SECULAR EVALUATION OF CARACTERISTICS PHYSICAL CHEMICAL OF WATERS USED IN THE PERIMETER IRRIGADO CACHOEIRA II, SERRA TALHADA/PE BRAZIL

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INTRODUCTION

This study aimed to conduct an assessment of spatial and temporal characteristics of the water used for irrigation in the Perimeter Irrigated Cachoeira II with lifting the quality of the waters over a year of observations.

MATERIALS AND METHODS

The study area includes the Perimeter Irrigado Cachoeira II, composed by 37 lots, located in the municipality of Serra Talhada, in the semi-arid region of Pernambuco, region of the High Pajeú. The perimeter is located in the geographical coordinates: 7 ° 58 '54 "to 8 ° 01' 36" south of latitude and 38 ° 18 '24 "to 38 21' 21" West of Longitude, with the downstream of Açude Cachoeira II, the dam semi - perpetuates the Riacho Cachoeira, one of the tributaries of the Rio Pajeú.

RESULTS AND DISCUSSION

CONCLUSIONS

•The water used for irrigation showed salinity risk and contains high levels of sodium and chloride;
•There are predominance of sodium and chlorine in waters, regardless of the water salinity level, places and sources of origin;
•The concentration of carbonate was low, with values below 0.1 $mmol_c\ L^{-1}$ in the three sources of water, not reaching the level of restriction for this ion on the water irrigation use;
•The waters of wells showed higher values of EC, cations and anions studied, accounting for the higher salinization and sodification risk;
•There was elevation in salt levels at dry season of the year for all water sources studied;

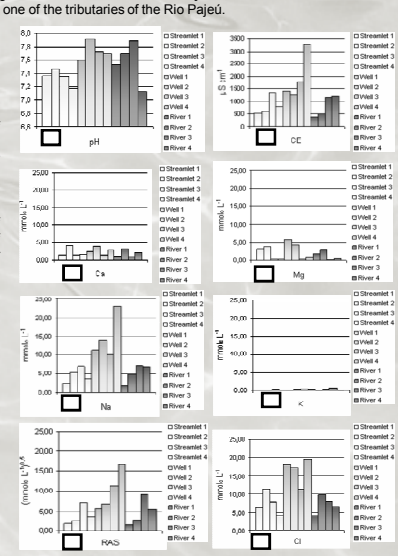

Figure 1: Average values of pH, EC, Ca^{2+}, Mg^{2+}, Na^{+}, K^{+}, RAS and Cl^{-} of the Cachoeira Streamlet, Pajeú River and well waters used for irrigation at Cachoeira II Irrigated Perimeter (Serra Talhada - PE), in the months of junho/2006, setembro/2006, dezembro/2006 and março/2007.