Mégève – 21 & 22 September 2006

Development of Programme Of Measures, economic analysis and financing issues

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Agence de l’Eau Artois-Picardie – France
1. WFD & Economic Analysis

2004

- Characterisation
  - 1. Assess economic significance of water uses and services
  - 2. Project trends in key indicators and drivers up to 2015
  - 3. Assess current level of cost recovery

- Economic "weight" of water uses now / in 2015

2006

- Identification of significant water issues
  - 1. Identify likely gaps in water status by 2015
  - 2. Propose actions when a likely gap has been identified
  - 3. Action when no likely gap has been identified

- Assessment of the cost of basic measures
  - Identification of socio-economic groups likely to be affected by gaps / mitigation measures

2008

- Identification of measures and of their economic impact
  - 1. Evaluate the cost-effectiveness of potential measures
  - 2. Construct a cost-effective programme of measures
  - 3. Evaluate whether costs are disproportionate
  - 4. Assess the financial implication of the programme of measures

Cost-effective programme of measures
1. WFD & Economic Analysis

• for the development of programme of measures:
  which set of measures for achieving good status at the lower cost
  ⇒ Cost, impact of measures, scale, Upstream/downstream issues?

• for the development of River Basin Management Plan:
  Is the cost of the programme of measures disproportionate for a water body of a group of water body
  ⇒ cost-benefit analysis, financing capacity of the economic sectors?
2. POM & RBMP: looking for indicators

- 20,000 Km²
- 4.7 Millions inhabitants
- GDP: 98 billions €
  - GPD/inhabitant: 21,107 €
  - GPD/inh France: 25,978 €
- Unemployment rate: 12.7%
  - France: 9.9%
- 96% of drinkable water come from groundwater
RISQUE DE NON ATTEINTE DU BON ETAT ECOLOGIQUE OU POTENTIEL EN 2015

ATTEINTE DU BON ETAT :
- sans risque identifié
- risque probable
- doute

ATTEINTE DU BON POTENTIEL :
- risque probable
- doute

Masse d'eau de transition

Limite district Escout Meuse
Limite de districts
Limite des masses d'eau continentales

AC - Agence de l'eau Artois-Picardie Mégève, 21 & 22 September 2006
Chômage en 2004 sur le bassin Artois Picardie

Taux de chômage France métropolitaine : 10%
2. POM & RBMP: looking for indicators

An illustration: assessment of the cost of some measures on the level of water price.

- investment for new WWTP or sewerage network
- cost (inv+op) at municipality (or group of mun.) level
- impact on water price for households at this level
- calculation of the mean water bill for household (with comparison with available income).
2. POM & RBMP : looking for indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean Price for one m3 (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>2.42</td>
</tr>
<tr>
<td>1995</td>
<td>2.54</td>
</tr>
<tr>
<td>1996</td>
<td>2.74</td>
</tr>
<tr>
<td>1997</td>
<td>2.82</td>
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<tr>
<td>1998</td>
<td>2.88</td>
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<td>1999</td>
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<td>2000</td>
<td>2.99</td>
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<tr>
<td>2001</td>
<td>3.01</td>
</tr>
<tr>
<td>2002</td>
<td>3.08</td>
</tr>
<tr>
<td>2003</td>
<td>3.17</td>
</tr>
<tr>
<td>2004</td>
<td>3.28</td>
</tr>
<tr>
<td>2005</td>
<td>3.39</td>
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</table>
2. POM & RBMP: looking for indicators

The breakdown of the 3.39 euros

- Water Distribution: 36%
- Sewerage: 41%
- Environmental Taxes: 5%
- Other taxes: 17%
- VAT: 1%
2. POM & RBMP : looking for indicators

<table>
<thead>
<tr>
<th></th>
<th>Mean available income per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aisne</td>
<td>23 499</td>
</tr>
<tr>
<td>Nord</td>
<td>24 314</td>
</tr>
<tr>
<td>Pas de Calais</td>
<td>23 194</td>
</tr>
<tr>
<td>Somme</td>
<td>23 796</td>
</tr>
</tbody>
</table>

Table 1: Mean available income per household in all the sub-region of the Artois-Picardie Basin.
Source: INSEE (National Statistics) + CEGMA TOPO
### Comparison Water bill vis à vis household’s available income

<table>
<thead>
<tr>
<th></th>
<th>Mean available income per household (A)</th>
<th>Mean Water invoice per household (120m3/year) (B)</th>
<th>B/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aisne</td>
<td>23 499</td>
<td>455</td>
<td>1,94%</td>
</tr>
<tr>
<td>Nord</td>
<td>24 314</td>
<td>366</td>
<td>1,51%</td>
</tr>
<tr>
<td>Pas de Calais</td>
<td>23 194</td>
<td>428</td>
<td>1,85%</td>
</tr>
<tr>
<td>Somme</td>
<td>23 796</td>
<td>382</td>
<td>1,61%</td>
</tr>
</tbody>
</table>

#### Table 2: comparison of the mean water invoice with mean available income per household
2. POM & RBMP : looking for indicators
Comparison at municipality level

Water Bill / Mean Available Income

- Less than 1%
- de 1 à 1,5 %
- de 1,5 à 1,75 %
- de 1,75 à 2 %
- de 2 à 2,5 %
- de 2,5 à 3 %
- More than 3%
3. Discussion & conclusions

- development of equivalent indicators for other economic sectors (e.g. cost of measures for specific industrial sectors, ...)
- first scanning of potential disproportionate costs and then cost-benefit analysis
Environmental Objective

Cost

Cost-effectiveness analysis

Cost-benefit analysis

Don’t worry, be happy!

.....and thanks for your attention!

Cost