



GOBIERNO  
DE ESPAÑA

MINISTERIO  
PARA LA TRANSICIÓN ECOLÓGICA  
Y EL RETO DEMOGRÁFICO

CONFEDERACIÓN  
HIDROGRÁFICA DEL  
GUADALQUIVIR, O.A.

# MILESTONES, GROUNDWATER USER INVOLVEMENTS AND ENGAGEMENTS IN DOÑANA



## LOCATION

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**At the mouth of the Guadalquivir River is the  
Doñana National Park (World Heritage Site)**





## ORIGIN OF CONFLICT

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- Territory with excellent conservation until the middle of the 20th century because it was poor soil for agriculture and noble estates (grazing, hunting, forestry).
- Three public initiatives start at the same time with conflicting interests :

July **1969**, the urbanisation of Matalascañas is declared a Centre of National Tourist Interest.

October **1969** Doñana National Park is created.

**1971** the transformation of 24,500 hectares into groundwater irrigation is declared to be of national interest.

**Almonte Marismas Plan**



## CONFLICT

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- Since 1990, the development of soft fruit agriculture in greenhouses has been very strong.
- Beach tourism continues to develop
- In 1994, it was declared a UNESCO World Heritage Site.





## MILESTONES FOR GROUNDWATER USER INVOLVEMENT AND ENGAGEMENT

**1., Special Management Plan for the irrigated areas located to the north of the Doñana Forest Crown (2014).**



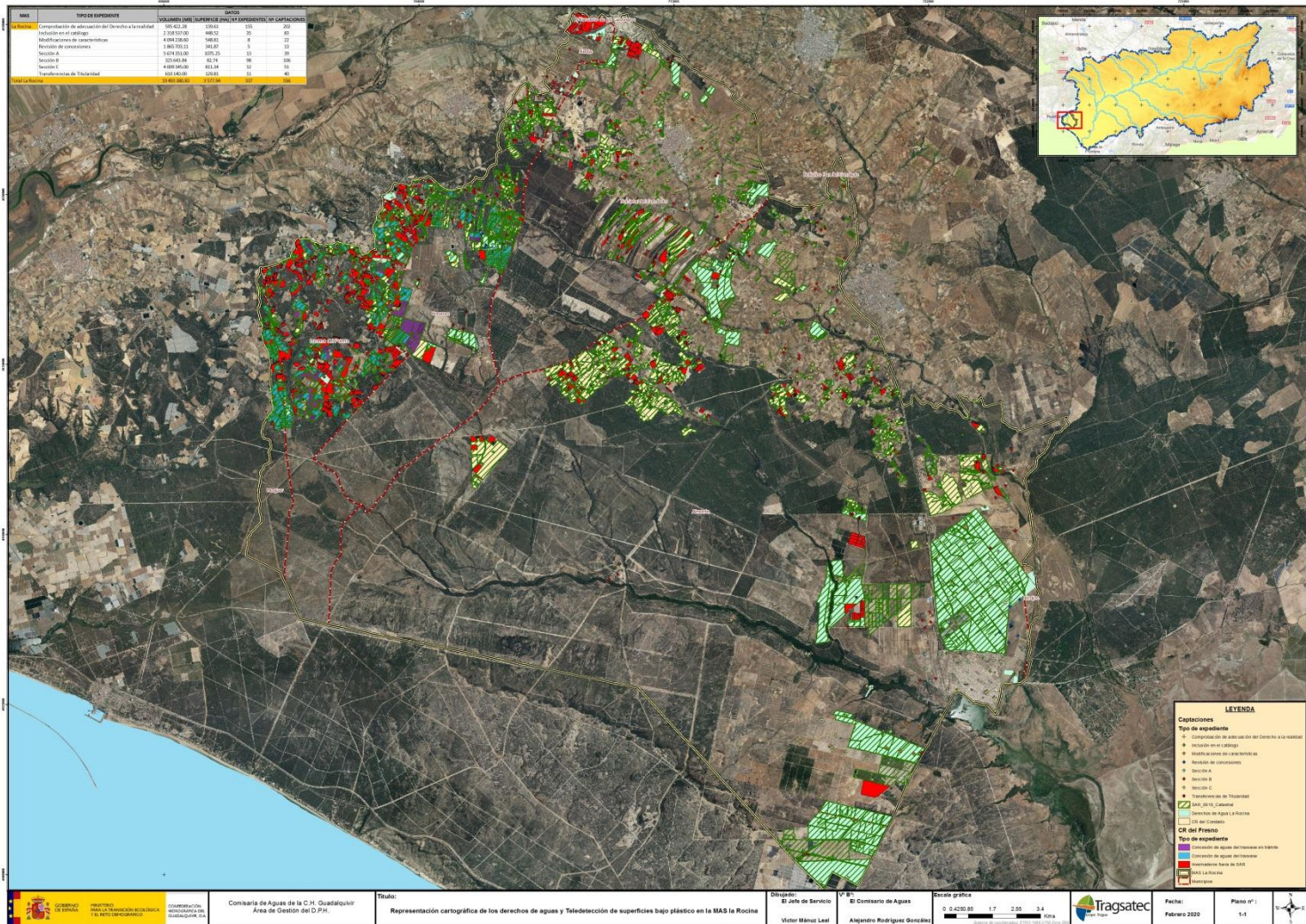
It differentiates the irrigated area and farmers into three groups:  
1.- authorised (SAR)  
2.- illegal  
3.- legalisation (SAR)

SURFACE UNDER PLASTIC

Year	Season	Surface (ha)
2017	Primavera	5.844,45
	Otoño	5.936,06
2018	Primavera	5.635,69
	Otoño	5.896,67
2019	Primavera	5.750,79
	Otoño	5.881,12
2020	Primavera	5.442,03
	Otoño	5.011,45
2021	Primavera	5.203,88
	Otoño	5.234,84
2022	Primavera	5.251,00



# INSPECTION CAMPAIGN - ROCINA



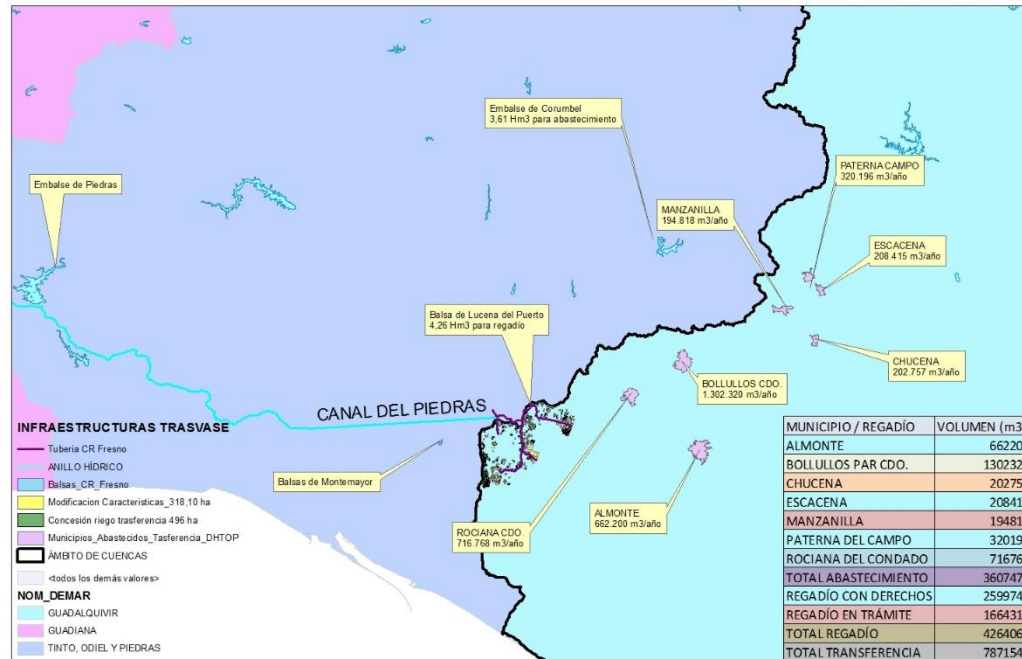


# MILESTONES FOR GROUNDWATER USER INVOLVEMENT AND ENGAGEMENT

**2.- Transfer 19,99 hm<sup>3</sup>  
Tinto, Odiel, Piedras  
(2018)**



It will allow us to increase the substitution of groundwater for transfer waters





## MILESTONES FOR GROUNDWATER USER INVOLVEMENT AND ENGAGEMENT

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3.- Risk of not achieving good quantitative and qualitative status of the water bodies La Rocina, Almonte and Marismas  
**December 2019**



Establishment of a groundwater body user community improves groundwater management.



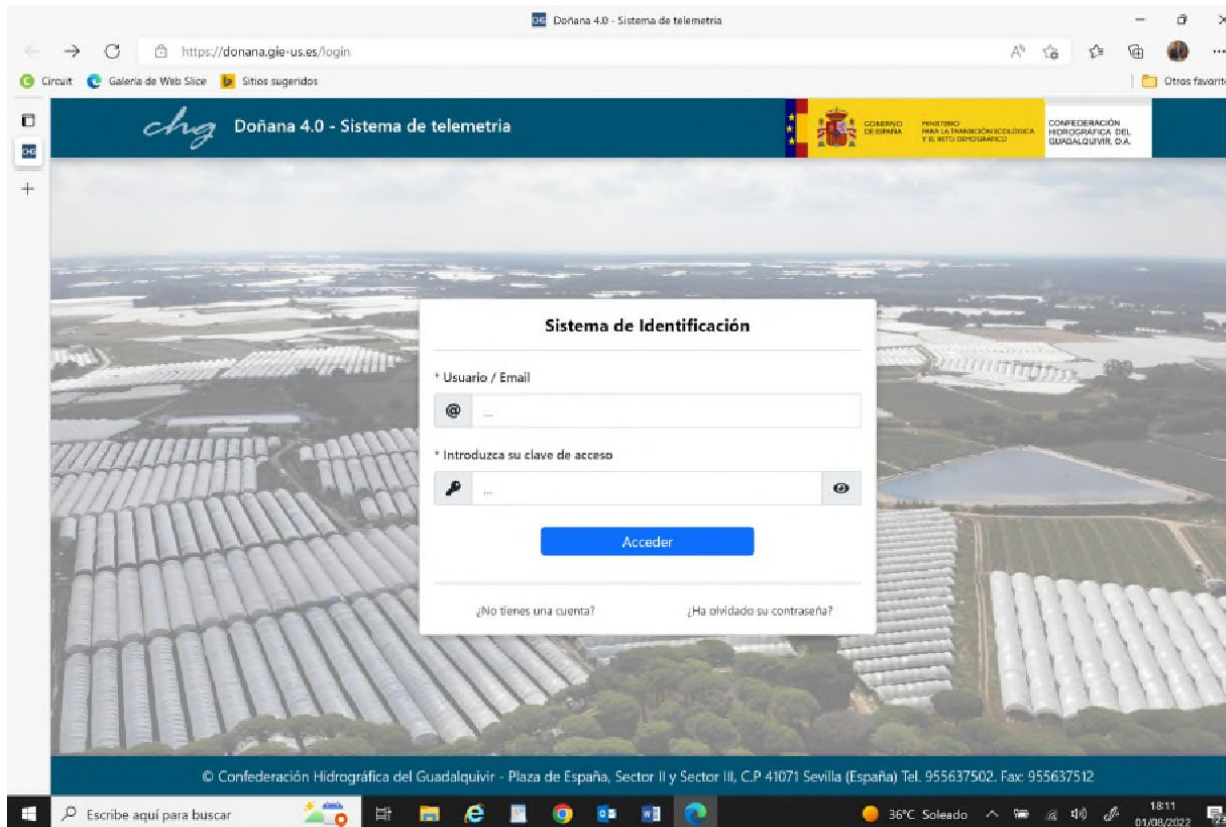
Each year, the volume of water available from the aquifer is agreed with the users.





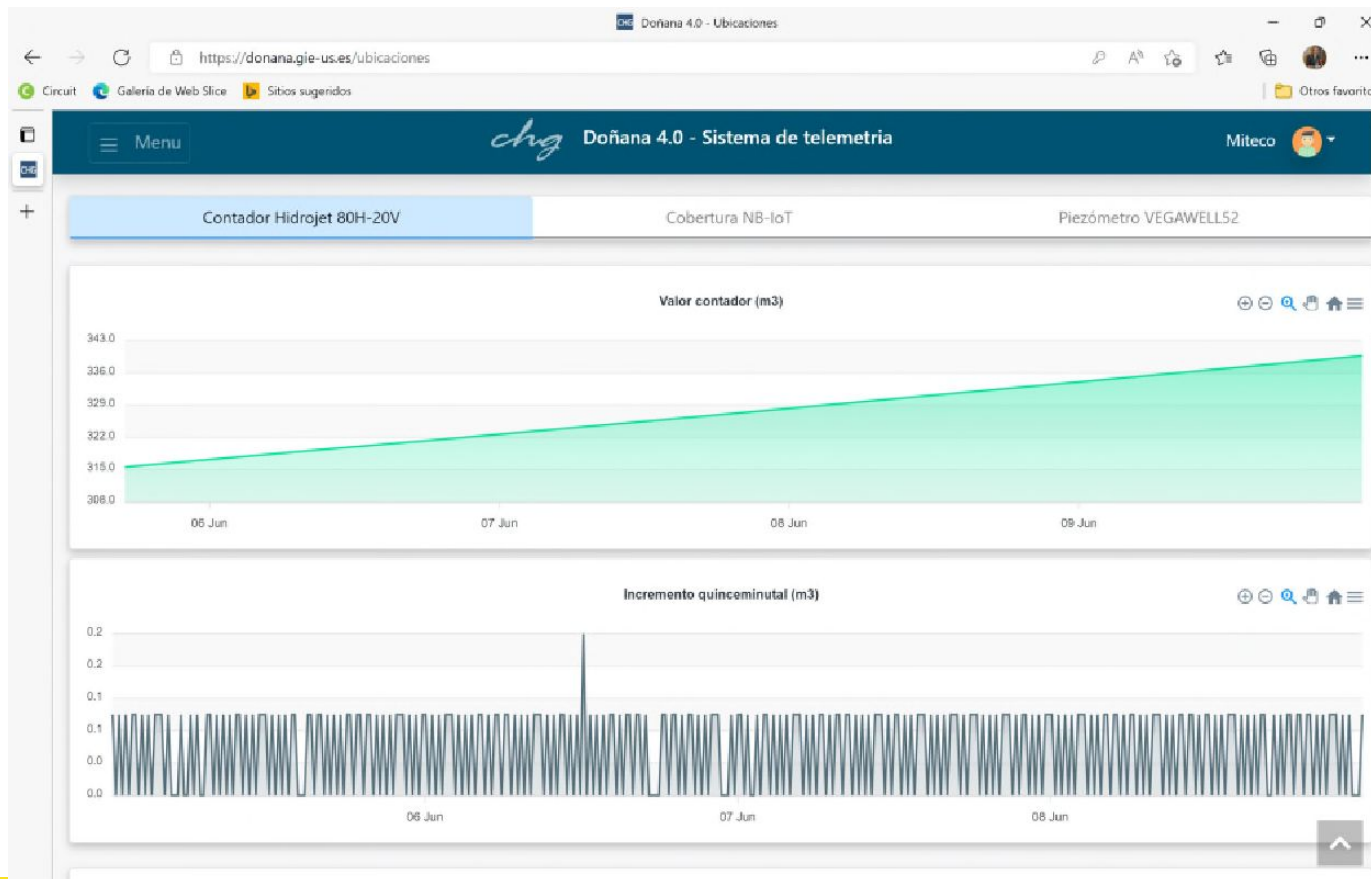
# MILESTONES FOR GROUNDWATER USER INVOLVEMENT AND ENGAGEMENT

## Groundwater abstraction monitoring website





# MILESTONES FOR GROUNDWATER USER INVOLVEMENT AND ENGAGEMENT





## CONCLUSION

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To achieve user engagement and participation, it is necessary to have a management plan that differentiates between legal and illegal users.

Substitution of groundwater by surface water accelerates the aquifer recovery process.

Access to aquifer data, promote user participation and engagement

The constitution of the groundwater users' community improves aquifer management.