

Conference Proceedings – Speaker Transcript

Panel Discussion – Managing weeds and ferals pre- and post-fire. What are the challenges and opportunities? How can we improve this?

Chair:

Bob Conroy (Nature Conservation Council, Bush Fire Advisory Committee)

Panellists:

Simon Heemstra (NSW Rural Fire Service, Manager of Community Planning)

Chris Dickman (Sydney University, Ecology Professor)

Scott Charlton (Department of Primary Industry, Manager Invasive Species Program)

Greg Banks (Nature Conservation Council, Policy Officer)

Link to Slides

Bob: This panel discussion is really about examining how we currently manage fire, weeds and feral animals, and how we can better integrate those programs to achieve some more effective outcomes into the future. Firstly, I'd like to introduce our eminent panellists.

Dr Simon Heemstra. Simon is the Manager of Community Planning with the New South Wales Rural Fire Service and is responsible for policy and standards for environmental assessment for hazard reduction, bushfire risk management planning, prescribed burn planning and a range of other functions, including weather and fire behaviour analysis. Simon's been with the RFS for 13 years, has completed a PhD on bushfire patchiness and has been a volunteer fire fighter with the Woronora Rural Fire Brigade for 16 years.

Scott Charlton. Scott is the Manager of the Invasive Species Program at Department of Primary Industry. Scott's role involves policy development, he represents New South Wales on a number of national committees, and he was involved in the development and implementation of the new New South Wales Biosecurity Act. Scott has been actively engaged in the development of state-wide Weed Management Strategies, the management of the New South Wales Weed Action Program, and Scott is the Executive Officer on the New South Wales State Weed Committee. Scott's been heavily involved in the natural resource commission review of weed management in New South Wales, which was in 2014, and has had an instrumental role in the eradication of Red Imported Fire Ants at Port Botany last year.

Greg Banks. Greg is the Bushfire Policy Officer with the Nature Conservation Council of New South Wales and has been with NCC since 2010. Greg has worked in a range of natural

resource management and bushfire positions since 1990, right across New South Wales and also South Australia. As well as participation in reviews to improve bushfire policy, Greg has facilitated community-based workshops that engage with high risk communities. Greg is also very interested in pursuing improved policy actions that secure better assessment and implementation of planned fires to achieve ecological and cultural outcomes. We'll be looking to Greg, towards the end of the session, to give us a sense of direction on a way forward, and we'll be looking for a response from delegates in terms of whether you support what's proposed or not by way of a show of hands. So you can give the NCC Bush Fire Advisory Committee some indication of how strongly you support certain recommendations to take forward or not.

Dr Chris Dickman. Chris is a professor in ecology at the University of Sydney and has published widely on the interaction between feral animals, grazing, fire, climate, and how they affect dryland ecosystems and other areas.

Would you welcome the members of the panel, please.

I have a range of questions that I'll pose to the panellists, just to get a discussion going and to get some information and some ideas from you that you might think through and put questions to the panel. We might just hold those questions at the moment. When I ask a question of the panellists, I might throw it then to you if you want to ask any follow-up questions or get clarification from panel members.

So the first question I have is directed primarily to **Chris** and to **Scott**.

Question: In your experience, do our weed management plans and practices include adequate consideration of the interactions of wildfire, planned fire and weeds, and is it clear that fire can create both opportunities and risks for managing those weeds?

Scott: I'd have to say no there isn't adequate consideration. I think this is something that most people are aware of and it's quite obvious that there's a real need for that. However, how to plan for and articulate these interactions in plans is often not done well.

Chris: I'd probably add to that by saying I quite agree, and I think we've often had a tendency to look at each process in isolation, so fire in isolation, weeds in isolation, and ferals in isolation, and perhaps not so much of the interactions that often connect them and can exacerbate the effects.

Bob (Chair): We would like to raise issues here around the need to have lessons learned by individuals and groups, to be distributed across disciplines. We just had examples in the earlier presentations of weed management planning, where it doesn't take into account even pest animal management, let alone fire management. So it's obvious that at the moment, we currently have some silos that we need to move away from.

These silos encompass each discipline but don't really integrate knowledge from other disciplines into that area. There's also very little published literature on the interactions of weed and feral animal management with fire. But there is quite a lot of informal knowledge, particularly as we've seen over the last 2 days, with some of the presentations that we've had. One of the concerns is that there's no way of pulling that together and collecting that information.

Are there any questions or clarification around weed management plans and how they might integrate with fire management?

Simon: I think the presentation earlier from the Hotspots program highlighted some key points. While it's smaller parts of the landscape we're dealing with, it is actually a principle that we can be using as far as integrating weed management and fire impacts on the one system. So as a bit of case study, it's something that really gives us a good opportunity to build from into the future. So whilst we recognise it's not happening broadly there are some good examples where we're creating those opportunities to get that interaction happening.

Question: Phil Patterson, Hotspots. I think from our experience of working with Hotspots is, with greater community involvement, we tend to have a capacity to be able to look at things perhaps more holistically. It enables us actually to engage a community at a level which I find really fascinating, because it allows us to make linkages between things like weed management, fire usage and managing threatened species.

Are there any experiences that you've had in engaging communities at a level where they become an active part in managing a range of issues, whether ecological or risk management, and have you had any experience with solutions that may come from that?

Greg: I can probably start to answer that. In some of our NCC bushfire workshops, where we had communities that want to engage to find out more about (a) how fire is going to impact them, and (b) how it's going to impact areas that they may be working on from a weed management perspective. So they may be doing a lot of work in weed management, but there's no real collaboration or communication between the set of people that are doing the weed management and the fire managers, at a local level. And so the weed managers go along merrily, doing all their work, and then a planned fire is put in and that changes the whole dynamics of their site.

By having those workshops, you then are able to get them to better understand what the fire managers are trying to do, and fire managers then are better able to understand what those bushcare groups or weed managers are trying to do. That's part of where some of our initial thoughts around this have come from. People have come up with these issues like, "We've done this work and now it's ruined." Or, "We've done this work and now we've got to do a whole lot more work." So yes, I think that that's a really good starting point at the local level, is to get that collaboration going so that people understand both sides of the story.

Bob (Chair): Scott, given your experience in the new Biosecurity Act it would be useful if we can get a better understanding of the new arrangements with weed management as a result of the review that was undertaken. What is the current structure at a state level, and perhaps at a regional level, in terms of the management of weeds?

Scott: Following the review the structure's been greatly revamped. There are currently 11 Local Land Services regions that each have a Regional Weeds Committee. The Regional Weeds Committee is composed of various representative members such as New South Wales Farmers, local government, environmental groups, utility suppliers, National Parks, Crown Lands, and various other players. These local stakeholders were determined through the terms of reference for those groups. That's been a big advance in terms of how everyone involved in weeds comes to the one table and discusses weeds management.

One of the products of those committees is that they develop a Strategic Regional Weeds Management Strategy. That Strategy puts together a priority weed list for that region, identifying which weeds are having the most impact and have the greatest level of risk. Those weeds are then subject to a range of actions. This could be some sort of intervention, investing in on-ground control, but one of the key things is about regulation of those particular weeds. The priority weed list is the basis for local control authorities, primarily local government, who go out and regulate those weeds. The priority weeds lists are composed of state level priority weeds as well as regional priorities.

This approach sits under the New South Wales Biosecurity Act, which is risk-based legislation which looks at impact. The main shift in approach has been a move away from managing weeds for the sake of managing weeds where there's no actual impact, and focusing on where you can actually get improved results. So in terms of coordination of efforts, it's a lot better place now than it was before. Having said that, I don't think the bushfire element is represented well in that process. However, I recognise this is really big issue to consider.

Simon: With the issue Greg raised, we have our Bush Fire Management Committees (BFMCs) so there already is a structure for communication in places, as far as what happens with fire management. And now there are the Weeds Committees. As long as there are people on the BFMCs who also have those links into the Weeds groups, that's how we can get that communication happening. If we make sure that the Councils are able to highlight how regeneration or bushcare projects are possibly being affected by the local burn program we can put better processes in place to work with that. It's possible, as long as people communicate, that's the key challenge.

Greg: I agree completely. The structures are there; perhaps the processes are not. It certainly can be done, but it's often a matter of getting people to understand that those structures are there and how to work with them. How can we do that better?

Question: Hi, Kirstin Abley here from Mount Lofty Ranges of South Australia, the Environment Department. I'd like to add a comment that we've got quite a comprehensive weed management program integrated with our prescribed burn program in the Mount Lofty Ranges, due to the extent of the weed control problem. That has been a really, really effective way for us to tackle the fuel load issues, and we've seen really significant improvements in the biodiversity at those sites. It's actually caused us to also alter our prescribed burning, undertaking pre-fire weed control and managing the intensity and the frequency of burns at sites to manage those fuel loads and the biodiversity outcomes.

One of the really great outcomes has also been the increased acceptance of the burn program within the broader community and with friends of parks groups, who are now working with us, and putting up burns that they want to do that we can work together on to achieve the weed and fuel management and biodiversity management outcomes. We're starting to undertake burning on private land and the next challenge for us is to work out how we roll that out, how we might resource weed control. In that sense how much buy-in you can get from the landholders and how much support we can give them. So I would like to suggest it is possible, but there is a fair amount of investment required.

Bob (Chair): Could you tell us quickly how that is coordinated?

Kirstin: It's coordinated within our fire management team within the Environment Department. We go out prior to the prescribed burns that we undertake in native bushland; we undertake weed mapping across the site, come up with a weed management plan. Then we have a staff team that go out to each site and undertake the weed control priorities. They work with friends of parks groups where they can to build on those outcomes.

Question: Rob Pallin, NCC. Just within the new structure, is there some funding available or place for research into the best management of weeds, including interactions with fire and all sorts of other ways? Because we say that people have to manage their weeds, but is there something to help in managing those weeds better?

Scott: The New South Wales government invests in various aspects of weed management, so regulation is one part of it. There are research priorities as well, but bushfire research is probably a minor element of that, and I'm not sure of any projects funded by the state government for bushfire research. But another element is herbicide resistance, and that's where the coordination comes in as well for us, because linear land managers are lessening their frequency of spraying because they're involved in these committees. That's a very similar situation to bushfire management, when you've got some sort of coordination and a good outcome for how you manage weeds or how you manage spraying or something like that. One of the big investments is in biocontrol agents as well, so there is investment but it gets a bit thin when it gets down to aspects such as bushfire related investment.

The thing to remember, under the legislation, land managers have a responsibility to manage their land; so they're fundamentally responsible for managing their own land, whether it's public or private land. So under the Act, any endemic weeds are managed by the landholder; it's not the government's responsibility to fund that. Governments build the capacity of people to be able to do that adequately and they build a regulatory framework to enforce weed control where there's an externality, so where someone's impacting someone else's program. So that's government's role and it's a key point because that's one of the key drivers for weed control. It was interesting from Bronwyn's diagrams, you could almost look at this as though there's a whole ecological picture of fire management and how it impacts with weeds and feral animals and it's a cause and effect process where it can have benefits and have disadvantages.

I think it might be useful, in terms of where we go from here, to look at the ecology of people. People primarily respond to fires as a disturbance event, so there are intrinsic drivers for why people manage weeds. Either they value native landscapes, or they have a productive value for the land, or they have some artificial reason they have to manage those, because the community accepts that these are dangerous weeds, therefore we regulate them. There's drivers that trigger people's behaviour in managing their weeds, but then you've got this great disturbance event in a bushfire that comes along and impacts people's behaviours. How they respond to that is pretty critical and I think that's where we could be looking at future planning.

That disturbance event could increase funding for the weeds if it can be linked to the fear involved with the fire, so people see the mop up of a fire, see that it's an opportunistic event to sort of tie the ongoing weed problem in with that event and get it built in to insurance models or whatever, or plan for that sort of occurrence. Likewise, if you could sort of tie in some sort of funding model linked to prescribed burning as though it's part of that bigger picture, it's part of the event itself. So if people see there's a need to invest in prescribed burning, whether it's for hazard reduction, if it's strongly linked to the bigger picture of weed and feral animal control, you've probably got a model there to invest in it.

Bob (Chair): Scott, do you see that as a responsibility of the land manager, to raise the profile of the importance of weed control after a disturbance event and to raise that through the representative on the regional weeds committee?

Scott: Well, I think typically we're dealing with larger portions of land, probably public land that's probably managed for the community. I think that's where the community needs to plan for the management of that land, whether it's a state agency or some sort of community group. That's where they need to sort of be involved with the bushfire brigades to plan for those events and see how they may be able to lever some sort of advantage off the fire event to treat future weeds, so add value to it. Would there perhaps be opportunities linked with Section 44 emergency events?

Simon: How we deal with the recovery after an unplanned wildfire doesn't come under section 44 funding. Section 44 funding is only for dealing with the emergency of suppressing

the fire at the time. Recovery funding needs to come through another mechanism, and that's something that the land managers and maybe your committees could be looking at. If they were prepared, if an event like this occurs in the future - how could you opportunistically use that to support better outcomes overall? That would be something people could potentially have ready if that does occur.

In relation to the prescribed burning process, particularly on the interface, if that weed impact is significant it may be a hazard that we would want to address. Especially where weed proliferation creates a lot of biomass, when it dries out that may give us more intense fires. I think there is an opportunity for us there to look at how we can use treatment activities and get guidance from research, as Rob was saying, to make sure that we're reducing the amount of weeds as a result of that treatment and not making it more prolific.

Bob (Chair): Scott, the new regional weed committees, they're a recent innovation. Are they as a result of the review?

Scott: There have always been regional weeds committees. However, they've now been aligned to the Local Land Service region and they've been more inclusive of a broader range of stakeholders. They're great opportunities to have these discussions about regional planning and fires, whether they're prescribed or whether wildfires. But I think a fire as an event could be a game changer for those who invest in land management. People could be working for 10 years, investing time and money in managing a weed and for some reason they're not making much of an impact. All of a sudden with a fire impact, you have this new catalyst for getting in there and getting stuck into a weed issue and maybe treating it differently due to that event. We'd need to be on the front foot if that happens to consider, are we going to treat those weeds differently after that event, and should we plan for that? For example a fire could shift access or some other element considerably; the whole landscape might be changed. In some instances this could make it easier or more economical to treat the weeds.

Bob (Chair): Let's shift to thinking more about feral animals. Scott, could you please explain what the current structure is for feral animal management within New South Wales?

Scott: That's going to follow the weed example. With feral animals the process is not quite as far down the track as for weeds. The new approach is going to mirror the weeds model where you have Regional Committees looking at control of feral animals across the landscape. But it's a little bit different due to the mobility of the populations and how you manage that. The scale of the committees may also be smaller. For instance you have wild dog management groups, which are a smaller scale, but we are looking at how we may have a broad brush approach to managing dogs at that. We are considering for example what is the ideal scale to manage dogs? We're discovering that it may actually be at a larger scale. There's a project up at Armidale called Reset, which looks at coordination of a range of wild dogs programs to hit the ground at the same time. So you're getting a massive extinction, dare I say it, of dogs in an area and seeing if that critical mass is important for an ongoing impact, rather than this mosaic

destruction of dogs where you might have pockets who repopulate quickly or change their behaviours to suit the new landscape.

Question: Hi, Clare Manning from Byron Council. I'd like to go back to questions about weeds. Byron Council currently have heavy pressure from local communities to cease all use of herbicide, which as you can imagine, makes weed control significantly challenging. So we're looking at alternative methods; one of those would be the application of fire. The Bush Fire Environmental Assessment Code 2017 is out for public comment at the moment. To me, using fire to control weeds would align more along with ecological burning, so does the code align to allow land managers to undertake ecological burning much more easily compared to the current code that's still in play?

Simon: That's a good question. Under the Rural Fires Act, the Bush Fire Environmental Assessment Code is to provide a streamlined assessment process for hazard reduction works. If those works also have an environmental benefit, that's fine, but the principal purpose for the streamlining within the Environmental Assessment Code is for hazard reduction works. That's the constraints we have within the legislation. The assessment process looks at how we reduce the potential harm, environmental harm, as a result of any of those activities, and what conditions can we put in place to reduce that potential impact. But it is not principally for environmental or other purposes. As Lloyd mentioned in his presentation yesterday, there are other mechanisms and other legislation you'd need to look at for approvals for those purposes. So if you can find that it's got hazard reduction benefits and it meets the criteria of essential hazard reduction, well then you use that process.

Question: Jonathan Sanders, National Parks Cumberland. I had a comment on what Simon said about costs with weeds after fires, and that is that with National Parks, after significant section 44 events, we do get insurance compensation and there are histories of us being able to get that compensation to deal with damage arising that could include weed management.

I also wanted to ask about the wild dog stuff, because one of the issues, as we heard from Chris Dickman about all the interactions, is that there is some evidence from parts of Australia that vigorous wild dog populations actually keep down the fox and cat predators, which are much more of a problem for a whole lot of those critical sized mammals. So I'm just wondering about the degree to which that can actually be taken into account and/or brought in to the management equation. Obviously there's some major concerns as far as landholders are concerned, but how do we balance that?

Bob (Chair): Are you asking whether wild dogs could be introduced into areas to keep foxes and cats under control?

Jonathan: Or can we account for the foxes and cats benefits in the wild dog management?

Scott: This poses another question about ecological burning. I'll go out on a limb here. In the natural state of things ecological burning might be a good thing. However, we're in a fairly

unnatural environment and obviously those predators have a big impact on other species. Another instance that comes to mind is Lord Howe Island, where they're attributing the success of their weed eradication to the abundance of rats on the island, so another predator who's basically eating seed, which reduces seed bank, which makes their other weed control programs productive. Even on small island environments where they've done species removal, there's a whole heap of knock-on effects, and so I think it's a bit simplistic to look at burning as the be-all answer. It's a very complex sort of ecosystem, even with what weeds are there and what weeds respond and what the natives are there and how they respond. No doubt you've talked about it over the last day, so I won't get into it.

Bob (Chair): Chris, did you have a comment?

Chris: Yes, perhaps I could dance further down that same limb that Scott started on. But first, following up on the original question, there is a lot of evidence, particularly in open environments, that where you have dingoes, you do get marked suppression of fox and cat activity. There have been a number of studies now that show that, particularly in areas with not very rugged topography, or few trees, fox and cat suppression can be very great, to the point where you regain the entire suite of small and medium sized mammals and other small native species.

The question is: if dingoes and other wild dogs have such benefits in conservation landscapes, could they be integrated into production landscapes? That's always been the big issue. Work from overseas shows that Australia stands out like a sore thumb in its use of poison baiting to reduce wild dogs. In most other parts of the world, other methods are being used, particularly guardian animals, to reduce the attacks of large carnivores on livestock.

The small amount of work that's been done here shows that it can be, and is, across a wide variety of landscapes, very cost effective. It seems to me that, going again further down that limb, to the very end, we really should be looking at guardian animals far more than we currently are at all levels. Because it's not a biodiversity magic bullet by any means, but I think it does have the opportunity to produce some great biodiversity outcomes in a wide range of areas where we're currently throwing money at a problem that we know we're not going to solve.

Question: Melinda from Port Macquarie-Hastings Council. Working in local government I just wanted to ask about community involvement. We're talking about holistic management and breaking down silos between areas. I'm on a BFMC, I'm involved in a section of council which has weed management there; I'm not all over the Biosecurity Act by any means, and the legislation. I'm wondering, as we talk about getting community involved, are we actually putting enough resources into local governments and Councils and having those committees and those interactions funded so that you can break down the silo and you can be more effective with where you're putting money? So you're not doing a job on weeds that doesn't

actually relate and create efficiencies in bushfire management and vice versa. So I just wanted the panel to respond to that, please.

Greg: I think that highlights one of the main concerns. Yes, we have those strategies in place, we have the people in place, we have committees in place, but they're not actually cooperating; they're not melding together. Whether it's a financial basis or whether it's another basis, whether there's other supports that you can do, but that's the crux of it to me, is that we're not actually putting together systems that allow management of fire, management of weeds, management of ferals where it's appropriate, to actually be together. So a group that's managing an area of land is able to holistically look at the whole problem, rather than bits of the problem. Now, whether that's a money situation or not, I don't know.

But there's been groups in northern New South Wales where they've seen that there were issues in regard to that, they're called Fire and Biodiversity Consortiums, where they've looked at, "Well, we've got all these issues. We're trying to do things for biodiversity conservation. Fire is a big part of that. How do we make it work for what we're trying to do?" So possibly a question back to the audience is: is that something that is seen as useful by people? Is a consortium, at a local level, it can be at a local level, it can be a regional level, it can be much larger, it depends what you want and the problems that you have, the issues that an area has; is that a way forward? You don't have to all answer, but that's what we're thinking about – is something like this a way to deal with the sorts of problems that we're talking about?

Question: Nancy Pallin. Private land conservation, there are grants available for 3 years, \$5,000 a year, so \$15,000 maximum, for people with covenants on their land or part of their land. We see lots of applications for this money wanting to do weed control, fencing and so on. It seems to me that if fire could be introduced into helping people on private land manage weeds and the whole increased biodiversity, which is the objective of these grants, is there any mechanism through the weeds committees that fire could be used on private land for specific projects?

Simon: One of the things that we'd need to resolve as part of that is how you resource and do this work safely. There are fire agencies that obviously are trained and capable of doing that sort of activity, but the challenge we have is the limit of our resources. Through the Bush Fire Management Committee process, we prioritise works and we struggle meeting our objectives as far as the critical burns that we need to do for the protection of life and property. To divert our resources to doing something that doesn't have as high a priority for life protection is going to be something that's challenging to justify. That's something we'd need to look at. Things like the Hotspots program that help empower people to understand how to do burning safely as private landholders, that is an opportunity to see how you could do that sort of activity safely. A lot of rural landholders do their own burning, and just facilitating and assisting on those sort of lines would be quite useful.

The challenge is just making sure that we don't cause a bigger problem, in terms of how people use that fire. Really, if you look at it, it comes down to economics and efficiency and how much

of the landscape do you actually want to treat. The advantage for us with using fire is that it is actually quite a cheap way of treating a large part of the landscape. Using fire to manage weeds, in some cases can be much more effective. You get a lot more bang for your buck and you can open up a lot of landscape that is covered in weeds that you can then come and treat later. So it is an effective thing to use and it's something that we just need to make sure is being applied safely.

Question: Jim Morrison from the Northern Rivers Fire and Biodiversity Consortium. I'll just respond to Greg's comments there. Greg's also a partner in the consortium, as are probably eight or 10 other people who have come down from the Northern Rivers for the conference. The consortium up there started about 6 years ago as an action from the Northern Rivers Biodiversity Management Plan, which identified fire as the highest risk to biodiversity at a landscape scale. It was that complicated you couldn't address it with one action, so the consortium was formed to come up with multiple actions to address that risk.

We've been very successful in the last few years; we currently have two environmental trusts, integrated weed and fire projects happening at the moment, one on Aboriginal land, another is a cross-tenure project we're just starting at the Toonumbar sub-catchment, dealing with Lantana and BMAD. Our consortium started initially as a pilot project for other regions to sort of look at as it unfolded, if it was successful. I think most of the people that are in the consortium would agree it has been highly successful, and we do have a website, we have a 5 year strategic plan we've developed and we're operating under. I would advise anyone from any of the other regions who is interested in driving one of these consortiums to happen to have a look at our website and contact myself or any other members of the Consortium. We'd be happy to give you a bit of advice in how we got up and running and maybe avoid some of the pitfalls. I would emphasise that the Consortium has worked because it's been run by the community. We have really good government agents on board that are really supportive. We've got local government people on board that are really supportive. But without that community driving it, I don't think it would work.

Bob (Chair): Thanks for that comment, Jim. It would appear that perhaps the NCC might be asked to help coordinate similar consortiums being established in other areas where there was community support for that.

Bob (Chair): Thanks for that. We are running towards the end, and we have two more questions at least there.

Comment: Can I just make a comment that there's also a very successful South-East Queensland Fire and Biodiversity Consortium and the Northern Rivers Fire and Biodiversity Consortium has built on that or learned from them, so we should give them credit as well.

Comment: Can I just make a quick comment, from a land manager point of view, from a Hornsby Council, suburban council? I think probably a lot of local council bushfire managers

are flat-out doing their hazard reduction works and that comes down to staffing and funding. I think there's a lot of will for a lot of managers to do more holistic works, but until funding and resourcing changes, it's not always possible.

Simon: I think also the other point that I'll put with that is that to burn you've got a constrained window within which you can burn. So it's not only funding and resources, it's also time, as there are just some seasons where we only get a very limited number of days in the year where we've got an opportunity to effectively do those activities.

Question: Nick Skelton, NCC. One possible solution could be a pool of reactive funding. For example it could take you years to get a burn in, but you need rabbit control within weeks, and you may need weed control within months. But it would likely take a very long time to get funding, maybe even years, certainly months. Maybe there could be a pool of small amounts of money that when you do get a burn, whether it be a planned burn or a wildfire, that you have some money you can apply for very quickly where you can get some funding to address those rabbit and weed problems straightaway.

Question: Phil Sarkies, Willoughby Council. There's just two quick things I want to say. With all the hazard reduction burns in our area we've always got patches of weeds through our burns. For years we've noticed that its mind blowing after a burn just how easy and quick it can be to remove weeds that were originally on the burn site, and then the weeds that come after. In some of our hazard reduction burns, there's been a bush care group within that burn area. We've involved the bushcare group to look at the whole process from the start of planning the burn, to preparing, and then the post-fire weeding for years after. The bush carers really start to understand what happens after a burn and it's really good.

Bob (Chair): To sum up this session, we need to think about how we progress this forward. I'm asking Greg whether you've got some ideas as a result of the discussion group.

Greg: My ideas are only based on experience and observing what others have done to try and overcome a lot of the challenges that they've come across. Jim's talked about the Northern Rivers Fire and Biodiversity Consortium, and the rationale behind that was that there is a whole range of issues, or a number of issues that groups raised, and weren't being able to find a satisfactory way to progress them. My understanding is that Port Macquarie Council is currently initiating a fire and biodiversity consortium focused on koalas and fire, but with the potential to expand that in the future if other issues are raised.

You can get leverage from having a group like that. Let's face it, none of us as community people, weeders, feral animal people, are able to manage land with fire unless we have the support of the fire authorities to do that. Because we don't have the resources, we haven't got the equipment to start. We might have the skills, but we haven't got the equipment generally to be able to do that safely. So if you're going to have a biodiversity consortium and you're

going to implement planned fires within a project framework, you've probably got to recognise that fire authorities will need to play a part in it somewhere.

As a way forward, I might ask for a show of hands here. Do you think initially it is useful to use the NCC's Fire and Restoration Network, the hub, which is online, to actually start using that to find out which groups are interested in initiating a consortium in their area? And as I said, it doesn't have to be a big thing. It can be quite a small area or it can be a one issue consortium. If you have something that involves fire, in a weed capacity, a feral animal capacity, or both, perhaps the way forward is to get onto that hub and start putting your concerns out there for others to note. Because we'll look at it and we'll see how much interest there is. If there is significant interest in particular areas or issues, then we'll start looking at how we can assist you or that group to actually do something about it and form a consortium or something similar.

Do you think it's a useful way to go? It's not asking you to do anything except think about how you actually want to manage the areas that you're interested in managing. Yes? No? It's about 50/50.

Bob (Chair): Who's opposed? Grahame?

Grahame: Greg, the consortium idea's not a bad idea, but for me, there's a bigger issue. What we see up there today is still that issue about silos of bureaucracies. The NCC is likely to end up as silos as well unless it integrates the totality of its community engagement areas. So what I'm saying is: you actually have people who are involved in the whole suite of the environmental issues that need to be addressed at a region. There are members of National Parks Regional Advisory Committees, there are the Bush Fire Management Committee representatives, there's other people who are involved in extensive things like Jim is, and others. So all I'm saying is it's not the concept of the consortium; it's the way you phrased it that I have a problem with. It's that we actually need to engage all of those peoples and not fall into the trap that the bureaucracies do. But if you can put that as a central way of thinking about that, I think that's a better way of thinking about such an approach. That was my caveat, that's all.

Greg: I agree.

Bob (Chair): So with Grahame's caveat and Greg's proposal could we get an indication of support for that idea? I'd say it's around 75%.

Chris: Perhaps I could add to the idea and the caveat. In the conservation literature at the moment, there's a big debate about monitoring the effect of any management intervention and making sure that you're getting the answers that you sought in the first place. But the resources are often insufficient to allow that monitoring to take place. We had a couple of great examples I think in the talks earlier today, that's Luke and Emily's talk about the effects of rake hoeing on standing dead trees. We heard John Hunter's talk about his student Peter's work on logs and the importance of maintaining logs and other structure on the ground. There's a big pool of potential researchers out there in universities, looking for Honours and

PhD projects, and if there was an indication I guess from the consortia of these particularly desirable projects in particular areas, then there may well be a lot of take-up with academics and their students to carry out those monitoring or research programs.

Bob (Chair): Thank you Chris, certainly that could create some interesting opportunities. Thanks very much to all the panellists for their input.