



## Una manera de hacer Europa



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# Programa Operativo Plurirregional de España

Año 2022

Fondo Europeo de Desarrollo Regional

The action "IMPROVEMENT OF SANITATION IN FRESNO EL VIEJO" is presented as a Good Practice

The action benefits the municipality of Fresno el Viejo (Valladolid) and is part of the set of actions that ACUAES is developing within the framework of the National Plan for Water Quality in Castilla y León, which aims to carry out different sanitation works and purification in this autonomous community, adapted to the needs of each population.

Fresno el Viejo lacked a purification station to treat wastewater, so discharges into the Lanzón River were produced without any type of treatment, causing a severe environmental impact on the area and its surroundings. For this reason, it was essential that the municipality had a treatment plant to comply with current regulations.

The new treatment plant consists of a first roughing of the raw water to subsequently pass to a primary treatment using anaerobic tanks and a biological treatment consisting of two artificial wetlands, a technology that allows a complete integration of the plant in the environment, in addition to not producing noise. Energy consumption is minimal and the cost of maintenance and operation of the installation is reduced.



OLD FRESNO WWTP

The total investment in the Fresno el Viejo project amounts to 1.1 million euros. The eligible cost has been 970,000 euros with ERDF aid of 50% of the investment.

This action provides service to a population of 1,400 equivalent inhabitants (pollution unit that refers not only to the inhabitants but also to the industry or livestock of a municipality).

#### It is considered a Good Practice because:

## The Role of the ERDF in the action has been conveniently disseminated among the beneficiaries, potential beneficiaries and the general public

Different communication actions have been carried out with the aim of making the general public aware of the co-financing of the treatment plant project with the ERDF Fund, highlighting the role of European aid for the development of Spain and its regions.

#### Work poster and plaque



#### Newspaper ad

On the occasion of World Water Day, announcements have been published expressly indicating the contribution of the ERDF Funds in the execution of the works.





Several media outlets echoed the event (El Mundo de Valladolid, El Norte de Castilla, El Día, La Tribuna and El Español).

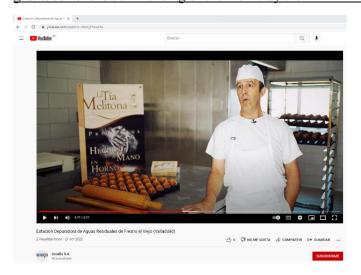


Las obras han supuesto una inversión cercana a 1,1 millones de euros, cofinanciados por el Fondo Europeo de Desarrollo Regional Feder 2014-2020 dentro del Programa Operativo Plurirregional de España.

Informative brochure of the action



<u>Video that has been projected on the ACUAES website and on the social networks YouTube and Twitter Interviews with neighbours and businessmen were included, who expressed their gratitude for the co-financing of the works by the FEDER Fund.</u>



https://youtu.be/DzsQ4TUwzTw

#### ☐ The action incorporates innovative elements

The objective of an action of this type is to obtain a balance in a technical and economic sense that allows optimal operation of the plant with an operating cost in accordance with the socioeconomic characteristics of the municipality and minimize the environmental impacts generated by the WWTP as much as possible through the application of a series of corrective environmental measures

As an innovative element, the design as a whole can be considered, since the best alternative that adapts to the characteristics of Fresno el Viejo has been selected based on technical, environmental and economic criteria. Consequently, a biological treatment has been selected by means of Subsurface Flow Artificial Wetland, because, having a surface, as is the case of Fresno el Viejo, this treatment presents high purification yields, good adaptation to variations in flow and load. Low investment and operating costs, as well as maximum integration in the environment.

Within the types of biological treatment, artificial wetlands were chosen as it is a natural treatment with high yields of nitrogen and phosphorus removal.



The entire surface of the wetland is covered with native reeds: typha latifolia or similar, at a rate of about 5 plants/m2, which ensure proliferation and contribute to the oxygenation of the substrate and the elimination of nutrients.

In this line, the selection of latest generation raw water pumps called Flygt Concertor  $^{TM}$ , a wastewater pumping system with integrated intelligence, has been included. This type of pump is capable of perceiving the operating conditions of the environment and adapting to the circumstances, changing its way of operating depending on the flows or the amount of waste, avoiding clogging and reducing maintenance maintenance work.

All this translates into self-sufficiency that reduces supervision and maintenance needs and therefore operating costs.

#### ☐ Adaptation of the contents to the objectives pursued

The objectives pursued are to achieve good quality status for receiving waters and associated ecosystems, thus contributing to the achievement of the objectives set by the Water Framework Directive.

With the execution of the action, these objectives have been achieved, since, through the purification of wastewater, it is subjected to a series of physical and biological processes, through which the polluting elements are reduced, until they adopt admissible values for their treatment. discharged into the riverbed, in compliance with current regulations on wastewater treatment. contributing to the improvement and conservation of the environment.

#### ☐ Contribute to the resolution of a regional problem or weakness

The population where the action is located lacked treatment for wastewater discharges, which presented problems of contamination of the riverbeds and strong odors due to the discharge of raw water and waste directly into these riverbeds. This was a major environmental problem and a possible source of infection, since the discharge was very close to an urbanized estate and a service road to the agricultural plots.





Thanks to the execution of the action, in addition to improving the quality of the water in the receiving environment, in this case the channel, it is possible to eliminate the existing odor and environmental problems by eliminating the direct outlet of the raw water to the channel, improving substantially the environment of the urban core.

#### ☐ It has a high degree of coverage over the population to which it is directed

The action not only covers the needs of the population of Fresno el Viejo, but also contributes to improving the state of the receiving waters, in our case the Trabancos River, which a few kilometers from the discharge point passes through other populations such as Castrejón de Trabancos and Siete Iglesias de Trabancos, which without the existence of these purification facilities could be affected by the arrival of pollutants in the waters of the channel.

If this type of sanitation and purification of wastewater that discharges into the Trabancos river is not carried out, the quality of the water masses would be affected, which would mean, apart from an ecological problem, an added problem on one of the the main economic resources of the area such as agriculture, for which this water is necessary.

### ☐ The horizontal criteria of equal opportunities and environmental sustainability have been taken into account

Carrying out this action has taken into account criteria of environmental sustainability. They emphasized the contribution to achieving the good status of the water bodies required by current regulations on quality, and in particular, in the area where the works are located, which presented

environmental deterioration at the point of discharge. of the waters that involved a serious ecological and social problem.

Likewise, a greater integration of the work in the landscape has been achieved, highlighting the use of native species in the repopulation carried out in the surroundings of the WWTP and in green areas of the town, as well as the installation of nest boxes for birds. On this occasion, the shelters have been installed in the school's trees, in the La Vega sports and leisure area and on the banks of the Lanzón stream.



Through the implementation of the action, the horizontal criteria of equal opportunities have been taken into account, since it benefits the entire population without any discrimination, and as an example of this, access to information on the action has been facilitated to those people without Internet access, through the publication of informative brochures that have been distributed in points of high influx of citizens.

Likewise, the contracts associated with this action have been tendered through an open procedure, thus guaranteeing equal opportunities for companies interested in obtaining the award of said contracts.

#### $\ \square$ Synergies with other policies or instruments of public intervention

This action has synergy with other actions that have been carried out within policies other than European regional policy, such as the National Water Quality Plan 2007-2015, which included the National Water Quality Plan for Castilla y León, and the Duero Demarcation Hydrological Plan (2015-2021), whose shared objectives with the Water Framework Directive are: improving the quality of water bodies and their sustainable management.

In this context, ACUAES has carried out the works of the Castronuño treatment plant, which provides service to a population of 1,800 equivalent inhabitants after an investment of one million euros, an investment that has also been financed by the FEDER Fund.





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