

For more information, see: <u>https://tweedforum.org/our-work/projects/the-eddleston-water-project/</u>

This monthly report is produced by student volunteer effort at the University of Dundee. For more info, see: <u>sites.dundee.ac.uk/hydrology/monthly-reports/</u>