

Australian Alps Natural Values

A landscape approach



THE AUSTRALIAN ALPS LANDSCAPE

The Australian Alps national parks comprise 11 protected areas spanning 1.6 million hectares across the states of Victoria and New South Wales and the Australian Capital Territory.

The Australian Alps national parks are listed as National Heritage for a range of values including the unique natural environment and outstanding landscape. They contain the entire Australian Alps IBRA bioregion.

The alps protected areas: one landscape: a common approach

The Australian Alps national parks Co-operative Management Program (AANP) has been in place since 1986 to promote and facilitate interagency cooperation.

A mission of the program is to determine and implement best practice management for the protection of the unique mountain landscapes and natural values. A priority issue for the AANP is to realize the principle of one biophysical alps landscape.



APPROACHES TO IDENTIFYING LANDSCAPE FEATURES, THREATS & CONDITION

While the aim is for complimentary management, the approaches of agencies to landscape assessment across the alps varies considerably. The identification of landscape values, threats and condition is based on three different state based systems.

There is no common:

- warehouse for environmental information or a decision support system;
- approach in management plans to identifying and categorizing values and threats; or
- strategic assessment of focal values or vegetation classification.

This situation challenges contemporary thinking around effectively managing high value and threatened multi-jurisdictional landscapes.



NATURAL ICONS & THREATS: a new strategic approach

As part of the National Environmental Research Program 2011-2014, the Landscape and Policy Hub explored pathways to improve management of biodiversity at the landscape level. The NITF resulted from those investigations.

NITF facilitates a landscape-level strategic assessment of values, threats and condition of a protected area by identifying:

1. **iconic natural features** common to the whole landscape that symbolizes, epitomizes, characterizes or defines the parks; and
2. **key threats** to the selected iconic landscape features.

Indicative icons and threats for the Australian Alps national parks

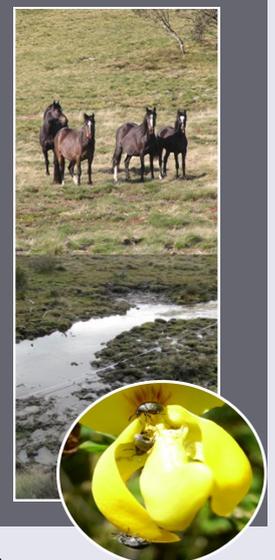
seven natural icons

1. alpine peaks
2. treeless high plains & frost hollows
3. alpine wetlands
4. sub-alpine woodlands
5. tall wet forests
6. rain-shadow woodlands
7. heritage rivers



nine key threatening processes

1. feral horses
2. deer
3. pigs
4. foxes
5. English broom
6. hawkweeds
7. willows
8. blackberries
9. Ox Eye daisy



Spatial data for these factors have been generated and are available as a NITF spatial data pack.

MCAS-S: a decision support tool

The decision support tool MCAS-S (Multi-Criteria Analysis Shell for Spatial Decision Support) is an effective platform for non-GIS users on desktop computers to combine, visualize and analyze the new NITF spatial datasets.

MCAS-S allows managers to easily explore spatial data and pose management questions to natural resource management and planning problems to inform coordinated, landscape-wide decisions for the alps.

a new common language

Digital datasets developed by GIS specialists are now available for each natural icon and threat based on agency and other information sources. This provides a dataset for the alps managers to describe the landscape values and threats to their condition.

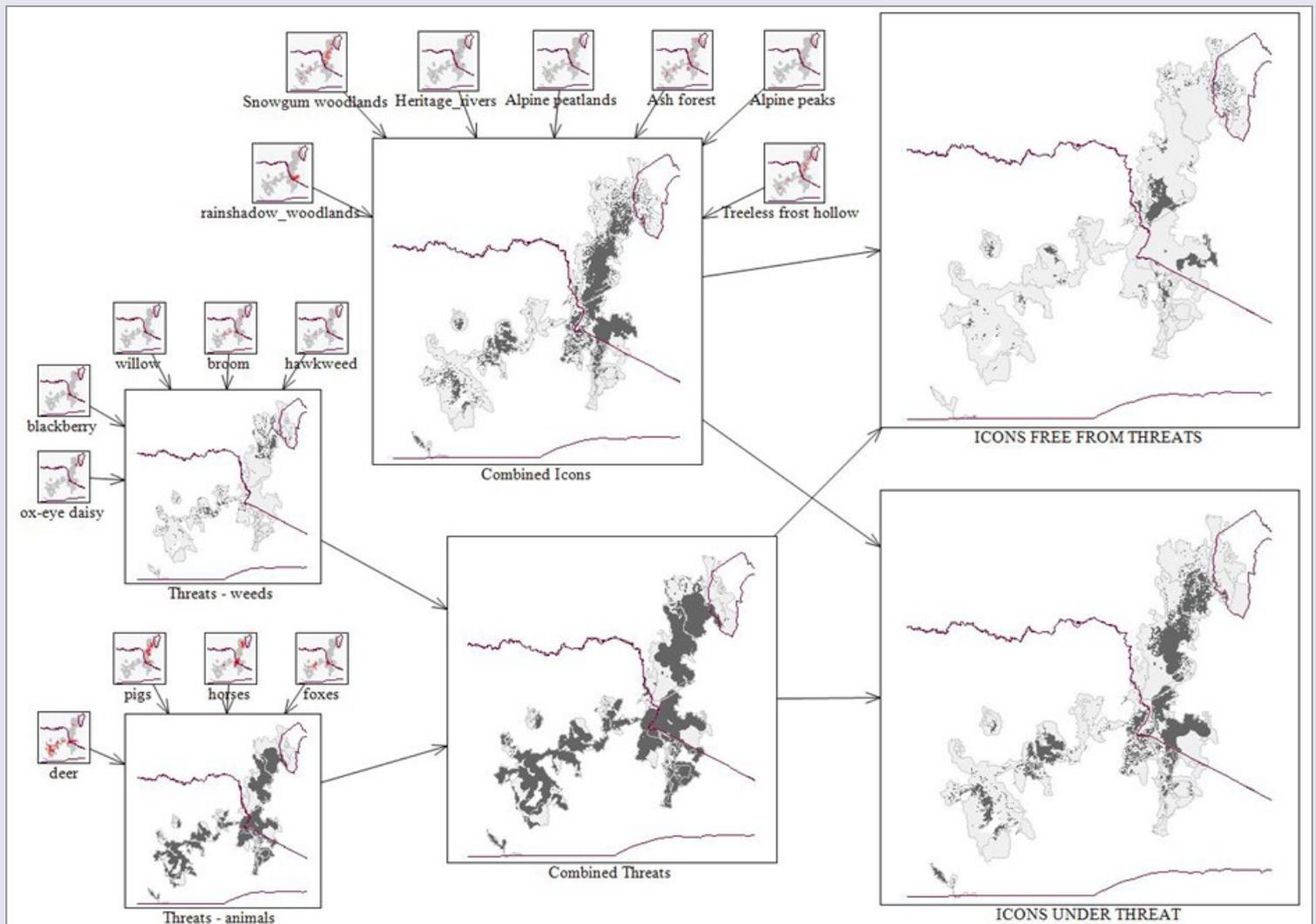
In addition, the data pack includes a common vegetation classification system and map to support the NITF.



The worked NITF example below shows the visual output from MCAS-S of a simple question:

where are natural icons under threat?

The data sets can be easily re-analysed using different variables or to answer other management questions.



WHAT ARE THE BENEFITS?

The AANP has long advocated the value of a common and co-operative approach to planning and management across the Alps. Managers to date have not had the benefit of a system or tool to support effective and strategic cross border management decisions.

The natural icons and threats framework, supported by MCAS-S, is now available and provides:

- common alps wide datasets of key values, threats and condition
- a warehouse for storing state based data
- a decision support tool to facilitate and inform conversations across jurisdictions;
- a form that can be easily shared among managers, researchers and the community; and in time
- enable the “State of the Alps” to be better understood.

It is expected the NITF would provide a strategic framework and tool for the Alps Reference Groups to advise the AALC on matters of alps wide importance.



Some common questions

Does the NITF replace existing State environmental information systems?

No: It operates on information from existing corporate systems. It is expected that GIS staff would simply import new data annually, such as invasive species treatments and presence.

Is MCAS-S a new GIS?

No: MCAS-S is not a GIS, it's a decision support tool utilizing data created on existing GIS systems.

Is MCAS-S useful more widely than for the NITF?

Yes: MCAS-S has also been used recently on projects for assessing overall risk to Alpine Peatlands in the Australian Alps and for prioritizing Alpine Peatlands at risk from fire in Victoria. MCAS-S is starting to be used by NSW OEH.

What does it cost?

The NITF datasets have been created by the Landscape and Policy Hub and are available now free of charge. MCAS-S is open source and also downloadable free of charge. Some training will be needed.

Are the 7 natural icons and 9 threats now locked in to the NITF?

No: should the priorities change, new datasets can be developed and utilized in MCAS-S.

Do you need to be a GIS expert to run this?

No: MCAS-S is designed specifically for non-GIS users, but GIS expertise is best to create and update the datasets.

What technical support is there?

MCAS-S is fully supported by ABARES and they provide ongoing technical support.

WHAT NEXT?

Should Alps agencies decide to utilise the NITF on the MCAS-S platform, some training and technical support will be needed. Griffith University has offered to provide a training package utilizing the specialists that developed the NITF.

This would involve setting up a champions group and about 8 targeted workshops for agency GIS experts in data management and for field practitioners in desktop application of the data and system, along with a period of support.



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