



TRAINING CARD: RIVER LEVEL



A participatory approach to river level monitoring Measuring river level using the river level gauge boards



Why measure river level?

River level (also known as ‘stage’) provides us with information on how deep the water is at key locations and an indication of water quantity. Rivers and streams are extremely variable and we need to capture this. Regular river level monitoring can also help notify the community when the water levels are rising fast.



What equipment do I need?

You do not need any equipment – this monitoring activity is based on a **visual inspection of the river level gauge boards** at key locations. You might need some paper or a camera to record your readings and a watch to note the time of your observation.



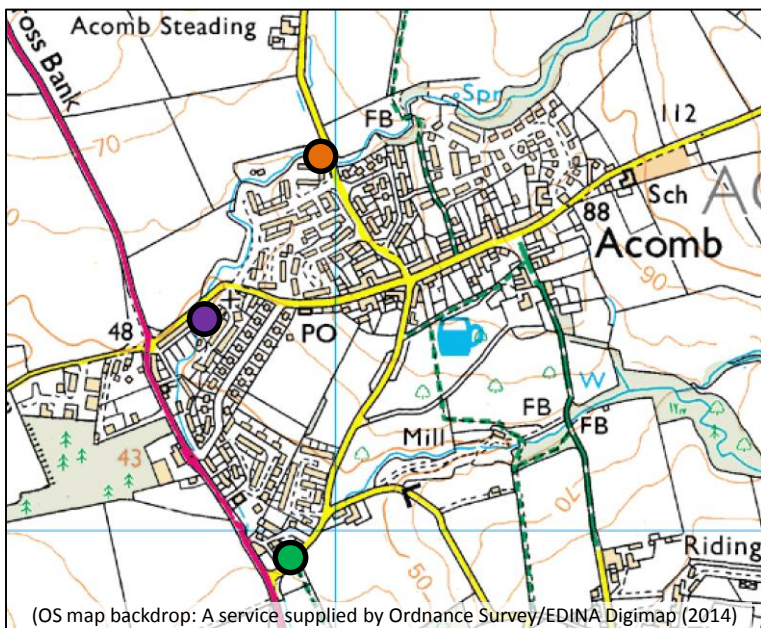
How often should I take river level readings?

As often as you can! **At least once a day is desirable** and if not, once a week. If it is forecast to rain, it is raining now or it was raining in the last 24 hours, you could also take extra readings as the river and stream levels will begin to rise. It is important to take note of the location, date and time of your observation. Each time you are passing.. why not take a quick look?!






Where are the gauge boards located?

Three river level gauge boards have been installed along the Red Burn and Birkey Burn. Locations are highlighted on the map below. It is important to obtain river level readings from fixed locations so we can build up a picture over time.



(OS map backdrop: A service supplied by Ordnance Survey/EDINA Digimap (2014))

Location of river level gauge boards

-  Name: **Red Burn Bridge**
On the downstream (west) side of the Red Burn bridge, which is located below The Steading & Halfway House.
-  Name: **Red Burn Culvert**
downstream of the trash screens and two road culverts, near Crossbank View & Morrison Ter.
-  Name: **Birkey Burn Allotments**
next to the footbridge which leads to the allotment gardens, at the bottom of Garden House Bank.

Click on the coloured dots to view exact locations on [Google Maps](#) (internet required)



What do the river level gauge boards look like and how do I take a reading?

The river level gauge boards are 'giant rulers' fixed onto the wall at one side of the river. Look out for a white plastic sign with graduated lines and numbers marked in black. From the footpath, visually observe where the water reaches on the gauge board and take a reading. Your reading should be taken to the nearest 0.01 metre (m). If the burn has dried up or is in flood then make a note of this and if possible take a photograph. If the water does not reach the gauge board (at low flow) then make an estimate and make it clear in your monitoring sheet that it was estimated ('E').



How do I submit my results and how often?

It is suggested that you record your daily/weekly river levels each time and submit a monitoring sheet at the end of each month to the shared Dropbox folder. You could also try using Twitter or the Android app to submit your data as soon as you have taken a reading so the community can benefit from this information. You can also submit your observations using the 'Red Burn Citizen Science' webpage here: <http://bit.do/redburn-submit> if you prefer. Remember... Your observation should always be accompanied by a date, time and location.



#RiverLevel
@RedBurnAcomb



An example and suggested river level monitoring sheet..

RIVER LEVEL GAUGE BOARD: Birkey Burn Allotments		OBSERVERS NAME: A. WOODS	
LOCATION: Allotment footbridge, Garden House Bank, Acomb.		GRID REFERENCE: (http://gridreferencefinder.com/) 392928 565946	
MONTH / YEAR: March 2015			
OBSERVATION DATE (DD/MM/YYYY)	TIME OF OBSERVATION (24HR CLOCK)	RIVER LEVEL (METRES)	NOTES (E.G. RECENT WEATHER CONDITIONS, RECORDING ISSUES, ESTIMATE, SIGN OF FLOODING IMPACTS, VISUAL INSPECTION OF WATER SPEED)
01/02/2014	09:00	0.24	Dry weather. Burn slow flowing
02/02/2014	09:10	0.62	Heavy rain storm over night. Burn fast flowing. No flooding



Important Please take care when observing river levels, especially when the Burn is fast flowing and in flood. You do not need to enter the water to take a reading.

For further support and guidance please contact Action 4 Acomb – contact details can be found on the website: <http://www.action4acomb.co.uk/>



Action 4 Acomb

What do the river level gauge boards look like in Acomb?



 Red Burn Bridge



 Red Burn Culvert



 Birkey Burn Allotments