

Abstract

This study demonstrates the integration of Geographic Information System (GIS) with asset management. Asset management can be explained in many ways – for example, an organized infrastructure management system, an economic approach to help planning and decision-making, a methodology to ensure the future level of service life of a facility. It is a systematic process of maintaining, upgrading and operating physical assets cost effectively. It provides the tools necessary to facilitate a more organized, logical approach to decision-making and implementing. It gives a comprehensive view of resource allocation and utilization. Asset management strategies and systems used by the facilities management, construction, and information technology industries provide a framework – a multidisciplinary approach that enables us to consider whether such systems might be able to organize better the data for GIS applications. The aim of this thesis is to investigate the potential of an asset management and GIS approach to organize and manage the data. This thesis demonstrates that using a Microsoft Excel spreadsheet was not appropriate for holding all the data and running an accurate asset management system. This thesis investigates the requirements for a geographic data-focused asset management system and makes a recommendation to the administration on using the M-Pet.Net system to provide County of Kauai, Department of Parks & Recreation (COK DOPR) with the capability to identify all of the COK DOPR’s assets and track all maintenance associated with the assets. This thesis shows that the system will then provide the means to support and determine budgets and future long-term expenditures thru the extensive database of information.