

Urban forestry in practice

Using geographical information systems (GIS) to plan urban and community forestry

Using GIS to plan urban & community forestry

Introduction

Urban and community forestry generally involves a diverse mixture of projects, undertaken by a wide range of partners, over prolonged periods of time and often over a broad geographical area. Efficient, integrated design and monitoring is essential.

Geographic Information Systems (GIS) with their capacity for over-laying other land uses, policies and constraints are a particularly powerful tool.

Specific example

Project name and location

ForCAST (GIS software, customised for urban and community forestry monitoring)

Project partners

- The Mersey Forest Team
- Merseyside Information Service (MIS)
- Salford GIS Ltd
- The Countryside Agency

Project objectives

- To use GIS (ForCAST) to record all Mersey Forest sites and associated contacts
- To enable this information to be accumulated over a 30 year period, and displayed on a map base
- To distribute a simple version of the database software to partner organisations within the Forest, to assist them in gathering and recording data.

Project design

A number of excellent GIS systems exist but generally they are either exclusively for woodland management or for contacts information management. In 1996 systems for linking the two functions did not exist, and as a consequence they were relatively inflexible.

MIS were appointed to develop new software in close liaison with the Mersey Forest team. The GIS was based on *Access* and *Mapinfo* software. The project team applied the system within the Mersey Forest as it was being developed and the final version of the software, ForCAST, was delivered in April 1997. Its full base for project monitoring began in the 1996/7 planting season.

Implementation

The system is used by the Mersey Forest team to store all contact information, to produce mailing lists for grant information, training and seminar invitations, etc, and for general marketing activity. Project monitoring information is also collated annually using information gathered across the whole Mersey Forest partnership.

All this information can be displayed and analysed using *Mapinfo*, to produce maps showing site locations, activities and the types of land that have been planted. A number of other layers may also be added using the GIS, such as footpaths, Sites of Special Scientific Interest (SSSIs) and Sites of Biological Importance (SBI).

ForCAST also incorporates a number of general data files and pro-formas, which help to make the production of business plans and project reports much simpler and more efficient.

Management

The ForCAST database expands as new projects occur and new contacts are made. One person is responsible for managing the data and this helps to ensure that the information is up to date. As with all software, there are opportunities to improve the facilities available and to add new features. ForCAST is now being used in other urban and community forestry projects and the software is being continually enhanced as a result.

Results

The Mersey Forest team and its partners now have a robust system that holds information on all contacts and sites in the Mersey Forest.

The GIS displays this information on a map base, providing much greater insight into the scale, pattern and extent of the Forest than would have been possible using written reports.

Salford GIS Ltd is marketing ForCAST to other potential users and carrying out additional software development for new versions of Microsoft Access when required.

The system is used everyday by members of the Mersey Forest team and requests for information from the system have been increasing from other partners.

