



Woodlands for drinking water: for the value of forest services

Julien Figuepron*, Olivier Picard*, Aurélien Bansept,
Eric Toppan**, Nicolas Wilhelm*****

- * Centre National de la Propriété Forestière -
Institut pour le Développement Forestier**
- ** Fédération Forestiers Privés de France**
- *** Syndicat Intercommunal des Eaux des Moises**



Montpellier - septembre 27th 2016

abstract n°2375



25-29th
September 2016

Montpellier, France
CORULM CONFERENCE CENTER

43rd
IAH
congress



French private foresters works on forest and drinking water



2006

Economical valuation
of forest services for
drinking water
(CNPF / INRA)



2009

Legal constraints to
build contracts



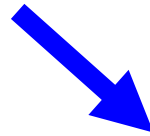
2013

Developp contracts
"Eau + For"
programm

- Forest water: a richness ?
- How to develop partnerships ?



- Forest water: a richness ?



€



- Forest water: a richness ?



In France, 55% think that wastewaters are directly retreated in plants to produce drinking water (survey C.I.EAU / TNS SOFRES - 2008)

⇒ **Wrong idea**

• Forest water: a richness ?

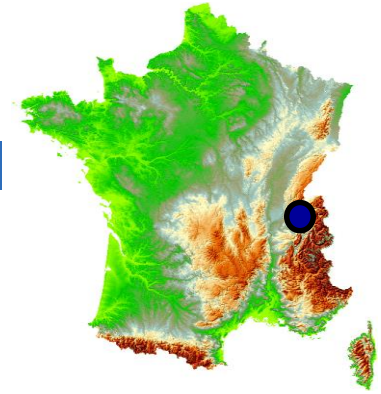


What's the value of good quality water for drinking purposes, from the start, thanks to forest ?

- Forest water: a richness ?

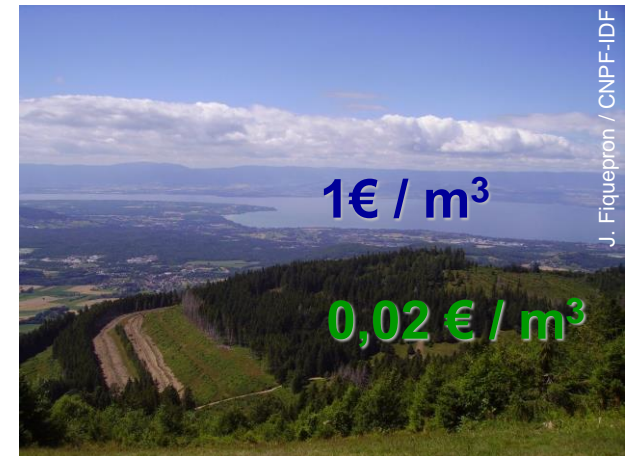
Catchments in mountainous forests

- Case study of the Syndicat intercommunal des eaux des Moises (SIEM)
Interreg Alpeau project



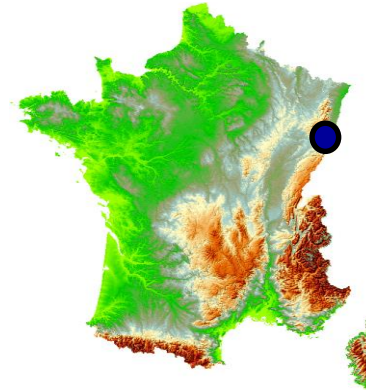
Pumping lake water: 41 times more expensive than water from woodland springs.

Treatments costs: pumping is 93 times more expensive than woodland springs (0,26 versus 0,03 €/m³).



An accidental increase of turbidity may cost 69 000 €: more than 5 € by subscribers. Without the loss in terms of image and confidence for subscribers !

- Forest water: a richness ?



- Case study of Masevaux

Forest management dedicated to water quality, catchments of springs in forest

Additional forest management costs:
from **40 €/ha/year**

to **80 €/ha/year**,
with cable logging in general use



It is vital to preserve woodland springs, which can be used to supply natural water at very competitive costs

A richness... but also costs !

• How to develop partnerships ?

➤ The Syndicat intercommunal des eaux des Moises (SIEM)



A real partnership:

An association gathering the local water supply service and the foresters (ASL forestière du Mont-Forchat)

Origin of the partnership:

Since a turbidity accident caused by logging operations, the SIEM wants to develop prevention in forest areas of the catchment

The actions:

- Establishment of a global sustainable management document
- Construction of a forest road
- Contract with **6 €/m³** of wood for additional harvesting costs

➤ Limits, a big gap between

– General speeches

- 2012, WWF6: green economy
- 2007, Ministerial Conference on the Protection of Forest in Europe, Varsaw resolution (PES)

– Actual decisions

- For many water producers « Forest is not an issue » and regulations are adequate.
Exclusive priority on polluted watersheds ;
- Many foresters are not involved: don't want another process with constraints.
Some prefer « doing right, without telling they do so ».

- How to develop partnerships ?


- Tools to develop partnerships




A technical guide "Protect and value forest water", with operational forest guidelines to protect water quality.

Take advantage of the good image of water from forests: label "eau forestière" (forest water), in collaboration with Ecocert company.

Share methods and animation costs with other environmental services: carbon, biodiversity... in addition with wood production.

**PROTÉGER ET VALORISER
L'EAU FORESTIÈRE**



Guide pratique national, réalisé dans le cadre du programme « EAU + FOR » - 2014

forest guidelines to protect water quality:

Different hydrogeological contexts :

Springs, wells, drilling

geology: alluvium (porous aquifer)

geology: granite, schist, gneiss... (porous - fissured aquifer)

geology: karst (karstic aquifer)

River intake, dam

PROTÉGER ET VALORISER
L'EAU FORESTIÈRE

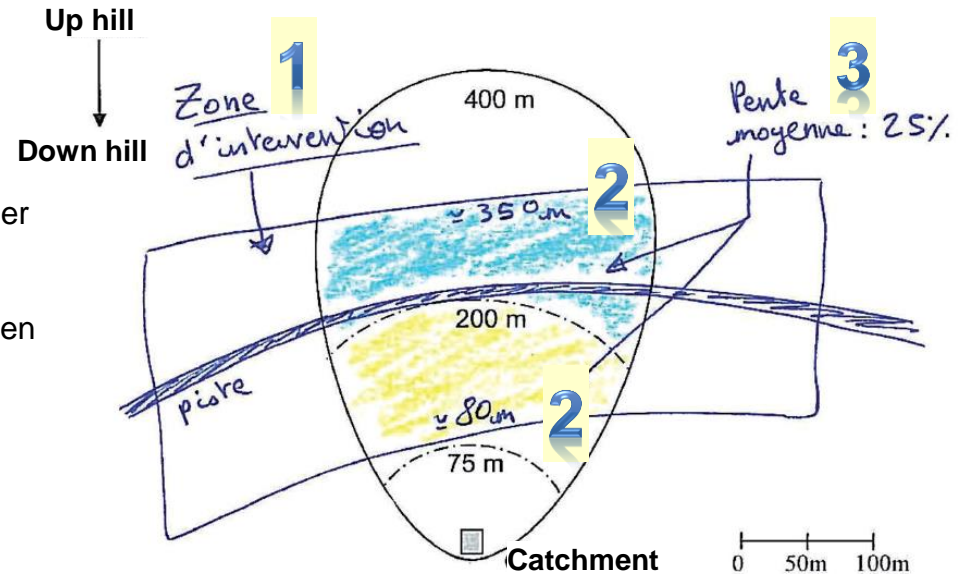


Guide pratique national, réalisé dans le cadre du programme « EAU + FOR » - 2014

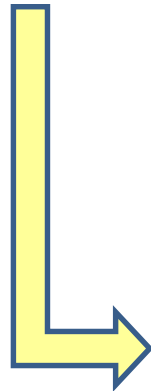
Field form and diagram of sensitivity : instructions

Example: spring catchment in schist

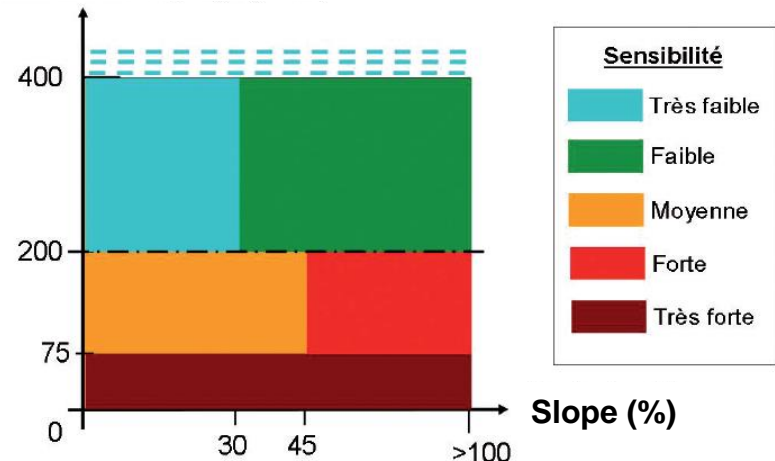
- 1** Represent the limits of the **intervention zone**, other usefull elements (tracks, waterway...).
- 2** Measure **maximal and minimal distances** between the intervention zone and the water catchment
- 3** Measure the **average slope** of the intervention zone.



4 Place yourself in the sensivity diagram



Distance to the water catchment (m)



Recommendation example: It is compulsory to create forest roads or tracks outside of the very high sensivity zone (at less than 75 m of the catchment), with additional costs of few hundreds to several thousands of €/ha. (major risk is turbidity)

• CONCLUSION

French private foresters have operational technical and contractual tools to optimize drinking water protection.

Foresters are ready to commit themselves, but they can't do it alone.

Partnerships with water operators are necessary for two key resources:

- ✓ **to optimize protection of vulnerable catchments**
- ✓ **for an efficient and sustainable wood mobilization.**

Thanks for your attention



Contacts:

Julien FIQUEPRON + 33 (0)3 83 90 57 91
Olivier PICARD + 33 (0)1 47 20 97 09
Eric TOPPAN + 33 (0)1 47 20 56 56
Aurélien BANSEPT
Nicolas WILHELM +33 (0)4 50 72 40 26

julien.fiquepron@cnpf.fr
olivier.picard@cnpf.fr
eric.toppan@foretpriveefrancaise.com
aurelien.bansept@laposte.net
nwilhelm@eaux-moises.com

To go further:

<http://www.foretpriveefrancaise.com/woodlands-for-drinking-water-259672.html>

http://www.foretpriveefrancaise.com/who_are_we/

abstract n°2375



25-29th
September 2016

Montpellier, France
CORUM CONFERENCE CENTER

43rd
IAH
congress

