

Long term maintenance of the Critical Site Network Tool

Background

One of the main outputs from the Wings Over Wetlands project is the Critical Site Network tool developed by UNEP-WCMC under a sub-contract with Wetlands International. The WOW project will come to an end at the end of 2010 and there is no current provision to continue to support and maintain the CSN tool. This short document outlines the activities, issues and costs associated with supporting and maintaining the CSN tool. The assumption is that the value of the site is reviewed at regular intervals to ensure that it is still fit-for-purpose and that it is still worth maintaining.

Software maintenance

Bug reporting

The CSN tool has been developed as a custom application in the Informatics programme at UNEP-WCMC. Like any software tool there are likely to be bugs or issues that need to be dealt with over the period that it is maintained. These may range in severity from issues which make the application unusable to minor issues like needing to update logos or links. All of the issues are currently captured through a web-based site at the following location:

<http://code.google.com/p/wingsoverwetlands/>

This site captures all of the new requirements for the tool as well as cataloging all of the bugs. Any user can contribute to this website and the link to this site is on the front page of the CSN tool. Through this mechanism any bugs in the CSN tool should be known and documented and all users should be encouraged to contribute bug reports if they encounter them.

Bug fixing

Any bugs that are discovered during the WOW project will be fixed and at the end of the project, any major bugs that render the application unusable will also be fixed. Beyond this, most software development companies usually charge 10% of the total development cost per annum as a maintenance fee. However, this is considered far too high for the CSN tool and a figure of 1% would be more appropriate. For the CSN tool this would be €2200 per annum.

Software enhancement

In addition to bug fixing it is likely that there are new requirements that emerge for the CSN tool to meet new or emerging needs. These enhancements are not considered to be part of the maintenance and would need to be additional costs that would be costed up on a case-by-case basis with the project partners.

Database maintenance

There are two costs associated with maintaining the data in the CSN tool: firstly, the content itself – ensuring that as new information becomes available that it is included in the tool; and secondly, the actual hosting and delivery of the content.

Updating content

The CSN tool uses a wide range of datasets in the application and these come from a variety of sources. Each of these datasets will have its own properties in terms of how timely the data are, how frequently the data is updated and how important it is that the most up-to-date information is in the CSN tool. Each of these datasets requires a different process to get the data into the CSN tool. In the long term as each of these datasets get developed there may be opportunities to link to these datasets rather than having to physically import the data into the CSN database. This would significantly reduce the maintenance costs. However, in order to link to these datasets an investment in their technical development would have to be made.

Following a Technical Group meeting at Birdlife International in July a set of recommendations were developed that indicated how often these datasets should be updated in the CSN tool based on their characteristics. The update frequency varies from 1 year to 9 years and an estimate of an annual cost has been included in the costs section.

Hosting and delivery of content

Currently the CSN tool is physically hosted at UNEP-WCMC and there is a small cost associated with hosting the website and all of the content. While UNEP-WCMC has no licensing costs associated with any software (we have an agreement in kind with ESRI where we can use their software at no cost) there are small costs associated with maintaining hardware and bandwidth usage. An estimate for these costs has been included in the costs section.

Sustainability

The sustainability of the CSN tool depends on a number of factors including the long-term strategy for hosting and the level of technical documentation to help transfer the system to other developers. All of the code that has been written in the tool has been documented and industry standard tools were used in the development so there should be no problem in transferring the code-base to other developers if necessary. In terms of the long-term hosting, if AEWA decided that they wanted to host the tool and support it (or another organization), then a project to transfer the skills and technology would need to be done. The implementing organization would need to have the necessary licenses for ESRI software. A cost for this is included as an option in the costings section.

Costs

Item	Annual Cost
Software maintenance	€2200
Database maintenance	€2500
Hardware maintenance	€500
Bandwidth costs	€200 (depending on use)
Skills and technology transfer to AEWA (optional cost)	€10,000
TOTAL	€5400 per annum