

# **The water freeway: the MO.S.A.V. in the Veneto Region**

## **BACKGROUND**

In 1999 the Italian Government approved the Legislative Decree n. 152 “Provisions on water contamination prevention and implementation of the European Urban Wastewater Directive 91/271/EEC and the European Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources”.

This law implements in advance the most part of the Water Framework Directive and aims at getting a better water status and preserving drinking water.

Moreover, Act No. 36 of January 5th 1994 on water management underlines that water use for human consumption is prior to other uses and it is necessary to preserve this resource and not to waste it.

## **PROBLEMS**

- Need to grant to all the territory of Veneto Region, but especially to the southern part of it, good quality tap water
- Need to stop the diffuse fragmentation of the tap water supply system that was in use
- Need to avoid wastage of water and to reduce in general the necessity of water resources, by improving the system efficiency.

## **SOLUTIONS**

The Modello Strutturale Acquedotti del Veneto (MOSAV) is a special plan with the aim of giving a plenty and safe availability of good quality tap water to all the people living in the Veneto Region. MOSAV concerns the watersheds of Po and Adige rivers and the watershed of Alto Adriatico sea, in the Veneto Region.

The Plan develops a structural scheme of the main tap water pipelines, and points out the specific areas of water withdrawal from groundwater reservoirs.

MOSAV consists in a closed-grid pipelines system, able to grant good quality tap water, at a lower cost and with a general consistent save of water, due to the dramatical abatement of losses, and to the better quality of the new pipelines.

If necessary, the system grants a double direction management: it can transport water from north to south, but also viceversa, increasing the redundancy of the system against every technical or non-technical risk.

## **BENEFITS**

- MOSAV allows in particular the small villages and local services to become ever sure in water availability, without having the necessity to invest huge amounts of money to reach good quality water in far areas.
- Meanwhile, MOSAV means also a better management of water resources: it will need less amount of water in the pipelines and less pumping energy all over the regional territory.

- The Plan reduces also the risk sensibility in the most sustainable way, either from the economic or from the public service point of view. MOSAV will reduce the water losses and in general the necessity of water resources, due to its better efficiency.
- Finally, the actual open-grid system of pipelines all over the territory will become a close-grid system, giving a general improvement in safety of the tap water service

The prevention of risks on tap water systems, the practice of interconnecting all the pipeline grids, the energy saving design gives to MOSAV the opportunity to be a typical example of planning in the water transport service.

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