



Working for a
**COMPETITIVE
AND EFFICIENT**
agriculture

COMUNIDAD
DE REGANTESTM
VALLE
INFERIORTM
GUADALQUIVIR



PRESENTATION

The Irrigation Community of the Lower Guadalquivir Valley currently brings together more than 2.000 irrigators who work in a strip of land that covers ten municipal areas and extends from Lora del Río to Seville.



It has a qualified and committed team of professionals and an advanced irrigation and energy infrastructure, which is the result of a large modernization project completed in 2009 and the construction and commissioning in 2019 of a photovoltaic plant connected to the electrical grid.

With these facilities and human team, the Community seeks to promote the future of a century-old irrigated area, whose origins date back to 1908, fully adapted to the needs of sustainable, efficient and competitive agriculture.



THE COMMUNITY, IN DATA*



IRRIGABLE AREA

Area: 18.945 ha
Plots: 3.074
Hydrants: 2.962



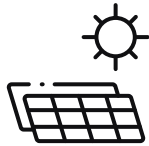
PIPE NETWORK

Primary: 170.567 m
Secondary: 294.907 m
Total: 465.474 m
Diameters: Ø110 to
Ø1.800 mm



PONDS AND PUMPING STATIONS

Volume: 4.000.000 m³
Filling: 2x45 kW + 12x58 kW
Drive: 7x132 kW + 30x355 kW
Transformation: 21.720 kVA



PHOTOVOLTAIC SOLAR PLANT

17.880 photovoltaic modules
Power: 6 MWp
Production capacity:
11 Mwh per year



CROP DISTRIBUTION

Permanent: 58% of the Irrigated Area
Herbaceous: 42% of the Irrigated Area



TYPE OF IRRIGATION

Drip: 70%
Gravity: 27%
Sprinkling: 3%



The first three permanent crops

Citrus: 8.179 ha
Fruit trees: 881 ha
Olive groves: 797 ha



The first three herbaceous crops

Wheat: 1.555 ha
Cotton: 1.483 ha
Potatoes: 1.410 ha

* Data updated to 2024



IRRIGATION INFRASTRUCTURE

50 km main canal, which was lined with concrete to achieve efficient water conduction towards the regulation ponds

Nine regulating ponds, built next to the main canal with a storage capacity of 4 hm³

Nine pumping stations with the necessary capacity to keep the irrigation network pressurised and supply each of the plots with the necessary flow rates

An electrical substation, 50 km of electrical line and a transformation centre at each pumping station

A 500 km long buried network of pipes for pressure irrigation

Plot-level hydrants with flow meters

A remote control system that allows irrigation to be programmed, network parameters to be controlled remotely, automatic billing of each irrigator according to their actual consumption and consumption optimisation in exceptional drought situations

Strength of our water distribution system:



Efficient in the distribution of flows



Effective in meeting irrigation demands where and when they occur



Adaptable to the changing demands of farmers



Flexible to adapt to new crops



Consistent in dealing with situations of scarcity of resources



Powerful in promoting a new self-sufficient agriculture



Capable of promoting water savings at the plot level

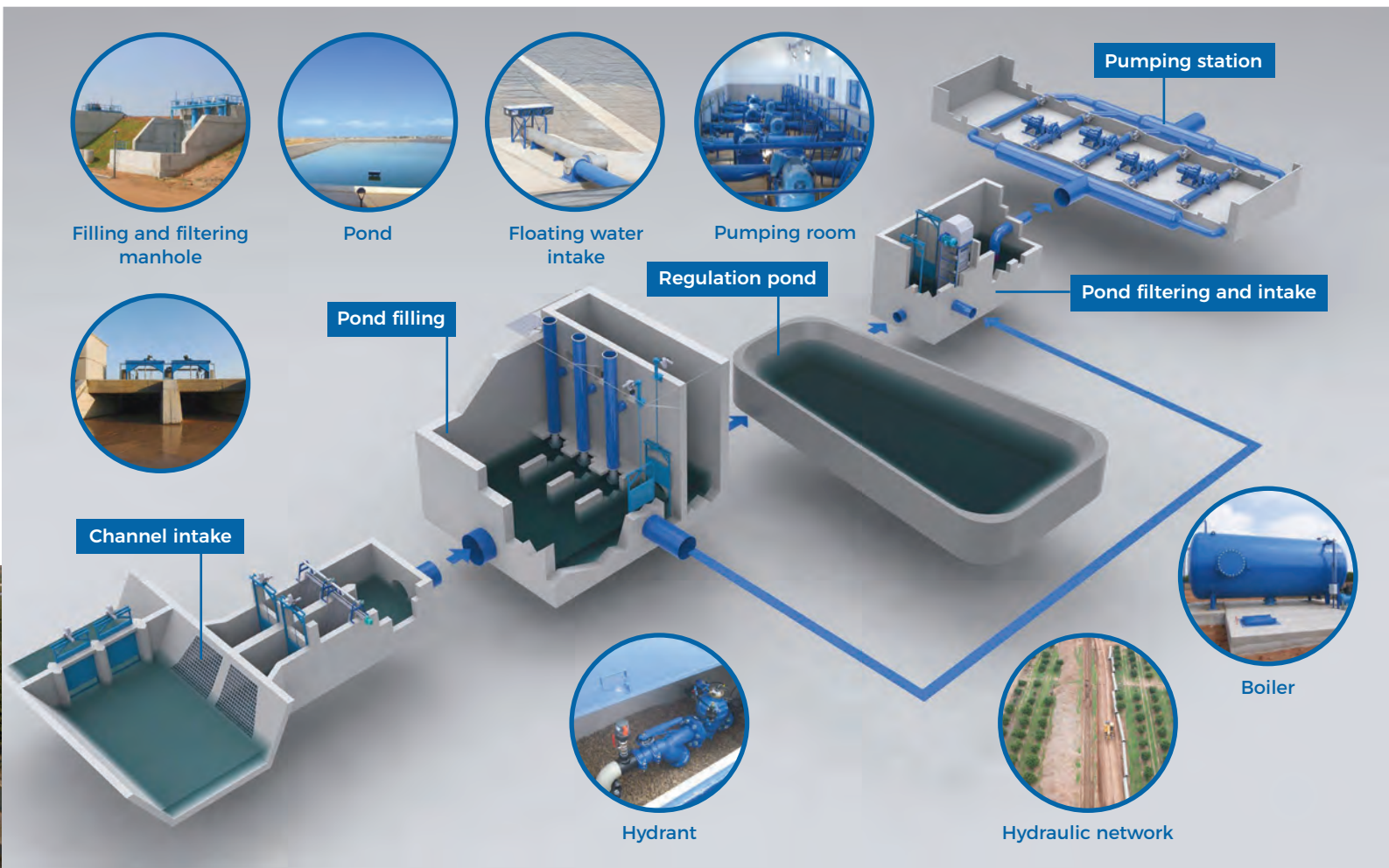


Modernization has allowed in this last decade a real saving of water consumption for irrigation in this area of between **25 and 30%.**



HYDRAULIC CIRCUIT

This diagram shows the water cycle within a Community pumping station.



We work with the most advanced infrastructure management and handling tools and a team of people strongly committed to training in new technologies applied to irrigation and close advice and attention to the irrigator

ENERGY EFFICIENCY

Since the end of 2019, the Community has had a photovoltaic solar plant connected to the Grid, the largest solar plant for self-consumption in all of Spanish irrigation. Thanks to the implementation of this installation, it has been possible to:



Maintain constant pressure for 24 hours a day, dispensing with the phase system established since modernization.



Significant economic savings by no longer purchasing part of the energy.



Environmental contribution thanks to the operation of the solar plant, 5.500 tons of CO₂ have been stopped from being emitted into the atmosphere.



Energy autonomy, the first Spanish irrigation community to accredit with the eco20 seal a percentage of self-consumption between 50-70% of renewable energy.



ENVIRONMENT AND BIODIVERSITY

Grey herons, ducks, cormorants, grebes, black-winged stilts and glossy ibis are a living, everyday testimony of our contribution to the environment and the natural mosaic of biodiversity





THE TRANSFORMATION OF IRRIGATION AND CROPS

The modernisation of the Community has resulted in a shift towards more efficient irrigation systems and crops with higher added value.

Irrigation system

Before the modernisation project, 70% of the surface area of our Irrigated Zone was irrigated by gravity. Now drip irrigation represents 70% compared to less than 30% for gravity irrigation.

In the last fifteen years since 2009, drip irrigation has doubled, going from 6.000 hectares to practically double. This trend is expected to continue in the coming years

Crops

The transformation of the irrigation system has allowed a progressive commitment to permanent crops, which are more competitive, which already represent almost 60% of the Irrigated Zone. Within these, citrus fruits represent 75% of the cultivated surface area. Among the non-permanent crops, cotton, corn and potatoes have been the predominant crops, with corn being replaced by wheat in the years of drought.

PIONEERS AGAINST INVASIVE SPECIES

Since 2012 we have been developing pioneering treatments that have made it possible to minimise the impact of invasive species.:

- Application of peroxyacetic products and overspeed operations for purging pipes
- Drying and the application of antifouling paint on concrete manholes and metal structures





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