

WASG MOVES INTO GIS AGE

WASG is very appreciative of recent generous grants from LotteryWest and software manufacturer ESRI, as a result of which it now has GIS capability.



Says Barbara Zakrzewska, the committee member who coordinated the group's grant applications: "As a GIS (global information system) professional myself, I could readily see the benefits of this technology to the club and other organisations. Of course club members have been mapping individual caves for a long time – fifty years, in fact – and recording data about them in the WA Karst Index. GIS is the next step, enabling us to manage, analyse and display this information. Because leading GIS software, ArcGIS suite, is too expensive for a volunteer organisation like WASG, I did some research into grants that are offered to not-for-profit bodies. With the help of other club members I was able to put together two grant applications for the software and hardware needed."

Now, thanks to Barbara's efforts, the club has an ArcView GIS licence, made available at a huge discount by ESRI to organisations involved in conservation projects. It has also attracted the support of LotteryWest, who provided a grant of \$6275 to purchase a laptop with other software and two GPS units. "The laptop is a good one, powerful enough to run the GIS system and sturdy enough to be taken into the field," she told us. "The GPS units will help us to easily record cave locations and feed them into the geodatabase."

"We can now analyse the recorded data, create maps of karst (cave) areas and provide outputs compatible with the software of choice of Government departments, environmental agencies and land developers. One example of GIS use is helping to plan safe property development in karst areas. Creating adequate buffers around known cavities and delineating risk zones helps to ensure that both caves and prospective home owners are protected from harm. No one wants their swimming pool (or worse) collapsing into a sinkhole, as happened not too long ago in the northern suburbs!"

There are many other applications for the GIS system. It can be used to share data with other caving club members and with the national cave database; to provide advice to land managers; to coordinate cave surveys and conservation programs; and to assist researchers with scientific analyses of karst features and ecological communities. Easily accessible waypoints and cave locations could also prove invaluable in emergency or cave rescue situations.

"The potential is enormous," said Barbara. "We're very excited."