Facilitating the Application of Output from Research and Case Studies on Ecological Responses to Hydromorphological Degradation and Rehabilitation (FORECASTER)

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FORECASTER

A knowledge and information system relating hydromorphology and ecology of European rivers

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For more information visit our webpage: http://www. forecaster.edu.es

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FORECASTER OBJECTIVES:

Assessing research output and case studies concerning the ecological effects of hydro-morphological degradation and positioning hydromorphology in river rehabilitation strategies.

- Link science with practical implementation of robust, cost efficient rehabilitation strategies for improving rivers and standing waters.
- Stimulate the exchange of knowledge and scientific opinion.
- Develop guidelines for environmentally sound, cost-efficient practices for rehabilitation of rivers.

FORECASTER STRUCTURE:

Work package 1
Physical impacts of human activities

Work package 2
Biodiversity drivers

Work package 3
Programme of measures

Work package 4
Development of guidelines

Work package 5
Consultation and dissemination

FORECASTER DELIVERABLES:

- Review of impacts of hydro-morphological changes on biodiversity loss and aquatic community change.
- HMWB classification
- Review of physical drivers and degree of influence
- Recommendations for best practice tools and rehabilitation methodologies (Webtool)
- Guidelines for environmentally sound rehabilitation practices
- Workshops and consultations
  - Tulcea, Romania – June 2009
  - York, UK – April 2010
  - Lyon, France – June 2010

FORECASTER DELIVERABLES:
Webtool (see - http://forecaster.deltares.nl/)

FORECASTER

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Forecaster

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Home

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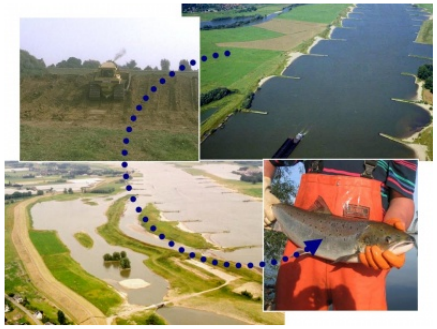


Delft Cluster

Welcome to the FORECASTER web-based tool! This is a knowledge and information system relating hydromorphology and ecology of European rivers and has been developed as part of the project FORECASTER funded by the IWRM-Net and Delft Cluster.

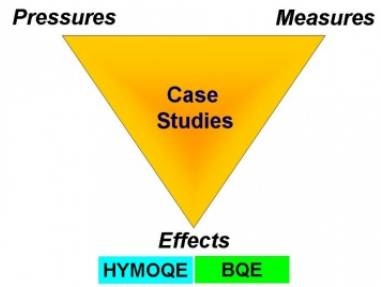
The system presents a compilation of case studies describing the output from restoration and rehabilitation projects and is intended to help practitioners by presenting experiences about success or failure of the application of different measures.

The system is set up as a GEO-WIKI. Google maps are used as a gateway to the case studies and wiki pages are used to present relevant information about the implementation of the projects. Users can consult the tool either geographically or by theme using filter or free search options. Moreover, they can contribute to improve the information in the system by adding or updating relevant information in the wiki pages

At the core of the web-based tool are the Case studies. These are examples of restoration and rehabilitation projects. The case studies provide the link between hydromorphological pressures, possible restoration and rehabilitation measures, and expected effects on the physical environment (using Hydromorphological quality elements, HYMOQE's), and biota (using Biological Quality elements, BQE's). Each case study has an associated wiki page containing maps and additional information about the implementation of the project.

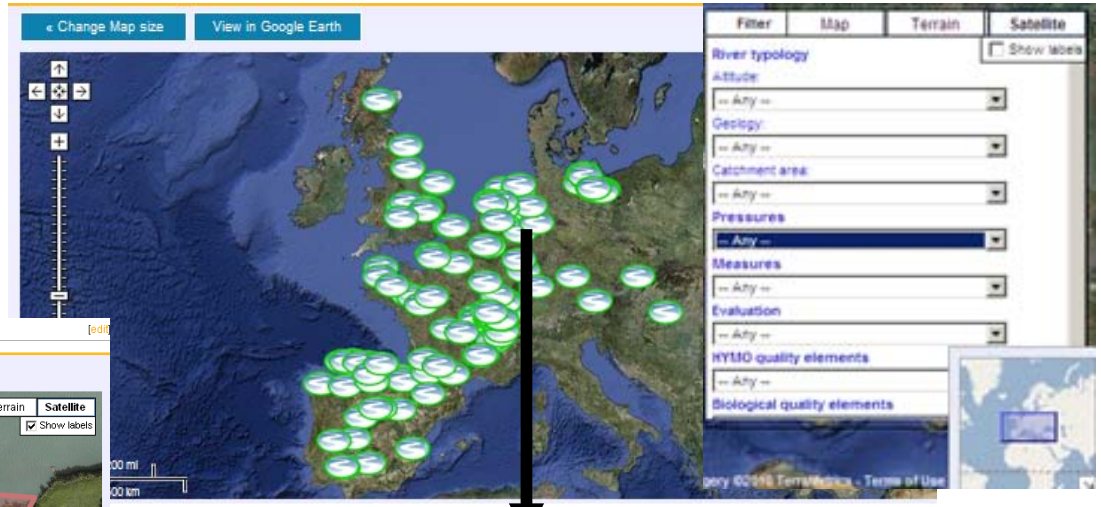
The system also contains wiki pages with general descriptions and background information about:

- European River Typologies
- Hydromorphological Pressures
- Restoration and rehabilitation Measures
- Biological Quality Elements BQE
- Hydromorphological Quality Elements HYMOQE.



Drivers & Pressures

1 Surface water abstraction
- 1.1 General description
- 1.2 Effect/Impact on (including literature citations)
- 1.3 Case studies where this pressure is present
- 1.4 Possible restoration, rehabilitation and mitigation measures
- 1.5 Useful references
- 1.6 Other relevant information



Gameren [edit]

Case Studies

1 Site name:
2 Key features of the case study
3 Site description
4 Measures selection
5 Success criteria
6 Ecological response
7 Hydromorphological response
8 Monitoring before and after implementation of the project
9 Socio-economic aspects
10 Contact person within the organization
11 Extra background information
12 References

Introduction [edit]

View on side channel set of Floodplain "Gameren", downstream direction. Photo: Rijkswaterstaat (NL)

Under the authority of the Ministry of Transport, Public Works and Water Management (Eastern Netherlands division), the Institute for Inland Water Management and Waste Water Treatment RIZA executed a monitoring program on secondary channels in the Gamerensche Waard. During the period 1996-2002 a broad and complete program was executed with three main objectives: 1) evaluation of the desired effects, 2) assessment of the undesirable side-effects (risks) and 3) increase of the knowledge about secondary channels.

In the period 1995-1999 three secondary channels were excavated in the Gamerensche Waard along the river Waal (the main side branch of the river Rhine). Regarding the dimensions, these channels are unique for Dutch rivers. These channels are digged out partly from former agricultural grassland and partly they exists of connected former sand and clay exctraction pits. The three secondary channels vary with regard to location (inside and outside the summer embankment), length (0.5-2 km), width, depth (0-20 m), discharge (1-3%) and the like. Just one of the channels is flowing

Factsheet: Gameren

General

Country	NL
River Name	Waal
Site Name	Gameren
River typology	
Location (Lat Lon)	51.8062000807445, 5.20940780639648
Altitude	lowland: < 200 m
Catchment area	very large: > 10000 km2
Geology	Calcareous
National code/ River type name	

Biological quality elements

{{{bqe}}}

FORECASTER CONSULTATION AND DISSEMINATION:

Interactive workshops and conference to:

- Identify requirements for meeting WFD programme of measures.
- Consolidate needs for effective delivery of webtool.
- Dissemination of wider project outputs.
- Identification of way forward.

FORECASTER –NEXT STEPS:

Interactive workshops and conferences to:

- Support local initiatives for improving ecological status of river basins
- Consolidation of future of webtool through successful LIFE+ Communication bid RESTORE.
- Submission of proposal under EU FP7 Environment call ENV.2011.2.1.2-1 Hydromorphology and ecological objectives of WFD.