

Planning for action: the evolution from state-wide priorities to local work sites

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Abstract

Riparian management issues are often numerous, widely distributed and complex. Solutions usually involve many people, from landholders to agencies, all of whom who have varying wants and needs. Resolving these riparian management issues can be complex and resources are often limited. Prioritisation of efforts is required to get the best value in terms of river health outcomes for these restoration and protection investments. This paper describes the evolution from statewide river health planning to site-specific on-ground actions. It also describes the importance of consultation to achieve on-ground action. A Victorian example, of the Ovens River, is used to highlight this process. Different scales of planning are discussed, then with the Ovens River case, examples of each are given. Significant threats to the lower Ovens River exist from upstream areas - including relatively small tributaries, such as Reedy Creek near Wangaratta. These tributaries have a mottled history that includes sluicing and dredging for gold and tin as well as the draining of "swamps" and straightening of reaches. The consequences of these historical actions still create management issues today, some of which are continuing to migrate downstream, threatening the 'heritage' status of the Ovens River (Erskine, 2001).

Keywords

Planning, prioritisation, riparian, river health, sedimentation, stakeholder

Introduction

With environmental issues being numerous and widespread, planning at multiple scales is required to provide an informed and transparent process of prioritisation. On-ground works should only result from considered planning to ensure that investment in restoration provides confidence that works at local sites are well placed, justifiable and match priorities from the state to local level.

The most efficient approach is to focus on protecting high value assets and addressing threats to those values DSE (2002). This requires undertaking significant planning at different scales. This planning is based upon reliable information (at least for the scale at which it is to be used) and is inclusive of the end users of the recommendations. Sound planning leads to confidence that specific works at local sites match not only the stream priorities, but also those at regional and state levels.

In North Eastern Victoria, the Catchment Management Authority has made the planning links at varied scales. State-wide priorities are used to guide further planning at regional, basin, tributary, reach, property and site levels. This planning at different scales leads to an informed basis for action.

State (Victorian) planning

The Victorian State Government produced the Victorian River Health Strategy as a framework document to guide decisions on the management of rivers in Victoria. The VRHS provided:

1. A common vision for the management of rivers in Victoria;
2. A planning framework which considers environmental, social and economic factors relating to river health with best available scientific understanding;
3. State-wide targets for river restoration;
4. Priority-setting criteria for investment in river protection; and
5. An overview of Government policy relating to the management of activities affecting river condition (DSE, 2002).

The Victorian River Health Strategy fits into the broader Government vision for the management of water in the State to ensure that rivers are managed in accordance with relevant Victorian Government legislation and policies (such as the White Paper, *Our Water Our Future*, a key policy document aimed at guiding water management in Victoria for the next 50 years).



Figure 1. The lower Ovens River. State-wide planning identified this as ‘heritage’ river reach with values worthy of protection.

Regional planning

The framework from the Victorian River Health Strategy (VRHS), and its recommendations, were then used in the development of the North East Regional River Health Strategy (NERRHS). The NERRHS was prepared in order to provide regional agencies with a broad level strategic direction for the future management of waterways in the North East Catchment Management Authority area. To achieve this, the framework – as set out in the VRHS – was used to guide the government, in partnership with the community, to make decisions on the management and restoration of these regional rivers.

The approach to achieving the desired management river health is based on four key elements. These are:

- A. Protecting regional rivers and streams that are of highest community value from any decline in condition;
- B. Maintaining the condition of ecologically healthy rivers;
- C. Achieving an overall improvement in the environmental condition of the remainder of the region’s rivers and streams; and
- D. Preventing damage from future management activities (NE CMA, 2006).

The NERRHS is currently used to guide government investment. Locally, it also directs the development of the annual works program, which provides support for on-ground action.

The NERRHS was the first attempt to combine all elements of river management under one ‘umbrella’ document. The document integrates river health programs into a multi-disciplinary framework, which considers water quality and quantity, flow, wetlands, in-stream and riparian flora and fauna, fisheries and recreation.

A tool in the form of the RiVERS (River Values and Environmental Risk System) database was used to help determine management priorities at the regional scale. This RiVERS database collates a range of indices of river health and threats to river health to determine scores from which priorities for management activities can be determined (NE CMA, 2006). Regional areas are divided into management units that are geomorphically similar and these are subsequently divided into reaches. Environmental, social and economic values are considered for each reach.

The RiVERS database helped planning at a regional level and was a simple method of assessing the condition of assets (values) and threats across the management units and specific reaches. This allowed prioritisation based on risk assessments to determine priority reaches and actions (NE CMA, 2006).

Local planning

Given the state and regional strategies identified broad scale priorities and actions there is a need for another level of planning at the local scale. Local Waterway Action Plans (WAP) are strategic tools that provide:

1. Articulation of CMA priorities and recommendations;
2. Refinement of regional and state-wide data (for the local risk assessment);
3. Identification of key knowledge gaps requiring investigation prior to implementation;
4. Inclusion of local information and views; and
5. Generating local support for reach-based on-ground works.



Figure 2. Community involvement in the development of the Reedy Creek Waterway Action Plan. (Photo: Terry McCormack).

Site planning

At the completion of local Waterway Action Plans, which are conducted at a reach-based scale, priority areas or sites are easily relatively easily identified (Earth Tech, 2005). Translation of these priorities into on-ground works will often require some form of community consultation to generate supportive land-managers. Detailed negotiations with land-managers can then lead to formalised agreements called Landholder Partnership Agreements (LPA) that describe works to be conducted at the property and site level.

Community involvement

The translation of the various levels of planning and prioritisation into riparian protection or improvements requires the support and action of adjoining land-managers. Most riparian land in Victoria is leased by private landholders, so their engagement in the planning process and acceptance of management recommendations is critical.

Catchment Management Authorities have processes for incorporating community input at the regional scale through various consultative committees. At the local level, detailed community involvement is gained through the Waterway Action Planning process.

Experience has shown that local support is usually forthcoming when the community has been involved in riparian planning and prioritisation. Involvement of the community increases the acceptance of management recommendations and improves the chances of on-ground works. With varying personalities, landscapes and issues, there is no standard community, and there is no standard formula for consultation.



Figure 3. Community consultation for Reedy Creek as a component of Waterway Action Planning (Photo: Terry McCormack).

Planning to action: an example- the Ovens River in Victoria.

The example below illustrates the levels of planning that have guided site-specific actions in the Ovens River. In this case many of the threats to the identified values emanate from upstream tributaries. In these tributaries, such as Reedy Creek, historical mining and dredging has mobilised enormous quantities of excess sediment. This is moving downstream along Reedy Creek as a “sediment slug” (see green areas identified in Figure 4) and is threatening the lower Ovens River (Erskine, 2001).

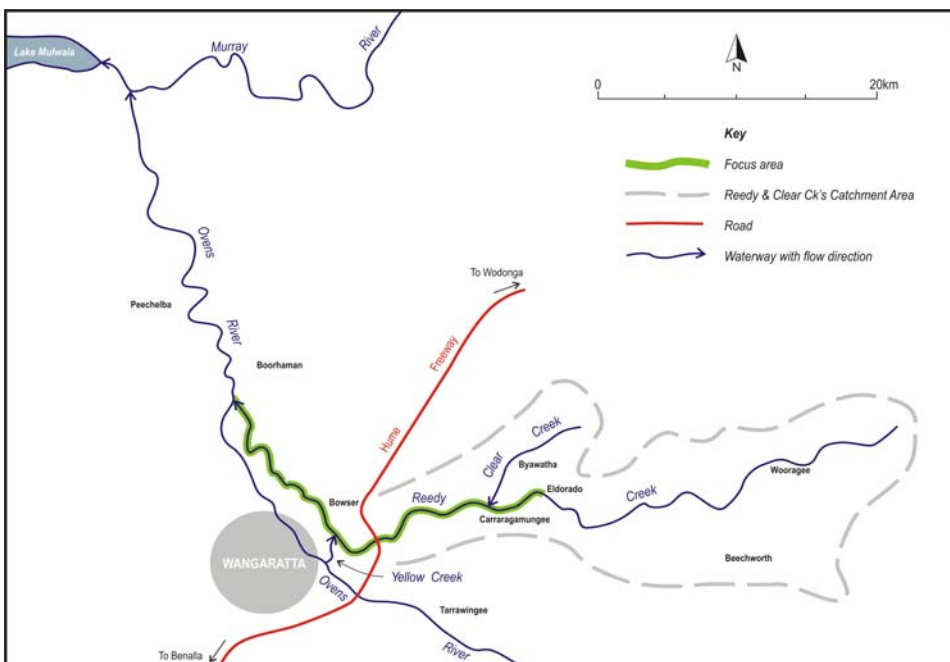


Figure 4. Location of the lower Ovens River and Reedy Creek.

State prioritisation

State-wide information has listed the lower reach of the Ovens River in North East Victoria as one of eighteen “heritage” rivers. This status is due to a substantial section of the river having national significance. The Ovens River was also identified in the state River Health Strategy as one of two ‘icon’ rivers.

Regional Prioritisation

Through the Regional Catchment Strategy, the Catchment Management Authority identified those waterways with high social, environmental and economic values. The Ovens River was identified as a high priority for its ‘heritage river’, ‘representative river’ and its ‘sites of significance’ status.

Local prioritisation

In order to protect the identified values of the Ovens River, geomorphological investigations were undertaken to provide an informed basis for the Waterway Action Planning (Earth Tech, 2004). Priorities were developed though combining this knowledge with an understanding of the local and downstream values and community input. The risk assessment (See Figure 5), conducted as apart of the Waterway Action Planning process, identified that the greatest risk to the ‘heritage’ reach of the lower Ovens River was sedimentation from the ‘slug’ of sand in Reedy Creek.

VALUES	THREATS							
	Channel Modification	Water quality	Exotic Flora	Loss Instream Habitat	Wetland Connectivity	Stock Access	Sedimentation	Degraded Streamside Zone
Environmental								
Statewide EVCs			Orange			Orange		Orange
Significant Fauna	Blue	Orange	Orange	Blue	Blue		Orange	Orange
Invertebrates		Blue	Orange	Orange	Blue	Blue	Orange	Orange
Width of Vegetation						Blue		
Lower Ovens Heritage River		Blue	Blue			Blue	Black	
Social								
Fishing			Blue	Orange			Blue	
Economic								
Water supply		Orange	Blue			Blue	Orange	
Infrastructure			Blue					

Risk Rating	Risk Score	
Low	<100	
Medium	100-224	Blue
High	225-400	Orange
Very High	>400	Black

Figure 5. Summarised risk assessment table.

Site prioritisation

Waterway Action Planning at the local level confirmed the scale of the sedimentation issue (or ‘sediment slug’ - see Figure 6). For this specific issue a sediment management plan was devised which maximises the removal of sediment for river health benefits. This plan also identified specific sites for sediment extraction. Work at these sites was formalised with land-managers through a Landholder Partnership Agreement.



Figure 6. The leading edge of the ‘sediment slug’ in Reedy Creek (looking upstream) that is migrating towards the ‘heritage’ reach of the lower Ovens River.

Conclusion

Broad-scale planning can guide site-specific works when combined with more localised information and community consultation. Knowledge of important riparian values, and the threats to them, can aid decisions on prioritising protection and restoration works. Planning at different scales can lead to defensible priorities and confidence that riparian management efforts are maximised.

A sequence of logical planning which results in clear priorities will be valuable to agencies in setting targets and knowing where the riparian management “action” should commence. Clear planning will also aid landholders in understanding why their land is, or is not, a priority. Planning at various levels, although requiring significant effort, can lead to community confidence that the priorities are sound and worth adopting. The resulting knowledge and confidence, although initiated at the state level, can lead to local action and improved river health.

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