



Demonstration site

The **Alsace** (Rhine river basin) was selected as it is a **strategic European drinking water reservoir** where groundwater is threatened by human activities

Four specific cases studies to target as many different situations were monitored from October 2007 to December 2008



Partners



French Geological Survey



Flemish institute for technological research - Belgium



Ghent University - Belgium



International Office for Water - France



United Nations Educational, Scientific and Cultural Organization

2nd Edition

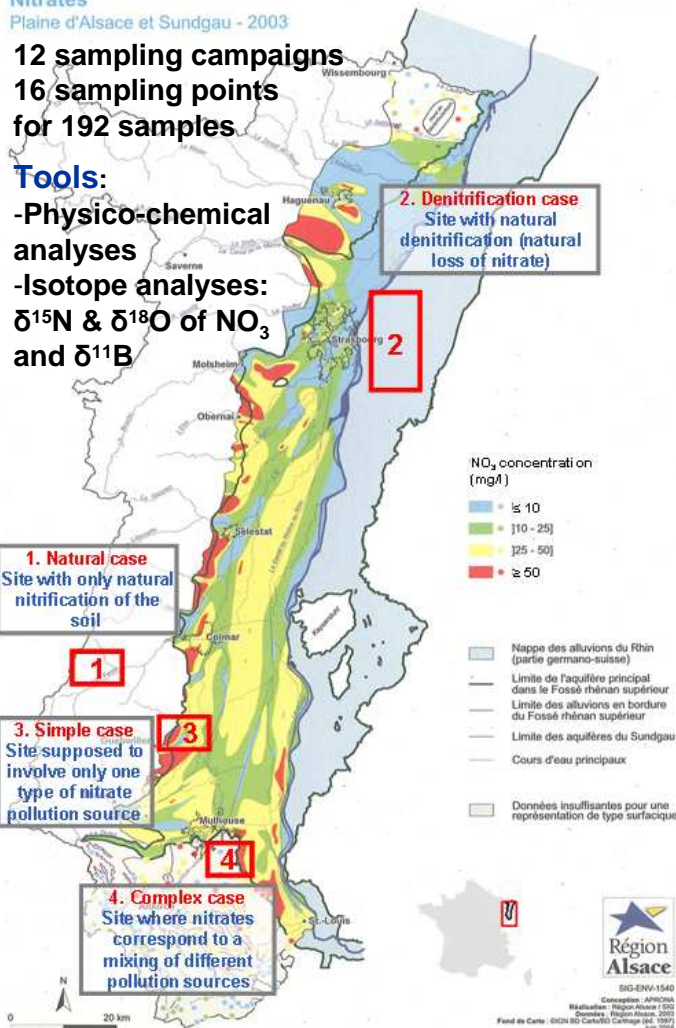


Inventaire de la qualité des eaux souterraines dans le Fossé rhénan supérieur

Nitrates
Plaine d'Alsace et Sundgau - 2003

12 sampling campaigns
16 sampling points
for 192 samples

Tools:
-Physico-chemical analyses
-Isotope analyses:
 $\delta^{15}\text{N}$ & $\delta^{18}\text{O}$ of NO_3
and $\delta^{11}\text{B}$



Contact



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How isotope monitoring can improve management of nitrate pollution in water

LIFE demonstration project





Project

Outcome 1 Guideline documents

Outcome 2 Workshop for policy makers

ISONITRATE is a demonstration project funded by the European Commission under the Life Programme



Aims

- ⇒ To propose an adequate tool for water managers and policy makers to enhance river basin management concerning nitrate pollution
- ⇒ To demonstrate the added value of isotope approach which allows:
 - To characterise water bodies
 - To distinguish nitrates sources
 - To analyse pressure and impact of nitrate pollution

Schedule: 2007 - 2010

- Done** 2007: ISONITRATE tool description and link to policy
- 2007/08: Sampling campaigns
- 2008/09: Environmental impact and transferability,...
- 2008/09: ...Environmental impact and transferability
- 2009: Cost/benefit evaluation
- 2009: **Guideline documents**
- December 2009: **Final Workshop for policy makers & implementers**

What next ?

Addressed to: Water managers / Policy makers; Administrations, Environmental Agencies

Objective: Demonstrate how operational Water Framework Directive monitoring programs would benefit from including isotope analysis

Publication: end 2009

Can measurement of N, O and B isotopes be useful for your nitrate problem
A guideline

- Criteria for application of isotope measurement
- Flowchart: stepwise approach to define possible use of isotope methods for nitrate pollution monitoring and issues

N, O and B isotopes to evaluate nitrate pollution in water
Analytical and practical manual

- Method description & Step-by-step guidelines to transfer the methodology
- Economic advantage based on a cost/benefit analysis

ISONITRATE International Workshop

“Towards new methods to manage nitrate pollution within the Water Framework Directive”



Draft Programme



Day 1 – 10 Dec-09
from 13:00

“Nitrate monitoring: alternative and classical approaches”: a scientific state of the art

Day 2 - 11 Dec-09
until 13:00

“Towards implementation of new methods to manage nitrate pollution”: round table



Objectives: Present and discuss new approaches to manage nitrate pollution

Audience: policy makers and implementers, environmental agencies, scientists, water stakeholders

Venue: 7 place de Fontenoy UNESCO, 75007 Paris

Date: 10 & 11 December 2009

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