



## **Land use evolution near urban solid waste landfills areas in the Valencia Region (Spain)**

Javier Rodrigo-Illari, Claudia Romero-Hernández, and María Elena Rodrigo-Clavero

Instituto de Ingeniería del Agua y del Medio Ambiente (IIAMA), Universitat Politècnica de València, Spain (jrodrigo@upv.es)

Municipal Solid Waste (MSW) landfilling is currently the only waste disposal technique available in Valencia Region (Spain). The natural environment can be strongly affected by the waste management tasks (transport, landfilling and closure) and their effects extend from the phases prior to the construction of the landfill until years after the completion of the landfilling process. These landfilling works affect the land uses in areas located beyond the perimeter of the plot occupied by the landfill.

In this study a multitemporal analysis of the land uses in the area of influence of the main MSW landfills of Valencia Region is performed. The analysis extends from the years prior to the start of the construction works up to now. The land use change is analyzed using GIS techniques with different information sources such as digital cartography, aerial photographs and satellite images obtained from official free-access databases.

Results obtained show the evolution of land use through the identification of previously existing uses based on historical analysis and the forecast of their future evolution using the Land Cover Model (LCM) and ArcGIS.