



# Lessons learned from the Australian interface

Reconciling wildfire risk with  
biodiversity objectives in a  
regulatory system and the role of  
community engagement programs

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# Lessons learned from the Australian interface

A presentation about:

- the development of a regulation to reduce wildfire risk
- what works and what doesn't - an evaluation of a program
- a proposition for how to design deliver better programs



# Context – A fire ecology

## Australia burns



from the  
tropical 'top  
end'



through the  
inland deserts



south to the  
Tasmanian  
alps



# Context - Environment

- vegetation
  - weather
  - geography
- +
- land use pattern
- = high risk environment





# COAG Inquiry

## National Inquiry on Bushfire Mitigation and Management

### Finding 6.1

- The Inquiry supports the view, expressed in *Natural Disasters in Australia*, that *land use planning* that takes into account natural hazard risks is the *single most important mitigation measure for preventing future disaster losses* (including from bushfires) in areas of **new** development. Planning and development controls must be effective, to ensure that inappropriate developments do not occur



# Context - WMO

*'to make a feasible for a home to be defended'*

Major fires  
Government inquiries

Research on house  
and human survival

**WMO  
Planning  
Policy**

*Stay and defend or leave  
early position*

Fire behaviour  
science

1999

Building Regulations  
(Construction Standards)

Planning System  
which controls land  
use and development

WMO Applicant's Kit  
2004 and 2007



# Context – WMO Policy

## Buildings and works

### OBJECTIVE

**To ensure that the design and siting of buildings and works improves protection for life and minimises the level of fire impact.**

### OUTCOME

The design and siting of any building or works, including outbuildings, driveways, vegetation and storage areas for flammable materials, must minimise the fire risk to life and property.

The design of any building must incorporate fire protection construction features to prevent the entry and build up of embers to the building and reduce the likelihood of direct flame contact.

The siting of any building in relation to slope, access, aspect, orientation and vegetation must minimise the fire risk to life and property.



# WMO Policy

## Vegetation

OBJECTIVE	OUTCOME
<b>To ensure that fuel (ground fuel and shrubs) is managed to reduce potential fire intensity in the vicinity of buildings.</b>	A building protection zone, landscaped to reduce fuel load, distribution and continuity, must be established to inhibit the spread of fire and minimise the fire risk to life and property.



# Context - WMO Model

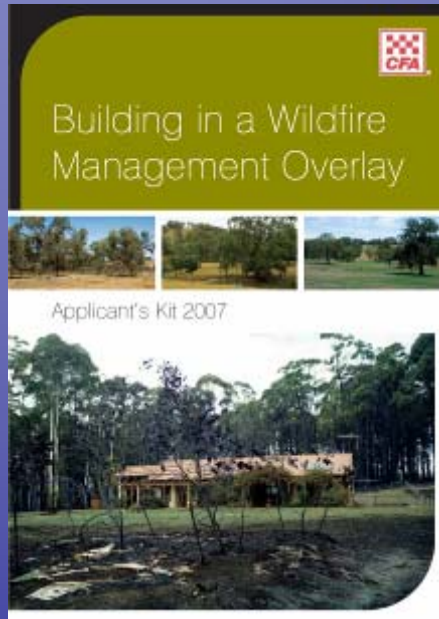


## Model

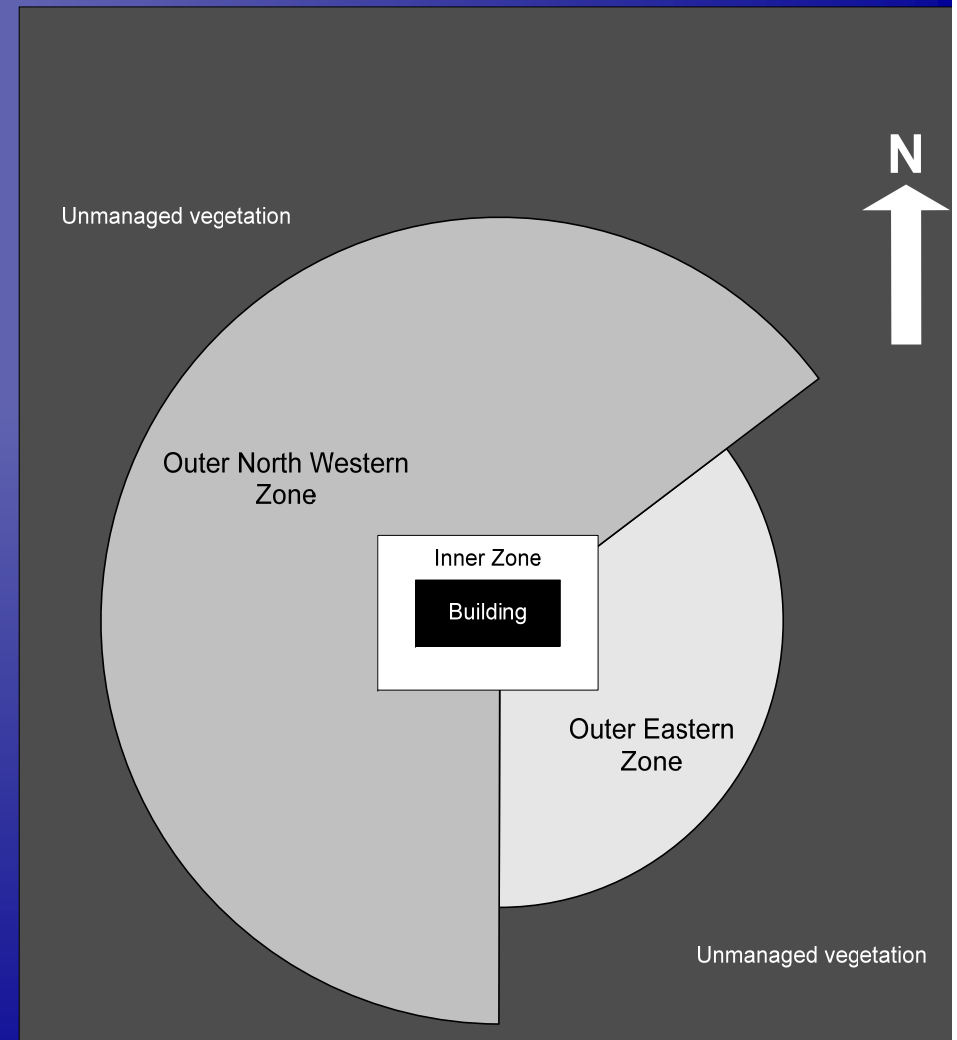
- predicts set back requirements to unmanaged vegetation
- set back distances based on calculations that use published wildfire equations



# Context - WMO Model



- WMO Applicants Kit prescribes vegetation management distances
  - For 6 vegetation types
  - 3 slope classes
  - Different result for each of 2 aspects





# The Problem

- WMO and native vegetation remnants intersect
- native vegetation is protected by overlay controls
- overlays have equal weight
- overlay inputs provided independently by separate government agencies:
  - for wildfire, CFA
  - for native vegetation, Department of Sustainability & Environment (DSE)



# The Problem



- legislative requirement to reconcile native vegetation protection and WMO
- community need and an expectation to be able to
  - retain native vegetation for amenity and biodiversity value
  - manage vegetation for wildfire risk

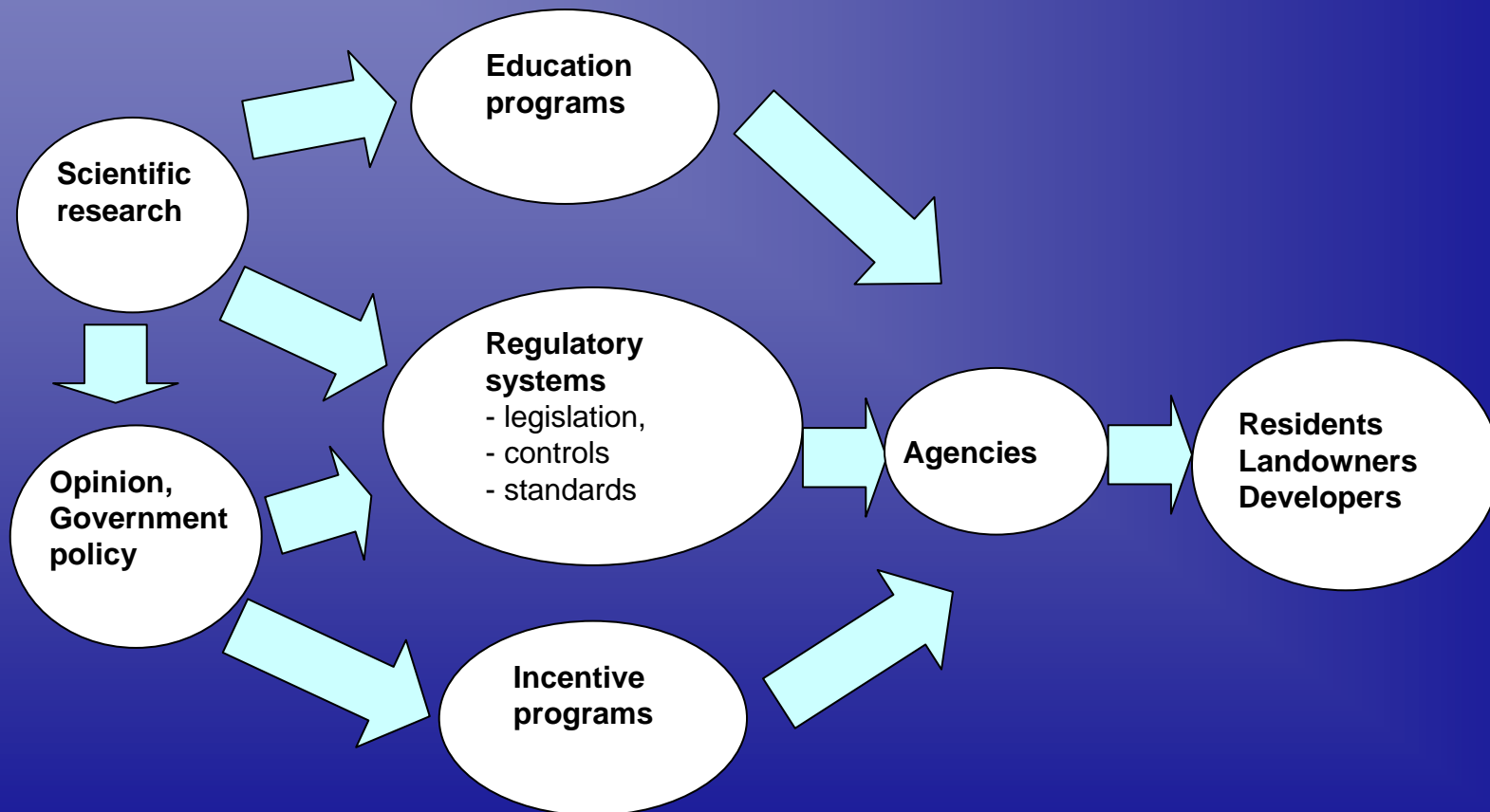


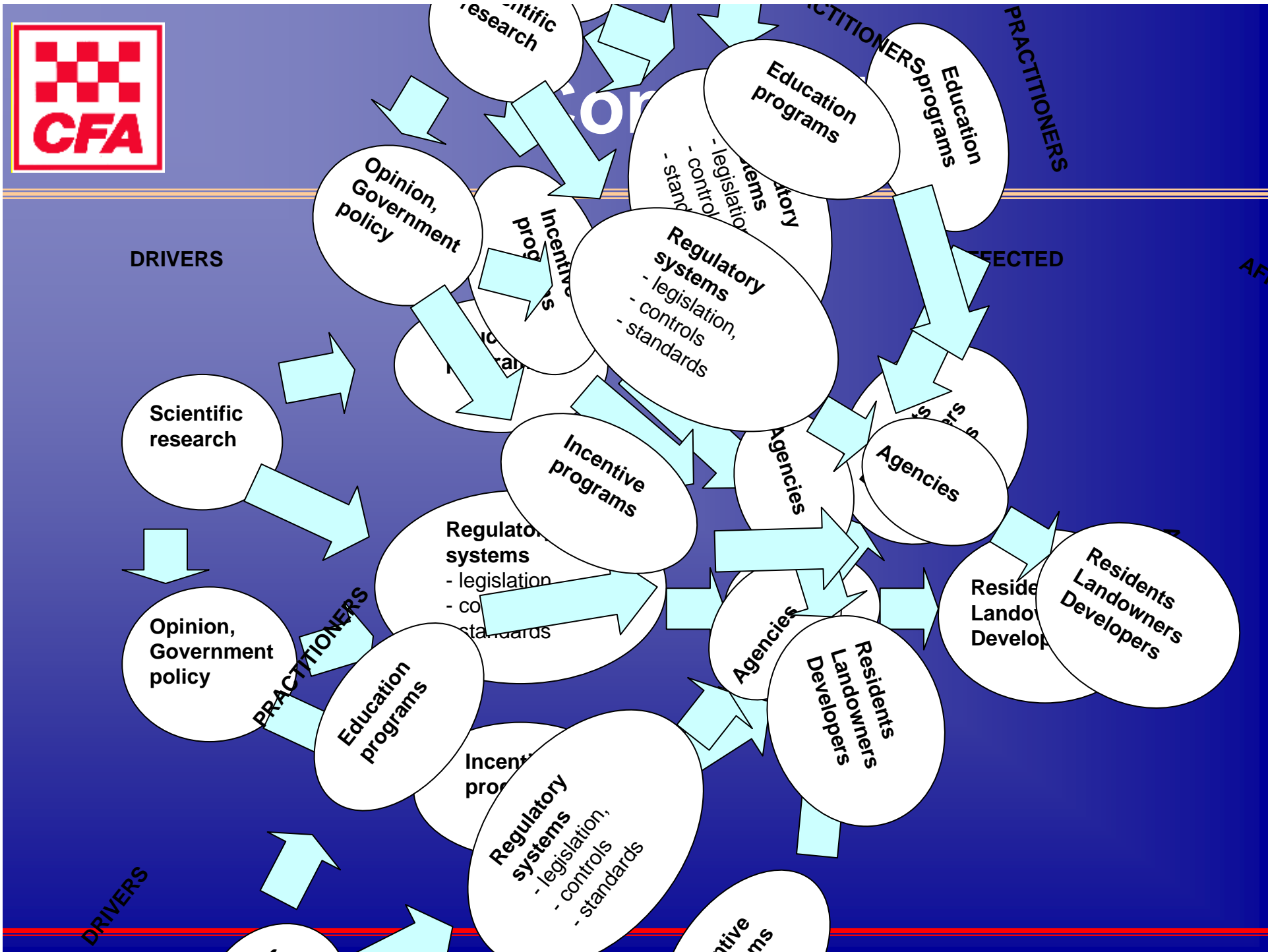
# What's the problem?

DRIVERS

PRACTITIONERS

AFFECTED







# Solutions

*Property bushfire preparedness and  
native vegetation management*

## Approach

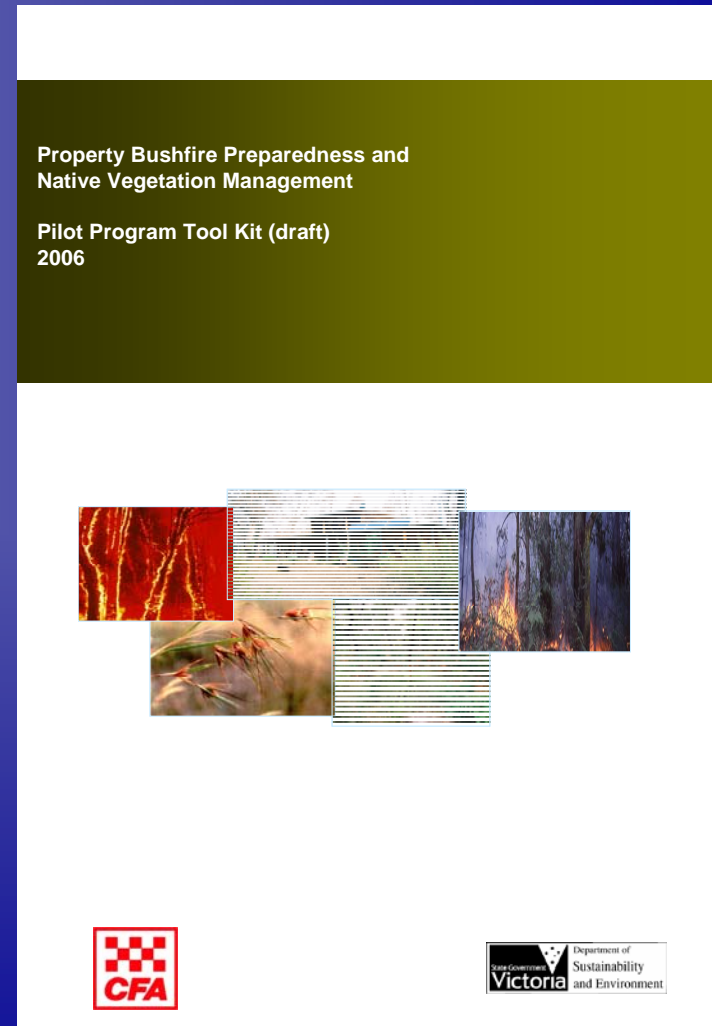
- Working Group
- State Advisory Group
- Pilot Program



# Solutions

solutions tested and refined in a pilot program

- decision making and information tool kit
- training in process requirements and principles of integration





# Solutions

## Pilot Program Evaluation

*“What works for whom and in what circumstances, and how?”*

### 1. Evaluation Workshop

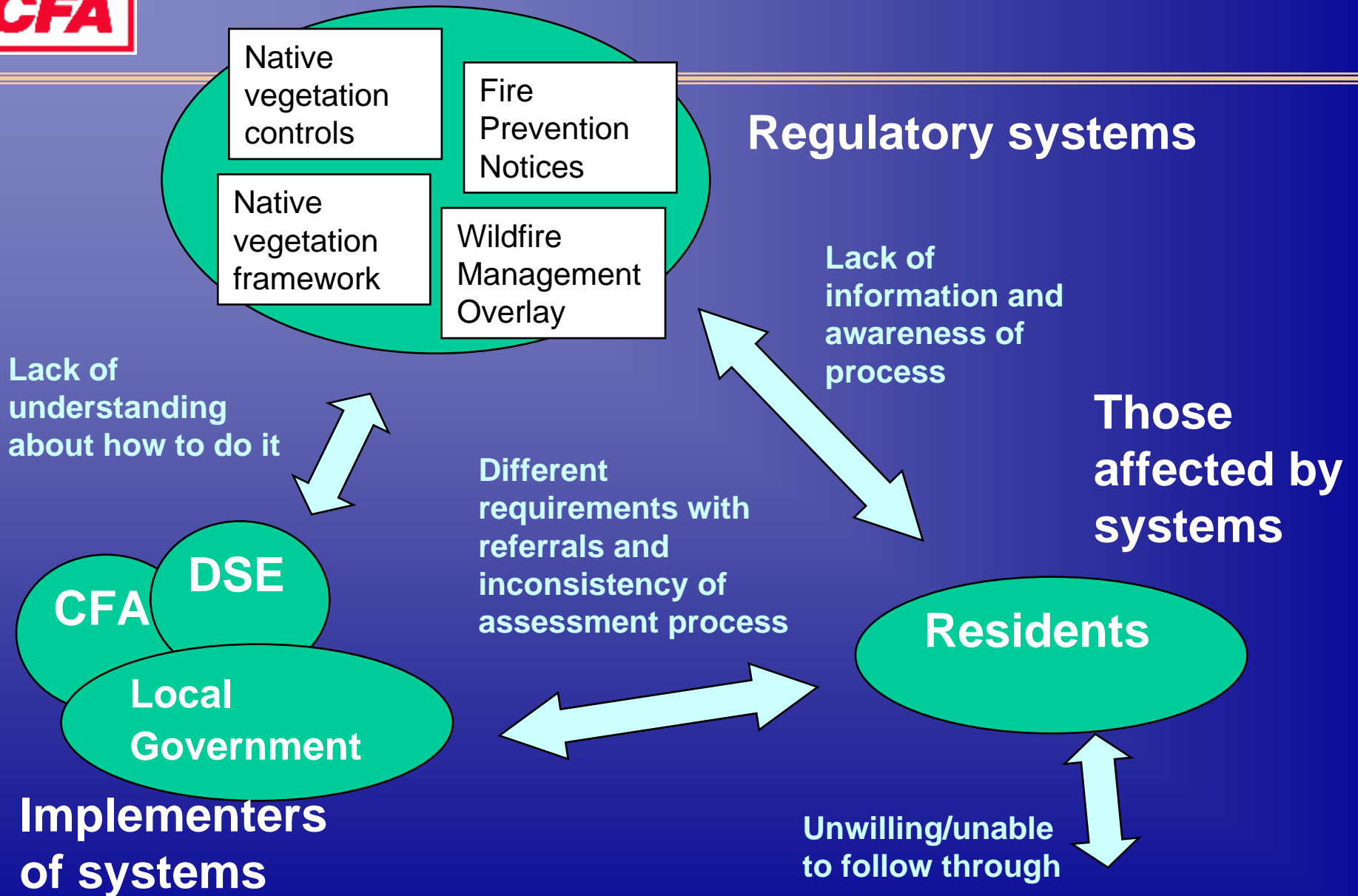
- achieve shared understanding of the problem
- determine factors that would contribute

### 2. Interviews with municipal and agency staff

- assess whether the pilot improved the quality of decisions



# Results - Map of the Problem





# Results

- case load and staff turnover
- legitimisation of the issue
- confidence in the agencies
- technical nature of conflict resolution
- **importance of process**
- **agencies as partners**



*“It’s fantastic to see CFA and DSE talking to each other”*

- local government statutory planner



*“Although our Council is ‘green’,  
Council is reluctant to support  
refusal on vegetation grounds  
alone”*

- statutory planner



*“Good decisions were made (during the pilot program). In all cases this is attributed to the application being supported by professional consultants who provided land management plans”*

- manager, planning department



*“Volunteer fire-fighters advice may not be informed and is often contradictory to the planning system”*

- statutory planner



*“We have confidence (to make a planning decision) because we can speak to someone at the referral authorities who understands both objectives and \*\*\*\*, CFA and DSE are actually talking to each other”*

- statutory planner



*“Prior (to the project) DSE perceived CFA as the opposition in relation to biodiversity and CFA was ‘used’ by applicants to get the development outcomes they wanted. DSE did not know the wildfire risk treatment options, now we have sufficient knowledge for DSE to engage in negotiations about development design.”*

- native vegetation officer



# Results - Implications

## The big ticket items

- the planning application process as a negative experience
- we can improve planning decisions but we do not know if residents are adopting permit conditions





# Results

- community understanding and acceptance of risk is critical
- planning controls must be supported by community engagement
- advice to the community must come from multiple agencies





# Social Research

*...in areas where homeowners are unfamiliar with a particular practice there will be an initial resistance to regulatory approaches, but as knowledge increase the resistance can be overcome”*

- Dr Sarah McCaffrey, USDA Forest Service

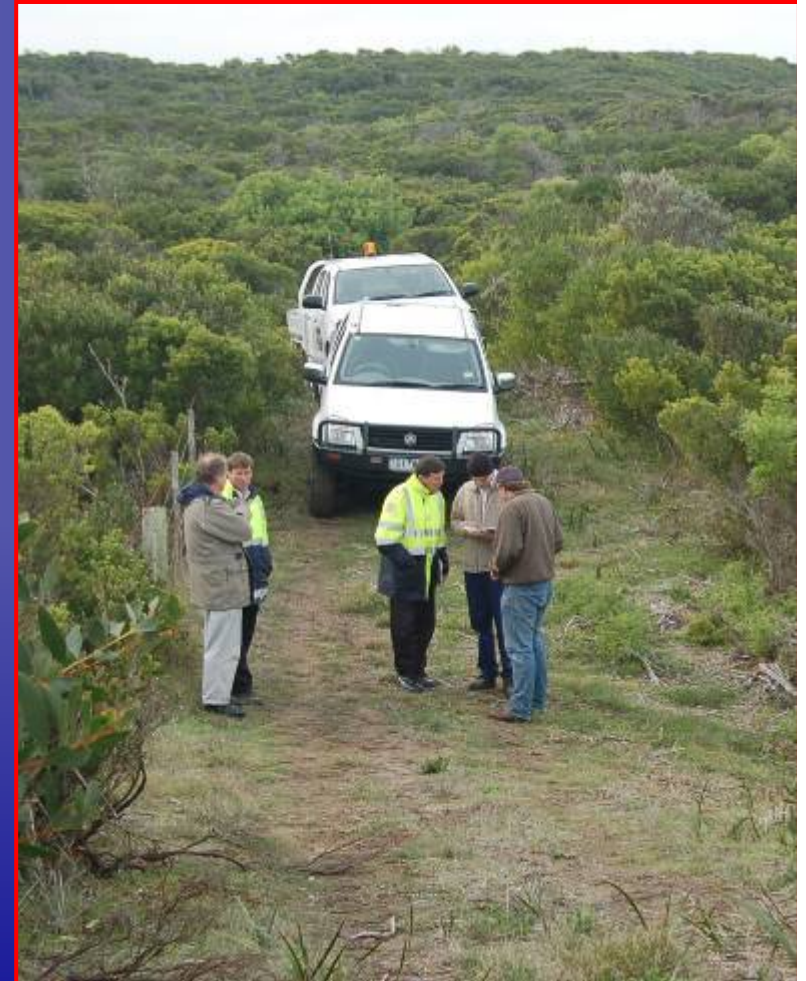
The Public and Wildland Fire Management: Social Science Findings for Managers, 2006



# Proposition

Stakeholder agencies must have:

- working knowledge their partner organisations
- shared approach to community engagement
- acceptance of the need to achieve multiple objectives
- combined advocacy for solutions put forward





# The Last Word

a fundamental shift in philosophy  
where we move from merely  
seeking to ensure *compliance* by  
the resident, to one where we gain  
their *commitment*