#### IRRIGATION WATER AND ORNAMENTAL LAKE

23rd of July 2024

The purpose of this communiqué is to try to explain the current irrigation problems, as well as the reason for the current water level of the ornamental lake. As you know, the maintenance and management of both lakes on La Isla is the responsibility of the Conservation Urban Entity of Condado de Alhama, not the Alhama de Murcia Town Hall.

## **NECESSARY WATER RESOURCES**

The following information on water resources has been extracted from the monthly report of the company STV.

Taking into account the difficult climatic situation of the last two years, in which there has been a reduction in rainfall and an increase in minimum temperatures. The need to establish an Irrigation Plan that identifies both the water needs and the available water resources of the Resort was highlighted.

The following table specifies the water needs of the Resort, obtained from the average monthly consumption recorded between 2019 and 2023. On the other hand, the water resources from which the Resort starts in January 2024 are specified. And finally, the resulting water balance taking into account both in each of the months of the year.

IRRIGATION PLAN FOR THE IRRIGATION SEASON 2024												
Month	J	F	M	Α	M	J	JL	AG	S	0	N	D
Water requirements:	2	4	7	13	24	46	76	73	35	29	11	7
ACUAMED Supply:	5	0	10	10	10	10	10	10	10	10	10	10
Annual Water Balance (Forecast 2024)*	18	11	14	11	-3	-39	-105	-168	-193	-212	-213	-210

\*(x1,000 m³/month). The above forecast is for information purposes only and may vary depending on the weather or the water requirements of the plant species.

In conclusion, it can be said that the water available to the Resort is not sufficient to cover the water needs for the whole year.

## **AVAILABLE WATER RESOURCES**

In order for the owners to be aware of all the available information, all the water resources from which the Urban Development Entity and the Community can be supplied are detailed below.

<u>Desalination plant:</u> This is the main source of irrigation water supply for the Resort. We have a concession from the Segura Hydrographic Confederation of 180,000m3, which does not cover the annual water needs. With the current restrictions we can only have 58% of this concession, divided monthly, that is, around 9,000m3 per month. Previously, the 180,000m3 was available and could be purchased as needed, i.e. there was not even a monthly quota. The desalination plant has never worked at 100%. Apparently, after the works that are being carried out, it will reach 100% production, and it is possible that this will have a positive consequence and the restrictions will be lifted.

Normally there are restrictions in summer every year, but what was done was to buy and store water in the months of lower consumption (January-March) in order to get through the summer without problems. This has always worked. The problem and the difference this year has been that at the end of April 2023 (last year) the restrictions began and have not been lifted throughout the winter, and the

problem has even been exacerbated by the breakdown and maintenance work at the desalination plant this winter, with frequent interruptions to the supply.

<u>Wastewater treatment plant:</u> All of the water that is disposed of from Condado de Alhama homes and businesses goes to the Condado de Alhama wastewater treatment plant (EDAR), where it is treated and reused for irrigation.

The concession agreement that was initially made with the Segura Hydrographic Confederation establishes that approximately 25% of the treated water that is produced corresponds to the Urban Entity and 75% to the golf course. This was initially established by Polaris together with the Segura Hydrographic Confederation and it is very difficult, if not impossible, to change.

Rainwater: Condado de Alhama has two rainwater ponds or storm tanks, which are the property of the Alhama Town Council, and their management and maintenance has been ceded to the Urban Entity so that rainwater can be used for irrigation. As everyone knows, we are living in a period of drought in which there has been little or no rain. In Condado de Alhama hardly any rainfall has been recorded throughout 2024, despite the DANA that occurred in June of this year where abundant rainfall was recorded for different parts of the Region of Murcia and that could have 'saved' the summer.

The difference with previous years is mainly that we have not been able to stock up during the winter and there has been practically no rain in Condado de Alhama.

### **CURRENT SITUATION:**

<u>Ornamental lake:</u> The ornamental lake had an average depth of 180 cm in January 2023, which due to evaporation has been decreasing to the 25 cm average depth reported at the end of June 2024. No water has been taken from the ornamental lake for irrigation, the decrease is exclusively due to evaporation. With the actions to be carried out in the next few days, it is hoped that the lake will not dry up completely and that there will be no odour problems.



ORNAMENTAL LAKE AVERAGE HEIGHT (CM)

In October 2023 and some other month in both 2022 and 2023, the Urban Entity raised the possibility of introducing the desalinated water available for that month into the ornamental lake was raised, this option was declined by the Management Board because it would further increase the salinity of the water in the ornamental lake, increasing the risk of midge flies (rantelles) pests. This decision was based on trying not to increase the problem of midge flies (rantelles) and conditioned to the fact that if it rained, the water from the rainwater ponds would be taken directly to the ornamental lake.

Lake and irrigation water: At no time have the gardens of Condado de Alhama stopped being watered, although it is true that the times and frequencies have been reduced in order to adapt them to the current water resources. At present, it is not enough to keep the grass in its best condition, but if watering had been stopped, everything would be dry by now. With the work that will be carried out in the next few days, it is hoped to be able to increase the frequency of watering.

### **ACTIONS THAT HAVE BEEN CARRIED OUT:**

The water issue is a very complicated matter in the Region of Murcia, and the Segura Hydrographic Confederation, aware of this, has created a way for water to be transferred between concessionaires without affecting the concessions of any of the parties.

This spring a pre-agreement was reached with a company in the area in which they were going to give us enough water to be able to spend the summer without irrigation problems or in the ornamental lake, but in the end it has not been possible to carry it out.

We have contacted almost all the farmers in the area, but they also have difficulties to be able to supply all the water they need, so it has not been possible to reach any agreement with them.

During the last month several meetings and conversations have been held with the Town Hall of Alhama de Murcia has , they are going to help us with an emergency water supply and thanks to them we will be able to have water both for irrigation and to prevent the ornamental lake from drying up. The relevant arrangements are being made and in the next few days this additional supply will be available. This supply will be industrial water and at a similar cost to the water we purchase from the desalination plant. New meters have been installed in La Isla to control this consumption, and the cost of the water will be assumed by the Urban Entity, as has always been the case.

# **CONCLUSION**

As of today, water will be supplied to both the irrigation lake and the ornamental lake. We have been working on the solution to the problem for several months, but we have not been able to provide all the information previously so as not to interfere in the negotiations with the different parties. In the next few weeks the improvement in both the ornamental lake and the gardens of the Community will be noticeable.

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