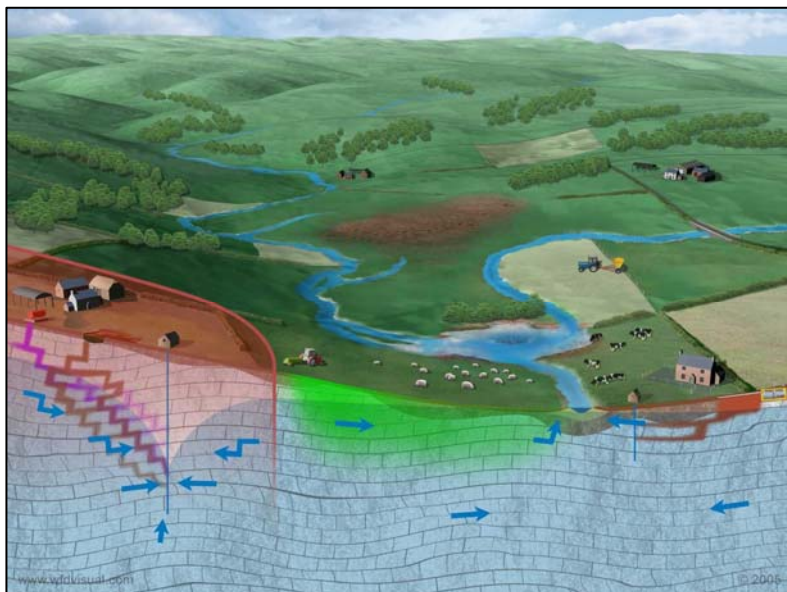


Groundwater Source Protection Zone Delineation

A two-day course, comprising lectures, practicals and discussion sessions

1st and 2nd April 2009, Geological Survey of Ireland, Dublin



in conjunction with



Background and course aims

Delineation of source protection zones (SPZs) around wells and springs is a critical factor in protecting drinking water supplies. It is also relevant to the implementation of the WFD, assessing groundwater monitoring data from the national EPA network, Cryptosporidium risk assessments and producing Drinking Water Safety Plans.

The aim of the course is to equip delegates with tools for SPZ delineation work, and impart knowledge gained through many years of work by the practitioners leading the course.

Course overview

This two-day course addresses the basics of source protection zone (SPZ) delineation using the Geological Survey of Ireland methodology as a template.

Through a mixture of lectures, hands-on sessions and discussion, course attendees will be taken through the steps in the process, from desk study, via field work and data interpretation, to reporting. The steps are considered within the framework of the source conceptual model.

Course outline

Day 1:

- Introduction
- Conceptual model for Source Protection Zone delineation
- Desk Study, including understanding data sources
- Fieldwork and site visit checklists
- Fieldwork techniques: subsoil permeability mapping
- Practical: Subsoil Permeability Assessment

Day 2:

- Fieldwork techniques: depth to rock mapping, karst mapping
- Data interpretation: vulnerability map, recharge, hydrochemistry
- Data interpretation and quantitative methods for delineating Source Protection Zones
- Work Shop: sample exercises

Course contributors

Lectures and practicals will be given by Geological Survey of Ireland, EPA staff, academics, and consultants. Monica Lee, Natalya Hunter Williams, Caoimhe Hickey (GSI) and Coran Kelly (Tobins, formerly GSI) will cover core parts of the 'GSI SPZ delineation methodology'. Robbie Meehan, an independent consultant who has more than ten years' experience in subsoil characterisation, will teach subsoil permeability mapping techniques. David Drew, Senior Lecturer in Geography at TCD, will introduce SPZ delineation in karst. EPA will introduce their new zone of contribution delineation tool.

Who should attend?

Hydrogeologists and other groundwater practitioners working in the area of source development and protection zone delineation.

For registration details, please see form overleaf

Registration form

GSI/EPA/IGI Groundwater Source Protection Zone Delineation

1st and 2nd April 2009, Geological Survey of Ireland, Dublin

Name.....
Organisation
Address.....
.....
.....
Phone / Fax number.....
Email.....
Purchase Order Number (if appropriate)

Registration Fees (Prepayment only - No late registration at the venue)

Delegate fee.....**€550.00**

Fees include course attendance, course material, lunch on both days, and refreshments at all scheduled coffee/tea breaks.

Please check box and specify requirements if vegetarian or other dietary requirements should be catered for

Delegates are advised to arrange their own accommodation if it is required.

Issue receipt to:

Name.....
Organisation
Address.....
.....
.....
Signature.....

Completed forms, payment (non-refundable cheque *made payable to 'IGI Treasurer'*) and a cover note/ remittance advice should be received on or before **Friday, 20th March 2009**.

Please send to: Orla McAlister, Tobin Consulting Engineers, Blanchardstown Corporate Park, Blanchardstown, Ireland. Phone: +353 1 8030401. Fax: +353 1 8030409.

Email: orla.mcalister@tobin.ie: Receipts for payment will be issued by email by Orla.

Please make sure that you fill in the pre-course questionnaire (attached) and return it to the address given.

