UC Agriculture & Natural Resources

Proceedings of the Vertebrate Pest Conference

Title

Coordinated community involvement in rabbit management

Permalink

<https://escholarship.org/uc/item/0kf3g29q>

Journal

Proceedings of the Vertebrate Pest Conference, 20(20)

ISSN

0507-6773

Author

Dowley, Brian J.

Publication Date

2002

DOI

10.5070/V420110310

Coordinated Community Involvement in Rabbit Management

Brian J. Dowley

Department of Natural Resources and Environment, St. Arnaud, Victoria, Australia

Abstract: European rabbits (*Oryctolagus cuniculus*) have been a problem since their introduction to Victoria, Australia in 1834. In North Central Victoria, a regional rabbit action plan was developed to harness and coordinate community action to achieve long-term benefits. This plan focuses the efforts of the community and the resources of government to achieve community and government objectives. Extensive consultation and involvement of all interested stakeholders resulted in joint ownership and commitment to implementation of the action plan. The success of this plan is due to community ownership of the problem and the committed coordinated efforts of all stakeholders. Land managers have the responsibility to implement the control works on the ground, and the Victorian government provides support to encourage landholders to work together by providing technical assistance and some funding to offset the high cost of ripping warrens. At the ground level, community groups develop local action plans (under the Regional Action Plan framework) for their area. Groups demand 80% involvement of all landholders prior to commencing control programs. On-ground works are coordinated from property to property; there are no gaps in control activity. Where landholders do not undertake control efforts that meet the community standard they are recommended to government for enforcement action, which may result in prosecution. The community ownership of the rabbit problem has resulted in an attitude change that believes "rabbit free" is essential and achievable.

Key Words: action plan, enforcement, European rabbits, *Oryctolagus cuniculus*, Australia, rabbit free, rabbit free accreditation, resource protection guidelines, ripping, warrens

Proc. 20th Vertebr. Pest Conf. (R. M. Timm and R. H. Schmidt, Eds.)

Published at Univ. of Calif., Davis. 2002. Pp. 360-365.

INTRODUCTION

The desired outcome from rabbit management of the Australia state government in Victoria is to minimize the economic, environmental, and social impacts of rabbits for the benefit of the community. Other land management strategies in North Central Victoria identify rabbit control as a necessary precursor to the effective implementation of recommended land management options, for example; perennial pasture establishment to reduce groundwater recharge, and establishment and maintenance of remnant vegetation.

The dramatic impact of Rabbit Haemorrhagic Disease (RHD) in the mid-late 1990s provided a unique opportunity to harness community effort to ensure sustainable reductions in rabbit impact. It was essential to ensure that the opportunity to keep rabbit impact to a minimum was not lost; although rabbit numbers were at a record low, the potential for the rabbit population to rapidly increase was still present. The removal of rabbit warrens and harbour was seen as the best method to ensure rabbits could not re-establish to pre-RHD levels.

Years of mixed success in rabbit management had left many in the community conditioned to believing rabbits were an acceptable part of the environment. Thus the challenge was for the community to adopt an attitude of intolerance towards rabbits and to accept that "rabbit free" is both essential and achievable.

Landholders needed to maintain control efforts to reduce rabbit numbers to a long-term control level, where low numbers could be achieved with a routine control program. Where this could be achieved landholders were encouraged to maintain their efforts to establish rabbit-

free areas. These changes required the co-operation and participation of all stakeholders, including individual landholders, community groups, and the state government. This paper outlines the process undertaken to develop and implement a Rabbit Action Plan in North Central Victoria, Australia.

BACKGROUND

The North Central Region of Victoria covers 3 million hectares, has a population of 225,000, and encompasses 4 major river systems—Loddon, Campaspe, Avoca, and Avon/Richardson. The region is subject to hot dry weather in the summer (>40° C) and widespread frosts in the winter. Rainfall varies from 1,200 mm per annum in the highlands to 300 mm in the north.

Topography in the region is diverse. The majority of soils have poor fertility, are prone to degradation, and relatively shallow. The traditional high rabbit impact areas are the sedimentary hills and rises, and the granite areas. These areas are located in the mid-upper catchment and are ideally suited to rabbit infestation as the soil types allow establishment of warren systems and provide warren protection.

Land use is diverse with 65% used for agriculture. Other uses include forestry, mining, and urban centres. The main agricultural industries are dryland pastures, dryland crops, horticulture, irrigated crops, and pastures. The value of agricultural produce from the North Central Region is approximately \$A1 billion per annum (NCCMA 1997).

The European wild rabbit was introduced into the North Central region in 1845 (Coman 1999). Without

natural predators it established and quickly bred to plague proportions. The arrival of myxomatosis in 1952 reduced the rabbit population by 99.9%. However the rabbit recovered from the impact of myxomatosis and during the 1980s rabbit numbers, measured in spotlight transects, were up to 100 animals per spotlight kilometer. It is estimated that rabbits cost the North Central Region's economy \$A18.2 million/year (Dennis 2000).

The most effective method of controlling rabbits in this region is by using integrated management techniques including poisoning with 1080 carrot bait, deep ripping of warrens, and follow-up fumigation of any burrows opened after ripping. Ripping involves the use of a D6 bulldozer with multiple tines (usually 3) at least 1 meter long, forced through the warren area in a grid pattern. This collapses the burrows and destroys any rabbits in the system. Ripping costs vary from \$A6 - \$A12 per warren depending on terrain and warren density.

METHODS

Development of Regional Rabbit Action Plan

The initial task was to develop a Regional Rabbit Action Plan with strong community involvement. This plan had to be community owned and driven, and was based on the following principles:

- Group activities in rabbit control are far more successful than individual efforts.
- Self-reliant rabbit management groups must be established and supported.
- Priority areas for control need to be defined and accepted.
- Rabbit management requires long-term commitment from all stakeholders.
- Rabbit management is an integral part of sustainable management of the environment and agriculture that requires a partnership approach between all land managers.

Initially a technical steering committee of community representatives, Victorian Farmers Federation members, rabbit management technicians, flora and fauna specialists, and public land managers met to establish the framework for developing the action plans. Issues important to stakeholders were identified during community workshops. These issues were considered throughout the Regional Rabbit Action Plan development.

The Rabbit Action Plan was to provide clear direction for rabbit management over a 5-year period. The agreed plan vision was: "A rabbit free environment that is maintained by having a community attitude of 'It is totally unacceptable to have rabbits on my property.'" The plan recognizes that unless the community adopts an attitude of intolerance towards rabbits, the community will not take the responsibility and action necessary to manage rabbits. The plan had two goals: (1) to increase the rabbit free area, and (2) to increase the area under long-term control.

The draft action plan was widely distributed within the community for comment. To increase community response, a series of public forums were held in public facilities across the region. These forums allowed the community to discuss directly their support and/or criticism of the draft action plan with the authors.

When completed, the Regional Rabbit Action Plan (NRE 2000a) received State Government endorsement and funding for implementation. A summary document of the action plan was produced. Both the summary document and the Regional Rabbit Action Plan were widely distributed throughout the community, particularly to those actively involved in rabbit management.

Priority Setting

The greatest challenge was to convince landholders in areas that traditionally had high rabbit numbers that rabbit population alone was not the key criterion for determining resource allocation, and that the traditional high level of support with extension services and financial assistance in those areas may not be retained. Instead the Regional Rabbit Action Plan prioritised resource allocation based on a number of criteria including community support, public benefit, susceptibility of land to rabbit infestation, economic impact, rabbit population, and environmental values.

This priority establishment process was presented in a flow diagram that allowed easy explanation of the process (Figure 1).

IMPLEMENTATION OF REGIONAL RABBIT ACTION PLAN

Funding Support

Clearly the development of the plan was the initial step in the process of rabbit management. Community members needed tangible evidence before being convinced that this new approach was effective.

Community groups in priority areas were supported with financial assistance from the State Government under the Second Generation Landcare Grants program (Belair et al. 2000). This program encourages community groups to develop local land management projects and submit them for competitive assessment.

Rabbit management funds were provided under this program to support groups that require ongoing funding to consolidate and expand rabbit control areas, and to establish new rabbit control groups. Funding was targeted to ripping and harbour destruction as part of an integrated control program.

As demand for this funding greatly exceeded the available resources, applications for financial and technical support to groups had to meet strict criteria including:

- Community group must be incorporated.
- Community group must be in a priority area as defined in the Regional Rabbit Action Plan.

High Service Level	Medium Service Level	Low Service Level
• Officer contact provided to group • Support to develop local action plan • Incentives available • Compliance action	• Officer attendance at group meetings • Support to develop local action plans. • Incentives available • Compliance action	• Enquiries handled by phone • Extension material provided by mail • No financial incentives • No Compliance action

Figure 1. Flow diagram of priority establishment process.

- The commitment of at least 80% of the landholders in the control area to participate in the control program must be documented.
- A clearly defined group boundary.
- A 3-year plan for control works.
- The cost of a project manager must be included.
- Assessment of the project by a Department of Natural Resources & Environment (NRE) Rabbit Management Specialist to ensure the technical components are correct and the costings are realistic.
- Provision of project reports for funding received in previous years.

All applications were competitively assessed by a Regional Assessment Panel that included community members and NRE Pest Program Leaders. Funding assistance is limited to \$A20,000 per group annually and was only provided once to a particular area (Figure 2).

Figure 2. Flow diagram of funding process for community groups.

Once funding had been granted, groups determined the funding allocation between members depending on the control works required on individual properties. Assistance generally resulted in a cost reduction of 50% (\$A50/hr dozer hire). All follow-up work including fumigation and ripping was the responsibility of the landholder.

Funding was provided to incorporated groups with an ability to:

- Ensure the completion of on-ground works.
- Adequately monitor the project.
- Meet the reporting requirements.
- Ensure the equitable distribution of funds amongst landholders.

The progress of control programs was actively monitored by NRE. Successful control programs resulted in some properties being recognised as rabbit free.

Local Action Plans

Community groups were required to develop and implement their own local action plans in priority areas. These local plans were essential to secure funding assistance from the state government. Local plans based on aerial photos or 1:100,000 topographical maps clearly described the group boundary and the areas to be ripped and fumigated. In the larger community group areas, local action plans detailed a 3-year program. The first year of the program provided initial removal of warrens, and the second and third years of the program aimed to consolidate and expand control areas.

The local plans also included a works schedule and complete costing of the program. A schedule for pre and post monitoring of rabbit population and active entrances to warrens was also included.

A key component of the plan was the appointment of a project manager, usually part-time, to coordinate the on-ground activity. Depending on the scale of the project this appointment may be for 2-3 hours per week to full time. The project leader's role was to maintain landholder interest, develop the work schedule for ripping, engage contractors, monitor works, arrange contractor payment, and provide progress and final reports.

Resource Protection Guidelines

In areas where priority flora and fauna values were at threat from rabbit control operations, it was important to provide landholders proposing to undertake control works with information on how to avoid adversely affecting biodiversity values during control operations. Generally the environmental benefits from rabbit control outweigh the risks to native flora and fauna; however there will be some impact and it was essential to avoid any significant impact on the population locally or regionally.

Resource protection guidelines, "Rabbit Management" (NRE 2000b), were prepared to provide detailed information on the vegetation communities in the region. These guidelines also include: the level of rabbit impact in the vegetation community, lists of flora and fauna species likely to be found in these communities, the species threatened by the rabbit control works, descriptions of best rabbit control options, and recommended timing of control activities for each situation.

Legislative Backup

In areas where coordinated programs were implemented, individual landholders could compromise the group's efforts by not undertaking satisfactory control works on their land. These untreated areas posed a significant threat of reinvasion into the treated areas, and landholders adjoining the untreated areas were keen to ensure their efforts were not compromised. Where the

local community and project manager were not able to achieve the required action, the non-complying landholders were referred to NRE for enforcement action.

Having the community refer recalcitrant landholders for enforcement action is a significant change in attitude towards the use of legislation. Previously enforcement was expected by the community but the community would not be actively involved, and when enforcement action was taken the community was sympathetic to the offender. If NRE initiated enforcement action it was seen as government wielding the big stick against a battling farmer. With the current approach, where the community has set the standard of control and recommends enforcement action, enforcement officers are now viewed as supporting the majority of the community. The flow on effect of enforcement action has been dramatic. Action taken against one landholder, widely publicised, has an impact on others in the area, as they know NRE and the community are serious about rabbit management and that community standards will be enforced.

When a landholder was referred to NRE, an Enforcement Officer was required to inspect the property and discuss the landholder's reason for non-compliance. This visit resulted in the development of a works plan and a timeframe for completion of these works. If the necessary works were not completed by the required date, a Land Management Notice was issued that reinforced the work to be done and specified a period of time for completion, usually 2-3 weeks. If the Land Management Notice was not complied with, the works were completed by the State Government (at the landowner's expense) and prosecution occurred. This offence of "failure to comply with a land management notice" can result in a conviction and a fine of \$A1,000 for a first offence.

Rabbit Free Accreditation

Rabbit Free is a joint initiative involving NRE, Rotary International (via the Australian Campaign for Rabbit Eradication), and Catchment Management Authority to formally recognize landowners who have effectively removed rabbits from their land through the application of integrated rabbit control techniques. Rabbit Free operates across Victoria and has ministerial support. Media campaigns, brochures, press releases, and presentations to community groups including farmers, and community service organizations promoted the program. Accreditation is made after assessments by approved NRE or local government staff.

Where a landholder demonstrated implementation of a committed and coordinated management program for a minimum of 3 years, and there were no visible signs of rabbits observed using normal monitoring techniques, they qualify for Rabbit Free accreditation. Such accreditation results in a farm-gate sign that recognises commitment to rabbit management.

Landholders appreciated Rabbit Free accreditation, as it provided them with an opportunity to be recognised for their efforts over many years (often generations) in

trying to remove rabbits from their land. It was with some pride that they displayed the signs and participated in media promotion based on their efforts. The sign on the gate often encourages neighbours to try to obtain the same recognition and provides awareness to passing traffic of ongoing rabbit management.

RESULTS

General acceptance that rabbit management is a community problem requires cooperation from all stakeholders. Government-provided funding and extension services are targeted to the priority areas identified in the action plan, and the coordinated programs demonstrate that rabbits can be removed from many traditional high rabbit impact areas. This commitment and cooperation has resulted in large areas being assessed as "Rabbit Free."

Community groups have set the standard of rabbit management required over their group area and actively encourage all members to achieve that standard. Community groups now request enforcement action against landholders not undertaking control actions to the agreed community standard. In 2000/2001 there were 21 community groups supported with State Government funding of \$A53,100 implementing rabbit management on 6,500 hectares of priority land.

Rabbit numbers measured in spotlight transects have been reduced from 100/km to less than 2/km in most coordinated control areas. Areas that have been made rabbit free show unprecedented regeneration of native flora.

The Rabbit Free accreditation scheme has stimulated a change in the community's attitude to rabbits. The ongoing promotion of Rabbit Free accreditation continues to maintain the profile of rabbit management throughout local communities. Farmers in traditional rabbit problem areas are now committed to getting the last rabbit. A result now seen as achievable that 5 years ago was unimaginable. This new attitude of joint ownership and commitment to action plan implementation will safeguard the achievements in long-term rabbit control gained over recent years.

LITERATURE CITED

- BELAIR, T., B. DOWLEY, J. JAMES, G. WOOD, and M. DAVIDSON. 2000. Second Generation Landcare Rabbit Management Grants 2001/2002. North Central Catchment Management Authority, Bendigo, Victoria, Australia. 4 pp.
- COMAN, B. 1999. Tooth & Nail - The Story of the Rabbit in Australia. Text Publishing, Melbourne, Australia. 246 pp.
- DENNIS L. 2000. NRE Rabbit Buster Report and Evaluation, Stage 1. Department of Natural Resources and Environment, Bendigo, Victoria, Australia. 32 pp.
- NCCMA (NORTH CENTRAL CATCHMENT MANAGEMENT AUTHORITY). 1997. North Central Regional Catchment Strategy. NCCMA, Bendigo, Victoria, Australia. 71 pp.

- NRE (DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT). 2000a. Victoria - North Central Rabbit Action Plan 2000. NRE, Bendigo, Victoria, Australia. 20 pp.
- NRE (DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT). 2000b. Resource Protection Guidelines-Rabbit Control, North Central. NRE, Bendigo, Victoria, Australia. 17 pp.