Time for Nature

Using technology to plan a village

Pacific Rim National Park Reserve of Canada

When Pacific Rim National Park Reserve of Canada was established in 1970 it surrounded a reserve inhabited by the Tla-o-qui-aht First Nation. Parks Canada knew that as the Tla-o-qui-aht community grew, it would require more land.

Thirty years later, Parks Canada realized that the time had come. The village was overcrowded. The community at Esowista was ready to expand. But in the centre of a national park, where could the land be found?

Pacific Rim national Park Reserve was established in 1970.
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What were they looking for?

Parks Canada officials and Tla-o-qui-aht representatives agreed to search for a site within Pacific Rim National Park Reserve. They knew it would be a challenge. The new site could not damage the park's ecological integrity.

The Tla-o-qui-aht wanted their new village to be founded on the principles of Isaak (respect) and Hishuk ish ts'awalk (all is one). The guiding philosophy of Hishuk ish ts'awalk recognizes that communities, cultures and

The village of Esowista was overcrowded and needed to expand.
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environments are interwoven and impact each other. The site must work for both the villagers and the park. How could the ideal piece of land be found?

Asking the right questions

Parks Canada began the search using a geographic information system (GIS). A GIS is a computer tool that can analyse natural resource data and prepare maps for land use
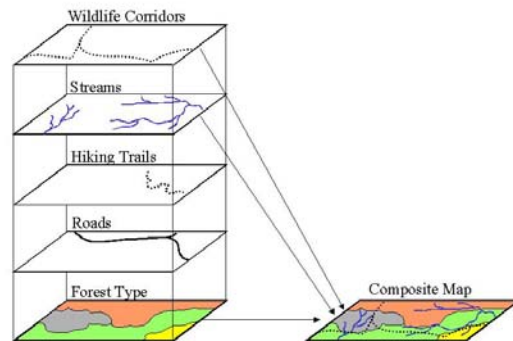
planning. Experts fed in a set of rules for selecting a community site. For example, the site should:

- be more than 50 m from a stream.;
- be at least 30 m from important wildlife corridors, and
- avoid old growth forests.

Pinpointing a village site

The first time the computer crunched the numbers it couldn't find room for a community. So Parks Canada adjusted the rules. Instead of avoiding any old growth forest, the village site should avoid interior old growth forest, which is most important for the park's conservation.

A geographic information system stores maps as separate layers. Individual layers can be selected and overlaid on one another to produce a composite map.
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This time the analysis worked. The computer selected an area suitable for a community while avoiding sensitive natural features.

Was the GIS useful?

The GIS was a valuable aid to community planning. It identified a site that would have the least impact on the park's ecological integrity. Better yet, the GIS produced a map that was easily explained and easily understood. It distilled a great deal of information and communicated the message of a few weeks of work in a few minutes.

A good decision

Perhaps best of all, the choice of village site was easy to defend. People recognized very quickly that this was an application of transparent, defensible science, and readily accepted it.

For more information visit www.pc.gc.ca/pacificrim