Chilean needle grass National Priority Action Framework 2008-2011

	Identify the CNG Problem	Development of 'best' management options for CNG	Prevent contain and rehabilitate CNG infestations	Development of appropriate extension packages
1	Maintain and update data on CNG distribution in core infestations, outlier infestations and containment lines.	Develop and implement improved chemical, biological and physical techniques for CNG management	Implementation of hygiene protocols, incentive schemes and training to reduce the spread of Chilean needle grass	Assist land manages to identify CNG and national assets that are threatened by its establishment.
2	Provide strategic and pilot assistance to identify, prevent, contain or eliminate new Chilean needle grass	Better understand the role water plays in the dispersal of CNG	Control CNG on lands with national conservation/production values, or with small, new infestations	Assist the implementation of best practice management across land tenures & jurisdictions.
3	Support activities which will ensure that spatial data collected on CNG are compatible with national databases	Better understand the potential impacts of climate change on CNG distribution and management in Australia	Development and implement state, regional and local Chilean needle grass management plans	

Introduction

Chilean needle grass is recognised as Weeds of National Significance (WONS). In 2000, a National Strategy for the management of these weeds was developed. Work has progressed towards many actions in the National Strategy in conjunction with the National Coordinator and the CNG taskforce. The CNG Taskforce has developed this list of priority actions for CNG based on the National Strategy and the current progress of the CNG program.

Detailed information regarding the CNG National Priority Action Framework

The framework is divided into 4 sections of equal priority based on the 4 goals outline in the National CNG strategic plan: Identify the Chilean needle grass Problem, Development of "best" management options for Chilean needle grass control, Prevent, contain and rehabilitate Chilean needle grass infestations, and Development of appropriate extension packages. This document provides supporting information regarding each action contained in the framework.

Identify the Chilean needle grass Problem

Priority 1

Maintain and update data on CNG distribution in core infestations, outlier infestations and containment lines.

One of the key factors limiting the effectiveness of CNG management is the lack of consistent and high resolution spatial data on CNG distribution across Australia. Determining the extent of core infestations will enable the establishment of containment lines, reducing the risk of further spread and enabling better management of established infestations. Surveillance for outlier populations will identify eradication priorities and those regions where community awareness and extension activities are required.

In many regions throughout Australia CNG management is largely about asset protection (remnant vegetation and agricultural assets), and therefore information on the distribution of the key assets threatened by CNG and other stipoid weeds is seen as a priority for the National CNG program.

Priority 2

Provide strategic and pilot assistance to identify, prevent, contain or eliminate new Chilean needle grass outbreaks

Determine what factors are limiting the ability of land managers to identify, prevent, contain or eliminate new Chilean needle grass outbreaks, and provide guidance and tools to overcome these factors.

Priority 3
Support activities which will ensure that spatial data collected on CNG are compatible with national databases.

A Nationally consistent methodology for mapping and nationally consistent presentation (map resolution) is essential in order to strategically manage CNG and assess progress toward national targets. A central, readily accessible repository for spatial data for use by all stakeholders nation wide is essential for strategic planning.

Development of 'best' management options for CNG

Note: Development of 'best' management options for CNG is largely viewed as a research driven goal. It is anticipated that The Australian Weeds Research Centre will be the major funding source for priority actions in this category. Projects eligible for Caring for Our Country funding are unlikely to address this goal; however on ground works with well developed MERI components will directly inform best practice management and allow for adaptive management. Projects with a well structured MERI component are encouraged by the CNG taskforce. There are also some project suggestions below that are non-research priorities.

Priority 1
Develop and implement improved chemical, biological and physical techniques for CNG

Best practice management options have been developed for CNG and can be found in the *National Chilean needle grass best practice management manual*. However this is a working document and many gaps in our knowledge of best practice remain. The National CNG program therefore supports research activities that will fill these knowledge gaps. Further research that is needed to advance best practice includes:

- Research into biological control agents, and a greater understanding of the effectiveness of chemical control in a range of soil types and climatic settings.
- Investigate the role of ants in harvesting CNG seed and whether such harvesting could be manipulated to increase CNG ant removal
- Investigate the use of sugar in large scale rehabilitation of degraded CNG invaded grasslands back to native grasslands.

Some non-research priorities for advancing this objective of the strategic plan include:

- Conduct a large scale (farm level) CNG best practice management program based on past small-scale plot trials, incorporating strategic grazing, pasture rehabilitation, use of fire etc etc.
- Develop a contractor challenge project where some specific area's are identified and contractors hired to rehabilitate regions.

Priority 2
Better understand the role water plays in the dispersal of CNG

This priority has recently been funded through the Caring for Our Country open grants and will help us to better manage infestations along water courses.

Priority 3
Better understand the potential impacts of climate change on CNG distribution and management in Australia

The taskforce recognises the complex issues of climate change and the potential impacts it may have on both the distribution and management of unpalatable weeds. Scoping projects and other research that will assist CNG management under a changing climate are therefore considered a priority.

<u>Prevent contain and rehabilitate CNG infestations</u>

Priority 1
Implementation of hygiene protocols, incentive schemes and training to reduce the spread of Chilean needle grass

Weeds such as Chilean grass are spread primarily through slashing, machinery movement, livestock and agricultural products. Minimising the risk of spread by these various vectors is the single most important priority of the National CNG program and must be achieved if the spread of CNG is to be arrested.

Many successful incentive schemes, hygiene protocols roadside management strategies and training programs have been put in place by local governments across Australia for both CNG and other stipoid weeds. National uptake of these activities within and across regions is required to progress this target of the National strategy.

Priority 2
Control CNG on lands with national conservation/production values, or with small, new infestations

The National CNG program supports on ground works that employ best practice management to reduce or eliminate CNG from within or near key assets, with a focus on making these assets more resilient to subsequent invasion. Such on ground works should also incorporate (where relevant) control of other stipoid grass weeds such as lobed needle grass (*N. charruana*), cane needle grass (*N. hyalina*), Texas needle grass (*N. leucotricha*), Mexican feather grass (*Nassella tenuissima*), Serrated Tussock (*N. trichotoma*), the espartillos (*Achnatherum caudatum* and *A. brachychaetum*) and *Sporobolus species*. CNG control projects should also contain a strong MERI component and demonstrate that the long term goal is to restore/rehabilitate resilient natural/agricultural assets.

Priority 3

Develop and implement state, regional and local Chilean needle grass management plans

Planning for the long term management of CNG and other stipoid grasses is essential. The development and implementation of Management Plans gives the strategic vision required to achieve an integrated, holistic and flexible program though which progress can be measured. Management plans should have an emphasis on the rehabilitation of managed sites to improve resilience and resistance to future weed invasion.

Development of appropriate extension packages

Priority 1

Assist land manages to identify CNG and national assets that are threatened by its establishment.

One of the biggest limitations to the National CNG program to date has been both the lack of awareness of CNG and the difficulty associated with positively identifying CNG in the field. Extension materials, identification training sessions and other activities must be distributed and/or developed to ensure land managers throughout Australia are confident in identifying both CNG and the key assets that it threatens.

Priority 2

Assist the implementation of best practice management across land tenures & jurisdictions.

Extension materials on CNG best practice management have been developed and require further dissemination throughout Australia. However new extension materials also need developing to raise the awareness of CNG and assist land managers better manage CNG Australia wide. New extension material could include, slasher cover designs, hygiene protocols, ID cards, road side signs and marker information etc.