

Australian River Restoration Centre

Strategic Plan
2007–2010

(establishment phase)

Dr Siwan Lovett
and Dr Phil Price



*Support, facilitate and provide opportunities
for Australians to work together to protect, maintain,
restore and celebrate our riverine environments.*



1. Executive summary

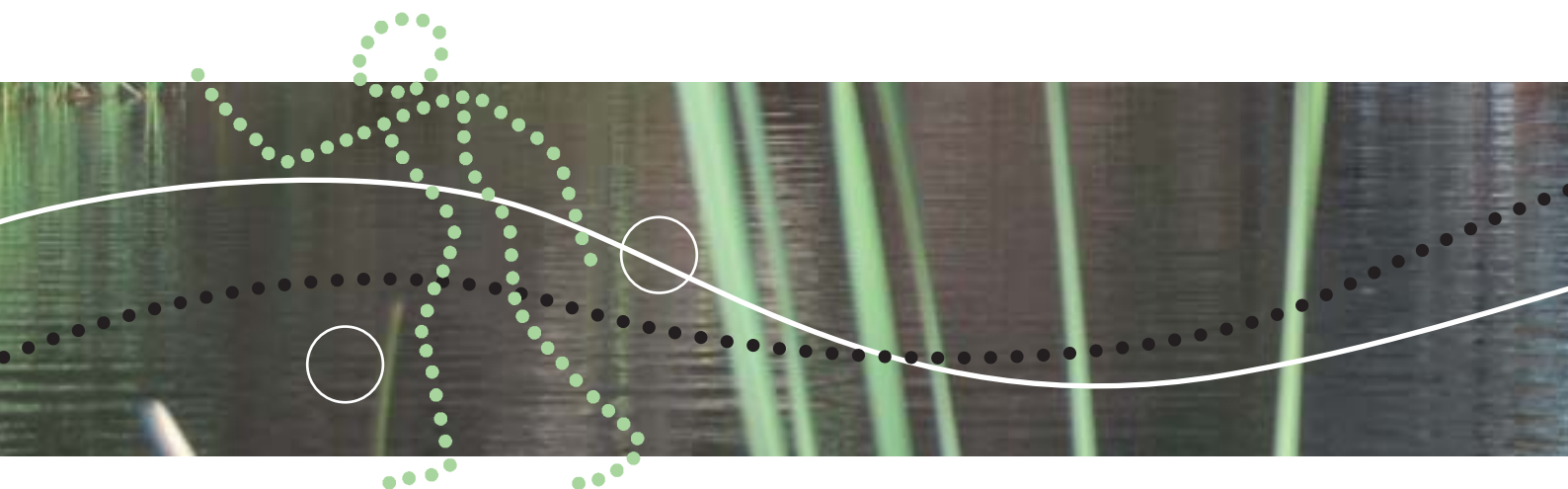
The essence of effective river management and restoration is the interaction between people and their environment. Our rivers have vital economic, environmental and cultural values, however, most organisations focus on biophysical or economic aspects of rivers rather than the people that live, work and play along our waterways. The Australian River Restoration Centre starts with the premise that people are the most important resource for river restoration, as it is the connections people feel to rivers that will motivate them to protect, care and act to restore them for current and future generations.

Australia is well-known as the driest inhabited continent. Although our population is small compared with the area of land, competition for water resources is intense and increasing. Most of the larger river systems in the south have been regulated for human use, and there is pressure to repeat this in the tropical north. Evidence from river and riparian condition surveys shows that only about one third of Australia's river systems remain in sound ecological condition, another third show clear symptoms of degradation, and the remaining third are already in poor condition and getting worse.

Australia has made significant investments in research and development (R&D) to better understand the dynamics and driving forces behind our rivers and riparian systems. However, there remains a significant disconnect between the knowledge held by scientists and researchers, and the people now charged with the on-ground management of rivers; this has been made more difficult by the gradual dissolution of expertise formerly present in state and territory agencies.

There is now an urgent need to better manage our rivers for multiple objectives, as well as further investment in science to underpin effective management. Most important, is the need to link river managers at all levels with people who have the technical knowledge needed to ensure success.

The Australian River Restoration Centre is needed because it is difficult for people involved in river management to know where they can get information, who can help them with their river restoration goals or project, or how to find and collaborate with others in their region doing work in river restoration.

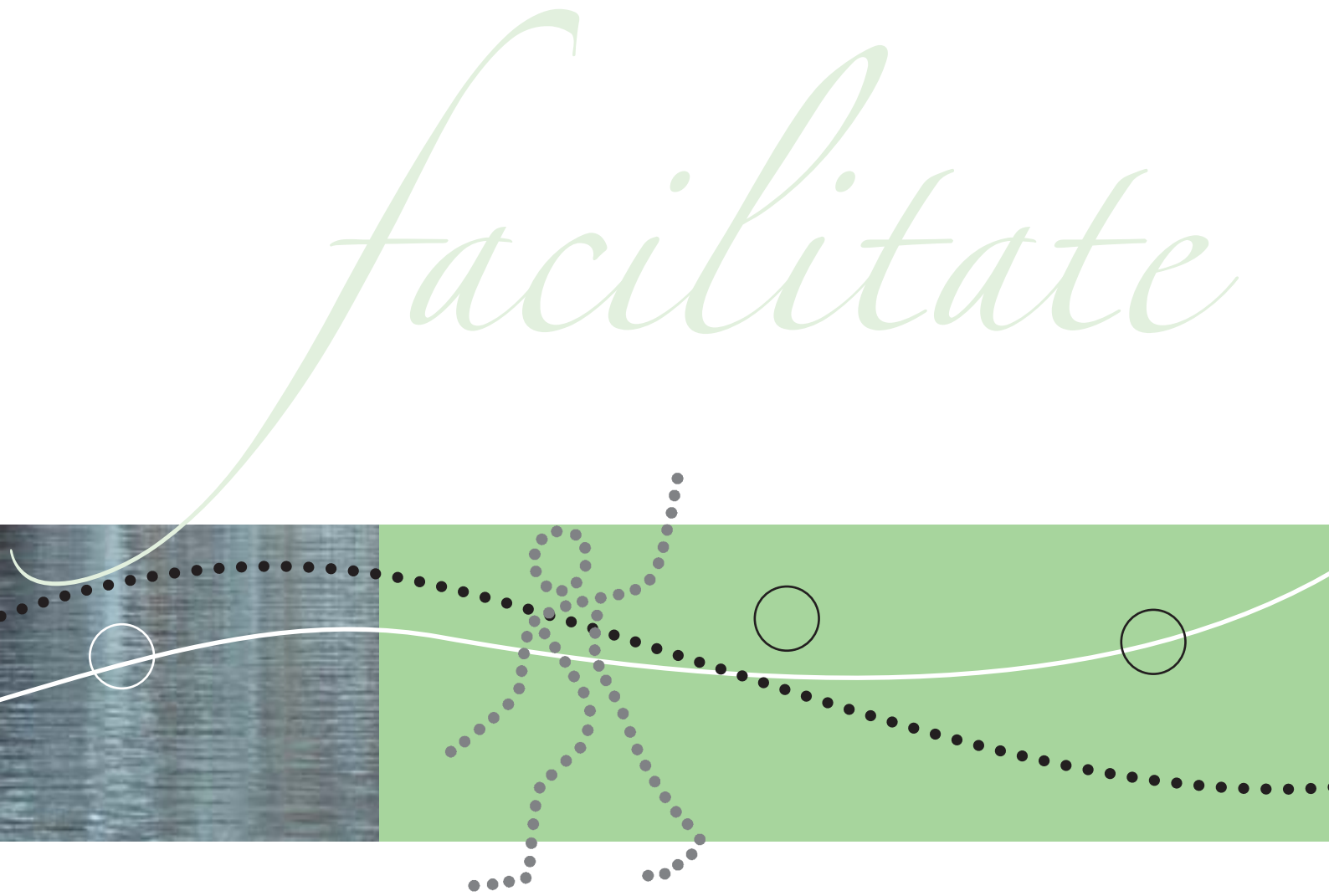


The Australian River Restoration Centre will provide an efficient and effective way to develop and share information about all aspects of river and riparian management. This will add substantial value to past and current public and private investment, help to build local and regional capacity and confidence, and inform national debate about the use and management of our waterways and their water resources.

The emphasis of the Australian River Restoration Centre is on personal relationships, building trust and confidence, empowering people to act, building capacity to meet their needs and celebrating river restoration as a positive step towards maintaining our precious water resources. The Centre will be established for the long-term, in contrast to natural resource management (NRM) programs typically operating in Australia with three-year time frames. This will mean people can build relationships of trust, confident that the advice, information and events the Centre runs will be constant rather than transitory.

The Australian River Restoration Centre will be linked to the network of European River Restoration Centres, as well as similar groups in Canada and the United States of America. These connections will provide further opportunities for Australians to share experiences, learn from approaches elsewhere, and strengthen our ability to participate in the world-wide concern for improved river and riparian management.

facilitate



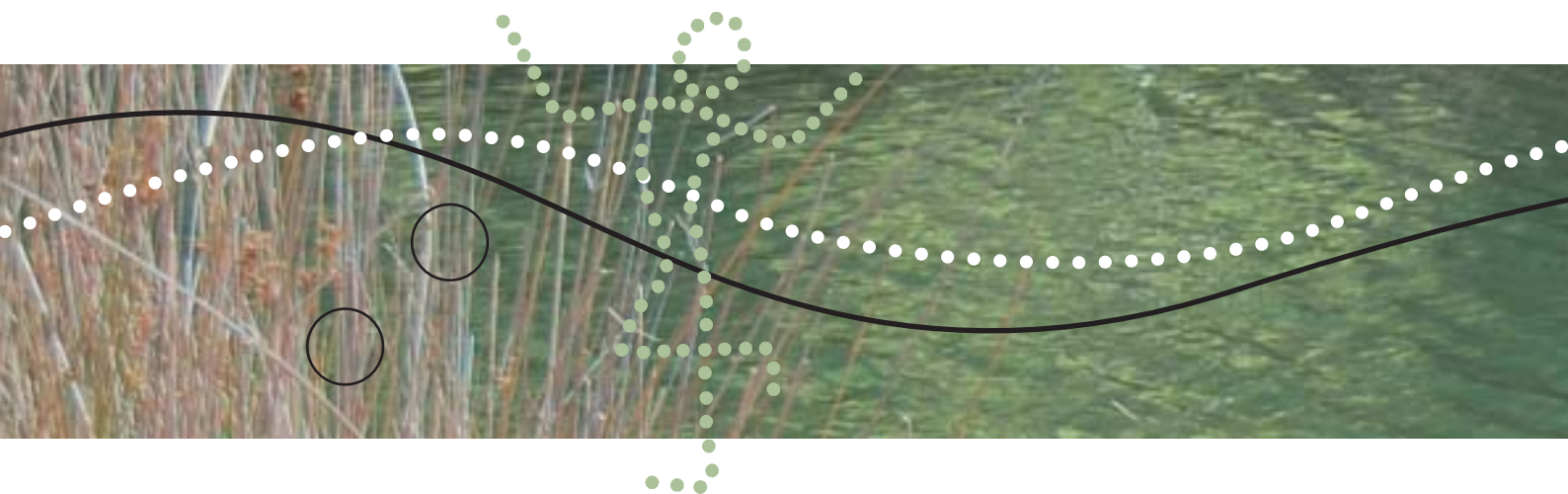
2. The business

Australia is well-known as the driest inhabited continent. Although our population is small compared with the area of land, competition for water resources is intense and increasing. Most of the larger river systems in the south have been regulated for human use, and there is pressure to repeat this in the tropical north. Evidence from river and riparian condition surveys at the national level (National Land & Water Resources Audit), and by state and territory bodies, shows that only about one third of Australia's river systems remain in sound ecological condition, another third show clear symptoms of degradation, and the remaining third are already in poor condition and getting worse.

Periodic droughts, like the current one, exacerbate the competing demands from water users and further threaten the condition of our rivers and waterways. Climate change predictions all suggest an overall reduction and greater level of variability in river flows in the future, placing greater pressure on water users and our ability to maintain healthy river ecosystems.

Australia has made significant investments in R&D to better understand the dynamics and driving forces behind our rivers and riparian systems. In general, it has not been possible to import concepts from the northern hemisphere, as Australian rivers are subject to quite different influences, for example, an old and mostly nutrient-poor landscape with a very high coefficient of rainfall variability.

Some excellent progress has been made, although our knowledge of tropical and inland river systems is still rudimentary. However, there remains a significant disconnect between the knowledge held by scientists and researchers, and the people now charged with the on-ground management of rivers; this has been made more difficult by the gradual dissolution of expertise formerly present in state and territory agencies.

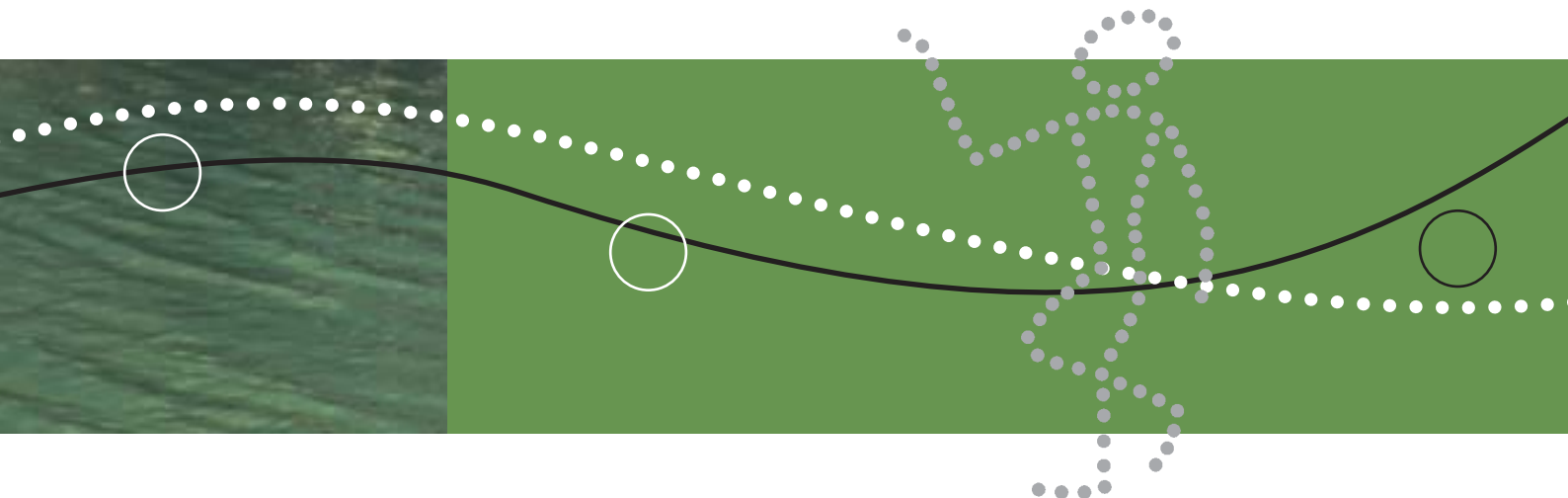


These factors, the urgent need to better manage our rivers for multiple objectives, the need for further sound science to underpin effective management, and (most importantly) the need to link river managers at all levels with people who have the required technical knowledge, are the background to the establishment of the Australian River Restoration Centre (ARRC). The Centre, which has been designed in part along the same lines as the successful European River Restoration Centres, will be an impartial broker and provider of knowledge about river and riparian management. The term 'Restoration' in its title, encompasses improved river management, and maintenance and restoration of crucial river functions within different landscapes.

The essence of effective river restoration is all about the interaction between people and their environment. Our rivers have vital economic, environmental and cultural values, however, most organisations working in this area focus on biophysical or economic aspects of rivers rather than the people that live, work and play along our waterways. The ARRC starts with the premise that people are the most important resource for river restoration, as it is the connections people feel to rivers that will motivate them to protect, care and act to restore them for current and future generations. This is reflected in the mission of the ARRC that is to:

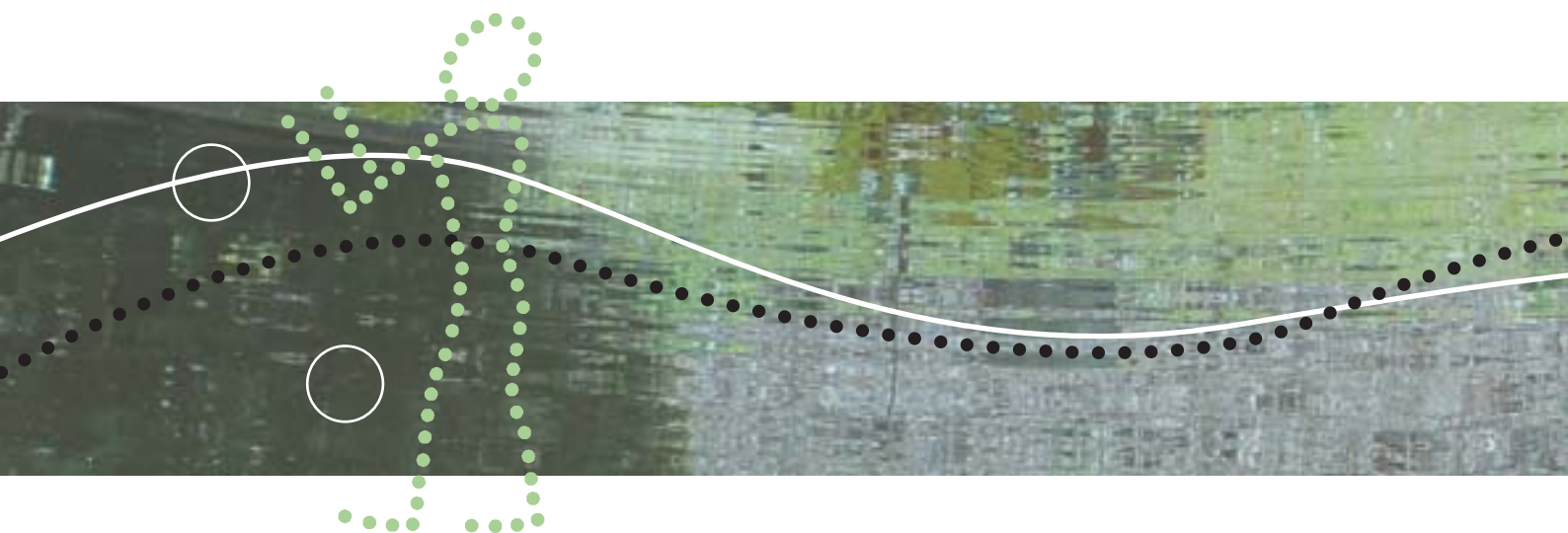
*Support, facilitate and provide opportunities
for Australians to work together to protect, maintain,
restore and celebrate our riverine environments.*

The ARRC will connect people with an interest in river restoration, whether they are scientists, irrigators, conservationists, government employees or someone with an interest in their local creek. The ARRC is needed because it is difficult for these people involved in river management to know where they can get information, who can help them with their river restoration goals or project, or how to find and collaborate with others in their region doing work in river restoration. The ARRC will be able to link, connect, facilitate and provide opportunities for people to access the information and skills they need to accomplish their river restoration objectives.



Why is the business needed?

- Australia is spending tens of millions of dollars per annum on river management projects, but data suggests that many do not achieve their objectives.
- Much of the technical understanding of processes that drive the health and functioning of rivers and riparian lands is not easily inaccessible to river managers, nor in a form that they can apply readily.
- There is no national pathway for people to quickly access technical advice to help them in understanding the causes of river degradation or to plan projects to reverse it.
- Many restoration projects have short time frames, small amounts of money, and high staff turnover, all of which work against the building of local knowledge and capacity.
- Many researchers are frustrated that science is not being used fully to inform and support good river management.
- Many river management bodies and groups are unaware of what others are doing, even though they could learn and save resources from the experience of others.
- Although scientists are generally aware of research developments overseas, there is no mechanism for sharing knowledge about best practice in river management between countries, for example the programs operating in Canada, the United States of America, Europe, South Africa and New Zealand.
- There is a large and growing demand for education and training in river management and restoration that is currently largely unmet.
- There is a need to better link river and riparian management in to the context of whole catchment management and the economic and social contexts of different communities.
- There is an urgent need for something like the ARRC to continue the work of past programs that are now completed.



Value proposition

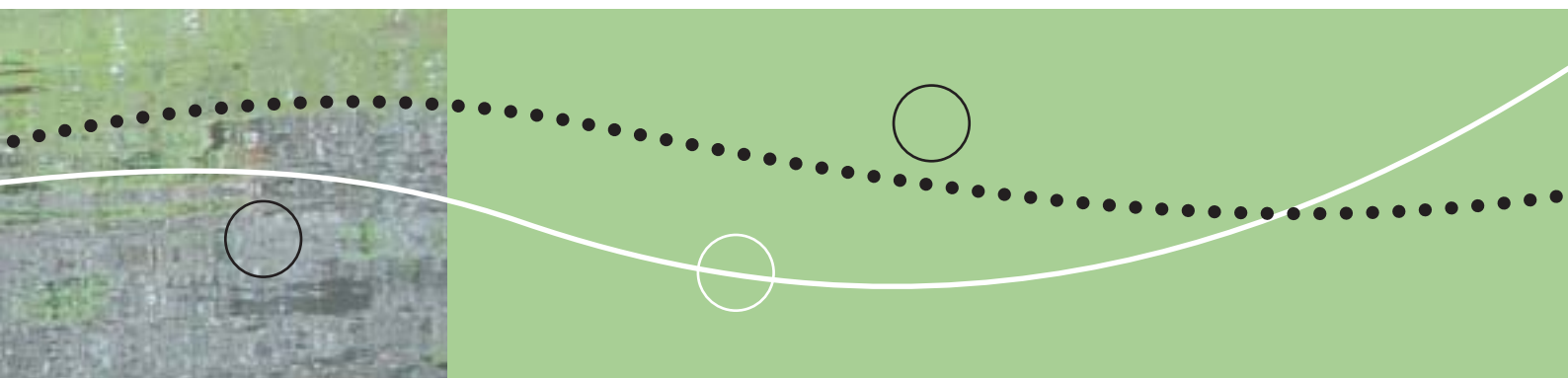
The ARRC will provide an efficient and effective way to develop and share information about all aspects of river and riparian management. This will add substantial value to past and current public and private investment, help to build local and regional capacity and confidence, and inform national debate about the use and management of our waterways and their water resources.

What is special about this business?

Our purpose is to engage with, support and link people from different sectors of the Australian community who have shared interests in river and riparian management. This will include, for example, people in government agencies involved with water policy and programs, agriculture including irrigators, conservation groups, river managers in catchment agencies and boards, local government, community groups, and individuals including landholders. We will work with them to provide access to the information, skills and projects that will help them to plan and manage their own river management goals, and to link them with other groups working in similar aspects of river restoration. The ARRC will act as a 'knowledge broker', obtaining and interpreting information to meet the needs of people and groups in a cost effective way. Our emphasis is on personal relationships, building trust and confidence, empowering people to act, building capacity to meet their needs and celebrating river restoration as a positive step towards maintaining our precious water resources.

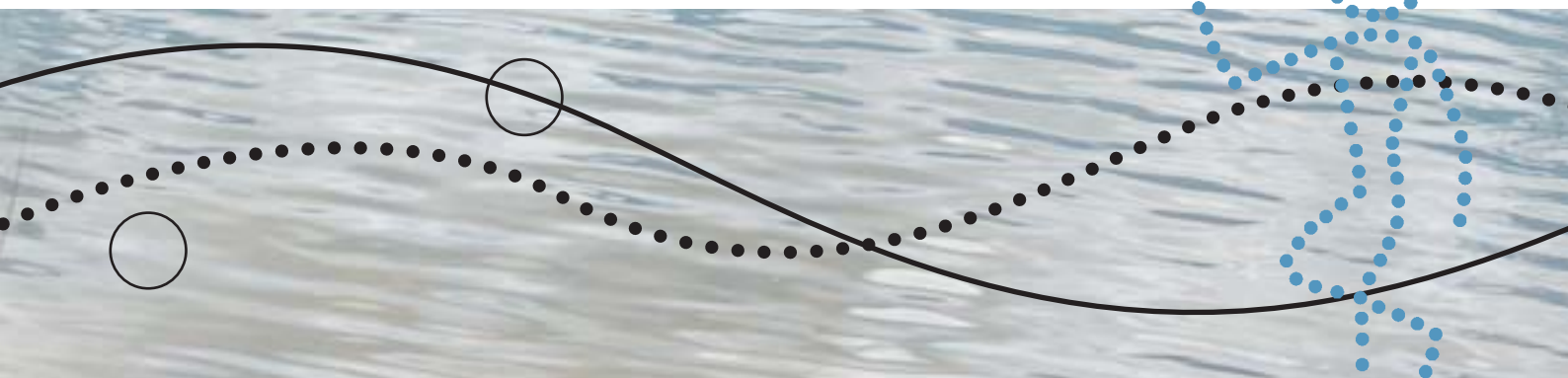
We are not aware of any other organisation in Australia whose objective is to develop and broker scientific and technical information in this way. Our integration of the socioeconomic with the biophysical aspects of river management is also unique.

restore



ARRC products and services

- We will operate on a promise to listen and act in a genuine partnership with organisations, groups and individuals wanting to be involved in river restoration.
- We aim to be a national first point of contact for information about river-related issues, through web, printed and electronic formats, as well as personal contact and site visits.
- We will identify priorities and help to lead and manage research by working with the best researchers and practitioners to continuously improve river management and restoration knowledge.
- We will interpret scientific information so that it can be used by a range of stakeholders to assist their river management practice.
- We will develop and deliver training and education packages for inclusion in university and TAFE courses, for primary and secondary education, and for use by agencies and non-government community organisations.
- We will facilitate and support linkages, networks and interaction between different stakeholders involved in river restoration, so that they can share knowledge and experience and work together.
- We will help to build capacity in institutions, groups and individuals to undertake river restoration.
- We will organise workshops, conferences and other events to promote and raise awareness of the importance of river restoration, as well as to show practical methods and ensure the dissemination of new research findings.
- We will develop and host an interactive website to provide ready access to information about river management and restoration. This will include a ‘media wiki’ where people can contribute their own knowledge and experience (this will be reviewed periodically by a technical panel to ensure the soundness of contributions), and a bulletin board where technical questions can be posed and answered.
- We will develop and distribute a newsletter (e-mail and hard copy) to keep people up to date with projects, scientific findings, stories and shared experiences.
- We will identify and approach groups that could play a role in improving river management, and offer facilitation, training and education to assist them to do so.

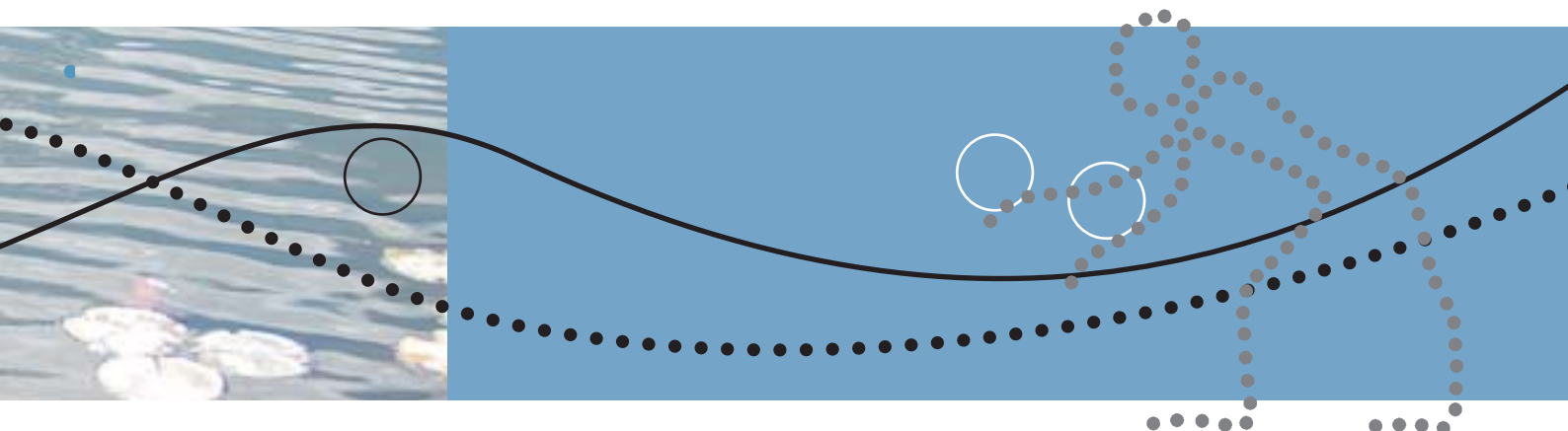


- We will develop, in collaboration with indigenous people, a program to recognise and share their knowledge in river management, and to encourage their active participation in all aspects of the Centre.
- We will establish a training program specific for indigenous Australians to assist them to develop their own goals and projects for river management and restoration as part of other catchment-wide initiatives.
- We aim to become the Asia-Pacific contact for the European River Restoration Centre Network, as well as groups in the United States of America, Canada, South Africa and New Zealand, and to promote Australia's skills and successes in river restoration.

The Centre will fund itself, after an initial start-up phase of three years, by charging for these products and services, through both subscriptions (e.g. for access to knowledge products) and fees-for-service (e.g. for design or evaluation of individual restoration projects).

Basis upon which business is built

- The Centre proponents are well respected by river researchers and managers.
- The Centre will fill the expanding demand for high quality and impartial knowledge about river management and restoration.
- The Centre proponents have a solid track record in accessing, translating and brokering technical information about rivers and riparian lands.
- The Centre will have a multi-disciplinary skill base (covering social, economic and biophysical aspects of river management) and will be able to draw on a wide range of external expertise through its existing contacts.
- The Centre will be established on sound business lines with an independent board of directors and a technical advisory panel. It will operate independently of particular interests in water use or river management.
- The Centre will be able to offer a wide range of impartial services to organisations and groups that have responsibility for river management but little ready access to technical advice and support.
- The Centre will be in a strong position to broker partnerships between different interests in river management that nevertheless must work together if sustainability goals are to be achieved.

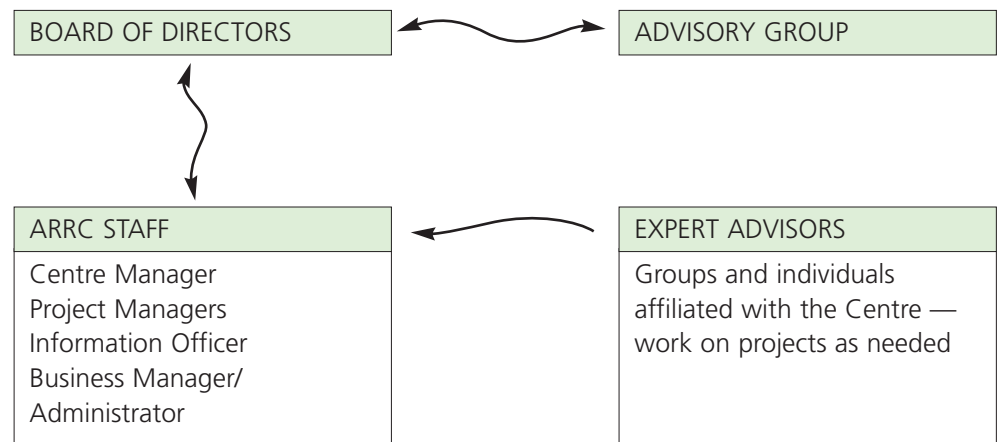


3. Markets and competitors

- Due to the increasing focus on water resources and river systems, there is a large potential market in Australia for the services that the Centre will provide and a range of groups and organisations able to pay for such services (for example, catchment management authorities, natural resources management boards, research and development corporations, government agencies).
- There are several research centres and groups involved in different aspects of river management and restoration science. They mainly deal with biophysical topics; there is little research into the socioeconomics or cultural/heritage aspects of river management. Each group has its own communication program, but none can cover all aspects of river management, and their resources are limited so knowledge is not widely available to all who could use it. The focus is on science, with limited translation of this information into forms that river managers can readily adapt and adopt.
- River managers, particularly staff of government agencies and catchment management groups, have a high need for sound technical information and advice, but find it difficult to access given the many potential sources. These people have expressed a strong desire for help in locating and brokering this information, tailored to their specific needs.
- There are several private companies that provide consulting services in river management. They generally specialise in a few topics and proprietary skills, are not always aware of new research findings (particularly in river ecology) or new management methods, and their costs are beyond the resources of many groups undertaking local river restoration projects.
- The Centre proponents are in a unique position to meet this market, with more than a decade of experience of understanding the market and meeting its needs through running a successful program on sustainable management of river and riparian lands (www.rivers.gov.au and www.rivers.gov.au/lww for examples of work undertaken).
- The Centre will have immediate access to wide range of materials about river management and restoration, including web-based, hard copy, CDs, and education and training materials. The Centre can begin immediately to market this material and get the business up and running quickly.



4. Management structure of the ARRC

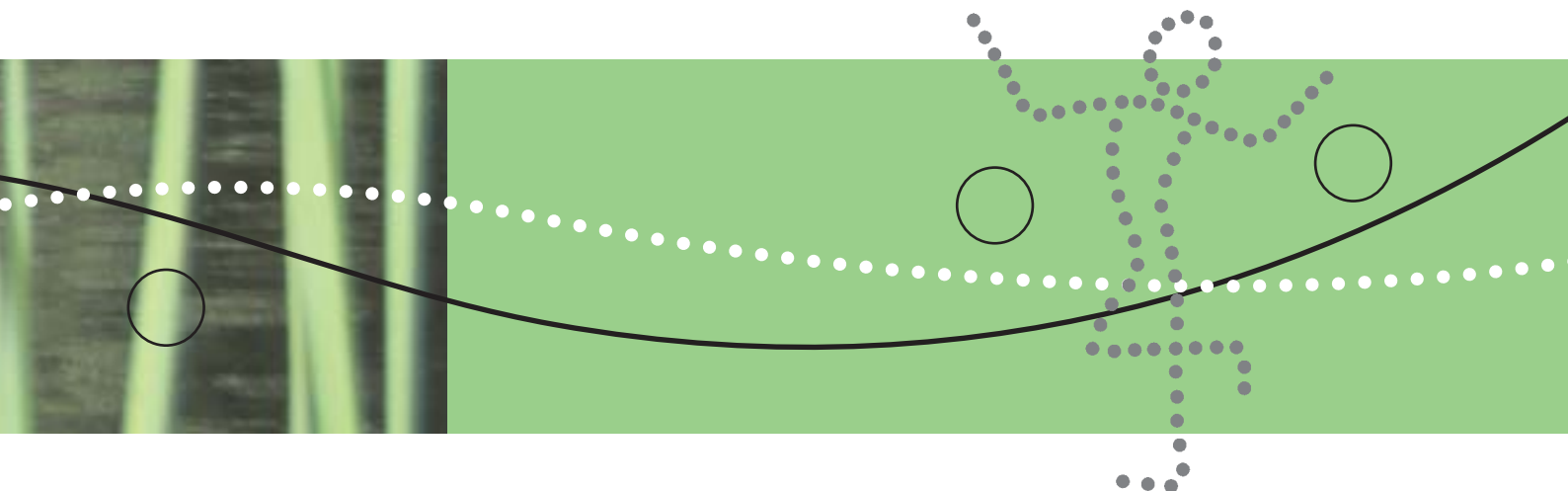


Board of Directors

Board members will be selected by the Advisory Group to bring a range of skills and knowledge in river management and restoration, business management, community development and knowledge exchange, to the Board. They will also be expected to link the Centre into all parts of the wider community. Directors will serve for three-year term, but can be re-elected. They will be paid travel and sitting costs to attend meetings and deal with other Board business. The Board will be constituted to include a balance of knowledge, skills and experience (business skills, environmental understanding, social/community knowledge, practical river management) and will be responsible for all legal, financial and constitutional aspects of ARRC operation. The Board will meet at least three times each year.

Advisory Group

Representatives of the main organisations that fund the ARRC will form an Advisory Group. Members of this Group will meet together, and with the Board of Directors, three times a year. The functions of the Group are to consider the broad strategic direction of the Centre and provide advice to the Board on key policy issues and business decisions, as well as to assure funders that the ARRC is providing a satisfactory level of service to its subscribers and customers. The Group may seek its own advice from technical experts from time to time.



Expert advisors

External advisers include groups and individuals with expertise in particular aspects of river management and restoration. They are called upon by ARRC when their specialist knowledge and experience is required. This might include technical advice and active involvement in innovative project work, R&D commissioned by the Centre, responding to specific requests for specialist advice on river restoration issues, participating in working groups or assisting with education and training programs and conferences and workshops. These specialist inputs will be on a fee-for-service basis negotiated with the Centre on behalf of its clients.

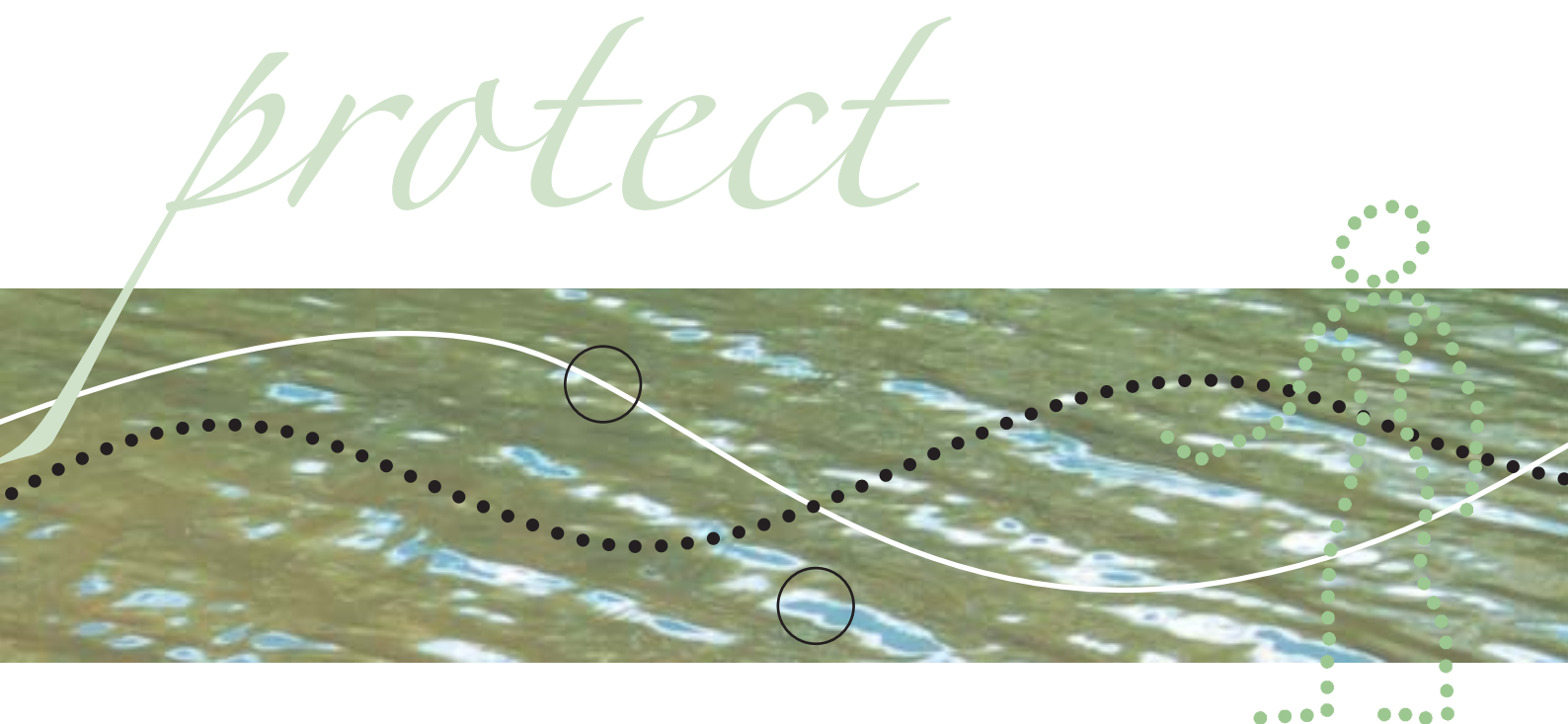
ARRC staff

Centre Manager — is responsible for managing, promoting and developing the Centre, and for the organisation and provision of its services to subscribers and paying clients. The Manager is responsible to the Board for all Centre operations.

Project advisers — provide advice on and manage Centre projects, including advice on river restoration issues, support for specific river management and restoration projects, content for website, newsletters and training materials, and also coordinate expert input to on-ground projects.

Information Officer — manages the content of the website including the ‘wiki’ and bulletin board, project database, knowledge products and training materials, arranges conferences and workshops as well as training courses, and manages the Centre library.

Business Manager/Administrator — manages the Centre’s finances under the direction of the Centre Manager (income and expenditure, raising and paying invoices, fees and salary etc.) and reporting, coordinates meetings, updates the contacts database and provides general administrative support to staff and directors.



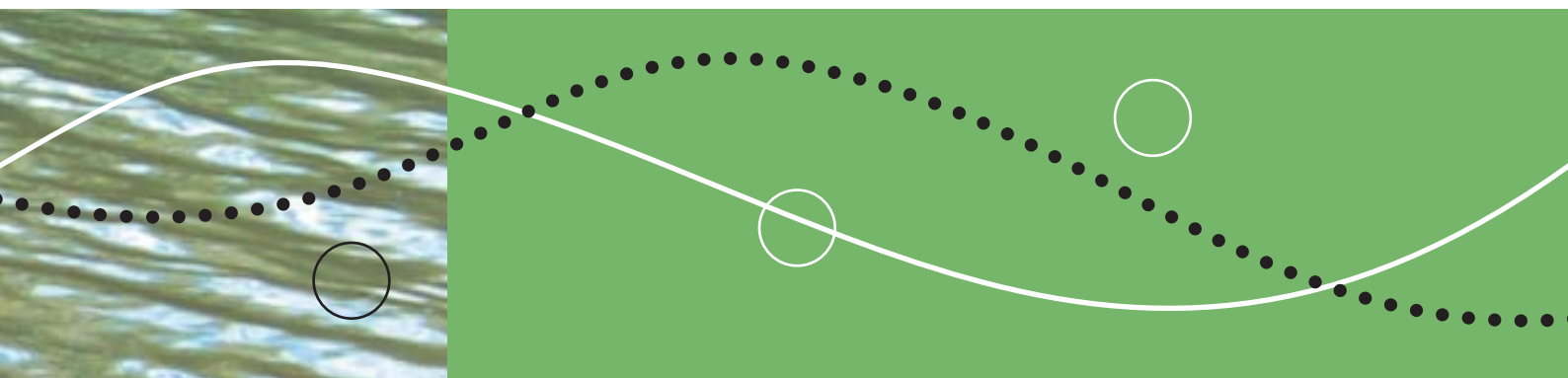
5. Operations

Products and services available for subscription:

- Full access to ARRC interactive website, including bulletin board.
- Access to all hard copy and electronic knowledge products.
- Reduced rates for conferences and workshops.
- Reduced rates for access to and delivery of education and training materials.
- Access to databases and network of technical expertise, as well as data about past river management and restoration projects.
- Effective link to river restoration work in Europe, Canada, the United States of America, South Africa and New Zealand.

Products and services available through fee-for-service:

- Products that translate science into meaningful and relevant information for different target audiences (e.g. industries, regions).
- Workshops, events and conferences for specific client needs.
- Provision of education and training materials and courses.
- On-site visits to provide technical advice.
- Design, implementation and monitoring/evaluation of river restoration projects.
- Brokering of technical advice and research of behalf of clients.
- Audit of past and current restoration projects across Australia (social, economic and environmental audit).
- Advice on likely critical success and failure points in specific restoration projects.

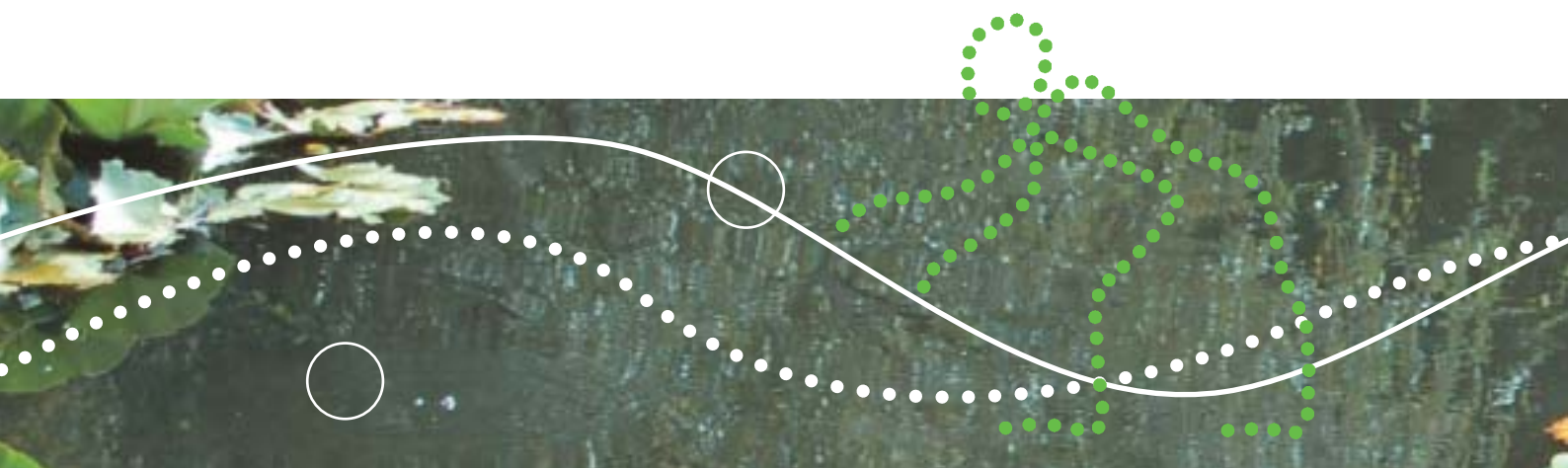


6. Centre establishment

It is intended the Centre be supported by funding from three or four establishment partners for the first three years. Thereafter it will be self-funding.

Tasks for the first 12 months:

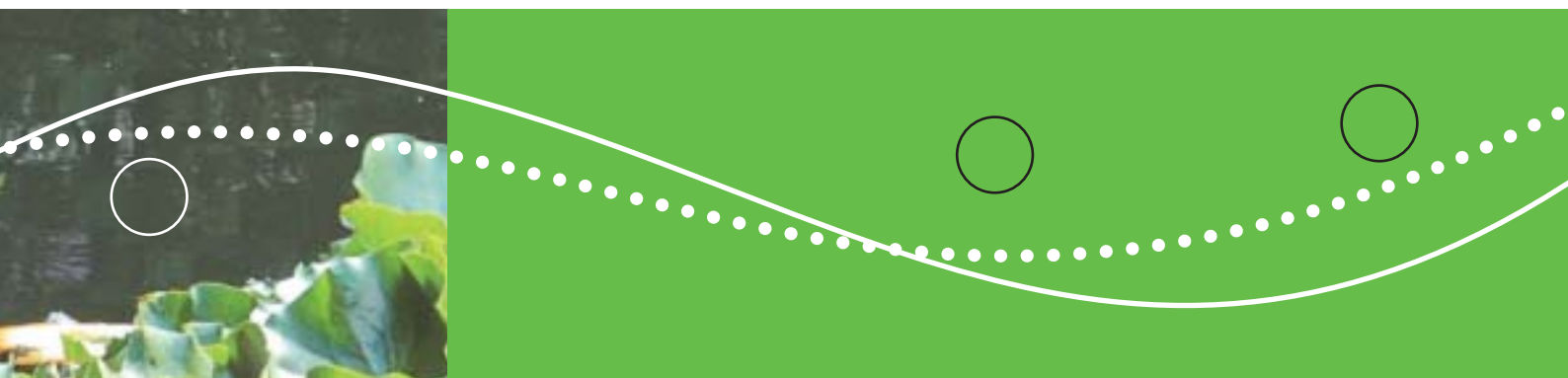
- Establish the Advisory Group and Board, ensure each meets as required.
- Develop an Operational Plan for the ARRC, including details of a Risk Management Plan.
- Locate and secure business premises for the Centre, establish office and business systems, recruit staff.
- Focus on publicity and marketing of the Centre and its services.
- Establish website, links to other organisations.
- Establish an information brokerage service and respond to enquiries.
- Seek and sign up paying subscribers to the Centre.
- Bid for project work as it becomes available and develop fee-for-service income stream.
- Hold a national event to help publicise and establish the Centre as a national point of contact for river information.
- Run regional workshops (linked to the national event) to demonstrate how the ARRC will operate at national, state and regional levels.
- Develop initial training and education materials and make publicly available.
- Establish a searchable project and information database.
- Develop a newsletter (e-mail and hard copy).
- Hold three meetings of the Board and Advisory Group to set direction and oversee business and financial development.



Key tasks for the second 12 months:

- Expand the technical database.
- Continue to expand information brokerage service.
- Continue to expand funding base, both subscribers and fee-for-service.
- Provide technical support and develop educational materials.
- Continue to project manage research.
- Bid for projects.
- Publicise new research findings and make publicly available.
- Promote work of the Centre.
- Hold three training workshops.
- Develop and deliver further education and training materials.

celebrate



7. Financial forecasts

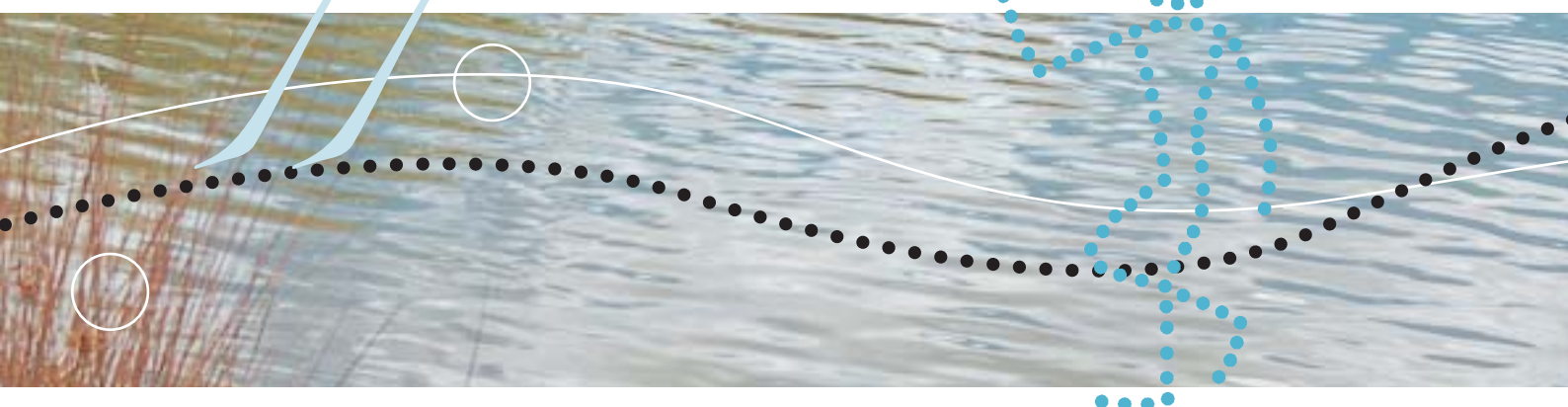
Income (in \$A'000)

	2007-08	2008-09	2009-10	2010-11	2011-12
Core funding from establishment partners	650	350	100	nil	nil
Subscriptions	50	180	350	400	400
Fee-for-service	30	450	700	900	950
Total	730	980	1150	1300	1350

Expenditure (in \$A'000)

	2007-08	2008-09	2009-10	2010-11	2011-12
Board and Advisory Group (fees and travel)	60	80	100	100	120
Lease of Centre premises, office equipment and supplies, staff travel	100	150	150	180	180
Staff remuneration	350	400	400	420	450
Knowledge products (printing, web, training materials, workshops)	150	150	200	250	250
Services provided (includes cost of technical advice/skills brought in)	100	200	300	350	350
Total	750	980	1150	1300	1350

support



7. Risk assessment

Within the first 12 months of establishment, a detailed Risk Management Plan will be developed for the ARRC. Key initial risks are:

RISK	MITIGATION
Failure to secure adequate funding.	A Strategic Plan has been developed so that discussions with both private and public sector organisations can commence. Core funding will be sought from private business and philanthropic sectors. At the same time, the ARRC will bid for project work so that risk is spread and funding is sourced from different organisations.
Failure to gain access to key personnel and information.	Discussions have already commenced with key river restoration scientists who have indicated they are willing to be employed by the Centre for up to 25 days per year. The proponents of the Centre have also been discussing opportunities for research organisations like the rural Research & Development Corporations to undertake their knowledge and adoption activities, as well as promoting products and taking science out into the regions on their behalf. The Centre aims to add value, rather than compete with other organisations working in river restoration. As such, it offers services to organisations that are currently not as effective as they would like to be in getting their information, ideas and messages across to those working in river restoration.
Establishment of a rival River Restoration Centre.	The ARRC is now a company that is owned by one of the proponents, Dr Siwan Lovett. In addition, an independent Winston Churchill Trust funded scholarship is enabling Dr Lovett to travel to Europe in July and August this year, to discuss establishment of the ARRC. Key scientists and organisations are aware of the effort being made to establish the ARRC and the space has, in effect, been marked as one the proponents intend to occupy. The proponents are well known and supported by those working in river restoration, so it is unlikely that someone else attempting to do the same thing would be successful given that connections have already been made and the idea proposed.
Unable to provide a cost effective service.	In the first 12 months the Business Plan will be developed to ensure that the ARRC is able to deliver a cost effective service. Central to this Plan will be the need to balance the public good aspects of the ARRC with its commercial operations.

8. Review

This plan will be reviewed after 12 months, in consultation with the Board and Advisory Group. This may involve a stakeholder survey to provide input to the revision process.

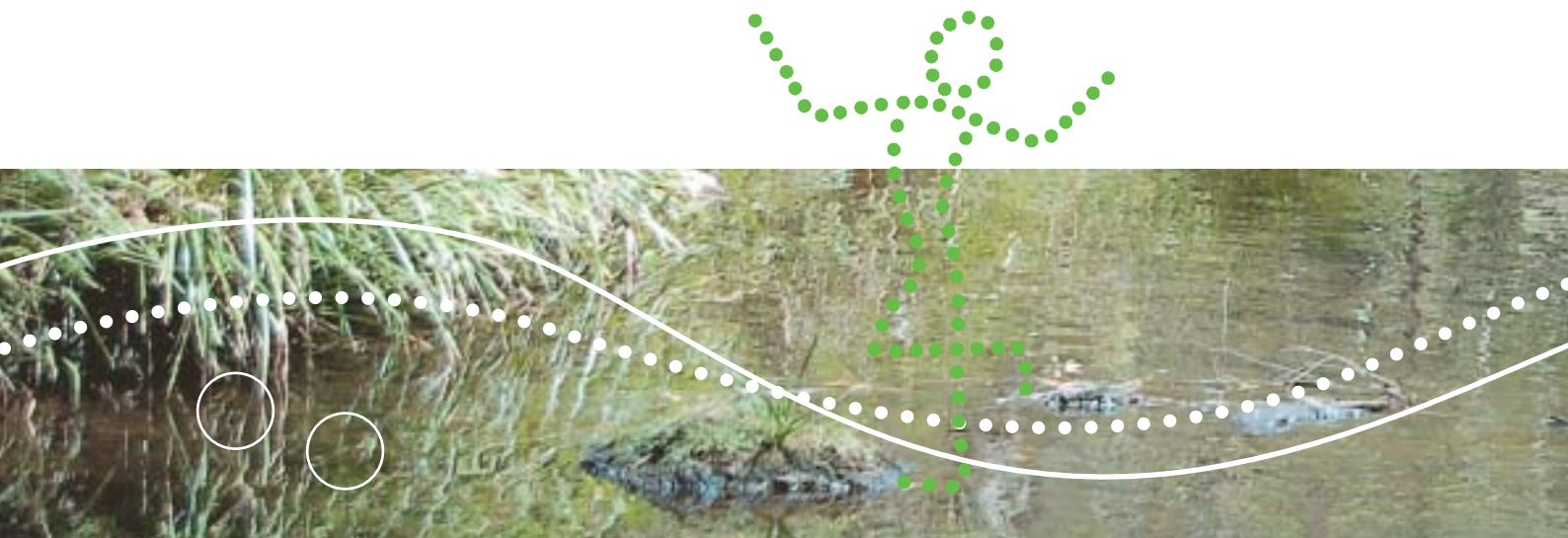
9. More information


The proponents of the Australian River Restoration Centre are:

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