

**SHREWSBURY TOWN COUNCIL
RECREATION & LEISURE COMMITTEE
WEDNESDAY 21ST JULY 2021**

Officer: Jim Goldsmith. Countryside Ranger

TO APPROVE THE PURCHASE OF SPECIALIST TREE MANAGEMENT SOFTWARE

Purpose of Report

To approve the purchase of specialist tree management software

Background.

In early 2020 I was tasked with surveying the ash tree stock on all Shrewsbury Town Council (STC) land and also Countryside land. Initial surveys were to be conducted to better understand where and how many ash trees STC manage as well as the prevalence of ash dieback disease and to locate any trees that pose a threat to public or property. Further annual risk based surveys will be required for the foreseeable future.

To locate all the possible ash trees managed by STC required visiting all sites and conducting a survey. To do this required using a selection of A3 maps printed circa 2010. The maps were missing some parcels of land that are now under STC management and also had some on that are no longer under STC management or have changed shape. The boundaries on the maps are at a scale that are difficult to make out so it was necessary to take out a laptop to be able to access the GIS, this also required the tablet to provide internet to the laptop via hotspot.

The current mapping system using Shropshire Council's system is not fit for purpose and is constantly failing to the extent that it has become unusable to ourselves.

By purchasing this system, we are getting a system that can be used for tree plotting, along with other features plotted including streetlights, street furniture, bins etc

Current Surveying Issues.

To survey an ash tree currently requires filling out a bespoke ash dieback survey form created by myself on a tablet. If the tree requires any work then it needs recording on a GIS type system so that it can then be located at a later date by those conducting the work and this would apply to all current uses for plotting information which are detailed above. Currently this is done on the Confirm system which has well documented issues with connectivity and losing work.

When it came to producing a job sheet for the tree gang or countryside team this was also a convoluted process. To produce an A4 sheet with a location map, tree location, work to be undertaken and any other information meant accessing my Word survey file for information, Confirm for pictures and GIS for maps, three separate processes.

The whole process could be shortened by having a dedicated system that can be used on desktop or remotely on a tablet or smartphone. So all tree data will be in one place, including map location, description of any work to be carried out with attached photos. All this information would also be held digitally and could be used for long term monitoring and management. Work could be picked up electronically by the tree gang on their tablet so reducing the need for paper worksheets and maps.

The tree gang could then input their comments, finished photos or mark the tree if it has been felled. Re-planting information could also be carried on this system all in one place.

The issue was highlighted to management and a motion to purchase new software for the purpose of tree inventory and management was put to council was accepted.

Tree Inventory Software options

I was asked to look into the feasibility of tree management software in spring 2021. I was recommended some software companies from a number of sources including our own staff and Shropshire Councils (SC) tree officers. These were:

- ArboTrack.
- Pear Technology.
- OTISS.
- Keysoft Solutions.
- Ezytreev.
- TreePlotter.

After reviewing the websites of the various companies three were selected to take forward and to open up dialogue with. These were Ezytreev, TreePlotter and Pear technology.

Ezytreev are one of the leading names in tree management software and offer a cloud and desktop based system with staff training and direct support through a help desk. Ezytreev software is used by a number of councils, housing associations and wildlife trusts for tree management.

TreePlotter is provided by PlanitGeo and is an internationally recognised inventory and asset management software. Key partners include City of London, Idaho Department of lands and Princeton University.

Pear Technology was established in 1995 and is a licensed partner with Ordnance Survey. Their mapping and/or tree management packages are currently used by around 350 Local Councils, 300 arboricultural consultants and around 600 farms and estates around the country.

Online demonstrations via Zoom or teams were set up and attended by STC staff most likely to be using the software. Question and answer sessions were provided as part of the meeting and also by email exchange afterwards.

- Treeplotter will cost £15,300 for a 3 year subscription, this includes some one off set up costs such as importing some shape files from our GIS. The second 3 years should be around £11,500 as there will be no one off costs and some of the modules are discounted on renewal. This works out at £26,800 across 6 years.
- Ezytreev is more expensive to set up initially with a cost of £12,764 and then an annual cost of £4694. £36,234 across 6 years.
- Pear technology costs £4015 to set up and £315 support annually.

Both Treeplotter and Ezytree offer highly polished software with easy plotting, analysis, tree inventory and works ordering. The works ordering was seen as key as this allows work to be tasked digitally to the tree gang, cutting out unnecessary work hand overs and paperwork. Work that is identified during surveys and monitoring/re-surveys are also generated automatically and alert the user when they are due. Reports using charts can also be generated automatically making analysis of Ash dieback survey/monitoring much more efficient.

Pear technology however was much more basic, the process of surveying was less efficient with many of the features that are done automatically on TreePlotter and Ezytree missing e.g. a survey completed using a handheld device running PocketGIS needs to be emailed to a desktop, extracted to Excel and then imported onto PT mapper which is the desktop software. Works ordering consisted of a paper printout of all the work required but with little detail, to provide better detail to the tree gang would require printing off or emailing maps and photographs to them.

A key difference between the systems were the amount of devices we would be able to use. Ezytreev was limited to 3 devices at the quote supplied, further licences would have to be purchased at £1380 initially with a lower annual cost. The same goes for Pear with further devices costing £500. TreePlotter allows unlimited users and was thought to offer better opportunities for expansion to be used elsewhere on the council. Because of this it was judged to offer better value for money.

Summary

In summary TreePlotter was seen as the best overall by all those involved. It offers good functionality, productivity improvements for all areas of asset management and value for money. Ezytree was second choice but was seen as being quite expensive and that the cost of adding devices could spiral that cost. Pear came out last, it was judged to have the least improvements to productivity. Although Pear was the cheapest it was also limited by device licences.

RECOMMENDATIONS:

- (i) To progress with the purchase of software from TreePlotter at a cost of £15,300 for a 3 year subscription