



PART D

Implementing the Strategy

Photo: Kirwans Bridge, Wally Cubbin

Chapter Eight:

Implementing the Strategy

This Chapter:

Identifies best practice, roles and responsibilities and factors that may influence the implementation of the Strategy.

8.1 IMPLEMENTING THE STRATEGY

Priority management issues and the identification of priority waterways and activities required to maintain their resilience were detailed in previous Chapters of this Strategy.

A range of supporting actions, “Foundation Actions”, are necessary for the successful implementation of this Strategy. These range from the implementation of onground waterway protection works (as highlighted in the previous Chapter) to influencing planning, undertaking maintenance and engaging partners.

Our community and stakeholders have made a substantial contribution to the success of works to date and will underpin the success of this Strategy.

We will work together with stakeholders including community groups, local government and water authorities in the region throughout the life of this Strategy.

This Chapter outlines the management approaches behind this Strategy, including: maintenance, enforcement, MERI (Monitoring Evaluation, Reporting and Improvement), community engagement, information sharing and assignment of roles and responsibilities.

8.2 MAINTENANCE

The Strategy aims to maintain or improve waterways by protecting and enhancing the resilience of the waterway systems. Maintenance of the systems, together with maintenance of previous investment, are critical elements of the program. Maintenance of previous waterway investment includes, but is not limited to:

- riparian (control of pest plants and animals, maintain effectiveness of fencing, control grazing); and
- structural works (ensure ongoing effectiveness).

The Technical Guidelines for Waterway Management (DSE 2007) represent current best management practice and incorporate advances in environmental and technical practice for river health restoration and maintenance since the 1991 publication of “Guidelines for Stabilising Waterways”. A summary of the nature of the activity and maintenance recommendations are shown in Table 8-1. The costs associated with maintenance, compliance and best practice are also shown in Table 8-1.

Table 8-1: Base program requirements (Maintenance, Compliance, Extension and Engagement and Best Practice)

Catchment Wide			Maintenance/Extension		
Long-term Resource Condition	Riparian condition (on targeted low priority) waterways is maintained / improved by 2022				
	Channel form (on targeted low priority) waterways is maintained / improved by 2022				
	Instream habitat (on targeted low priority) waterways is maintained or improved by 2022				
	Water quality (on targeted low priority) waterways is maintained or improved by 2022				
Management Outcome Targets		Management Activity/Output		Quantity	Lead agency/partner
M.1	Improved vegetation structure and diversity throughout reach	M 1.1	Control invasive pest plant species	10 ha p.a.	Parks Victoria, YYNAC joint management
		M 1.2	Control invasive pest animal species	10 ha p.a.	Parks Victoria, YYNAC joint management
M.2	Water quality will be maintained or improved	M 2.1	Provide fencing and revegetation incentives	10 km p.a.	GB CMA, Parks Victoria, Local Government
M.3	Increase knowledge and partnerships	M 3.1	Provide extension efforts within each SES to maintain Statement of Obligation and role of "caretaker"	\$350,000 p.a.	(all)
M 4	Maintenance of previous works to ensure on going effectiveness	M 4.1	Deliver maintenance of historic works	\$100,000 p.a.	
M5	Extension and Partnerships (including monitoring and community support)	M 5.1	Provide support, information sharing and community partnerships	\$300,000 p.a.	
Estimated cost of maintenance activities (8 years)					\$ 7,700,000
Estimated cost of maintenance activities (per annum)					\$ 962,500

Table 8-2: Maintenance Recommendations (from Technical Guidelines for Waterway Management, 2007)

Activity	Recommendations
Alignment Training	<p>Check for accumulation of debris which may either overload the structure or reduce its permeability. Clear debris if necessary.</p> <p>Check for evidence of scour at the structure which may indicate that the structure is not sufficiently permeable. Adjust if necessary or place scour protection.</p> <p>Check for signs of abutment failure and correct as necessary.</p> <p>Encourage vegetation in embayments between structures. This should take the form of planting or direct seeding upon completion of construction with follow up planting to fill areas where vegetation did not become established initially.</p> <p>Check structural integrity of the retard. This includes broken piles and scour holes. These have proven to be areas that require a systematic check at regular intervals.</p>
Rip Rap (Bank protection)	<p>Check regularly for excessive settling of riprap along the bank.</p> <p>Check regularly for evidence of scour along the toe of the riprap.</p> <p>Pay particular attention to the stability of the bank at the downstream end of the riprap.</p> <p>Check for evidence of bank slumping associated with overbank flood waters re-entering the channel.</p>

Activity	Recommendations
Rock Chutes / Fish passage	<p>Initial high flows will remove some of the smaller material from the chute surface.</p> <p>Ensure that no significant voids, surface irregularities or loose rocks concentrate flow and threaten the integrity of the rock layer.</p> <p>Place additional rock where necessary.</p> <p>Some settlement of the rock mass sometimes occurs. Excavate and replace additional rock if the integrity of the rock layer is threatened or where differential settlement creates rills or low areas.</p> <p>Guard against vegetation establishing in the chute itself where it may cause acceleration of flow around the obstruction or dislodge rock if it is dragged out during a flood.</p> <p>Inspect the chute during high flows to ensure it is performing according to design expectations.</p> <p>Carefully inspect abutments for any sign of tunnelling or piping of bank material.</p> <p>Excavate and repair if necessary.</p> <p>Regularly inspect the chute face and crest for loss of material and potential unintended channelisation or concentration of flow.</p> <p>Monitor bed levels immediately downstream of the chute for scour at the end of the apron. Place additional rock as required.</p>
Riparian	<p>Evaluate conditions of riparian land.</p> <p>Ensure management conditions are being adhered to.</p> <p>Reduce grazing pressure to acceptable limits.</p> <p>Control pest plant and animals.</p> <p>Surveillance of weeds.</p> <p>Replant (if loss of stock is greater than 10%).</p>
Vertical slot fishways	<p>Ensure operation and maintenance guidelines are followed.</p> <p>Ensure debris build up is managed to allow access to fishway.</p> <p>Ensure fishway is operational during time of potential fish migration periods.</p> <p>Maintain covers in good condition to prevent predation on fish within structure.</p>
Gross Pollutant Traps	<p>Clean at regular intervals.</p>

8.3 BEST PRACTICE

Best practice is considered to be actions or activities (including method, process or techniques) that have regularly delivered the desired results or goals of a program.

A range of publications over a period of years that document what is considered “Current Best Practice” have been established. It should be noted that “Best Practice” continually evolves as we learn from projects, through monitoring, in an adaptive management framework. Reference material considered “Current Best Practice” underpinning this Strategy is included in Table 8-3.

Table 8-3: Reference Material and Further Reading considered “Current Best Practice” underpinning this Strategy

Recommended Strategy	Reference Material / Further Reading
Riparian Management	<p>Department of Sustainability and Environment (2007) Technical Guidelines for Waterway Management</p> <p>Rip Rap (Edition 18) Inlands Rivers and Riparian Zones</p> <p>Rip Rap (Edition 22) Riparian Research</p> <p>Price R. & Lovett S. (1999) Riparian Land Management Technical Guidelines Vol 2), LWRRDC</p> <p>Department of Environment and Primary Industries. 2013. Managing grazing on riparian land. Decision support tool and guidelines. East Melbourne, Victoria.</p> <p>Staton, J. & O’Sullivan, J., 2006. Stock and waterways: a manager’s guide. Land & Water Australia, Canberra</p>
Revegetation	<p>Department of Natural Resources & Environment (2000) Revegetation Guide for the Goulburn Broken Catchment, Edited by Gill Earl, Fleur Stelling, Mary Titcumb and Sue Berwick. Department of Natural Resources & Environment see: http://www.gbcma.vic.gov.au/default.asp?ID=biodiversity_pubs</p>
Willow Management	<p>Department of Primary Industries (2007), Willows, A Management Guide, DPI</p> <p>Frankenberg J. (2004) Goulburn Broken Catchment Willow Management Strategy, Goulburn Broken Catchment Management Authority, Shepparton</p> <p>National Willow Best Practice Management Guidelines</p>
Weed Management	<p>Blood K. (2002) Best Practice Management Guide For Environmental Weeds – General Guidelines, Department of Natural Resources and Environment (www.weeds.crc.org.au)</p> <p>E. Bruzzese, F. Mahr and Faithfull I., (2000) Best Practice Management Guide For Environmental Weeds - Blackberry, Rubus fruticosus aggregate, Keith Turnbull Research Institute and Weeds CRC, Melbourne</p> <p>Elissa van Oosterhout (2009) ,Weeds of National Significance (Cabomba Control Manual), Department of Primary Industries NSW</p>
Habitat (Instream)	<p>Rip Rap (Edition 16) Managing snags and large woody debris</p> <p>River Habitat Rehabilitation Through Resnagging (undated) Arthur Rylah Institute, Department of Natural Resources and Environment</p>
Alignment Training	<p>Department of Sustainability and Environment (2007) Technical Guidelines for Waterway Management</p>
Erosion Control (bed and banks) / Bed seeding	<p>Department of Sustainability and Environment (2007) Technical Guidelines for Waterway Management</p>
Irrigation Extraction / native fish	<p>Cameron, L. and Baumgartner, L. 2005. Native fish in irrigation supply offtakes. Brochure prepared by the NSW Department of Primary Industries as part of a project funded by the Murray-Darling Basin Commission (Project No. R5006). 4pp.</p> <p>Tim Blackley (2003) Screening Irrigation Offtakes in the Murray-Darling Basin to Reduce Loss of Native Fish</p>
Urban Wetlands	<p>Melbourne Water (2005) Constructed Wetland Systems Design Guidelines for Developers</p>
Urban Stormwater	<p>CSIRO (2006) Urban Stormwater, Best Practice Environmental Management Guidelines, Melbourne Water, Melbourne</p>
Water Quality (General)	<p>SKM (2004), Water Quality Current Recommended Practices (CRPs) for the Goulburn Broken Catchment, Goulburn Broken Catchment Management Authority, Shepparton</p>
Timber Harvesting	<p>Code of Practice for Timber Production 2007</p>
Evidence used to determine the confidence for association of values and their threat	<p>Department of Sustainability and Environment (2009) Confidence Levels for the AVIRA Association Values, Sustainable Water, Environment & Innovation Division, Department of Sustainability and Environment</p>
Linking Actions to address threats	<p>Department of Sustainability and Environment (2011) Report for Conceptual Models for Regional Strategies for Healthy Rivers and Wetlands, GHD and Riveriness</p>

8.4 COMPLIANCE

Compliance, ensuring that relevant rules, regulations, standards and laws are followed, is a key responsibility for agencies in addition to the implementation of natural resource programs through direct works or incentives. A number of authorities have compliance responsibilities to make sure the relevant rules and agreements are followed to ensure the maintenance of waterways. The Goulburn Broken CMA works closely with all such authorities to investigate and address issues as appropriate to the legislation under which they function.

Table 8-4 defines key areas of compliance and management for the maintenance of the catchment's waterways.

Table 8-4: Compliance Roles and Actions

Action	Role/Responsibility - Compliance Management
Regulating works altering a waterway	The Goulburn Broken CMA has functions under the <i>Water Act 1989</i> to assess works on waterway applications, and where appropriate, issue licences to construct works. Works undertaken without licence are deemed illegal (unauthorised). 'Works' in this context means something that is capable of being constructed or operated (e.g. access crossings, culverts and bridges, river erosion control works, pipeline crossing, weirs etc.). Applications are assessed to ensure the proposed works will have no adverse impacts and will result with the desired and approved outcome.
Regulating activities on waterways (GB CMA By-Law)	The Goulburn Broken CMA has functions under the <i>Water Act 1989</i> (By-Law) to assess activities on waterway applications, and where appropriate, issue permits to undertake activities. Activities undertaken without a permit are deemed illegal (unauthorised). Activities include removal of sand and gravel, revegetation of river banks and stream clearing.
Floodplain activities	Providing advice or approval to development authorities (predominantly councils) on planning permits and subdivisions (and to a much lesser extent, building permits).
Catchment / land use Planning	The Local Government Authority is the responsible authority for the <i>Planning and Environment Act</i> (1987) and has a role in Native Vegetation Retention and land use planning. <i>Municipal Strategic Statements</i> can identify environmental values and objectives in a Local Government Area (LGA), zoning for use, overlay and schedules of exemptions, policy to conserve and protect, and other land use planning tools.
Take and use (water)	Goulburn-Murray Water has a major role in ensuring compliance of managing the take and use of water.
Waterway condition (general)	The <i>State Environment Protection Policy (Waters of Victoria)</i> sets the framework for government agencies, businesses and the community to work together to protect and rehabilitate Victoria's surface water environments. The state environment protection policies that protect Victoria's water environments are: <i>State Environment Protection Policy (Waters of Victoria)</i> and <i>State Environment Protection Policy (Groundwaters of Victoria)</i> . These are administered by the EPA.
Riparian condition (licenced)	Crown frontages are generally licenced to adjoining landowners by Public Land Services, DEPI, with conditions that define appropriate management and responsibilities of the licensee. Specific and measurable minimum standards are being defined to ensure the Crown frontage is maintained in 'good order' as required by the licence. These minimum standards are to better guide licensees in their management decisions and will better equip DEPI with triggers for compliance action where frontage condition is degrading. Breaches in licence conditions, including those outlined in a Riparian Management Agreement attached to a licence, are dealt with by DEPI. Compliance actions may be undertaken on activities such as vegetation destruction, vehicles off-road, dumping of waste, unauthorised natural resource extraction, building construction and unauthorised camping.

Table 8-4: (continued) Compliance Roles and Actions

Action	Role/Responsibility - Compliance Management
Riparian condition (unlicensed)	Grazing of unlicensed Crown Land is considered unauthorised occupation and can instigate compliance actions by DEPI. Similar to licenced Crown frontage, any activity that causes deterioration to riparian condition is illegal and subject to compliance action.
Riparian condition (freehold)	See above regulation of “works” and “activities”. It is a role of local government to administer planning permits and/or undertake compliance related vegetation management on freehold land, including along streams. The Goulburn Broken CMA may assist with technical advice where invited to do so.
Native vegetation	Local government plays an important role in achieving the objective of the permitted clearing regulations. They are responsible for setting directions for land use and development within their local area, and assessing the majority of permits to remove native vegetation. Local governments have also expanded their role in the native vegetation regulatory system by providing over-the-counter offsets for the removal of native vegetation.
Litter	The EPA has a key role in protecting Victorians and the environment from litter. Littering is illegal under the <i>Environment Protection Act 1970</i> . EPA officers, local government officers, police and other enforcement agencies can issue ‘on the spot’ fines for littering.
Waste	The EPA is responsible for the management and enforcement of the primary legislation for waste management in Victoria (under the <i>Environment Protection Act 1970</i>). Primary legislation provides the regulatory framework for society by imposing restrictions and controls on the activities of individuals and corporate bodies.
Waterway incidents (pollution / chemical spills / natural events / dead stock)	The Goulburn Broken Partnership Agreement has the intention of clearly establishing the framework for leadership, and providing guidance in operations, communications and investigation of waterway incidents. This is considered essential to ensuring a co-ordinated approach and in order to maintain the confidence of the public while all agencies carry out their respective roles in protecting, restoring and maintaining the quality of the waterways. The key agencies with regulatory or functional responsibilities for waterways in the Goulburn Broken catchment are: Goulburn-Murray Water; Environmental Protection Authority (EPA); Department of Environment and Primary Industries; Goulburn Broken Catchment Management Authority; Goulburn Valley Region Water Authority; North East Region Water Authority; and Department of Health.
Fish Deaths	Waterway Incident (Fish Death) Response Guidelines applies to government agencies and authorities with responsibilities under a range of legislation for management of the environment, waterways, fisheries and health. It describes expected organisational roles and responsibilities and enables a framework to establish regional response plans that describe incident management arrangements, regional contacts, communication processes and review processes. It is intended that the regional arrangements will be included in regional and municipal emergency plans.

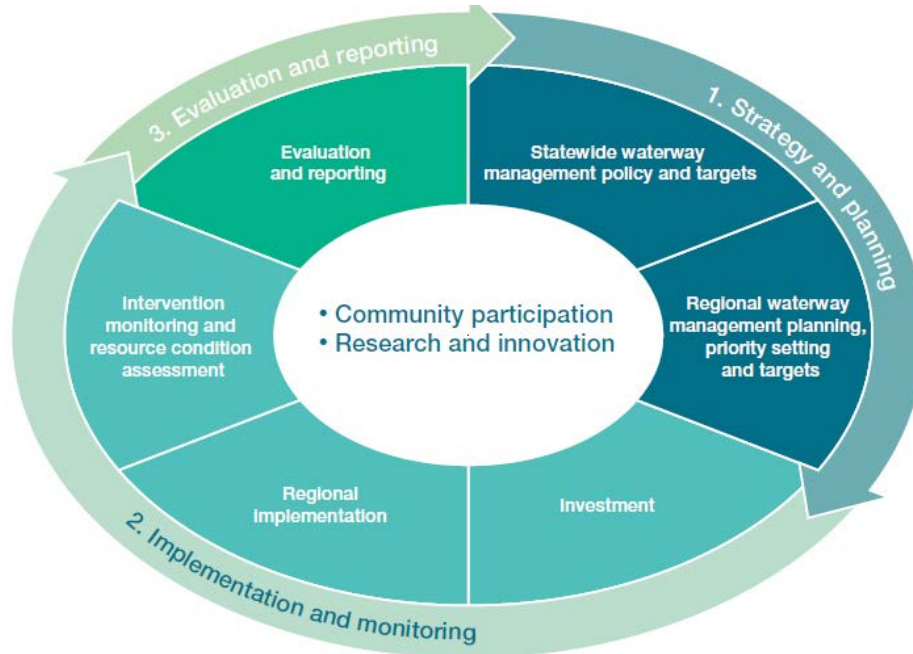
8.5 MONITORING AND EVALUATION

The management of rivers, estuaries and wetlands in the region is conducted within an adaptive management framework. The ability to learn from previous experience and update management approaches to reflect the knowledge gained during implementation is at the core of adaptive management. Figure 8-1 presents the eight-year adaptive management cycle of the Victorian Waterway Management Program and regional Waterway Strategies. The cycle includes (DEPI 2013b):

- Strategy and Planning: state policy framework and targets, planning for waterway management through regional waterway strategies with priorities and regional targets;

- Implementation and Monitoring: government and other investment in regional priorities, implementation of priority management activities, intervention monitoring and long-term resource condition assessment;
- Evaluation and reporting: management reporting, intervention monitoring reporting, resource condition reporting, program evaluation and improvement; and
- Community participation and research and innovation occur across all parts of the program. This knowledge and information is crucial for ensuring effective adaptive management and informing associated monitoring, evaluation and reporting processes (DSE, 2012).

Figure 8-1: The eight-year adaptive management cycle of the Victorian Waterway Management Program and regional Waterway Strategies (Source: DEPI 2013b)



A detailed monitoring, evaluation and reporting (MER) plan has been developed to support adaptive management from planning to Strategy completion. The monitoring, evaluation and reporting plan:

- presents the program logic underpinning the Strategy;
- clarifies the assumptions associated with the program logic and identifies strategies to manage potential risks;
- identifies the key questions for evaluation and establishes processes to monitor progress within the framework of the statewide monitoring program;
- clarifies communication and reporting needs and identifies the processes required to support these needs; and
- enables lessons learned from monitoring and evaluation to be gathered and inform improvement.

The MER plan will be reviewed on an annual basis at minimum to ensure it remains current and relevant to informing adaptive management.

8.5.1 MONITORING

Monitoring activities are targeted to inform evaluation and reporting on Strategy implementation. Monitoring activities also include the collection of information relating to foundational influences and externalities that impact on Strategy implementation. Foundational influences include factors such as climatic variability, drought, flood, bushfire and potential impacts of climate change; and externalities include factors such as land use change, population growth, government support, economic conditions, community expectations and landowner attitudes.

Monitoring activities will be consistent with the statewide monitoring processes co-ordinated through the Victorian Waterway Management Program. This program includes targeted resource condition and intervention monitoring to inform both state and regional evaluation and reporting processes.

8.5.2 EVALUATION

The strategy and planning phase of the adaptive management cycle includes the development of pre-determined key evaluation questions by which to assess the Strategy and gain new knowledge and information. Evaluation questions provide the basis for evaluation design and associated monitoring processes.

Evaluation of the Strategy will include an assessment of the extent to which the outcomes have been achieved at each level of the program logic underpinning the Strategy. It will also address the assumptions in the program logic and provide direction and improved knowledge for subsequent planning cycles.

The evaluation questions developed for the Strategy address these five categories (DSE, 2012):

- Impact - changes to resource condition, management activities or institutions.
- Appropriateness - addressing the needs of beneficiaries and against best practice.
- Effectiveness - achievement of desired management outputs and resource condition objectives.
- Efficiency - value or return from investment.
- Legacy - after the activity/program ends.

The scale and frequency of evaluation will vary throughout the life of the Strategy, and will include an annual review cycle and more detailed reviews in the fourth and final year of the Strategy.

The annual reviews will assess progress towards the planned management activities and outputs, and associated financials. These reviews will consider any new knowledge and information that may require changes to planned management activities and outputs. The annual review will be undertaken by the CMA and will align with regional investment processes.

The interim review will also assess progress towards management activities and outputs, and where possible, review progress towards management outcomes. This review may also provide new knowledge and information that may lead to an update of the Strategy to support an adaptive approach.

The final independent review of the Strategy will focus on capturing all of the knowledge gained during implementation of the Strategy, and an assessment of achievements and progress against Strategy targets. This will ensure there is a clear record of achievements and lessons learned, and an evidence base for updating or changing regional programs and management approaches in the future. This final review will be undertaken through an independent process.

8.5.3 REPORTING

Reporting is an important tool to ensure accountability for the investment of government funds into waterway management activities. Over the long-term, consistent and effective reporting provides evidence to evaluate and communicate the effectiveness of the Strategy (DEPI 2013b).

Annual management reporting is a component of the annual review cycle, and includes reporting on the activities and outputs achieved for the year and associated financials. This reporting is delivered through the CMA Annual Report, and annual investment reports for existing funding arrangements with the State Government. This reporting generally comprises both tabular and spatial information. Financial audits are required to ensure that reported expenditure is accurate and accountable. These audits will be led by DEPI and provides assurance that investment in delivering outputs has been strategic, cost effective and consistent (DEPI 2013f).

Public reporting against Strategy management outcome targets will occur, at a minimum, following the final review of the Strategy. The CMA will also support reporting of management outcome targets for the *Victorian Waterway Management Strategy* (DEPI 2013b) in 2016 and 2020. These reporting processes will be informed through the reviews undertaken in the third and final year of the Strategy.

Resource condition reporting is led through the Victorian Waterway Management Program. This involves the collection, analysis and reporting of information on the condition of Victoria's waterways every eight years, subject to available funding (DEPI 2013b). This reporting, combined with regional knowledge, provides the collective data to assess the condition of waterways over the long-term.

The monitoring, evaluation and reporting plan for the Strategy identifies further detail of the key stakeholders at organisational, community, regional, state and federal levels who should be kept informed on the progress of the Strategy or would benefit from Strategy information. It also identifies what they need to know and how it will be communicated.

8.5.4 KNOWLEDGE GAPS AND RESEARCH

The process of developing the program logic and evaluation questions identifies the areas where critical knowledge gaps exist. The monitoring, evaluation and reporting plan for the Strategy identifies the key knowledge gaps identified through this process, and also identifies the strategies for addressing them. These strategies may involve collating existing information or proposing areas for further research programs. To align with the Victorian Waterway Management Program, the Strategy will support research that:

- provides essential knowledge to address critical short-term and/or strategic long-term knowledge gaps. The resulting research findings will be incorporated into policy and management; and
- targets knowledge gaps or low confidence in the relationships between outputs, management outcomes and long-term resource condition outcomes (if significant for waterway management and investment) (DEPI 2013b).

Research will be directed to investigating those relationships where there is little scientific evidence, or the confidence in the evidence is low. This targeted approach to research also provides an increased focus on prediction and testing, rather than more general, descriptive research. It is also vital that research is targeted to better understanding the effectiveness of management activities in which there is significant Victorian Government investment (for example, riparian revegetation) (DEPI 2013b).

Over the past 15 years, the GB CMA and partners have invested significant resources to address knowledge gaps and to better understand assumptions that are made with respect to this and related programs. Table 8-5 presents the list of identified knowledge gaps (GB CMA, 2005) and the action taken.

Table 8-5: Identified knowledge gaps (GB CMA 2005) and actions taken to improve knowledge

Knowledge gap	Recommended Action/Activity	Status
Water quality data	Implement key findings of the report into water quality monitoring in the catchment "Water Quality Monitoring Review". Consider spatial nature of WQ data and encourage extension to current project as necessary.	A review of water quality monitoring was undertaken across all programs. This led to a rationalisation of water quality sites. Sites were established to reflect extreme events (these were subsequently removed after 4 years).
ISC data	Conduct 5 yearly evaluations of stream condition and develop Catchment Report Card. Increase spatial nature of assessments Review ISC assessment process, including validation of results and data storage.	ISC was undertaken by the Department of Sustainability and Environment (now Department of Environment and Primary Industries) in 2010.
Water temperature	Investigate impacts of degraded riparian land on water temperature.	Not funded.
Assets and values	Commence assessment and collect available data on additional assets and threats associated with river health.	Additional asset and threat data was captured and included in AVIRA.
Trout cod	Investigate potential new locations for stocking or translocation of Trout cod, as outlined in the Trout cod Recovery Plan.	Investigation underway for the re-establishment of Trout cod in Hughes Creek. Preliminary brief for habitat and geomorphic investigation prepared.
Representative rivers	Following the 2004 ISC evaluation, identify a reach suitable for Representative River for the North Central Floodplains River Region.	No action taken.
Economic analysis	Determine the economic value of healthy rivers within the Goulburn Broken region.	No action taken.

8.5.5 STRATEGIC ACTIONS

Action	Timeframe	Responsibility
Annual Monitoring Plan be established for the Waterway Program	2014-2022	GB CMA, Partners.

The Monitoring Plan is to consider the follow project themes:

Theme	Considerations	Estimated Resourcing
Water Quality	Contribution to the Regional Water Quality Monitoring Program Monitoring Costs	\$70,000 p.a.
Native fish	Movement, populations/status and breeding, habitat.	\$100,000 p.a.
Flows	VEFMAP	\$120,000 p.a.
	WETMAP (under development)	TBA
	CEWH - Goulburn River long-term intervention monitoring (CEWH funding for 5 years)	TBA
	Barmah TLM (future unknown past 2013-14)	\$150,000 p.a.
Wetland/Flow	Monitoring the ecological response of wetlands and streams to environmental watering	\$75,000 p.a.
Waterway Condition	IWC and ISC	TBA
Weeds	Monitor new aquatic pest plants in wetlands Monitoring control options for aquatic weeds	\$150,000 p.a.

8.6 COMMUNITY ENGAGEMENT

Community engagement activities to implement the Strategy will be informed by the 2013-14 *Goulburn Broken CMA Community Engagement Strategy and Action Plan* (see Figure 8-2. for the strategy and action plan framework) and guided by the Community Engagement and Partnerships Framework (Figure 8-3) for Victoria's Catchment Management Authorities (November 2012).

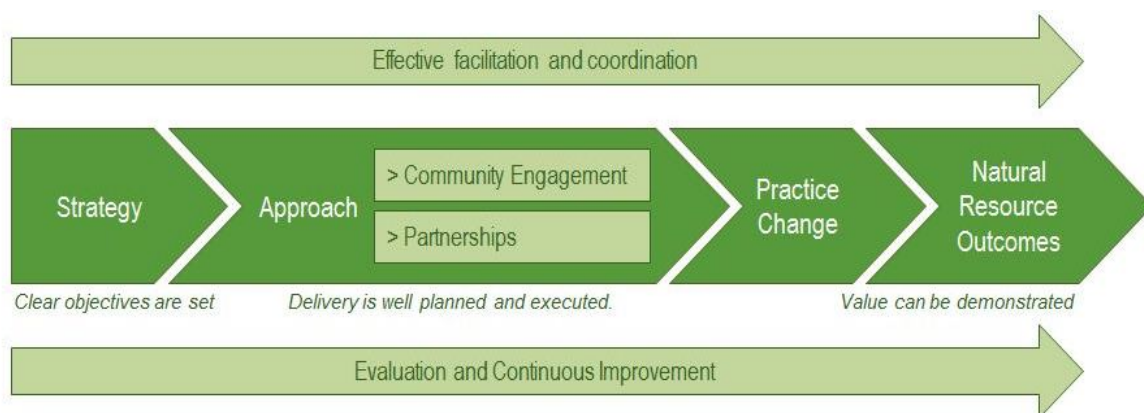
The 2013-14 Goulburn Broken CMA Community Engagement Strategy and Action Plan prioritises:

- Ongoing stakeholder analysis;
- Continuous investigation and development of appropriate community engagement tools/approaches;
- Inclusion of a community engagement component in all project planning and development (including a focus on each SES); and
- Increased staff capability in community engagement; community engagement was critical to developing this Strategy. Engagement activities included:
 - Establishment of a Reference Group comprised of community members and representatives from partner agencies such as Department of Environment and Primary Industries and Goulburn-Murray Water;
 - Development of a WeConnect site to seek feedback on the development of the Strategy;
 - Completion of an interactive survey, seeking input on values, threats, and support for management;
 - A request for waterway photographs through Flickr, many of which were used in this publication;
 - Regular newsletters and updates sent to all interested parties; and
 - Regular updates in the Goulburn Broken CMA's monthly newspaper column (distributed 55,000+ readers).

These activities have built a solid body of knowledge, contacts and networks that will provide a useful springboard in helping guide implementation efforts.

Providing specific details of implementation engagement activities is unrealistic, however, given the Strategy is a long-term plan for improving our waterways. Figure 8-2 demonstrates the broad approach:

Figure 8-2: Community Engagement and Partnerships Framework for Victoria's Catchment Management Authorities - an overview of the community engagement and partnerships approach



Importantly, all efforts will be guided by the five principles that underpin the Community Engagement and Partnerships Framework for Victoria's Catchment Management Authorities:

1. We will embed community engagement and build partnerships in all that we do;
2. Our people will be actively supported to engage communities and to build partnerships;
3. Our community engagement and partnership approaches will be well planned, tailored, targeted, and evaluated;
4. We will provide meaningful opportunities for our communities and partners to contribute to strategies and initiatives; and
5. We will work transparently and respectfully with our communities and partners, and establish clear roles and expectations.

These principles recognise that the CMA does not own or directly manage natural resources. To achieve agreed outcomes and meet our responsibilities we must proactively and effectively engage and work with others to deliver initiatives that achieve improved catchment health and sustained practice change.

All engagement activities will be complemented by the 2013-14 *Goulburn Broken Communication and Marketing Strategy and Action Plan*, and sub-strategies including the Goulburn Broken Environmental Water Communication and Media Plan.

Ongoing evaluation of the effectiveness of community engagement activities is essential to ensure they remain relevant and target the right people, in the right way.

Their effectiveness will be measured by:

- evidence communities are further informed and engaged in NRM;
- new partnerships or relationships have been established;
- there is evidence of practice change in the community;
- partnerships are healthy and productive; and
- there is facilitation of an integrated approach to NRM.

ACTION: An Annual Community Engagement Plan will be developed for the Strategy Implementation

Responsibility: Goulburn Broken Catchment Management Authority	Timeframe Annually
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Figure 8-3: Updated 2013 Community Engagement Strategy framework

1. Why develop this strategy?

To achieve actions on the ground and improvements in natural resource management (NRM) practice the Goulburn Broken CMA must engage the community and stakeholders.

Community engagement - the mutual participation of stakeholders in formation of policy and service delivery.

2. Who is this strategy targeting?

Stakeholders - this includes but is not limited to Goulburn Broken CMA staff, partners and investors; landowners; the community; industry; and all levels of government.

3. What will this strategy achieve and how will this be measured?

Well-developed, strong partnerships that help the Catchment deliver on the RCS.

Increase the resilience and capability of NRM groups so they can be the custodians of the Catchment.

An engaged community will:

- have input into the design/direction-setting of local projects;
- demonstrate improved/devolved decision-making skills;
- have faith in the Goulburn Broken CMA's role in NRM in the catchment as described in the RCS; and
- advocate on the Goulburn Broken CMA's behalf.

4. How will this strategy be implemented?

Development of a Community Engagement Action Plan will prioritise:

Ongoing stakeholder analysis

Continuous investigation and development of appropriate community engagement tools/approaches

Inclusion of a community engagement component in all project planning and development (including a focus on the SESS)

Increased staff capability in community engagement

5. When will the Community Engagement Strategy and Action Plan be implemented and reviewed?

The Community Engagement Strategy and Action Plan are designed to be flexible, dynamic and responsive documents that reflect the constantly evolving environment the Goulburn Broken CMA and its stakeholders operate in. The Communication and Marketing Manager will take the lead in supporting program managers to review the strategy annually and the action plan at least twice a year.

8.7 ROLES AND RESPONSIBILITIES

For effective waterway management it is vital to clearly outline:

- institutional arrangements and the roles, responsibilities and partnerships for waterway management;
- funding arrangements for waterway management activities; and
- accountability for complex management issues, such as new and existing structures in waterways.

The general roles of key management groups within the catchment are shown in Appendix A.

8.8 COST-SHARING PRINCIPLES FOR WATERWAY MANAGEMENT PROGRAMS

While the framework for waterway management outlined in this Strategy will ensure that resources are directed to the areas of highest priority, the achievement of the vision for waterways is a significant task requiring considerable resources and long-term commitment. Cost-sharing with beneficiaries (those which benefit from a management activity) can be an effective way to more efficiently achieve outcomes with available government resources.

Beneficiaries that need to be considered in waterway management activities include:

- water corporations, given their dependence on a healthy water resource base and their potential impacts on healthy waterways;
- direct beneficiaries (for example, recreational groups, private landowners);
- local government representing regional economic benefits (for example, increased tourism from healthy waterways);
- the broader Victorian community; and
- owners and managers of public infrastructure.

It is important to ensure that funding mechanisms reflect the general cost-sharing principles for natural resource management and truly represent, in a fair and equitable way, the groups that are impacted and the various beneficiaries of waterway management.

Cost-sharing principles for waterway management programs will be applied in the implementation of this Strategy. Contributions of beneficiaries for activities that are part of the implementation of the Strategy will be negotiated during the planning process.

Duty of care

All natural resource users and managers have a duty of care to ensure they do not damage the natural resource base, as outlined in the *Catchment and Land Protection Act 1994*. They are responsible for making good any damage incurred as a result of their actions.

Beneficiary pays

When it is not possible to attribute damage, then primary beneficiaries should pay. Users, both existing and future, are expected to pay for activities that provide private benefits. Contributions from secondary beneficiaries will, where appropriate, be negotiated with the primary beneficiaries.

Government contributions to private beneficiaries

Government contributes primarily for activities which produce public benefits. Government may agree to contribute to land and water management activities that provide private benefits, where the cumulative uptake of these activities provides significant public benefit and government support is required to facilitate this uptake.

Positive benefit-cost

Before Government will contribute to any land or water management activity, the activity must be technically sound, the benefits must outweigh the costs and it must be considered a priority management activity.

Private cost-share contributions

Management activities will be prioritised on the basis of the most public benefit for the least public cost. Where the public cost of a management activity is reduced by financial and in-kind contributions by private or corporate stakeholders, this will influence the level of priority for the action.

Upfront and maintenance costs

Waterway managers may collaborate with private landowners, and with other government agencies, to bring a built asset up to a declared standard, after which time (in general), the maintenance of the built asset will be the responsibility of the beneficiary.

Disasters

The cost of repair and recovery of essential public assets following natural disasters will be in accordance with the nationally agreed natural disaster relief and recovery arrangements.

Statewide policy and monitoring

Government will contribute to the cost of statewide planning, statewide resource monitoring and assessment, and research and investigations where they are crucial to sustainable land and water management.

8.9 STRATEGY REVIEW

The Strategy contained within the document is dynamic, however the fundamentals of the values, threats and issues to be addressed are unlikely to change within the time of this strategy's delivery (2014 to 2022).

The identified programs and implementation targets for the next eight years (2014-2022) will be followed and two key review processes built into the Strategy Framework.

Interim Review (after four years): A mid-term review of this Strategy will be undertaken in 2018-19, after four years to assess progress towards targets and may lead CMAs to change or update management actions and targets as required.

Eight Year Review: A full review of the Strategy will be undertaken in 2022-23 at the completion of the implementation period. This review will reflect on achievements made, whether progress is adequate, and consider whether there is new science and knowledge that needs to be taken into account and incorporated.

ACTION: A mid-term review of this Strategy will be undertaken, after four years which will be used to assess progress towards targets and may lead CMAs to change or update management actions

Responsibility: Goulburn Broken Catchment Management Authority	Timeframe 2018-2019
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ACTION: A full review of the Strategy will be undertaken at the completion of the implementation period

Responsibility: Goulburn Broken Catchment Management Authority	Timeframe 2022-2023
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8.10 WATERWAY PROGRAM IMPLEMENTATION SCHEDULES

Implementation of the recommended strategies in Chapter 4 and 7 is reliant on support from state and federal Governments, partner agencies and the community. Depending on this level of support, a different implementation schedule may result.

Table 8-6: The following table details overall implementation costs for this Strategy

Program	Waterway	Resources	Program	Waterway	Resources
AGRICULTURAL FLOODPLAINS					\$66,124,500
AF 01-05	Goulburn River	\$1,320,000	AF 33-37	Mansfield/Wallenjoe Swamps	\$780,000
AF 06	Goulburn Landscape	\$4,880,000	AF 38-40	Barmah Forest	\$3,075,000
AF 07	Lower Goulburn River	\$50,000,000	AF 41-43	Doctors Swamp	\$110,000
AF 08	Goulburn (urban)	\$400,000	AF 44	Gemmills Swamp	\$105,000
AF 09-10	Tullah Creek	\$90,000	AF 45-48	Reedy Swamp	\$770,000
AF 11-13	Boosey Creek	\$237,500	AF 49-51	Black Swamp	\$100,000
AF 14-18	Broken Creek	\$495,000	AF 52	Sampys Swamp	\$50,000
AF 19-21	Broken River	\$1,692,000	AF 53	Taylors Swamp	\$34,000
AF 22-25	Gaynors Swamp	\$1,122,000	AF 54-56	Mulquiney Rd (Wetland)	\$139,000
AF 26-30	Kanyapella Basin	\$575,000	AF 57-60	Kinnairds Wetland	\$100,000
AF 31-32	Yambuna Bridge	\$50,000			
PRODUCTIVE PLAINS					\$11,113,500
PP 01-04	Holland Creek	\$212,000	PP 33	Winton Wetland	\$-
PP 05-09	Goulburn River	\$525,000	PP 34-35	Winton Wetland (tribs)	\$4,637,500
PP 10-14	Goulburn River	\$415,000	PP 36-38	Dowdle Swamp	\$115,000
PP 15-17	Hughes Creek	\$230,000	PP 39-43	Tahbilk Lagoon	\$300,000
PP 18-22	Seven Creeks	\$540,000	PP 44-47	Stockyard Plain	\$150,000
PP 23-26	Seven Creeks	\$550,000	PP 48-51	Moodie Swamp	\$300,000
PP 27-28	Boosey Creek	\$97,000	PP 52-54	Honeysuckle Creek	\$237,000
PP 29-32	Broken River	\$2,805,000			
UPLAND SLOPES					\$3,519,000
US 01-04	Holland Creek	\$300,000	US 19	East Creek	\$35,000
US 05-06	Acheron River	\$160,000	US 20-21	Ryans Creek	\$155,000
US 07-09	Broken River	\$240,000	US 22-23	Bridge Creek system	\$290,000
US 10-13	Goulburn River	\$705,000	US 24-29	Hughes Creek	\$1,190,000
US 14-15	Ford /Brankeet / Merton Creeks	\$194,000	US 30	Five Mile Creek	\$70,000
US 16-18	Broken River	\$180,000			
COMMUTING HILLS					\$3,565,000
CH 01-02	Mollisons Creek	\$545,000	CH 11-14	Goulburn River	\$1,250,000
CH 03-06	King Parrot Creek	\$650,000	CH 15	Sunday Creek	\$50,000
CH 07-10	Yea River	\$1,070,000			
SOUTHERN FORESTS					\$2,327,000
SF 01-02	Big River	\$70,000	SF 12	Taggerty River	\$-
SF 03-05	Howqua River	\$140,000	SF 13	Acheron River	\$-
SF 06	Goulburn River	\$325,000	SF 14-15	Peatlands & Bogs	\$1,000,000
SF 07-11	Delatite River	\$640,000	SF 16-18	Rubicon River	\$152,000
ANNUAL OPERATING COSTS					\$2,517,500 p.a.
Maintenance Statement of Obligations					\$962,500 p.a.
(Maintenance, Compliance, Extension and Engagement and Best Practice) (per annum)					
Monitoring Plan					\$665,000 p.a.
Management of the Environmental Water Reserve (per annum)					\$340,000 p.a.
Statutory Functions (Floodplain Management/Works on Waterways) (per annum)					\$550,000 p.a.

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