

## Where we are at

The channel and structural cross sectional survey has commenced. This is a topographical survey to obtain river and structure profile data, including cross-sections of the river bed, the river banks and any structures in the river channel, such as bridges or weirs. Further information on the survey can be found in last month's newsletter which is available on our website.

The survey teams have started their survey along the River Owenboy and at the hydrometric gauges located around the catchment. The next section of river to be surveyed will be the Lower Lee downstream of Inishcarra dam. This is expected to start in the next two weeks.

The defence asset survey, described in our 'Focus On' section in the December newsletter, is nearing completion. The survey team are on site and expect to complete the remaining 8km by early March.

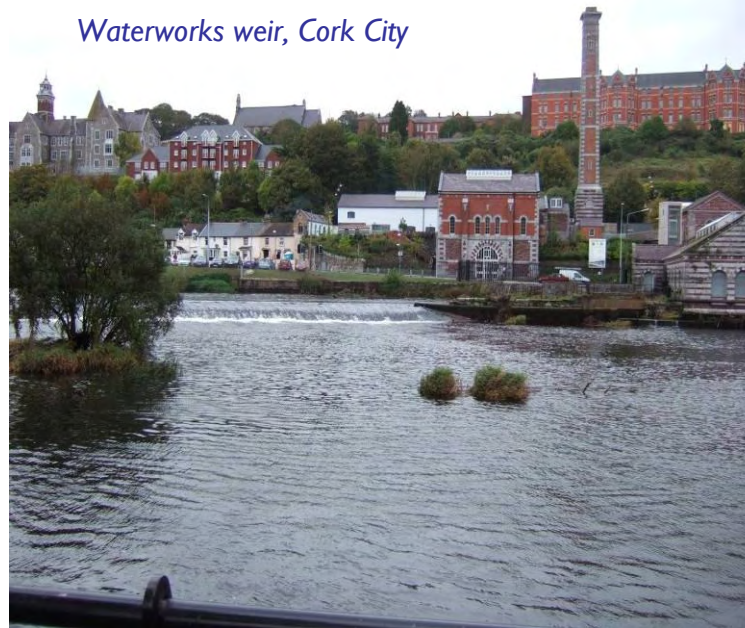
## Next issue

The next issue of the newsletter will be the first of two newsletters to focus on the hydraulic modelling. The next issue will look at the hydraulic modelling being undertaken in Cork Harbour. This involves the use of a computer model to determine water levels in Cork Harbour due to tide and storm surges.

The next issue will also have a quarterly review of where we are at with the project and summarise all the work which has taken place over the last few months.

The next issue of the newsletter will be available at the end of March.

Waterworks weir, Cork City



Upper River Lee



## Contact details

If you have any questions or require any further information relating to this study or if you would like to be included on a distribution list for future issues of this newsletter please email [LeeCFRAMStudy@opw.ie](mailto:LeeCFRAMStudy@opw.ie)

Further information is also available on our project website at [www.leecframs.ie](http://www.leecframs.ie)

# LEE CATCHMENT FLOOD RISK ASSESSMENT AND MANAGEMENT STUDY

Newsletter - 06  
February 2007

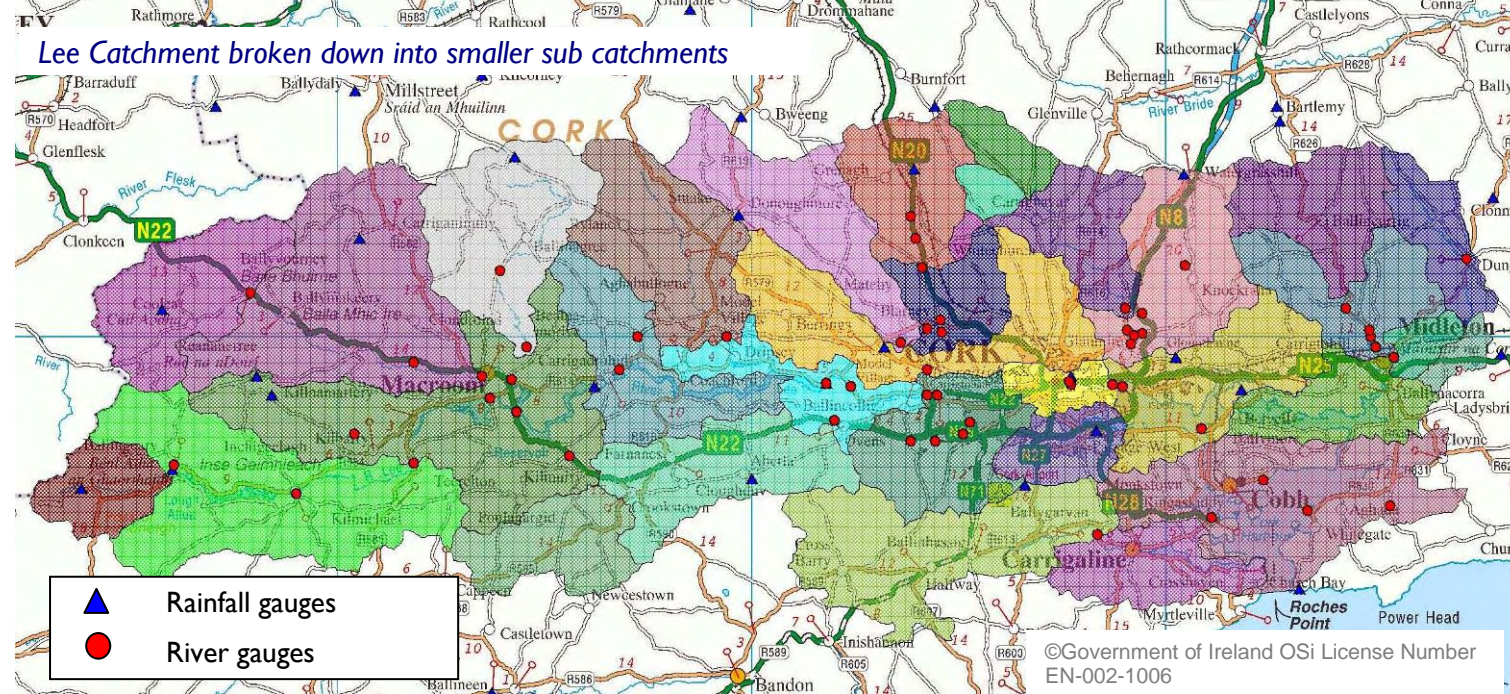
**Halcrow**



## Introduction

Hello and welcome to the sixth edition of the Lee CFRAMS monthly newsletter. In this edition of the newsletter we provide details on the analysis of existing gauged river flows and rainfalls in the catchment, technically known as the hydrological assessment. This is covered in our 'Focus On' section below. You will also find details of our progress to date with regards to the defence asset survey work and the channel and structural cross sectional survey.

Further information on our progress can also be found by logging on to our website at [www.leecframs.ie](http://www.leecframs.ie)



## Focus On

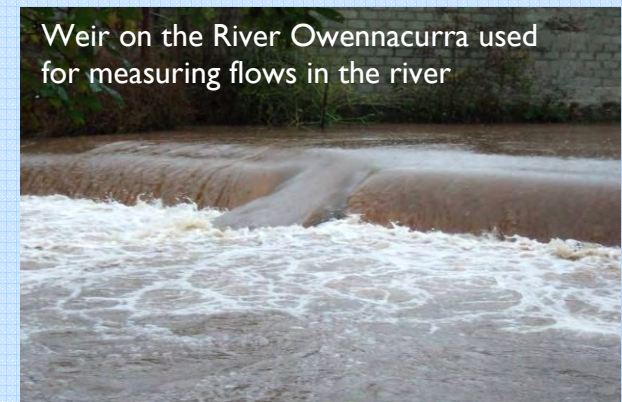
### Hydrological Assessment

Hydrology concerns the occurrence and movement of water in the environment. For assessing flood risk in the Lee catchment, we are particularly interested in the effects of surface water hydrology, which looks at the relationship between rainfall on the land surface and runoff into the streams, rivers, lakes and reservoirs (water bodies). The hydrological assessment will use the scientific findings of the Flood Studies Report (FSR) together with recorded river flow and rainfall data to estimate rates and quantities of runoff into the catchment water bodies.

The catchment defines the area drained by a river or other body of water. The map shows the Lee catchment broken down into a series of smaller adjoining sub catchments. These smaller sub catchments are separated from

each other by higher ground such as a ridge or a mountain. The sub catchments act like a 'funnel' collecting all the water within the area covered by the sub catchment and routing it into a water body. The rate and quantity of macron reaching the water body depends on a number of factors:

- Duration and intensity of rainfall.
- Size of the catchment.
- Topography and geology of the catchment. Catchments with steep slopes and impermeable rocks and soil will have a faster rate of surface water runoff.
- Land use  
Urban areas have lots of impermeable surfaces which causes the transfer of water to rivers more quickly than rural farm lands.
- Previous weather  
If the ground is already saturated, then any new rainfall will have a faster rate of run-off.



We are currently in the process of carrying out the hydrological analysis with the help of our project partners, J B Barry & Partners Ltd. Once the hydrological analysis has been completed, we will have a series of river flows to input to our computer model of the rivers and Cork Harbour.

The impact of climate change on river flows will also be considered and will be covered as a separate topic in a future issue of the newsletter.