

## GOOD PRACTICES AND TECHNOLOGIES

Reducing Footprint in Water

El Agua Nos Une – SuizAgua América Latina



Reduction of water use through improvements in the chlorinated water supply system

SDG: 6.4 Water efficiency



### Company / Implementer

Ingredion Colombia S.A.S

**Sector:** ISIC 1052. Production of starches and starch-derived products.

### Location:

Malambo, Atlántico, 10.856243, -74.776381

**Update:** 26 Jan. 2018



### Results

- Reduction of groundwater extraction and dumping by **6,600 m<sup>3</sup>/year**.



### Other benefits

- Reduction in chlorine use by **3.8%** per year. Approximately **43.8 ton/year**.
- Disassembly of equipment to optimize the process. Electricity and maintenance costs associated with this equipment are no longer applicable.
- Stable water quality conditions that increase the productivity of the system.
- Savings of **USD 131,000** per year in operating costs.



### Supplier References

**Supplier:** Internal development.



### Implementing Company

**Company in charge of implementing the solution:** Ingredion Colombia S.A.S  
Malambo, Atlántico.

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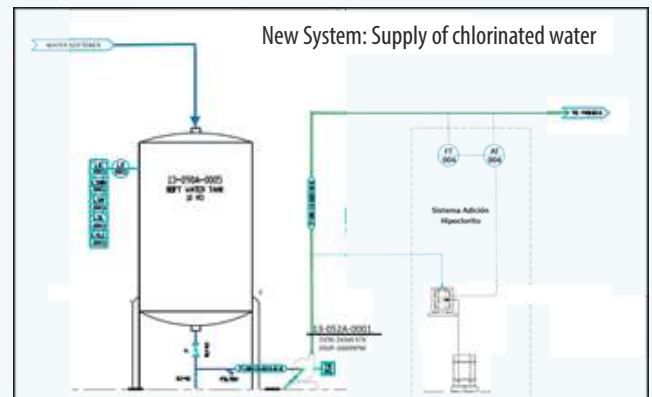


### Description

A constant flow of sodium hypochlorite was added to the storage tank of the chlorinated water supply without any type of flow control, which meant that the level of residual chlorine varied and water outside of the production parameters had to be discarded.

On the other hand, the chlorinated water storage tank and the pump were in poor condition and the system did not provide the ideal pressure for some equipment in the plant, causing inconsistent performance due to pressure drops.

For these reasons, a new soft feeding pump was installed that met the plant's pressure and flow requirements, together with an online chlorine monitoring and control system. Water is supplied to the soft water tank.



### Investment and Operating Costs

**Investment Costs:** USD 58,700.



### Recommendations and Limitations

Solution tailored to the plant's operating conditions and needs.



### References

Chlorinated water is required in the process of washing modified starch because it is a food product. For this reason, it is necessary to treat water well to guarantee the quality of the product.