1.7. Water demands

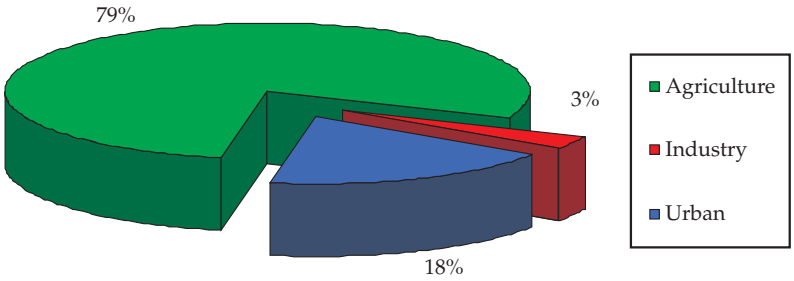
The gross water demand (year 2001) in the Júcar RBD is 3 625 hm³/year, being distributed into 653 hm³/year for urban use, 2 852 hm³/year for agricultural use and 120 hm³/year for industrial use, including this latter 35 hm³/year for refrigerating energy plants. As it is shown in figure 36, the agricultural demand is the major one in the Júcar RBD representing 79% of the total demand.

The territorial area of the Júcar RBD is characterised by having, in general terms, a very fragile equilibrium between renewable resources and water demands (CHJ, 1998), occurring water shortages in some areas, especially in the ones located in the coastal strip of the province of Castellón, the Mancha Oriental aquifer and the exploitation systems of Vinalopó-Alicantí and Marina Baja.

Concerning the quality aspect of surface waters, it can be stated that there is a general positive trend for most water standards (drinking waters and fish life support). Only a few locations are in breach of the National/European Legislation. During 2001 there were up to 4 073 km of watercourses under surveillance, of which 424 km correspond to safe drinking water, 2 272 to fish support life and 1 377 to aptitude control for agricultural irrigation.

The water quality monitoring network is called ICA, which is the Spanish acronym for Integral Water Quality, and is comprised of 364 monitoring sites or control stations from which network workers obtained 1 863 samples and carried out 3 203 laboratory tests during 2001 (the tests had a 90-95% confidence interval).

Water demands in the Júcar RBD — Figure 36



In addition, a biological network was developed, and has been functioning since 1999. This network provides the assessment of biological indices along watercourses based on the presence of macroinvertebrates, macrophytes, diatoms and fish life in two annual campaigns of communities, as well as hydromorphological and physico-chemical data. Through the results obtained to date, it is known that half of the 246 fixed sampling sites have an excellent or good biological status. These sites are normally located in the upper reaches of rivers and present high degree of biodiversity and good hydromorphological and physico-chemical profiles. However, less than one fifth of the sites present an unsatisfactory or inadequate status, and these are usually located in lower reaches. In these areas, there is a certain degree of pollution due to discharges; therefore, they present low biodiversity and only resistant-pollution species survive.

Moreover, there are some specific complementary networks as the control of hazardous and radioactive substances networks designed to detect these types of discharge in strategic sites.

Watercourses surveillance length (km) for water standards within Júcar RBD (2001) — Table 7

SAFE DRINKING WATER				FISH SUPPORT LIFE			IRRIGATION	**TOTAL**
A1	A2	A3	Total	Salmonid	Cyprinid	Total		
19.7	302.9	100.9	423.5	967.8	1 304.6	2 272.4	1 377.4	**4 073.3**