

## 12. COST RECOVERY

### Cost recovery

The Water Framework Directive (WFD) defines water services as all services for the benefit of homes, public institutions or any economic activity, entailing:

- a) The abstraction, storing, deposit, treatment and distribution of surface or groundwater.
- b) The collection and cleansing of waste water, which is then discharged to surface water.

These services are subject to recovery by means of fees and charges on water, or as self-service payment.

The analysis of water service cost recovery is carried out in the Planning by calculating the costs, revenue and the level of water services' cost recovery, for the entire District and for each water resources system, from the data of the budgets of public Administrations, and, only when such information is not available, data from surveys or estimates are used.

### Environmental costs

An important progress in relation to the previous planning has been the estimate of environmental costs, conducted through the actions included in the investment programmes implemented by the Administrations, with the purpose of minimising the pressure and impact generated by the provision of water services on water ecosystems.

Environmental costs are understood as a “penalty for the damage to water body status” connected to the provision of water services.

### Cost recovery rates

The following table summarises the costs of all water services supplied by the Júcar River Basin District, including the so-called self-services that include the services where the agent that conducts the abstraction and the beneficiary is the same person. The same table also indicates the level of cost recovery by the users.

Water service	Financial costs (million €/year)	Revenue per cost recovery tools (million €/year)	Recovery level of total financial costs (%)
Provision of wholesale surface water	14.3	6.4	45%
Provision of wholesale groundwater	60.3	60.3	100%
Distribution of retail irrigation water	190.6	123.1	65%
Urban retail provision	320.1	295.6	92%
Self-services	288.4	288.4	100%
Reuse	17.6	0.0	0%
Desalination	25.6	0.0	0%
Collection and cleansing in public networks	258.1	215.1	83%
<b>Total</b>	<b>1,174.9</b>	<b>989.0</b>	<b>84%</b>

Total cost recovery index for water services during the period 2004-2013

The average annual cost of water services in the District in the period 2004-2013 (at constant prices of 2012) amounts to 1,175 million euro, 288 million of which correspond to self-services. To address these costs, the organisations that provide these services have billed approximately 989 million euro, therefore the global recovery rate is 84% of total costs. If environmental costs are considered in this calculation, which are approximately 93 million euro, the global recovery rate decreases up to 78%.

The table of the following page presents a global analysis of the cost recovery analysis per service and use, indicating also the contribution of these costs to the volume supplied.

Water services		Water use	Volume of water (hm <sup>3</sup> )		Financial costs (M€)			Non-financial costs (M€)		Total costs (M€)	Revenue per fees and charges on water (M€)	Total cost recovery rate (%)	Financial cost recovery rate (%)	Ratio €/m <sup>3</sup>	Ratio €/m <sup>3</sup>
			Water supplied	Water consumed	Operation and Maintenance	CAE investment *	Total financial cost	CAE environmental cost*	Cost of the resource						
			A	B	C	D	E = C + D	F	G	H = E + F	I	J = I/H*100	K = I/E*100	L = H/A	M = E/A
Abstraction, storage, treatment and distribution of surface and groundwater.	Wholesale surface water services	Urban	240.1	12.0	0.9	1.8	2.7	1.0		3.7	1.20	32%	45%	0.02	0.01
		Agriculture/livestock	1,457.9	72.9	3.7	7.9	11.6	4.4		16.1	5.22	32%	45%	0.01	0.01
		Industry/energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd
	Wholesale groundwater services	Urban	242.9	0.0	10.9	49.4	60.3	0.0		60.3	60.25	100%	100%	0.25	0.25
		Agriculture/livestock	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd
		Industry/energy	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd
	Distribution of retail irrigation water	Agriculture	1,462.3	691.5	125.1	65.5	190.6	1.9		192.5	123.1	64%	65%	0.13	0.13
	Urban supply	Homes	181.9	27.3	228.8	18.8	247.7	0.0		247.7	228.74	92%	92%	1.36	1.36
		Agriculture/livestock	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd
		Industry/energy	49.8	7.5	66.9	5.5	72.4	0.0		72.4	66.90	92%	92%	1.46	1.46
	Self-services	Domestic	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd
		Agriculture/livestock	1,095.6	752.4	160.3	110.2	270.5	50.0		320.5	270.51	84%	100%	0.29	0.25
		Industry/energy	136.8	20.5	14.7	3.2	17.9	6.2		24.2	17.93	74%	100%	0.18	0.13
	Reuse	Urban (garden irrigation)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd
		Agriculture/livestock	77.3	42.9	1.4	16.1	17.5	0.0		17.5	0.00	0%	0%	0.23	0.23
Industry (golf)/energy		0.5	0.1	0.0	0.1	0.1	0.0		0.1	0.00	0%	0%	0.23	0.23	
Desalination	Urban supply	2.6	0.4	3.3	15.6	18.9	0.0		18.9	0.00	0%	0%	7.23	7.23	
	Agriculture/livestock	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.00	sd	sd	sd	sd	
	Industry/energy	0.9	0.1	1.2	5.5	6.7	0.0		6.7	0.00	0%	0%	7.28	7.28	
Collection and treatment of discharges to surface waters	Collection and cleansing outside of public networks	Homes	0.0				sd			Sd	0.00	sd	sd	sd	sd
		Agriculture/livestock/aquaculture	0.0				sd			Sd	0.00	sd	sd	sd	sd
		Industry/energy	0.0				sd			Sd	0.00	sd	sd	sd	sd
	Collection and cleansing in public networks	Urban supply	361.0		167.0	32.7	199.7	22.5		222.1	166.46	75%	83%	0.62	0.55
		Industry/energy	105.6		48.8	9.6	58.4	6.6		65.0	48.69	75%	83%	0.62	0.55
<b>TOTAL</b>			<b>3,254.6</b>	<b>1,499.1</b>	<b>833.0</b>	<b>341.9</b>	<b>1,174.9</b>	<b>92.6</b>		<b>1,267.6</b>	<b>989.01</b>	<b>78%</b>	<b>84%</b>	<b>0.39</b>	<b>0.36</b>

Summary of the cost recovery analysis per water use and service in the scope of the Júcar River Basin District in the period 2004-2013 (constant prices of 2012)