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## **REMOTE SENSING APPLICATION TO THE STUDY OF WETLANDS WATER REQUIREMENTS. CASE STUDY SPANISH WETLANDS**

### ***Abstract***

The wetlands water requirements refer to the volumes needed by these spaces so that they can perform their functions adequately. The determination of these water needs is not an easy task. Generally, hydrologic and hydraulic approaches to the determination of these water needs cannot be developed by lack of information, or if the information exists, it is incomplete (e.g.: precise information of an event of interest may not be recorded).

The current remote sensing techniques and the historical series of images available can offer an alternative that could help fill these gaps. The information obtained through remote sensing techniques can provide alternative series of data that can be used to characterize wetlands, complete data, calibrate and validate models.

The results obtained in this study give positive perspectives to the application of remote sensing in determining water needs as a feasible and viable method, with some the development of some improvements, this in particularly through public access to information as Landsat multispectral imagery and LiDAR digital terrain models as used for the case studies included in this work.

Keywords: water requirement, wetlands, remote sensing, spectral indices, MNDWI

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