

annex a: comments

summary of topics

where are we starting from in the otways?
farmer profitability drives environmental condition
making the triple bottom line work
how innovation works at the local level
snapshot of forestry in the otways
water markets
we need the springs to flow
confusion in water resource planning and waterways management
the environmental ethic is not strong
trends in population in the corangamite region
aspirations of urban and rural communities
dairy industry scenario to 2020
tourism industry scenario to 2020
local groups aren't the only way to stimulate environmental action
cohesive communities influence through unwritten rules
past approaches to a healthy environment
first order principles of sustainability
infrastructure costs
environmental flow on a small creek
southern farming systems
a note on global warming
groundwater allocation
issues facing public land management
changes in fishing activity
the dynamics of local learning
communicate priorities at local catchment scale
local government's role in planning for the environment
recommendations for improving the partnerships with communities
next steps for developing the regional agenda for sustainable development
implementing regulations in partnership
three levels of engagement with the wider community
setting goals for native forests
responsibilities for weeds on roads
integrating local planning and regional planning

where are we starting from in the otways?

Peter Bowditch

Otway Agroforestry

May 2002

To understand how to improve our management of natural resources, we need first to have a sound appreciation of the state of our resources, and how they have arrived at their present condition.

Forests are a good case in point.¹

While biodiversity is increasing in some areas now as a result of Landcare activity, we need to appreciate the low point from which we are starting. Our forests in the Otways are the result of some 150 years of constant modification as a result of the advent of white settlement, and before that as a result of thousands of years of aboriginal land use.

When white settlers first explored the Otway forests they were considerably different in character to what we now know as native forest. The Otway forests the first settlers experienced were characterised by having a relatively few number of trees compared to what we see in our forests today, but these trees were very large and old, with an understorey of ferns and numerous low growing trees and shrubs.²

For all practical purposes the entire Otway forest has since been selectively logged and more recently clear felled in coupes. This has brought about massive change in the forest. In selectively logged areas much of the forest is now of very poor quality trees, since these were left when the good timber was removed. As a result the proportion of logs that are sawlog quality is very low, typically about 20 per cent.

The species composition of the forest trees has also changed; Beech Forest was undoubtedly well named at one time but nowadays you would be hard pressed to find a beech tree in Beech Forest. In the understorey, introduced weeds, notably blackberries, have colonised even the densest forest areas, killing off the native ferns and preventing easy access through the forest. Introduced vermin such as the fox have altered the native animal population so that some species such as the Long-nosed Bandicoot and the Spot-tailed Quoll appear to be headed for certain extinction, along with some bird and fish species, not to mention all the other less obvious species of plants and invertebrates which are endangered or already extinct.

The Statement of Resources, Uses, and Values of the Otway Forest Management Area (Department of Conservation and Environment 1990), lists the following mammal species which had previously existed in the Otways as being extinct in the Region – Eastern Quoll, Common Wombat, Tasmanian Pademelon, Dingo – and the following as being vulnerable to extinction or having restricted habitats – Swamp Antechinus, Tiger Quoll, Yellow-bellied Glider, Sheath-tailed Bat, Common Bent-winged Bat, Broad-toothed Rat, New Holland Mouse, and Smoky Mouse.



1 COMMENT/ I. Hastings, DSE. Agricultural land use is another case in point. Land clearing has impacted more on biodiversity than forest management.



2 COMMENT/ I. Hastings, DSE. Similarly, the first settlers on the Victorian Volcanic Plains experienced rich diverse native grasslands interspersed with wetlands and waterways. Now we have very few native grasslands left and many wetlands altered and damaged.

Similar lists are available for reptiles, birds, fish, invertebrates, and plants. Overall the picture is not good and is getting progressively worse.

Some of these changes are irreversible. Realistically we are most unlikely to be able to control blackberry infestations in forest areas. Blackberries, like foxes, ragwort, and rabbits, are now part of our ongoing heritage for future generations. In time we may devise ways to provide some control, say by biological means, but we are unlikely to ever eliminate these pests.

It is possible to "clean up" degraded selectively logged forests by selectively cutting out trees with poor form, and thinning the stand to develop a forest of even-aged trees which would yield a high proportion of sawlogs, but we will not recreate the forest in the form that the early settlers found, nor re-establish the habitat conditions for wildlife, unless we are prepared to move to a rotation period of several hundred years.

Clear felling coupes is one way to develop a high yielding forest in terms of the proportion of logs which will be suitable for sawlogs, but such an even aged, single species dominant forest, is far from the forest of yesteryear.

The best we can do therefore is to set aside some areas as permanent parklands that are never logged, and to manage the remainder so that we obtain from it the maximum benefit in terms of it delivering a high proportion of high quality sawlogs, minimum disruption to the environment, and maximum social benefit such as areas for outdoor recreation.

farmer profitability drives environmental condition

Jenny Blake

Leigh-Moorabool Goals Workshop

April 2002

No matter what else happens to influence the environment, commodity prices, employment and seasons have undoubtedly the greatest effect on outcomes. It is easy to be green with a full wallet and belly.

This Region is so dependent on prices of milk, of wool, of beef, of sheep meats, of grain, and in the future of plantation timber that we truly have to recognise the impact that in turn is felt on the environment.

The demand of governments for Australian farmers to continue to play on the "level playing field" often means that we are unable to implement the kinds of reforms being made in other countries where farmers have the privilege of subsidies which enable them to live with dignity and in comfort.

All too often Australian farmers have to beg for help, as did the farmers in the Corangamite Region during the recent drought when we sought assistance from the State and Federal governments to no avail. Our stock could die of thirst as far as the politicians were concerned. The fact that we had not had dam filling rain for five years was not enough to provide a smell of assistance even to the worst affected.

making the triple bottom line work

Peter Bowditch

Otway Agroforestry

May 2002

compromise

Agriculture, recreation, tourism, air and water quality, forests, secondary industry, are all riddled with conflicting needs. The triple bottom line must be understood by the community for what it is, a best-fit compromise, which will give no one everything they wish for.

innovation

We will find more win-win-win solutions – solutions that deliver social, economic and environmental benefits. For example:

- Agroforestry can increase timber production without reducing agricultural output, whilst improving biodiversity and landscape values.
- Better use of timber. Anyone observing the logs presently going for woodchips would understand that with better technology we could make better use of this product. ³ ⁴ Properly applied technologies such as lamination, and glue jointing can produce high quality products from less than high quality logs. We don't need six metre long logs to produce 15 centimetre floor tiles.

Other resources are crying out for improved utilisation. Why are we flood irrigating when we could use spray or drip irrigation to produce superior crops with less water use? If our streams are polluted by nutrient run-off from farms why are we spending so much on buying fertiliser when we should be devising ways to lower nutrient run-off? Invariably the answer is a mix of economic drivers and lack of knowledge.

true accounting of costs and benefits

A major problem with our economic drivers is the inability of our accounting systems to allocate costs to so many of the important factors, which determine our quality of life and environment. In recent years there has been a growth of public awareness of the importance of factors such as community cohesion, landscape quality, heritage preservation, biodiversity, peace of mind, and such like.

Some theoretical economists have made a start on trying to quantify the costs associated with these factors, but there is much development still required, and as a result it is the differing views of the relative importance of these things, which is the source of so much conflict within our communities.

We should start by acknowledging the need for ways to better resolve these issues, and say which factors are quantified and which others have acknowledged importance, but are as yet still to be quantified. We should identify the economic drivers that are causing us to use resources in an unsatisfactory way and investigate how these economic considerations could be overcome, and the education needs of our resource users.



3 COMMENT/ M. McDougall: Surely this would be happening now if it delivered economic return.

4 COMMENT/ R. Holland. Maybe the writer needs to visit Eden wood chipping as I have and see the rubbish going to woodchips. The only logs he refers to came from private property.

This is a big task but anything short of a comprehensive re-assessment of the whole social, environmental, and economic system is not capable of providing the necessary guidance for future decision-making. We cannot hope to resolve many of the issues immediately, but enough is known for the Regional Catchment Strategy to at least spell out the interdependence of the various factors and the need for further investigation of those at present beyond our capability to resolve.

how innovation works at the local level

*from the Lakes/ Plains & Northern Foothills Goals Workshop
April 2002*

Ten years work in the Region on Landcare and farming systems has produced a rich understanding of how change in practices comes about:

the wake-up call

Most people need a crisis to get them started: for established farmers, it has been the realisation that they simply aren't economically viable; for new settlers, that there's a lot more to running a property than they ever dreamed of.

small steps

People have to start small, on the things they want to try. Critical supports for small steps are *interaction with neighbours*, which lets people see what others are doing, hear the way they think and problem solve together; *local goals*, where local groups work together on what they think most needs action; *technical support*, which provides clear information on what works and why; and *small incentives*, which reduce the financial risks of trialling new practices. Small steps build understanding, confidence and the ability to learn.

big steps

As people succeed with small steps, their vision becomes *broader* (they see the bigger picture of the farming system and the catchment) and *integrated* (they see how several elements can fit together to produce better results). They scale up their initial efforts and take on a bigger set of problems. Their identity changes: they see themselves as innovators. They keep their local connections, but build networks to other innovators. Most stay as local innovators, but a few enter the cycle again, as they take on the task of improving institutional and political arrangements.

snapshot of forestry in the otways

*Corangamite Catchment Management Authority
March 2003*

forestry in crown lands

In 2003, the Government announced a "New Future for the Otways," committing over the next four years to:

- Immediately reduce wood chipping and logging in the Otways by 25 per cent.
- Create a single National Park, extending from Anglesea to Cape Otway following the Great Ocean Road on the eastern side of the range.
- Renew the offer to buy-back native forest timber licences and provide financial assistance for new plantations in western Victoria.
- As further licences are surrendered or expire, provide further protection to other native forest areas in the Otway Ranges and complete the exit from native forests in the Otways by 2008.
- Invest in tourism developments and create new jobs in parks management for former timber industry workers.
- Invest \$9 million over four years in a *Victorian Plantation Incentive Strategy* to build a sustainable timber industry.

forestry in crown lands of the last decade

Estimates of employment in the logging sector in the Otways vary from 60 to 100%, depending on the source. Government policy has been that timber extraction is based on sawlog production. Use of residual timber for pulpwood is a recent development, made possible by machinery that can process felled timber that was previously wasted, and by improved market demand and price for pulpwood. Sawlog volume, however, remains the basis for setting the area to be harvested. In 1992, extraction was set at 44,000 m³ of sawlogs and this licence level applied until completion of the *West Vic Regional Forest Agreement* (RFA) in 2000. Between 1990/91 and 1999/00, the average net sawlog harvest was 32,494m³ p.a. In 2002, there was a licence for 27, 000 m³ p.a. of sawlogs and another for approximately 60,000 m³ p.a. of pulpwood.⁵

In 2002, the State Government (in "*Our Forests Our Future*", DNRE) maintained the current level of extraction in the Otways, reduced it in other parts of the State and encouraged increased timber production on private land.

native forests on private land

Local government, working to a Code of Forest Practice, controls logging of native forest on private land but compliance is patchy and enforcement under-resourced.

softwood plantation forestry on public land

Around 4,000 hectares was privatised in the mid-90's. Activity is strongly regulated by the Code of Forest Practice.



5 COMMENT/ D. Rourke, acting Forest Manager, DSE, Otways: In 1998/99, for every cubic metre of sawlog, 1.6 m³ of residual log was harvested. Net sawlog yield per hectare has stayed fairly much the same since residual timber harvest was introduced in 1990/91 – yields were 102m³/ha from 1982/83 to 1989/90 and 105 m³/ha between 1990/91 and 1999/00. The area harvested has remained relatively constant, and the proportion of higher-grade sawlogs has increased. This demonstrates that residual log harvest uses waste timber previously left or burnt following sawlog operations.

softwood plantation forestry on private land

This is made up of sawlog plantations (around 6,000 hectares), but about two thirds of this is being swung over to Blue Gum wood chip production. This is also regulated by the Code of Forest Practice.

blue gum fibre plantation forestry on private land

Midway, Timbercorp, Treecorp/ EPFL have had various forms of investment/ leasing arrangements operating over the last eight years. These have funded establishment of Blue Gum fibre plantations on properties on appropriate land within approximately a 140 km radius from suitable ports (the Port of Geelong).

sawlog plantations on private lands

The *West RFA Private Sawlog Farming Project* is seeking to invest State funds in either establishing hardwood sawlog plantations or changing management regimes on current Blue Gum fibre plantations. They hope to replace the current native forest industry over the next 25 years. Sugar Gum plantations/ shelterbelts on the Basalt Plains are a legacy from the 1890s onwards. They have traditionally been used for firewood but have recently been recognised as a potential sawlog resource. Management practices would need to change to produce a long-term sawlog resource. Corangamite Farm Forestry Project has focused on this potential resource.

agroforestry

Integration of farming and forestry, – with commercial and environmental benefits – for sawlogs, veneer logs, high quality furniture timbers, fibre. Currently expanding with strong promotion by both Otway Agroforestry Network and Corangamite Farm Forestry Project.

targets for forestry in relation to NRM

The following management actions were developed in the process of setting targets for the RCS. Other targets that relate to forestry practices sit within targets for the priority threats.

1. Encourage the development of a commercially viable farm forestry and plantation industry in a way that is sensitive to the environmental and social needs of the Region.
2. Provide ongoing support for regional farm forestry networks and community based groups.
3. Increase investor confidence in private forestry (market development).
4. Emphasise public good aspects of farm forestry and incorporate farm forestry into environmental programs.
5. Promote well-informed debate about forest policy and practices.

6. Understand critical factors for investment; communicate West RFA private sawlog farming project outcomes in the Region.
7. Increase community capacity:
 - Knowledge sharing;
 - Skills;
 - Communication; and
 - Organisation.

water markets

Brian Sadler

Resource Economics Unit team

May 2002

Write-ups of the first round of workshops tended to view water suppliers as profit-driven pillagers of rural water. Responding in the role of Devil's Advocate, Brian Sadler observes:

"More open water markets is one of the mechanisms put in place by national water reform to improve water allocation. Victoria has been a leader in this, the aim of which is to leave both seller and buyer happier. When water use by urban authorities is viewed by rural landholders as "commercial grabbing" agricultural use as a universal good, I'm prompted to observe that some 80 per cent of water on the eastern side of the continent is used by agriculture, often with great inefficiency.

Urban users will have buying power in a market to help meet their water needs and find people prepared to sell. Believing that urban users can be a sector, which is heavily regulated against, seems a denial of their political clout when push comes to shove in times of scarcity.

Of course they must pursue efficiency but don't make the mistake of reading the market as simply satisfying (implied greedy) commercial water operators, in the end it (the market) is delivering to citizens, with buying power and votes. See for example the current political concern in the Western Australian drought and the response of Victorian Governments in the droughts of the 1970s. Governments can fall over these issues.

I believe very much in pursuit of efficiency, in environmental provisions, in the importance of maintaining healthy agriculture and agricultural character in rural regions but please, not a vision which moralises against the urban citizens as captives of commercial water providers, ignores their buying power in the market or their share of political clout."

we need the springs to flow

Jenny Blake

Leigh-Moorabool Goals Workshop

April 2002

Many of the streams within the basalts are spring fed drains, which become streams then creeks and then sometime disappear underground for a while then pop up again. They often exhibit primary salting.

Old Gran Bath, 102 when she passed away in the 1980's remembered *no trees between Inverleigh and Barunah* – no trees. When the dust was rising she put the veggies on for her guests from the Leigh.

Ray Bath, soldier, settler, and rabbitier of note made his camp by the only tree – the only place he could tie his horse to.

By planting trees we have changed the biodiversity, and the ecology of the Basalt Plains. Planting trees along streamsides does the same thing – it alters the spring flows. In the 1983 drought the springs did not cease to flow the length of Dashwood. It is a different story today. We should be careful about promoting the treeing of all streamsides.

Whilst I am enthusiastic regarding the future of farm forestry throughout the Region I have some reservations regarding large plantings of trees on the plains country, which prior to white settlement was just that - plains country. Our underground water supplies may well depend on these un-treed areas and I would hope that more research will be undertaken in this light.

Water quality for stock watering points. Due to the inability to sink dams in the basalts the creeks are critical water supplies for stock water. It is possible to sensitively provide stock watering points along these creeks without either destroying water supplies to those downstream or interfering with the ecology of the streams. This can be demonstrated and should be allowed on a permit to maintain waterholes basis.

confusion in water resource planning and waterways management

Leigh/Yarrowee/Moorabool RCS Strategies Workshop and Otways RCS Strategies Workshop
June 2002

Responsibilities in water resource management are divided across bodies with competing goals. Responsibilities are divided between water authorities (Central Highlands Water and Barwon Water) that supply and sell water, Southern Rural Water, which allocates water, and the CCMA, which regulates drainage, advises on river health and advises on the implications of water allocation.

This looks neat enough on paper, but becomes confused in practice. Who, for example, is responsible for *long-term* planning for environmental flows? Who plans for use of groundwater? Who is responsible for developing approaches to reducing use?

From the outside, it looks as if the different arms of government are working at cross-purposes to each other. For example, when Central Highlands Water advertises use of its 'cheap water' for use on lawns, this seems to contradict efforts to conserve water.

In a similar way, responsibilities for waterways are so confused that even the organisations involved can't understand how their responsibilities fit together. So what chance do producers, Landcare groups and local government have?

Clarifying *who is responsible for what* is essential in the short-term: longer-term, allocation of responsibilities for water resource and waterways management needs to be simplified and linked to a common direction set by government.

the environmental ethic is not strong

Leigh-Yarrowee RCS Strategies Workshop
June 2002

The environmental ethic might be stronger, but that doesn't mean it is strong. There's a lot of rhetoric and idealism about "the environment," but the number of people changing their behaviour is miniscule. The concept of "sustainability" is talked about, but consumption is rising, waste is rising, degradation to ecosystems is rising. There has been a greater greening of attitudes and actions in rural communities, where people see the consequences of mismanagement, than in urban areas, which are insulated from this. But even in rural Australia, participation in landscape restoration is small and has stopped growing in many communities.

Environmental education in schools has fallen away. The mid 1980's burst of enthusiasm has passed, the big push is numeracy, literacy and new technology, and in any case, there aren't the science teachers with the discipline background who could teach about the environment.

trends in population in the corangamite region

from "Demographics of the Corangamite People"

Corangamite Catchment Management Authority, 2002

Population predictions for the eight shires within the Corangamite Region for the years 2006 to 2021 are shown in the following table. The trends are obvious – either no growth or population loss in the more rural shires of Colac Otway and Corangamite, steady growth in Ballarat and Geelong, and rapid growth in the shires adjacent to these cities. In short, it is clear that the Corangamite Region will become increasingly urbanised and urban-focused, with a smaller percentage of the population identifying with the traditional rural industries on a day-to-day basis.



POPULATION PROJECTIONS FOR THE CORANGAMITE CATCHMENT, 2006 TO 2021

Source: Department of Infrastructure, "Victoria in Future 1996 – 2021"

SHIRE	2006	2011	2016	2021	15 YR CHANGE	% CHANGE
Ballarat	83,035	84,566	86,223	87,748	4,713	+5.7
Colac Otway	20,631	20,643	20,794	20,836	205	+1.0
Corangamite	13,218	12,594	12,043	11,578	-1,640	-12.4
Golden Plains	15,340	16,248	17,316	18,478	3,138	+20.5
Greater Geelong	197,509	202,887	207,332	211,313	13,804	+7.0
Moorabool	8,337	8,684	9,054	9,443	1,106	+13.3
Queenscliff	3,598	3,610	3,599	3,604	6	+0.2
Surf Coast	20,879	22,210	23,446	24,947	4,068	+19.5
Total	362,546	371,442	379,807	387,947	25,401	+7.1
Victoria Total	4,946,688	5,099,070	5,235,983	5,359,116	412,428	+8.3
Regional Victoria	1,342,141	1,367,751	1,394,933	1,424,238	82,097	+6.1

In common with the rest of Australia, the Corangamite Region has a steadily ageing population. The shires in the Corangamite region expected to experience the greatest percentage increase in aged residents are Colac Otway, Corangamite and Queenscliff. As shown below, the trend to increased age is significant. Whereas there are predicted to be 76,000 people older than 60 in 2006, there will be 112,000 in that age group in 2015. Providing facilities and care for this increase in the older age classes will stress shires and health and social security providers.



POPULATION PROJECTIONS FOR THE CORANGAMITE CATCHMENT BY AGE GROUP, 2006 TO 2021

Source: Department of Infrastructure, "Victoria in Future 1996 – 2021"

AGE GROUP	2006	2011	2016	2021	15 YR CHANGE	% CHANGE
0 – 19	94,622	90,300	86,510	84,927	-9,695	-10.6
20 – 39	93,008	93,937	94,569	94,179	1,171	+1.3
40 – 59	98,616	99,626	98,456	96,850	-1,766	-1.8
60 – 79	59,349	68,145	79,031	89,624	30,275	+53.7
80 +	16,951	19,434	21,241	22,367	5,416	+29.4
Total	362,546	371,442	379,807	387,947	25,401	+7.1

aspirations of urban and rural communities

from *"Demographics of the Corangamite People"*
Corangamite Catchment Management Authority, 2002

The *level* of overall environmental concern in the Australian community seems to vary quite considerably over time, with some inverse relationship suggested between the strength of the economy and level of environmental concern. However the percentage of people concerned about environmental problems is relatively stable at about 70 per cent.

A study by Agriculture Victoria (*Community attitudes to environmental issues: Statewide and regional overview*, 2001, Monitoring Report 44, Centre for Land Protection Research) revealed differences between urban and rural people's environmental concerns. More urban people (72 per cent) than rural people (68 per cent) were concerned about environmental problems, with the average level of concern significantly higher amongst urban folk. However the Agriculture Victoria data also shows that the gap in concern is narrowing, as the level of rural concern increases.

Pollution prevention, destruction of trees/ecosystems and waste recycling were the dominant environmental concerns for urban residents, and they had little concern for land degradation issues. Conversely, rural residents were more concerned about land-based issues such as erosion, salinity and degraded catchments and rivers.

It is instructive to compare this with a study of *"Community Participation and Planning in Surf Coast"*, 2001, Institute for Social Research, Swinburne University of Technology, commissioned by Surf Coast Shire, which found environmental issues were identified by 58 per cent as one of the most important issues for the Surf Coast now and in the next three years, followed by community services and maintenance of local roads and facilities, both at 43 per cent.

It is difficult to speculate how the increased urban identification of the Corangamite community will impact farmers' land management behaviour. Based on occurrences elsewhere, it is possible that some conflicts may occur over issues such as odour, chemical use and dust. Conversely, increased rural residential living may result in these new communities adopting current farming norms in respect of land management. Given the attention being paid by shires to careful planning to ensure retention of agricultural land and enterprises, a third possibility is that the two communities will impact little upon one another on a day-to-day basis.

It is likely that the impacts will occur through secondary influences – such as the changing make-up of local governance in 'urbanising' shires such as Golden Plains, Surf Coast and Moorabool. These trends are already evident with examples provided from one shire where rural residents resent what they perceive as a takeover of local government by non-rural councillors who implement policies that are regarded as too 'green' by the farming community. Given population predictions, a trend to a more urban style of local government will be irresistible and could result in farmers being required to address natural

resource management issues that the community judges to be important. This scenario is occurring in many peri-urban areas in Australia. One common response from farmers who are uncomfortable in these situations is to relocate away from the encroaching urbanisation influences.

dairy industry scenario to 2020

*from "Demographics of the Corangamite People"
Corangamite Catchment Management Authority, 2002
Sourced from WestVic Dairy Board*

There are approximately 1,400 producers in the Corangamite Region. In 1997, the south west dairy industry produced 20 per cent of Victoria's total production.

The dairy industry in the Corangamite region has undergone significant growth over the past decade and has the potential for further growth in the future. Significant investment has been made in processing and input supply infrastructure to accommodate large increases in milking cows.

Ninety eight per cent of the dairy industry within the Corangamite Region resides in the Shires of Colac Otway (29 per cent) and Corangamite (69 per cent). From 1991 to 1997 there was a 23 per cent increase in the number of milking cows from 187,862 to 231,594.

The industry in western Victoria is poised for further growth, with most commentators predicting that dairying will be 'priced out' of the northern irrigation areas in Victoria, with a shift in the locus of activities to rain fed pastures. Regional milk production has been increasing by ten per cent per annum through increased herd size and production per cow, with slightly declining farm numbers. There is significant potential for growth in production, through improved productivity per hectare and with conversion of current wool and beef grazing land to dairying. It is predicted that the average herd size will increase to 200 milking cows by 2005.

The industry will continue to experience market pressures that will encourage larger herd sizes and structural adjustment as less efficient operators leave the industry. It is predicted that while production could double over the next ten years, the number of businesses could be halved. Because economies of scale require producers to rise up from 250 to 400 cows, there will be an increasing number of large dairies with highly sophisticated production and milking systems.

The industry faces enormous environmental challenges, which are the focus of much research and development and extension. For example, WestVic Dairy is pursuing programs to reduce nutrient loss from farms, to improve soil structure, to fence riparian and riparian habitats and to meet EPA standards for dairy management.

tourism industry scenario to 2020

from "Demographics of the Corangamite People"

Corangamite Catchment Management Authority, 2002

Sourced from Great Ocean Road Discussion Paper, 2001, with additional comment from Pam McRae-Williams.

Tourism in the Great Ocean Road region, which runs from Geelong to the South Australian border, is worth \$940M. In 1996, tourism in the towns and rural areas along the Great Ocean Road provided 14.7 per cent of the total employment. Local government along the coast estimates the annual growth in visitor numbers to be 15 per cent per annum. International visitation to the Great Ocean Road area was 75,000 in 1991, 140,000 in 2000 and is predicted to be 250,000 in 2010. Traffic along the Great Ocean Road is forecast to grow at four per cent per annum. Assuming these growth rates continue, the value of tourism to the Region will double every six to ten years.

Inland, the major single attraction is 'Sovereign Hill' at Ballarat, with 1.2 million day visitors. Geelong and the Bellarine Peninsula including Queenscliff is also an important destination with 2.4 million day visits in 2000.

LOCALITY	OVERNIGHT TRIPS (^{'000})	VISITOR NIGHTS (^{'000})
Ballarat	608	1,230
Colac Otway	335	942
Corangamite	111	234
Greater Geelong Pt A	511	1,160
Greater Geelong Pt B	262	902
Greater Geelong Total	773	2,062
Queenscliff	196	404
Surf Coast - East	183	493
Surf Coast - West	507	1,341
Surf Coast Total	685	1,834
Total	2,708	6,706



OVERNIGHT TRIPS AND VISITOR NIGHTS FOR SELECTED PARTS OF THE CORANGAMITE CATCHMENT, 2000

Source: Bureau of Tourism Research, 2002

But it would be wrong to think the coast is the only driver of tourism. Tourism in the Region is focused on both historical/ cultural tourism and rural tourism with farm stays, wine tourism, and more recently food tourism, where regional food is becoming a significant factor and, in fact, an economic driver for agricultural business development. The economic benefit of rural, food, wine tourism and the development of food and wine regions and trails is closely related to variety of agricultural land uses.

local groups aren't the only way to stimulate environmental action

from "Demographics of the Corangamite People"

Corangamite Catchment Management Authority, 2002

Landcare is active in the Corangamite region, with 40 per cent of properties in the Corangamite represented in a Landcare group. But environmental groups are also growing in urban areas. The City of Greater Geelong has identified over 90 organisations within its jurisdiction that have environment as either their main focus or as part of their agenda. In Ballarat, the LINCS program is active and there are a number of urban environmental groups.

Activity in all these groups seems to be maintained at an acceptable level, although anecdotal opinion suggests that this is still a legacy of NHT funding. Further the potential for 'burn out' in Landcare groups is a concern. However, loss of members is tolerable and seems to be being replaced by people new to the area, who are an important source of new members. In summary, the networks of environmentally focused groups are an important contributor to environmental outcomes.

It is important to provide people with options other than groups. For example, a recent initiative in Surf Coast Shire to provide small amounts of funding to assist individuals with biodiversity conservation prompted a large response – over 100 interested persons, many of whom had no involvement in Landcare. Private covenants and tenders for permanent protection of bushland are developing.

Engaging people *indirectly*, through others they know or have to deal with, may be as effective as direct contact. For example:

- Agricultural consultants, processing industries (such as dairy processors), industry bodies and water authorities that all provide advice to businesses;
- Planners managing land use change and standards for land management and industry performance, who interact with people as they expand their businesses; and
- Environmental programs by large companies in cities, which encourage environmental thinking amongst their workforces and may get their employees directly involved in projects outside their business.

cohesive communities influence through unwritten rules

from "Demographics of the Corangamite People"

Corangamite Catchment Management Authority, 2002

Cohesive communities change behaviour by establishing norms for how people should behave towards each other and how they should think. Newcomers who want to be part of the community will buy into these patterns of behaviour. The community subtly rewards the unspoken rules of behaviour and breaches may be 'punished' – sometimes not subtly.

The important point is not whether communities can be cohesive, but what norms they adopt and pursue. At the same time that communities are investing in processes to build cohesion, they also need to identify and encourage values and norms that are sympathetic to natural resource management outcomes, for example:

- Commitment to long-term thinking about environmental outcomes (as opposed to short-term thinking).
- Commitment to leaving the environment in a better state than it was found.
- Greater acceptance of personal responsibility for one's actions (e.g. in water and power use, waste management).
- Willingness to suspend judgment on new ideas, matched with enthusiasm for testing them.
- Acceptance of diversity in thinking and practice, and
- Preparedness to 'punish' behaviour that damages the environment regardless of other considerations.

Questions still to answer:

Do negative messages work? Do local champions work?

past approaches to a healthy environment

*Geelong & Environs Strategies Workshop
June 2002*

As a society, how have we gone about creating a healthy environment?

reacting to crisis

Typically, a crisis is brought to attention by the protest and activism of a small minority, whose actions and ideas attract media attention and then enough community concern to make politicians take action.

Community concern tends to start around things that have a tangible impact on an individual's health, wealth or heart. It may grow from here, but it's the emotional response to crisis that gets people saying, "something ought to be done." This means that significant environmental problems that don't have this emotional appeal don't get the same attention. It's much more difficult to get people concerned about loss of saline wetlands than it is about the loss of tall, wet forests. The other effect is that problems like loss of biodiversity in a region don't attract so much attention because they are less easy to communicate as a crisis. There *is* a crisis, but it's made up of lots of small losses over a large area.

Political interest in environmental issues overwhelming has run to funding programs with a short life span, with pressure to show results that the public will understand. Community groups and government service providers shape their activity to fit funding guidelines, rather than what is precisely needed.

piecemeal solutions to symptoms

Projects often deal with just a part of problem (often the most visible symptom), rather than looking at the broader and deeper causes of problems, and then investing the time to deal with these. Incentives and regulation are applied to parts of larger problems.

More fundamentally, public servants and community groups often take the problem at face value and don't question how it has been defined. For example, erosion might be treated as an engineering problem, or litter as a waste disposal problem.

developing principles for environmental responsibility

Over the last ten years in Australia, concern about the environment has produced many principles that say in broad terms how people ought to or will behave. Much policy in government is pitched at this level, as are industry codes of practice. We've yet to see whether this is a stepping stone to more specific action, or whether the reassuring balm of the right words actually gets in the way of substantive action. Consumers, citizens and employers are certainly wary of rhetoric without action.

introducing standards and reporting mechanisms for environmental responsibility

Behind the principles, a lot has been done to create specific standards, measures and reporting mechanisms. Environmental management systems in agriculture and EPA standards applied as conditions to industrial activity are two of many examples. The strength of these systems lies in the way enterprises themselves take responsibility for meeting standards: the weakness in many cases is the mildness with which non-compliance is handled. Too many standards lack teeth.

build up of government agencies dedicated to environmental health

It is easy to forget how dramatically public service attention to the environment has grown in the last twenty years. We have the beginning of comprehensive planning for the environment, services to support good practice across a wide range of industries and regulation of some practices that damage the environment. The reserves system is being extended, and private lands being protected and account as part of the conservation estate.

They're a mechanism for managing environmental impacts. The limitation is that the focus is often on symptoms not causes, and on the biophysical dimensions of environmental process, not the social, economic and cultural dimensions.

science has created a picture of what is happening to the environment

Science has been gradually filling in the environmental picture, but on issues within the Corangamite Region, it does not lead public opinion, but follows community and government attention. This is not to say that individual scientists have not been key activists initiating the whole cycle of change, they often are, but that the mainstream of funding adjusts to changes in community and government priorities, often quite slowly.

first order principles of sustainability

Julian Crawford

EcoSTEPS

July 2002

The RCS needs to be based on first order principles that bring together all stakeholders in the Region within an agreed framework. Without consensus on first order principles, experience has proven that programs can become complex and confusing. This can result in sporadic, ad hoc, initiatives that fail to address the fundamental problems. This can then result in disillusioned and disempowered people, with consequent inefficient uses of time, energy and other resources.

EcoSTEPS has been developing a framework for triple bottom line sustainability education and understanding for a number of years. It is based on the first order scientific and ESD development principles. It incorporates a number of other well-known concepts and approaches (e.g. The Natural Step, EMS etc.) These are drawn together in the metaphor of a '*Sustainability Tree*'. We have found this concept to be an extremely useful starting point in generating consensus amongst internal and external stakeholders. It allows everyone to gain an appreciation of the different dimensions and components of the sustainability agenda.

Starting out at the "roots" (Science, Ethics and Values) and then progressing up the "trunk" first order principles of ESD. The three main "branches" (triple bottom line) lead into the more detailed areas of strategies, plans, management systems and indicators. At the top of the tree, the "leaves" represent the actions and interests of individual stakeholders.

It has been used by a wide variety of organisations as a shared mental model to address sustainability issues. We believe that the CCMA and the RCS would benefit from consideration of its application in the Corangamite Region.

the natural step (TNS)

CCMA's attention is also drawn to the potential offered by using the sustainability framework developed by The Natural Step, an international not-for-profit NGO.

TNS is a tried and tested conceptual framework that facilitates the development of sustainable development strategies and the practical actions that flow from them. TNS has proved to be a very useful decision-making, educational and practical tool in a wide variety of contexts.

ecological footprint

EcoSTEPS uses the concept and application of the ecological footprint in several aspects of our work. We have found it to be a powerful tool that is easily understood. Sydney Water has been particularly pro-active in this regard, including details of a major exercise they undertook in 2001 in their 2001 'Towards Sustainability' Report ("*Many indicators, one footprint*") (www.sydneywater.com.au). This pilot project calculated Sydney Water's total footprint for 2000/01 as 74,300 hectares, which equated to about 545 square metres per household. A similar exercise could be considered for CCMA. EcoSTEPS knows the team responsible and would be delighted to effect an introduction for CCMA.

infrastructure costs

Barwon Water

Barwon Water requires developers to pay "developer charges" to meet the cost of providing water and sewerage to new developments. In the past, the "developer charges" have not met the full cost of servicing new development and, as such, there has been a level of cross-subsidy from current residents. However, charges were changed on July 1, 2002 and developers must now meet the full cost of all new infrastructure plus their proportional share of the use of existing infrastructure.

environmental flow on a small creek

Marianne Schrieke

Durham Lead

July 2002

Our own creek previously provided usable water in "normal" years for garden and stock. In the last six dry years, salinity has increased to the extent as to render the water unusable for plants and at times for stock (up to 7,000 EC) There are five dams on 1 km of creek, as each landholder with a 10 acre block wants his/her own dam. This is obviously not allowing an 'environmental flow' in this creek, with flushing of saline water in winter no longer occurring.

This must be happening in many places where agricultural land has been divided into five and 10-acre blocks. The problem will increase if dry conditions become the 'norm' as predicted by CSIRO with global warming, and as more agricultural land is subdivided into smaller blocks.

If the dams created are revegetated with indigenous species, this will assist improvement in biodiversity locally, especially water birds, however flows into the main river system will continue to decline and with increased salinity.

southern farming systems

Historically, the Corangamite Region has relied heavily upon wool and dairy production as its major source of primary production income. It can also be argued that these industries have served the area well with very good returns being possible prior to the dramatic downturn in prices in the last decade. Why is it then that crop production has been a very low priority for most farmers? Quite simply, it has been due to the very poor returns from cropping in most years.

It has been proven time and time again, that cropping for many farmers in the high rainfall cool climate zone of South-West Victoria has resulted in either failed crops or extremely poor yields. The poor performance has been due to a combination of factors including waterlogged soils, too many weeds, inadequate nutrition and poor management. In many cases, crops have been grown to supplement the livestock enterprises and have been used as a means to "clean up a paddock" to prepare for the sowing of a new pasture. Crops have often been viewed as an opportunity enterprise when conditions were seemingly right. When crops failed because of climatic conditions beyond the control of the

grower, such as too much winter rainfall, then this has generally been accepted as something that could not be avoided. Farmers in the main have become locked into the cropping paradigm.

Southern Farming Systems began in 1995 to objectively look at the cropping and livestock enterprises in the high rainfall zone and realised that there needed to be a change made to the traditional farming system, to enable farmers to capture the opportunities that the area presented. One of the major driving forces was that of profitability, as it was identified that unless something was done to dramatically change the economic situation of farmers in the Region, that many of them could not survive the projected long-term wool downturn. The farming community was also very aware that any new system needed to be sustainable in terms of responsible land use.

A detailed analysis and consultation process was undertaken to identify the strengths, weaknesses, opportunities and threats for the Region. It was identified quite early in the investigation, that one of the Region's strengths was the excellent rainfall, which in most years was well distributed and quite reliable for winter cropping. In fact, the growing conditions for crops were recognised as being superior to those experienced in the Mallee and in many areas of the Wimmera. It was also recognised that whilst the rainfall was a significant strength to the Region, it also presented significant weaknesses with regard to winter waterlogging of the Region's predominantly heavy basalt soils. This was mainly a result of the significant water-holding capacity of the soils and the low ambient temperatures resulting in low crop evapo-transpiration.

a note on global warming

What is the evidence for global warming, how fast is it proceeding and what are the likely impacts on the Region?

Brian Sadler replies: The recent International Panel on Climate Change Report - UNEP/ WMO presents conclusive evidence of the enhanced Greenhouse warming which is occurring globally (www.unep.ch/ipcc). This also presents global projections and summaries for policy makers. In Australia CSIRO has presented the latest projections for Australia at www.dar.csiro.au/publications/projections2001.pdf.

Ask: Rod Anderson, Senior Policy Officer, Greenhouse Policy Unit.

Paul Northey, Barwon Water, replies: CSIRO predicts a variation in winter-spring rainfall in Southern Victoria of +5% to -15% by 2030 and +10% to -35% by 2070. It is hard to predict specific changes, but if we see the high end of reductions in rainfall, that would have a significant impact on river flows and water storages. See Barwon Water's (2002) *Water Resources Development Plan* for more.

NRE Port Phillip Region: Also need to consider sea-level rise and storm surges that will both have a dramatic effect on the coastal environment.

groundwater allocation

Southern Rural Water (SRW) has overall responsibility for groundwater licences. Aquifers and recharge areas are mapped and protected from inappropriate development by licensing and permit allocation. SRW is a referral authority for Planning Permit Applications.

As of September 2002, Barwon Water's licence for use of groundwater at Barwon Downs is up for renewal and a group of key stakeholders has been established by SRW and DSE to review the licence renewal. Barwon Water's studies of this aquifer have given a clear understanding of the sustainable yield.

issues facing public land management

From DSE

SW Region

Lease and licence conditions already require an appropriate standard of management consistent with the purpose of the lease/ licence. The issue is then perhaps not the standard of licence conditions but if water frontages should be licensed for use at all or managed more as a community resource with broader catchment objectives, as bio-links and for managing water quality and stream health.

The other issues facing public land management include:

- Management of fire in the context of biodiversity conservation and maintenance of vegetation health.
- Improved co-operation between CMAs and DPI/ DSE for water frontage management, where CMAs fund works that DPI/ DSE as the landowner and manager is unaware of.
- Need for improved awareness of values of water frontages by community generally and adjacent landholders (who are the water frontage users/ licensees) particularly.
- Improved public access to water frontages for social benefit.
- Improving quality of coastal management by delegated managers (committees of management) e.g. managing for increasing quality and cover of native vegetation, reduced incidence of pest species, appropriate public access, provision of high quality and well sited public infrastructure, management of public risk.
- Level of resourcing for delegated public land managers.
- Determining the level of development that is appropriate on public land and of coastal Crown land in particular.

changes in fishing activity

*From DPI
SW Region*

With the recent closure of the inland commercial fishery and the buy-back of a number of commercial Bay and Inlet Fishing Licences there will be more reliance on the remaining wild fisheries and aquaculture for a variety of 'seafoods'. There will be pressure to expand both aquaculture and wild caught fisheries. In the Corangamite Region there is currently a wild caught fishery for carp and also extensive (as opposed to intensive) aquaculture of eels. Other species that may be considered are salmonoids, yabbies, carp (the ornamental variety Koi) and abalone. These have the potential to impact on biodiversity and water quality. An *Eel Fishery Management Plan* has recently been released and Best Management Practice Guidelines are being developed for the various aquaculture sectors. There is a *National Policy on the Translocation of Aquatic Organisms* and a Victorian policy is under development. Adverse impacts can be minimised if these policies and guidelines are followed.

Increased competition for summer flows in unregulated streams will probably result in increasing numbers of winter-fill licences being issued. Both will have deleterious effects on fish and other aquatic organisms. Decreased summer flows could result in elevated (lethal?) water temperatures and more winter-fill licences could affect river connectivity and reduce spawning cues for fish.

Recreational fishing does not appear to be increasing. All Waters Recreational Fishing Licences, which were introduced in July 1999, had annual sales in 1999/00 of 234,000, in 2000/01 of 224,000, and in 2001/02, 223,000.

the dynamics of local learning

RCS Strategies Workshops

Sustainable practice requires the convergence of scientific inquiry and innovation *at the local level*. Within the Corangamite Region, agricultural and Landcare groups have reached these understandings about learning at the local level:

Confidence is the key. Confidence allows a person to take a small risk, have small wins and learn from small mistakes. As confidence grows, a person naturally starts to scale up what they have proved are suitable for their business and their property.

Provide plenty of human support early on. Technical advice is secondary to personal support when a person is first considering a change in practice. That support can come from a local group, or in one-to-one discussion with a specialist, but the support needs to be there for a considerable period before the person develops the confidence to make a change. Often they already have the technical information: what they need are people who understand their situation, with whom they can talk things through.

Provide examples of what is possible. Local learning groups do this easily, because some members are usually further down the track than newcomers, but there are many other ways to demonstrate what is possible: field days, case studies, newspaper articles.

Sustain support for several years for people considering change. The short projects typically possible under current budgeting and funding arrangements do not maintain support for long enough for large numbers of people to begin to take small steps. Typically, a few people move from small to bigger steps, but others are about to come on board when the project closes. Support has to be both in groups and one-to-one, to talk over what is possible, to prepare for a small step, and to reflect on results.

Ask people what they need to be more sustainable. For producers who haven't changed their practices much, ask the direct question "What do you need to be more sustainable?" Sustainability is something that we can take directly to people these days.

Reduce financial risk at start-up. Some environmental management systems require substantial investment to get started. Some small businesses do not have that capital needed, or would be unprofitable if they borrowed the money. Small incentives for new practices and low-interest loans for capital works can increase adoption, keep small operators in business by reducing up-front capital costs and deliver environmental benefits to the wider community.

Start with small steps that lead to bigger steps and then to innovation. Learning accelerates until some people move beyond applying what others know and start innovating on matters where no one has the answers. In relation to sustainable agricultural production, we have many more questions than answers, so we need to move as many people as possible through to innovation.

Respond to the local agenda. Regional, state and national programs supporting innovation in natural resource management often impose goals on local communities. For example, funding guidelines sometimes assume that the same priorities are relevant everywhere, or research and development programs can assume that new practices can be applied equally across an industry. This stifles learning and innovation⁶. No matter how laudable in principle, a vision imposed by someone who thinks they know what is good for the community is still an imposition.

Fund for longer periods. It is difficult sustaining effort when public funding is tied to short cycles of funding, when there is a lot of paperwork in proposing and reporting work, and when co-ordinators can only be hired for short periods.

Harvest the innovation. The process of local learning and the innovation that emerges out of a mature group needs to be much more consciously tracked and harvested when new understandings have matured.



6 QUESTION/ Where is the evidence for this?

communicate priorities at local catchment scale

RCS Strategies Workshops

Environmental groups and Landcare networks contribute to decisions on local targets and priorities⁷, and provide the community with direction without compulsion. *Communicating* priorities to individual landholders is also important because:

Most farmers' investment in Landcare goes up and down over the years. There's a tendency to chop and change between different projects on their property, or to pursue work in isolation from their neighbours. Not everyone needs to join an environmental group, provided there's a clear signal about the priorities within the catchment. Then individuals can align their own activities as they see fit.

New owners arrive without experience in land management (such as hobby farmers). New managers or leaseholders arrive with different expectations about land management, or with new demands on water and land (for example, new aquaculture or intensive animal ventures). In all cases, the current local understanding of catchment priorities and good land management practices needs to be communicated and conflicts over resource use anticipated.

Priorities allow catchment groups to plan rehabilitation projects at catchment scale, delivering a more effective effort.⁸

local government's role in planning for the environment

Some conclusions from RCS Strategies Workshops with local government councillors and CEOs, and with planners and environment officers

Many local governments in the Corangamite Region have Environmental Plans, which record areas of environmental significance, and which are taken into account in land use planning decisions. These Plans can be developed further to provide guidance to and in turn to reflect the goals of parts of each Shire and City developed in local Community Plans.

Another way to strengthen local government's decisions would be to set targets for environmental health at local level and incorporate these into Environmental Plans. The targets would, however, have to be defensible, as would any assessment of the likely impact of a development on the targets. Local government would need clear guidelines from a body like CCMA on how to develop such targets, and once again, the technical expertise would have to be on hand to inform target setting.

The use of targets for environmental health would also shift more work to local government. There are therefore costs that have to be met, rather than covertly shifted from State Government agencies.

There is a need for expert advice to local government on environmental impacts. Section 52 allows for comment to be sought from Government bodies with expertise. Section 55 provides for a decision to be provided by a referral authority, and at this stage the CCMA has such authority only in relation to floodplain management.



7 COMMENT/ L. Avery. If local groups participate in looking at the wider catchment, they will appreciate the wider priorities and not just push their own.



8 QUESTION/ Are large-scale whole of catchment projects, that meet a number of NRM outcomes, more effective than small local projects?.



9 COMMENT/ P. Stephens, School of Resource Management, University of Melbourne, 14 June, 2002. Pitt, A. (1982), *A study of the land in the catchment of the Otway Range and adjacent plains (TC-14)*, Soil Conservation Authority, Victoria. It details 43 land systems in the catchment boundaries of the Gellibrand River, the Barwon River upstream of Winchelsea and the Thompson Creek. Each land system covers a description of the system, with a sort of 3D map and drainage system, as well as climate details, geology, topography, native vegetation, soils, land use and soil deterioration hazards. Still very useful and relevant.



10 NOTE/ For example, the application of the "net gain" principle in biodiversity, which needs a way to account the value of replanted vegetation (often single or only several species, and immature) against cleared vegetation (often mature vegetation communities).

Over time a single body such as the CCMA might be given broader authority by State Government for natural resource management issues. Councils at times make parochial decisions that do not fit broader regional and state interests and some balancing influence is needed. At other times, they would value having an environmental management authority with broad powers standing behind them at VCAT as they make their case on a contested development decision.

Local government and local communities will be able to make quicker more informed decisions with:

- Accurate, current, local scale (1:25,000), geographically based, accessible information on the condition of the environment, land capability⁹, land suitability, recent projects and current plans.
- Information on the levels of risk to biophysical assets, and the threatening processes.
- Tools to support application of policies for decisions on land use and land management¹⁰, and,
- Online access, sensitive to context, to policies and regulations on environmental matters, for local government staff, community groups, government agency staff and private developers.

Local government is being given legislative responsibility for implementing a wide range of policies in natural resource management. For example, local government is expected to monitor and police native vegetation controls and the Code of Practice for forestry on private lands. Delegation of authority would give local government more power, for example, on matters such as: reserves; roadside vegetation management; discharges to the environment; waste management; ports, airports and infrastructure.

Three matters needing further discussion between local government and NRM agencies are:

- Should local governments incorporate specific targets for environmental health into their planning schemes? What would be needed to arrive at defensible targets?
- Should a body like the Catchment Management Authorities be given more authority in relation to environmental management?
- How could local communities arrive at goals and targets for environmental health? How could they do this as part of planning for a sustainable future, that balances economic, environmental and social outcomes?

Comment from DPI/DSE SW Region on delegation of authority to local government

The RCS states that local government should have more authority to manage roadside vegetation. The principle that weed management should be included in roadside vegetation management creates a major conflict/ challenge for local government and the adjoining landowners. Local government is essentially the managing authority or land manager of "other roads" as defined by the *CaLP Act 1994* and is best placed to ensure vegetation management including weeds is

integrated with all maintenance activities. However, under the *CaLP Act 1994* the adjoining landowner is responsible for the control of weeds on the adjoining half road width.

One of the primary issues facing local government in regional Victoria is developing and maintaining appropriately skilled staff. There is a high turnover in local government technical staff, particularly in planning. Without appropriate skills and resourcing, it would be inappropriate to place increasing demands on local government, or give them more authority in areas where they are unable to maintain skill.

Better options for the short to medium term is to better resource and improve the skill of local government. The appointment of an environment officer as an essential part of Local Government staff would be an important first step to improve consideration of the environment in Local Government processes and decision-making.

recommendations for improving the partnerships with communities

From RCS Strategies Workshops

A great deal of government policy now calls for "consultation with relevant stakeholders." Some legislation requires community input: for example, the *Planning and Environment Act* and the *Coastal Management Act* both require that government bodies consult communities for input to strategies.

The depth of consultation ranges from joint decision-making, where government is prepared to act on the community's choice, to the gathering of public opinion that effectively serves to take the heat out of public dissent and guide the public relations of decisions made by bureaucracies. "They do what they want anyway..." say many people. Alternatively, consultation strikes agreement on principles but loses momentum when it comes to the specifics.

Partnerships have been treated too simplistically: it is not just a matter of agreeing on goals, but of parties understanding their differing needs and working out how their different capabilities can fit together to deliver a result. To build partnerships with communities, consultation needs to:

Consult in ways that capture public interest

Consultation is an opportunity to raise awareness, educate and articulate the diversity of local opinions. Consultation methods are typically over-weighted with words and documents and accessible to people who know the lingo and are happy to sit patiently in meetings. There is a risk that the "unengaged" community may reject the plans their fellow citizens create, either because they don't understand the issues or because they feel excluded. Organisations sponsoring planning need to extend the reach of consultation into local communities, by:

- Talking with local community leaders (formal and informal) to find out who is already interested in particular issues, and to find out how they want to be consulted.

- Talking with Aboriginal communities to find out whether there are specific ways in which consultation should occur with Aboriginal people.
- Consulting on clusters of related issues for a locality, rather than each agency consulting in isolation from the others.
- Consulting on themes that run across a number of communities, so that people learn more about what others are thinking, doing and wanting.
- Getting into the main street, shopping centre and foreshore to talk with people on their own ground, at least some of the time.
- Using pictures, photographs and diagrams (not just words) to capture what is important to people, and to present possibilities for people to react to (rather than expecting them to invent everything from scratch).
- Creating community events, where people mix with each other and enjoy being the community they are, with a focus on their environment.
- Taking account of the seasons, for example, designing consultation for holiday periods, to connect to visitors, or not attempting consultation during lambing or seeding or harvest time.

Be clear about responsibilities in government

Regulatory, planning and service responsibilities have been laid like a patchwork over the natural landscape. In some areas, the responsibilities of different parts of government seem to conflict, to the detriment of good environmental management.¹¹

Bring together expert and local knowledge

The knowledge of specialists needs to be on hand, so people take account of all the forces affecting their area. Local knowledge is just as important. Local people know the specific opportunities and risks of their area.

Develop relationships between communities

Environmental problems are spread across the landscape. Causes occur a long way from where the symptoms show up. The people involved in the causes and the symptoms don't know each other, or talk to each other. Without understanding and trust between people, the emotion, blame and defensiveness that comes with crisis makes it difficult to understand the symptoms and the causes, and decide what can be done. Competition over limited resources (like water, or foreshores) will become more acute, and conflicts between communities will begin to run deeper. Stronger direct relationships between communities become a precondition for decisions and action.

Aboriginal communities need to be engaged within local communities on natural resource issues. They bring indigenous knowledge about the local landscape and need to speak for their cultural values as plans are made.



11 NOTE/ Leigh Yarrowee Strategies workshop. Responsibilities in water resource management are divided across bodies with competing goals. SEE/ Annex A: *confusion in water resource planning and waterways management*.

Take time and follow up

The heart of partnerships is not a written document, but trust between people. That trust takes time to develop. Politics and competing interests test the trust that's there, and the sheer hard work of absorbing lots of detailed information puts stress into consultation. Investing more time produces better decisions.

Then, it's common decency to let people know how their contributions were used, and a smart move to return to interested people moving ahead with the actions they suggested.

next steps for developing the regional agenda for sustainable development

From RCS workshop with regional agencies across economic, human services and environmental sectors and local government

A regional forum is required, where regional managers and local government can meet face-to-face and become familiar with each other's plans for development in the Region.

However, there are so many strategies, it is impossible to make personal contact with all those planners. *Regional* strategies can ease this problem by integrating related plans in each sector – economic, environmental and social. If the *goals* of each sector for the Region were the same, there would be some assurance that the total effort was heading toward the same end. Whether an overarching set of regional goals is needed is uncertain: a set of principles for sustainable development and a regional picture of opportunities and risks based on capacity might be enough to achieve the necessary integration of action.

On some matters, regional level goals may put constraints on local planning activity, in the public interest, but the primary intent of regional goals should not be to *direct* planning by local communities, but to provide a regional context.

Leadership is needed *out of each sector* to achieve regional integration of goals. This is beginning: for example, DOI in one region is developing a regional "Statement of Intent" to guide local government. The CCMA has been asked to integrate its plans with the *Coastal Action Plan*. Stronger policy from government on whole-of-government planning at regional scale would give agencies the mandate to spend time and money on integration.

Sharing of information across sectors would help all in their planning. The differences in boundaries to decision-making bodies are a significant difficulty here and in relation to goals and strategies.

In the medium-term, strategy review periods for local and regional plans should be aligned. In the long-term, alignment of administrative boundaries and consolidation of environmental management responsibilities across state government agencies would substantially simplify planning for the environment.

implementing regulations in partnership

From RCS Workshops

"There doesn't need to be a conflict between partnership and regulation. The problem we've got now is regulation without partnership. Partnership means you both own part of the problem."

Farmer, Otway Foothills Strategy Workshop, June 2002

Effective regulation is difficult, because the attempt to cover all circumstances takes away freedoms and flexibility. But it can work. For example, native vegetation controls created a big stir 8-10 years ago, but are now accepted.¹² Regulation fails when it doesn't allow for local conditions, when there are too few resources for effective enforcement, when implementation timelines are not specified or met, and when citizens, businesses and other government agencies are not educated about new regulations. Those developing, implementing and affected by regulations should take note of the following:

In some cases penalties are too slight to make a difference, or legislation too weak to be defended in court. Consultation on possible regulation needs to include those who will implement the regulations, to use their understanding of what is workable in practice and what will influence behaviour.

Consultation to develop regulations often stops when the regulations are written. They need to continue as regulations are implemented, to monitor impacts and decide how to apply the regulations to best effect.

Regulations can be inadequately enforced when government agencies lack sufficient resources. Agencies should *target* critical issues and make enforcement part of a total campaign of management, education and technical support.¹³

three levels of engagement with the wider community

The following strategy for increasing appreciation of and participation in the NRM task across the Region's communities emerged from RCS stakeholder workshops. It should be tested against evidence, in other forums and in action.

Three levels of engagement are proposed:

develop appreciation of place

Engage people in thinking about the liveability of their place and the sustainability of their community's practices. Educate people about their place in the catchment, using scientific information. The assumption is that the desire for a healthy environment can best be turned into effective personal engagement with the NRM task by starting from the local sense of place. Environmental plans should be marketed to the community around the values this engagement reveals.



12 COMMENT/ DSE/ DPI found that prosecution under the *CaLP Act 1994* - "Report on the effect of prosecution under the *CaLP Act on changes in behaviour in the SW Region of NRE*" - was effective for some landholders, but needed support from education and extension services to be effective with others.



13 COMMENT/ DSE/ DPI SW Region. DSE and DPI target critical issues and enforce regulations as part of their management strategies and practices. For example, staff enforce the Code of Forest Practice, Fire Regulations, Fisheries Regulations, Wildlife Regulations, Pest Plant Regulations and lodge objections to statutory planning referrals referred by local government.

describe responsible personal action

Inform people how they can be more responsible users of natural resources, and how they can help repair the environment. This is a joint endeavour between resource managers (for example, water suppliers, parks managers, local government) and local groups who understand specific local issues. A primary lever is stories of what people like them are doing as responsible users and carers, which model new behaviour and engender confidence that "something can be done." An important point of engagement are mainstream community groups, such as Rotary, Lions, Chambers of Commerce or parent groups, which are starting to ask questions about the environment, environmental management and sustainability, have broad membership, good organising abilities and credibility in the wider community.

invite participation in planning and organising

The assumption is that the bigger the base at the first two levels, the more people will migrate to this third level, spreading the work load and increasing the representativeness and diversity of views.

setting goals for native forests

Conclusions from discussion at RCS Workshops in the Otways Foothills sub-Region, and from feedback on RCS drafts

Logging of native forests on public lands must be managed to maximise total benefit to society. There is still no clear social consensus on this use of public lands. Some believe strongly that such logging should be phased out. Others believe native forests are well managed,¹⁴ and deliver significant benefit to the community. There has been considerable consultation with industry, environmental groups, and local communities, and management and regulatory frameworks are in place (for example, the *Regional Forest Agreement*, the *Forest Management Plan*, the annual *Wood Utilisation Planning* process, the *Code of Forest Practices* and its audit process). Debate must continue:

- Discussion about benefits and costs needs to be pursued *within* the Region, so that local communities and interest groups sit around the table, agree on the facts, listen to each other's point of view and work towards agreement on goals and management.
- The science of forests and the values of forests both need to be part of the discussion.
- Local communities need to be in the discussion because there are real links between sustainable forest management and sustainable local communities.
- Discussion needs to be facilitated.
- Development of targets for environmental health within distinct landscapes would provide an environmental bottom line to debate about alternate uses of public forests.



14 COMMENT/ DPI/ DSE SW. There are land uses which have had or continue to have much more and longer lasting impact on the environment than logging of native forests. For example, the clearing of land for agriculture has impacted much more and often with irreversible impact (e.g. loss of native species and habitat, rising water tables and salinity), and the continuation of some agricultural practices (e.g. use of chemicals, fertilisers) can contribute to environmental problems.

- The management of the native forests on private land (20 per cent of the total wet forests in the Otways) needs to be discussed at the same time as goals for forests on public land, and

The effects of the management being pursued at any point in time need to be reviewed by the industry, community and government, and changed in the light of experience.

responsibilities for weeds on roads

Comments from various sources

From RCS Report #5, Existing Strategies for Natural Resource Management in the Corangamite Region, 2002.

VicRoads has responsibilities to control "Regionally Prohibited Weeds" and "Regionally Controlled Weeds" on freeways, highways, tourist roads, and some main roads under the *Catchment and Land Protection Act 1994*. This covers both "declared noxious" and "serious undeclared weeds". DPI is responsible for State Prohibited Weeds on all classes of road, and for Regionally Prohibited Weeds on undeclared roads. Local councils are also responsible for noxious weed control on most main roads, which they maintain, under the *Transport Act 1983* and a Memorandum of Understanding between VicRoads and Municipalities. Landowners' responsibility is limited to Regionally Controlled Weeds on undeclared roads. VicRoads also has some responsibility under the *Fauna and Flora Guarantee Act 1988*, which includes weeds as a potentially threatening process.

from DPI/ DSE SW Region

The principle that weed management should be included in roadside vegetation management creates a major conflict/ challenge for local government and the adjoining landowners. Local government is essentially the managing authority or land manager of "other roads" as defined by the *CaLP Act 1994* and is best placed to ensure vegetation management including weeds is integrated with all maintenance activities. However, under the *CaLP Act 1994* the adjoining landowner is responsible for the control of weeds on the adjoining half road width.

integrating local planning and regional planning

*extracted from comment from Municipal Association of Victoria submission on RCS Working Draft
March 2003*

Minimal recognition within the Corangamite RCS is given to the capacity of a Municipal Strategic Statement (MSS) and/ or local policies to respond to the identified key challenges and priority areas for action. To increase integration between the relevant municipal planning schemes and the Corangamite RCS, natural resource management issues need be addressed across the whole structure of the Local Planning Policy Framework (LPPF), filtering down from the MSS through to local planning policy. The LPPF as a policy framework needs to clearly express the strategic base or land use development outcomes for the

municipality in relation to water catchment and land management issues. The current structure of the RCS is unsuitable for this purpose. However, there are elements in the Corangamite RCS that could be effectively reworked to improve the level of strategic integration with the LPPF of relevant planning schemes.

The visions and objectives developed in the RCS are essentially too broad or general for their direct inclusion into a planning scheme, however they could form the basis for the development of more specific, outcome-orientated visions, (as part of the municipal vision statement in Clause 21.04). Most of the other sections of the RCS would need to be revised into a format suitable for inclusion into a LPPF planning scheme format.

As a reference document in a planning scheme some weight would be given to the RCS, but it would not carry the same legal standing as an incorporated document or if relevant sections of the RCS were specifically included within the LPPF.

It is important to note that most local authorities do not use incorporated documents, because of the administrative difficulties in making changes to the original document. Therefore, the most effective method of incorporating catchment management/ natural resource management issues in a planning scheme is by integrating them into the LPPF. This may mean reconfiguring some of the RCS into a format more consistent with a planning scheme.

The broad RCS goals listed in the section "goals" capture the community's aspirations for natural resource management over the next 20 years. These goals address the question of how to strike a balance between, economic, environmental, and social benefits and make finding this balance a major social task to be worked out at local, sub-Regional and regional levels. These goals are quite broad statements of intent and partly resemble strategic directions, which typically accompany the municipal vision statement within Clause 21.04. The inclusion of desired outcomes as part of these objectives however would ensure that they could readily form part of the municipal vision statement at Clause 21.04. For example, the RCS objective for a planned landscape "By 2020, all planning decisions will take account of the capacity, condition and visual amenity of the landscape and maintain the health of the environment." Modification of this objective to include desired outcomes along the lines of: "to maintain and enhance the visual amenity, landscape character and environmental assets of the Region through informed decision making at all levels of Council" would enable this RCS objective to be incorporated as a LPPF vision (strategic direction).

Clause 21.05 onwards in the planning schemes outline the strategic response to the challenges facing the municipality and the actions that will be implemented to achieve the outcomes identified broadly in the vision and strategic directions. The natural resource management targets contained within the Corangamite RCS have been developed as quantitative measures. It is considered that with a greater level of detail including direct links to the planning scheme (i.e. performance indicators), these targets could be included as goals or objectives as part of the Objectives – Strategies – Implementation section of the MSS.