



update

Company News

Water Development Department (WDD), Cyprus

Hydro-Comp Enterprises has been awarded a contract by the Department of Water Affairs in Cyprus (WDD) for the supply, development & implementation of an integrated GIS and asset management system that will cover the needs of the Department.

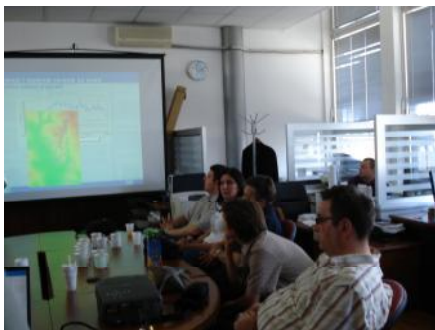


The Water Development Department is responsible for implementing the water policy of the Ministry of Agriculture, Natural Resources and Environment for the rational development and management of the water resources of Cyprus.

The main objective of the project is to implement a Corporate GIS / Asset Management system to facilitate business processes of the Department. Such an implementation requires the successful integration of GIS into the business of WDD.

EDAMS Users Conference in Serbia

Hydro-Comp hosted the annual conference for EDAMS users in Belgrade, Serbia.



The conference was held on the 1st week of June 2010 and the agenda included presentations from users from various Utilities in the region, discussions on suggestions for system enhancements and presentations on application of the EDAMS systems and methodologies for the reduction of NRW.

The next user meeting was scheduled for the middle of 2011.

Belgrade Water & Sewerage Authority (BVK)

Belgrade Water & Sewerage Authority (BVK) extended the support contract with Hydro-Comp that started in 2009.



BVK has established a Unit to cover the business functions of Asset and Demand Management - Technical MIS (Demand Management). The support addressed primarily training and technical assistance in the areas of Management Reporting, system enhancements and user support.

WISA- Conference in Durban (SA)

Hydro-Comp participated in the International Biennial Conference & Exhibition of WISA in April 2010 in Durban, South Africa.



A paper was presented by the General Manager of the South African office Mr

Mokgosi on "Sustainability of Water Services"

International Conference on Sustainable Water Supply and Sanitation in Cairo (Egypt)

On July 25th to 27th Hydro-Comp participated in the 1st International Conference on Sustainable Water Supply and Sanitation in Cairo, Egypt.



A paper was presented by Dr. P. Kolovopoulos on "Life Cycle Management of Utility Assets – A practical Approach"

Nelson Mandela Municipality- Supply of Services for Water and Sanitation Management Systems

The Nelson Mandela Municipality with the assistance of Hydro-Comp is implementing an Integrated GIS, MIS, O&M, Call Centre and network analysis system for the water supply and sewer distribution systems. These include capturing both water and sewer network data and validating the data through field validations.



A dedicated team of Hydro-Comp engineers is assisting the Engineering and Infrastructure Directorate in various tasks so that all the required deliverables and Management Reports are produced regularly.

EDAMS Municipal Assets Infrastructure Management System Released

The EDAMS Assets suite of products was extended to support the full set of services in the municipal infrastructure domain such as electricity, buildings & structures, pavement management, sanitary/storm water sewer management, and water supply management.

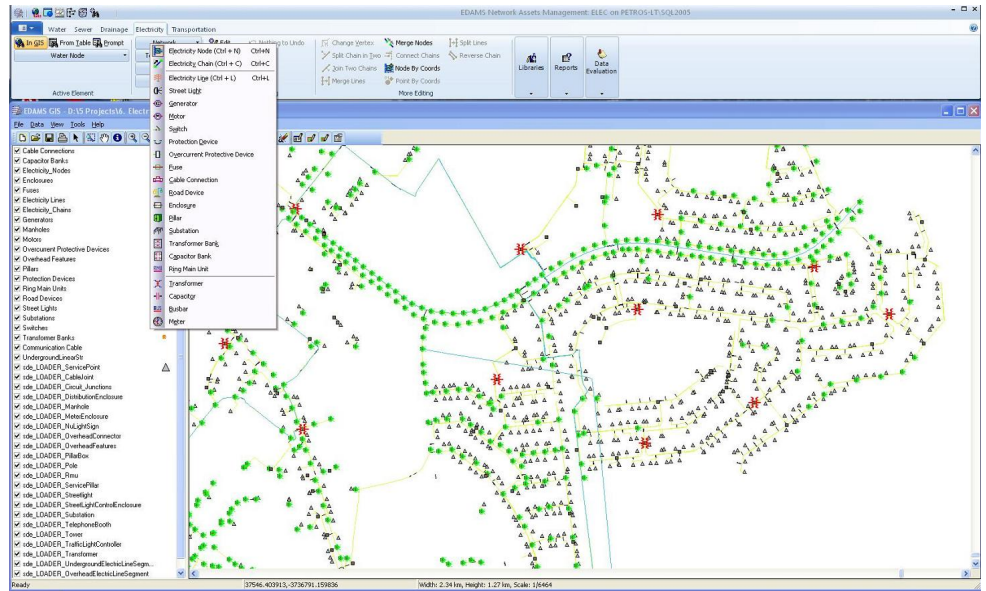
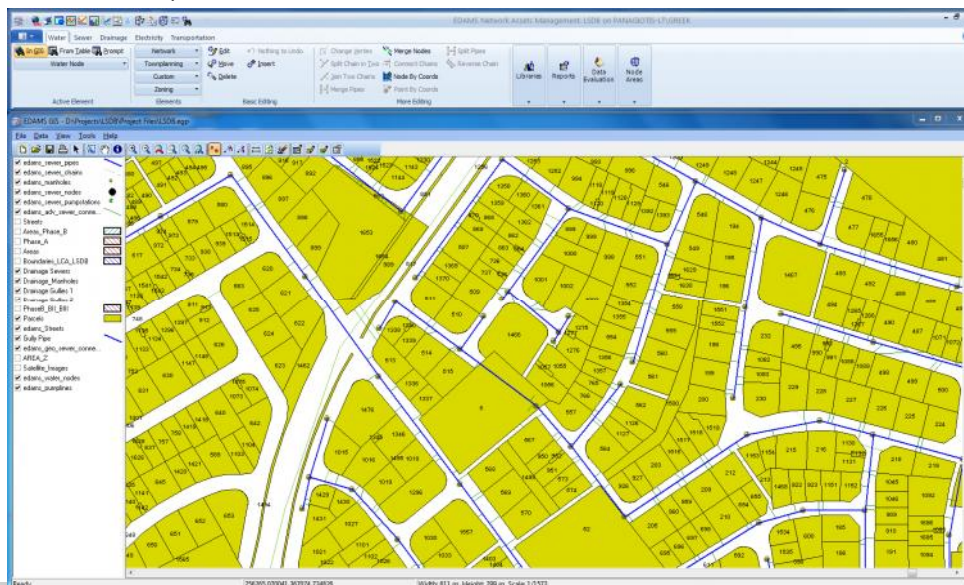
The newly released *EDAMS Municipal Assets Infrastructure Management System* supports a wide range of functionalities, which include:

- Efficient and systematic collection, storage, retrieval, management, analysis, and reporting of asset information.
- Integration and management of the asset life cycle by integrating different work processes and their associated datasets.
- Sharing of data across Municipal Departments,
- Increased operational efficiency by aiding in the planning, execution, and coordination of maintenance operations,
- And tracking and managing the information related to projects, work.

Built In Departmental Models

EDAMS Municipal Assets Infrastructure Management System is not a general-purpose systems offering only generic functionality that needs to be customized and adapted for specific data and work processes. The EDAMS system provides built-in data models and processes to support the management of a specific class of municipal assets with their associated orders, inspections, etc.

EDAMS Municipal Assets Infrastructure



Management with its specialised Windows-based asset registers uses dedicated network data structures and element libraries that have been specifically designed and developed for Municipal Authorities. For example, for Electricity Departments it includes pre-defined element libraries to make provision for all the standard network elements, including transformers, protection devices, Generators and road devices, and allows the capture of all necessary attribute information. It can even assign efficiency and deterioration curve performance characteristics to individual elements.

Common Land Information System (EDAMS-LIS)

The various built in data models share a common *Land Information System* (EDAMS-LIS) as the foundation to define the additional processes and functionality required for the municipal departments to perform their work on maintaining property data in an integrated manner. The sharing of the EDAMS-LIS amongst Municipal

Departments improves the management and integrity of property information in order to support and improve the municipality's mission of service delivery in terms of the land management functions (e.g. land use planning and building development management; cadastral data capture and update; property management; valuations; revenue and housing).

Financial Asset Management

Municipalities are obliged to prepare asset registers in accordance with the relevant GAMAP / GRAP standards in support of the Statement of Financial Position. One of the key requirements of the accounting standard for Property, Plant and Equipment is that the register must have complete coverage of all the facilities that are under the control of the municipality, and data must be reflected at component level.

With *EDAMS Municipal Assets Infrastructure Management System* Municipalities can establish an asset register that will not only be compliant but also provide a common platform to support key financial management, technical management, and planning processes associated with immovable assets. In this way, the municipality will be in a position to better manage its infrastructure, in line with recognised good practice, as a key mechanism for achieving the strategic objectives of the municipality.

Besides maintaining an accurate register of network elements and their physical and performance attributes, the system also enables financial values to be assigned to elements so depreciation of network assets can be analysed.

By monitoring each element's individual deterioration curve, it also provides risk-of-failure analysis. And by determining the total ownership costs over the life of the asset, the system can help optimize network life-cycle costs.

Nelson Mandela Bay Metropolitan Municipality Supply of Services for Water and Sanitation Management Systems

The Nelson Mandela Bay Municipality has implemented an Integrated GIS, MIS, O&M, Call Centre and network analysis system for the water supply and sewer distribution systems.

The Municipality through the establishment of the MIS – Technical unit (MIS_T) (a) has completed a comprehensive asset registry for the Water and Sewer Departments (b) Provides skilled persons that can carry out the various tasks (c) Provides additional assistance and support for Water and Sanitation Management System.

The main function of the Unit is to ensure the sustainability of a reliable network asset register and the provision of both operational and management reports; the asset register will form the platform for the support of the overall organisation in terms of Asset Management information services.

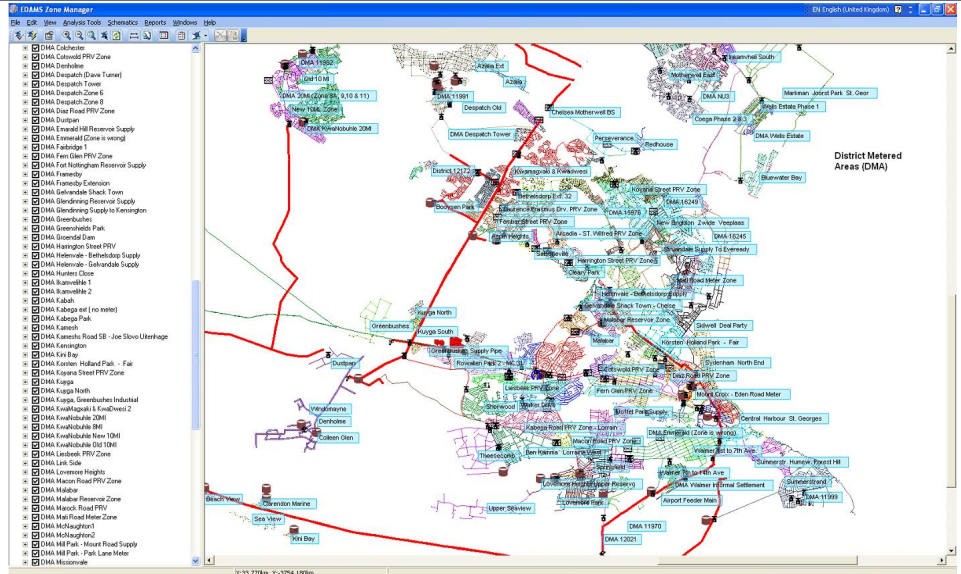
Some of the studies submitted by the MIS_T unit include:

Financial Valuation-Bulk Infrastructure & Rehabilitation Planning

Every asset owned by Nelson Mandela Municipality is subject to deterioration resulting in a reduction in future service potential. This reduction of service potential is recognised in the annual financial reports by depreciation.

In order to accurately determine the depreciation rate for an asset it is necessary to estimate how long the asset will provide services. For existing assets, it was necessary to understand how the asset deteriorates over time and to measure its current condition if remaining life is to be ascertained.

By considering the current condition point on an assumed decay curve, the profile



can predict the effective life (time) before failure. This failure time can be physical end of life, the minimum level of acceptable service of limit of capacity of the asset.

In absence of more detailed data on deterioration of assets, default curves were used for all the assets types in Nelson Mandela Municipality. Condition ratings had two important outputs,

- The determination of residual life and therefore effective life of an asset,
- The review, of maintenance management programmes in support of optimising the life of the asset or accepting greater risk.

The valuation results were computed according to the following methods:

- Replacement cost
- Straight Line Depreciation (Historical)
- Current Cost Depreciation

Program for the Reduction of NRW

This Municipality has embarked in a project that is aimed at reducing water demand in the Nelson Mandela supply area. Hydro-Comp team studied the Motherwell area one of the most problematic supply areas in the Municipality in order to

- Identify and quantify un-accounted for water components in the area both in terms of their nature and location.

- Propose changes to the distribution network so that it can zoned into DMA (mass-balancing zones) and perform adequately under present conditions and normalised fully developed conditions;

Where normalised conditions imply (a) network leakage at acceptable levels and demands that will exist (b) when consumers are made accountable of their water usage (i.e. limited internal leakage and wastage).

The analysis addressed two main areas: (a) Demand Analysis and (b) Hydraulic Analysis.

Demand Analysis addressed:

- Internal leakage and wastage of water (losses after the meter);
- Illegal/No Connections: Identify all developed properties in the area that do not have a connection registered in the billing system
- Network leakage: Calculate total distribution network leakage in the area.
- UFW/ Mass balancing analysis: For all metered areas indicate a water balance identifying all different UFW components.
- Design flow Analysis: Calculate demands to enable hydraulic analysis simulation of both Present demand conditions and Normalised demand implies demand at a stage where all consumers are made accountable of their water usage.

Hydraulic Analysis addressed:

- Evaluation of the existing distribution performance with regard to South African Standards
- Propose changes in the network that will enable it to function properly under normalised conditions, fully developed conditions.
- Propose mass-balancing zones that will assist in better monitoring of UFW in the area without compromising performance of the optimised network.

