

# Is there some incompatibility between Water Uses and the Water Framework Directive?

current works in progress  
with focus on the hydroelectric use of water  
in the Rhône-Méditerranée District



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## WATERBODIES FOR RIVERS AND LAKES

**RIVERS :**  
**737 main Water Bodies**



**LAKES :**  
**121 Water Bodies**



## The hydroelectricity in the District

→ 60 % of the french hydroelectricity produced in the RM District

*N.B : HyEl represents 18 % (ar.) of the total electric energy consumption in France*

→ Different types of equipments

- ✓ Downstream production
- ✓ Hydropiking production
- ✓ Great Reservoirs
- ✓ Stations for transfer of energy

**A SPECIFIED USE VERY WELL-INSTALLED  
IN THE DISTRICT**

## Some well-known ecological incidences

- Modifications of flows by water diversion, by hydropiking ;
- Breakpoints to ecological continuity (biological circulation, sediment transit)
- Dams & Reservoirs that have totally transformed the pre-existing hydrosystems.

These ecological incidences are :

- sometimes obviously heavy, extensive and permanent
- Major Remediation impossible - may enter the HMWB designation process.
- usually softer, more located or intermittent
- Remediation is - or may be - possible (for 2015 or later)

## First short overview of consequences on water bodies (WB) categories and objectives



Among the 188 HMWB in the District:

- 66 HMWB concerned by an hydroelectric use;
- 64 with an HMWB designation quite confirmed ;
- 2 remain to be precised.

Work on proposal of objectives for each WB : in progress

# Discussion

HMWB no

Good  
Chemical +  
Status

Good Ecological  
Status

Good Ecological  
Potential

HMWB yes

Achievable in 2015 ?

Postponed to 2021? 2027?

Less stringent objectives?

BUT ... HAVE TO BE JUSTIFIED :

- Technically, *and/or*
- Socio-economically

→ Not any incompatibility *a priori* between hydroelectric use and WFD implementation



## Discussion

*But, Whatever the WB's objectives are ...*  
sets of measures to be implemented ...

- with a good (the best ?) 'effectiveness/cost' ratio
- with no significant adverse effect on services that are provided by specified uses (sustainable development)

some points to pay attention for ...

- the relevant scale to define/implement measures (e.g. restoration of sediment load, minimum flow regime...)
- the supply of electricity organised through networks of many hydropower plants (... many water bodies !)
- the share of data in a field of strong industrial competition (how to assess costs and benefits ?)
- to answer at local scales to the general objectives of the Directive on 'Renewable Energies ' ?

## Discussion

To day, a lack of pragmatic framework:

- to assess the needs of services that are expected from water uses in their own (and how to meet them technically) ;
- to consider gaps between these needs and general environmental objectives for obvious proposals of 'local' objectives for WB ( how to share out works for providing data) ;
- To bind 'local' EO and providing of socio-economical services in the implementation tools devoted to a sustainable developmment ;



# Recommandations

## 1 to assess the needs of services

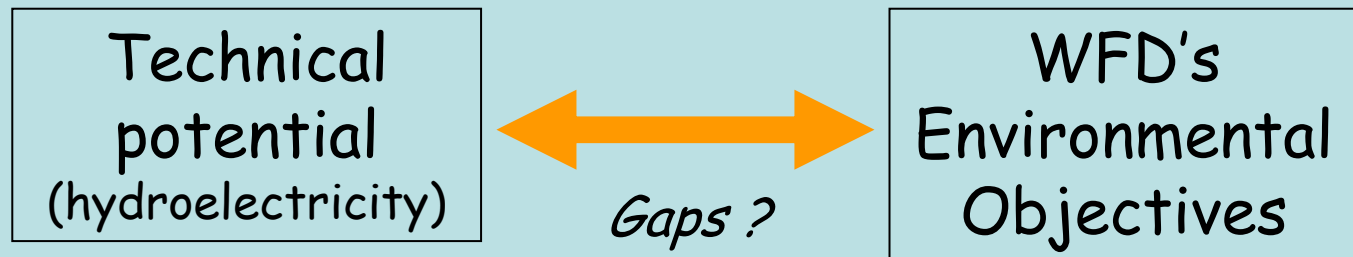
### *Example of hydroelectricity*

An evaluation of the 'technical hydroelectric potential' in the district will be a major help :

- whether it is established for planification purposes, with aims to answer to the Directive 'Renewable Energies' and to encourage a policy drawn by the demand instead of the supply;
- whether it offers a prospective view including the great future investments (e.g. diversification of energy source);
- whether it shows how this potential (REnD) may be effectively run at the scale of small catchments.

# Recommandations

2 to consider gaps between service's needs and the WFD's environmental objectives



Mitigation measures  
WB's objective proposals

GEP 2015 and/or  
Postponed and/or  
Less stringent

GES in 2015

if lack...

➔ to associate stakeholders for technical justifications of exemptions to GES in 2015

## Recommandations

### 3 To bind environmental objectives and providing services

➔ environmental objectives & mitigation, restoration & protection measures should be early included :

- in the setting/revision of development schemes for services & uses
- in the setting/revision of landuse schemes

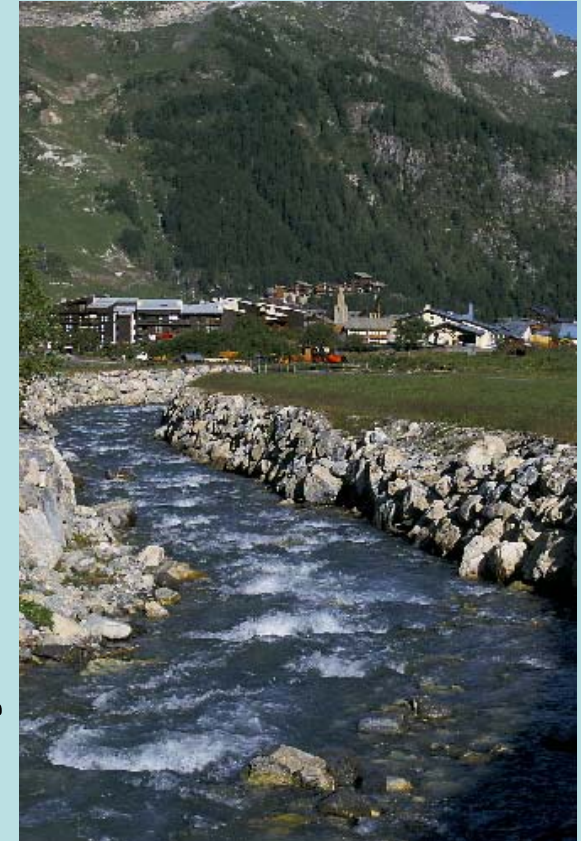
'anticipation instead of remediation'

# Conclusions

- ➔ WFD and Water Uses are not incompatible in their own

*To make the both consistent with mutual benefits*

- ➔ A need of methods with ground requirements to ensure :
  - an effective participation of the stakeholders concerned
  - transparency of the whole process
  - a mid/long term view of water management



- ➔ Some tracks to develop and complete ...

***Thank for your attention !***