

STRATEGIC DIRECTIONS

2017–2020



THE WESTERN AUSTRALIAN BIODIVERSITY SCIENCE INSTITUTE



OUR VISION

High quality, relevant biodiversity knowledge that is readily accessible to industry, government and the broader community to better manage the State's biodiversity.

OUR PURPOSE

Through a broad consultative process, identify strategic priorities for acquiring, managing and communicating Western Australian terrestrial biodiversity knowledge.

- *Enable and support high quality end user driven research to address critical knowledge gaps.*
- *Deliver excellence and efficiencies in research by fostering constructive collaboration across sectors and between researchers.*
- *Ensure information is available in a form that is relevant and accessible to government policy makers, industry, land managers and other stakeholders.*



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PAST

Despite a long history of terrestrial biodiversity-related research in Western Australia, it is widely accepted that there remain gaps in the knowledge needed to underpin the State's sustainable economic development. A broad-based consultation process was undertaken during 2012–2014 to help identify these gaps.

This comprehensive, independent review sought information from stakeholders such as industry organisations, leading WA scientists and researchers, environmental consultants, non-government conservation organisations, as well as State and Commonwealth governments.

The review confirmed critical gaps in terrestrial biodiversity knowledge and that historically, research was not well focused on the needs of end users. In addition, it highlighted the need for a central and accessible biodiversity knowledge database.

It also demonstrated that there was a clear need for a formal institute to coordinate research efforts and better meet end user needs, consequently enhancing the cost-effectiveness of research effort and providing good science to inform decisions on policy, planning and management of biodiversity in WA.

As a result, The Western Australian Biodiversity Science Institute (WABSI) was established in October 2015 as a joint venture between nine leading organisations in WA – The University of Western Australia, Murdoch University, Curtin University, CSIRO, Department of Premier and Cabinet, Department of Parks and Wildlife, Department of Mines and Petroleum, Botanic Gardens and Parks Authority and the Western Australian Museum.





PRESENT

The purpose of WABSI is to help identify and prioritise the State's critical biodiversity knowledge gaps, to foster research and end user collaborations and partnerships to address these gaps as well as to facilitate the communication and up-take of research findings. Good science that is relevant and accessible to end users is essential to underpinning decision-making to support sustainable economic development.

Since its inception, WABSI has engaged with a wide range of stakeholders to identify and prioritise specific end user biodiversity science and information needs and to explore opportunities to assemble the appropriate resources and expertise to address these needs.

Stakeholders include research institutions, industry, government and non-government organisations including Aboriginal groups and consultants. A small executive team oversees a research focus, with a clear line of sight to deliver excellence in science through partnerships and collaboration.

As a collective, the WABSI partners undertake almost all the publicly funded terrestrial biodiversity research in Western Australia. WABSI is therefore well positioned to bring together the State's premier scientists to deliver the highest quality science that is needed to inform decision making by industry, government and the broader community.



FUTURE

WABSI is focused on capitalising opportunities to undertake collaborative research funded by industry, government and non-government organisations to meet the needs and requirements of the end users. As a collective, WABSI has access to the State's leading scientists, research equipment and infrastructure, which means greater leverage and access to funds and better research outcomes. We will also expand our efforts to meet specific biodiversity science needs in other sectors including urban development and agriculture.





INFORMED DECISION MAKING WITHIN THE LEGISLATIVE ENVIRONMENT

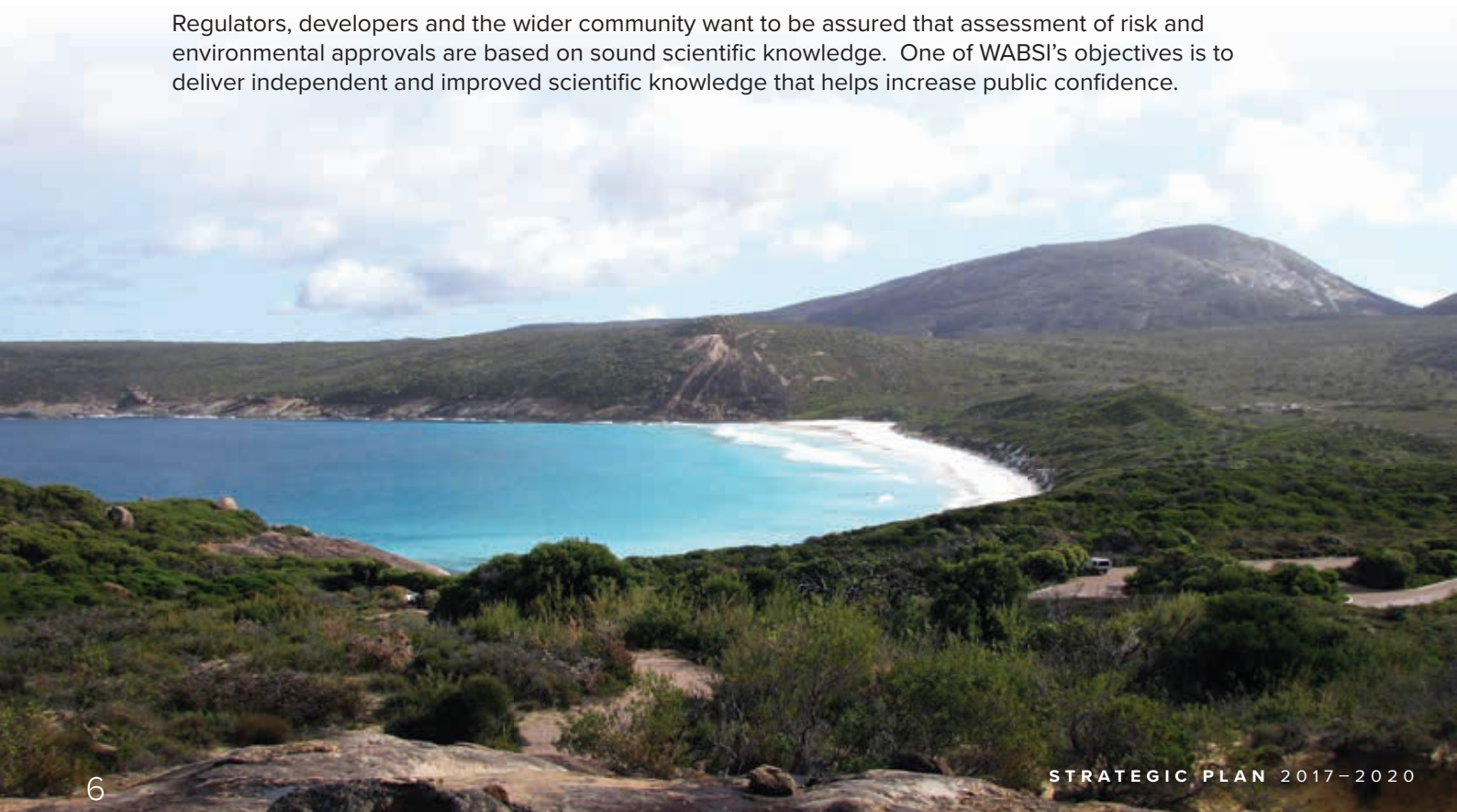
WA's biodiversity and natural environment is protected by a variety of statutes, treaties and other legal mechanisms including international treaties (such as the Convention on Wetlands), Federal and State legislation (such as the EPBC Act and the Biodiversity Act) and Ministerial conditions and offsets placed on land clearing and resource development proposals.

One of the key reasons for establishing WABSI was the support it could provide to the State's efforts to streamline and make the environmental approvals process more effective.

Regulators want to be confident that approvals and land management decisions adequately protect important landscapes and biodiversity, do not unnecessarily restrict development and that the wider community has confidence in those decisions.

Developers want to be confident that they can adequately manage risk associated with the approvals process and cost-effectively manage their ongoing environmental monitoring and management commitments. They want to do so with certainty of outcome and have acceptable certainty around completion and restoration obligations. In addition, they want the wider community to be confident in their ability to conduct enterprise without damaging important environmental values.

Regulators, developers and the wider community want to be assured that assessment of risk and environmental approvals are based on sound scientific knowledge. One of WABSI's objectives is to deliver independent and improved scientific knowledge that helps increase public confidence.





END USER NEEDS FOR BIODIVERSITY KNOWLEDGE

The independent stakeholder consultation process broadly identified end user knowledge needs that have helped shape WABSI's strategic priorities. These priorities have been incorporated into the WABSI Strategic Plan and further clarified in the WABSI Research Plan.

Key end user needs are:

- **Address knowledge gaps:** Readily accessible, high quality, timely biodiversity information is essential so industry, government and community can make better policy, more informed decisions and build sustainable communities through striking a balance between environmental conservation and economic development.
- **Deliver focused, relevant and cost-effective research:** Inefficiencies exist in some current tax-payer funded research programs such as low priority research, duplication of research, competition rather than collaboration between researchers, and poor communication of research findings. A formal structure such as WABSI can work to support beneficial, relevant and cost effective research to inform better biodiversity management.

Important knowledge gaps identified by end users fall into the following four broad themes:

- **Accessible biodiversity information:** Efficient, effective information management systems, including relational databases and portals, will enable end users to readily access and share knowledge about the State's biodiversity.
- **Understand the nature and distribution of the State's biodiversity:** This is for designing a conservation reserve system, to determine the conservation status of species and ecosystems and to assess local and regional impacts of development proposals on the State's biodiversity. With such information, end users can better plan and develop their organisations.
- **Reduce threats to ecosystems:** Understand the biological, physical and chemical processes, actions and events that link organisms and their environment. End users can then help mitigate such threats and processes to ecosystems.
- **Restore and rehabilitate ecosystems and landscapes:** Understand how to appropriately rehabilitate and restore degraded, damaged, or destroyed ecosystems and habitats. End users would benefit from the development of criteria on acceptable standards of rehabilitation of ecosystems and landscapes.



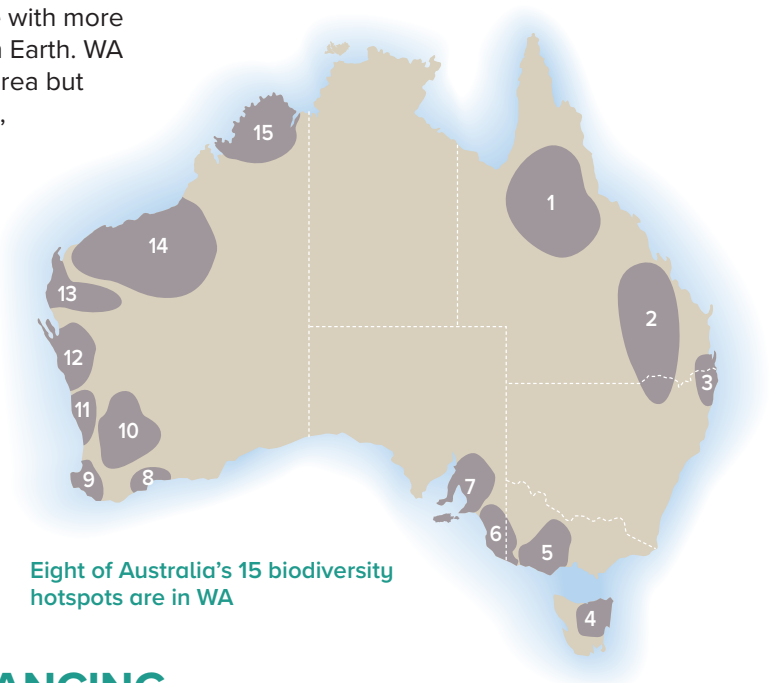
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WESTERN AUSTRALIA

THE NEED TO CONSERVE BIODIVERSITY

- Australia's biodiversity is of global importance with more than 600,000 species found nowhere else on Earth. WA makes up about one third of Australia's land area but is home to more than 11,000 species of plants, more than half of Australia's plant species.
- WA has one of the highest rates of new species discovery in the world, indicating the richness of the State's biodiversity.
- The South West of WA is one of 34 recognised global biodiversity hotspots and eight of Australia's 15 declared biodiversity hotspots are in WA.



Eight of Australia's 15 biodiversity
hotspots are in WA

THE CHALLENGES OF BALANCING CONSERVATION WITH SUSTAINABLE ECONOMIC DEVELOPMENT

- A fundamental knowledge gap exists due to the vastness of the State, its rich biodiversity and a finite research capacity. We do not have sufficient information about the conservation status of many species and ecosystem processes.
- Western Australia is rich in mineral, oil and gas resources, has a thriving agricultural sector and a growing population with associated urban expansion. A key challenge is to develop the State's resources for the benefit of the community while minimising adverse impacts on biodiversity and the environment.



ENSURING AN ALIGNMENT WITH BIODIVERSITY MANAGEMENT PRINCIPLES

WABSI recognises the value of key biodiversity principles. Our Research Plan is aligned to these principles to facilitate and maximise uptake of biodiversity research by end users in conservation and sustainable development efforts.

- Protection of rare species and ecological communities.
- Prevention of introduced pests and diseases.
- Identification and management of threatening processes.
- Balancing economic development and biodiversity conservation.
- Rehabilitation and reconstruction of degraded ecosystems.
- Maintaining ecosystem health and resilience.
- Knowledge-based policy and management.
- Monitoring responses to management and natural processes.
- A comprehensive, representative and adequate reserve system.



STRATEGIC PRIORITIES 2017–2020

PRIORITY — END USER FOCUSED RESEARCH

- Support end user, outcome-focused investment in biodiversity research.
- Promote a coordinated research effort to reduce duplication.
- Facilitate access to and uptake of quality biodiversity information to support biodiversity management principles.

ACTIONS

- Implement the Communications Strategy.
- Proactively communicate the nationally recognised biodiversity science skill sets of WABSI partners and position WABSI as the 'go to' organisation.
- Facilitate a collaborative and multidisciplinary research approach.

- Collaborate with a range of stakeholders to link research providers, industry, government, non-government organisations, community and other end users.
- Actively seek funding opportunities to engage WABSI partners in biodiversity research projects important to WA.

- Make better use of existing capacity by encouraging and facilitating a collaborative and multi-disciplinary approach to biodiversity research.

OUTCOMES

- Research purchasers and providers are informed about WABSI.
- End user needs are met:
 - knowledge gaps are addressed
 - research is focused, relevant and cost effective.

- WABSI is recognised as an independent organisation delivering excellence in biodiversity science that meets end user needs.
- Enhanced capacity to undertake high quality, high priority biodiversity research in WA.
- Land managers utilise research outcomes to better manage biodiversity according to comprehensive biodiversity principles.

- At least 40 projects executed by end of 2020 and WABSI supporting the communication and uptake of research by end users (which include regulators, industry and other land managers).



PRIORITY — END USER FOCUS RESEARCH *(continued)*

ACTIONS

- Create linkages and seek efficiencies and synergies in research collaboration across organisations.
- Identify the priority biodiversity issues, problems and information needs of end users to focus on.

OUTCOMES

- Cost effective, 'value-for-money' research.
- Duplication in research minimised.
- Research aligned with end user needs.
- Enhanced certainty, confidence and more informed decision making based on quality research outcomes and scientific excellence.





PRIORITY — RESEARCH PLAN IMPLEMENTATION

- Maintain focus on the Research Plan that is informed by strategic priorities and reflects end user needs.
- Expand the Research Plan to other sectors in 2018 and beyond.
- Ensure the Research Plan is recognised as the State's priorities in biodiversity research.

ACTIONS

- Build a database of end users with whom WABSI will consult.
- Meet with all key stakeholders by 2018.
- Meet end user need for accessible biodiversity information (Information Node).
- Facilitate access to and uptake of quality biodiversity information by end users including industry, regulators and land managers.
- Meet end user need for understanding biodiversity distribution (Survey Node), ecosystems threats (Processes and Threat Mitigation Node) and restoration needs (Restoration and *Ex-situ* Node).
- Conduct workshops on key issues to identify gaps in knowledge (such as mine completion criteria).
- Seek government agreement that WABSI priorities represent State's priorities for biodiversity research.

OUTCOMES

- WABSI will have engaged with all key stakeholders by 2018.
- Update the research plan by end of 2018 to include the expanded end user consultation.
- Data sharing platform in place that allows better decision making by regulators and industry.
- Developed a set of science-based guidelines on mine closures that has industry and regulator support.
- Develop at least one large project in response to the needs of the resources sector (e.g. *Subterranean fauna*).



PRIORITY — DEVELOP PROJECTS

- Develop large scale projects that benefit the State but would not be possible without collaboration.

ACTIONS

- Host a workshop of strategic thinkers to identify and prioritise large projects and how they could be funded.
- Using peak bodies, host meetings with key industry leaders to establish keystone project for resource sector.

OUTCOMES

- Have at least two long-term large projects funded and executed by 2020 that have the support of community and other end users.
- Develop at least one keystone project within the resource sector.





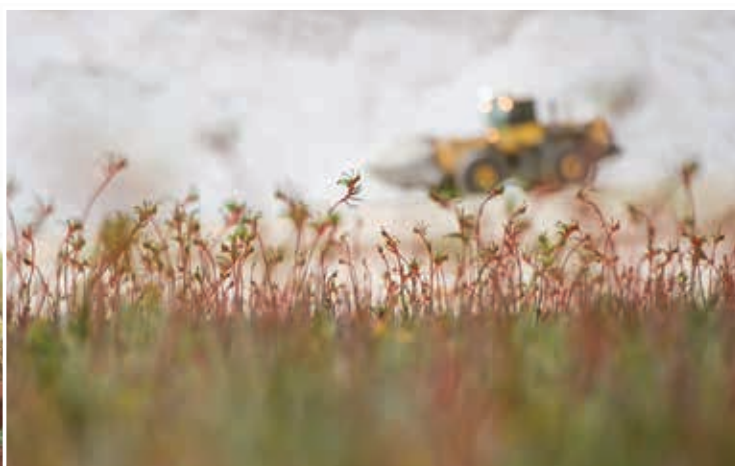
DELIVERING A

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RETURN ON INVESTMENT

WABSI will generate impact and deliver a return on investment by:

- Supporting effective prioritisation and execution of strategies and investments in the management and conservation of Western Australia's terrestrial biodiversity.
- Reducing investment uncertainty by ensuring that decisions relating to environmental approvals are made on the basis of the best scientific knowledge that is both accessible and which secures community confidence.
- Supporting efforts to streamline processes whilst maintaining their integrity with respect to biodiversity conservation.
- Promoting coordinated and outcomes-focused investment in biodiversity research through partnerships that engage research providers, industry and other end users.
- Delivering efficiencies and synergies through the coordination and collaboration of research efforts across organisations.
- Facilitating the communication and uptake of research findings by end users (which include regulators, industry and other land managers).



DELIVERING VALUE

TO OUR STAKEHOLDERS

RESEARCHERS AND STAFF IN PARTNER ORGANISATIONS

- Collective strength in demonstrating and promoting leading expertise, excellence and capabilities in biodiversity science.
- Partnerships offer enhanced opportunities to leverage funding for priority research to meet end user needs.
- Collaborations that optimise research outcomes and impact.

INDUSTRY

- A 'one-stop-shop' for accessing biodiversity knowledge and for commissioning new research aligned with the State's research priorities.
- Ready access to a world class research capability delivering science outcomes that contribute to better decision making, improved efficiency and social licence to operate.

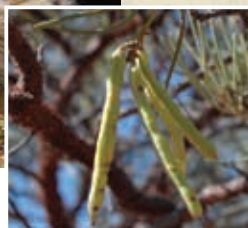
GOVERNMENT

State Government

- An easy, single point of access to high quality scientific knowledge of WA's biodiversity.
- Ready access to biodiversity science and information to support better informed regulatory, planning and management decisions.
- Value adding by leveraging the State's investment in science.

Commonwealth Government

- A coordinating mechanism to deliver scientific excellence and capability.
- A credible source of science and information to support the devolution of decision making about environmental protection and biodiversity conservation matters to State authorities.



EXTERNAL ORGANISATIONS

- **Non-government environmental organisations:** End user focused research that meets knowledge needs; easy access to expertise and objective information through a single point of access.
- **Aboriginal groups:** Integration of indigenous knowledge and expertise, with science providing a powerful knowledge base for traditional owners.
- **Community:** Greater confidence that planning, conservation and development decisions are based on objective, high quality science.

INTERNAL STAKEHOLDERS: BOARD, CLIC, EXECUTIVE

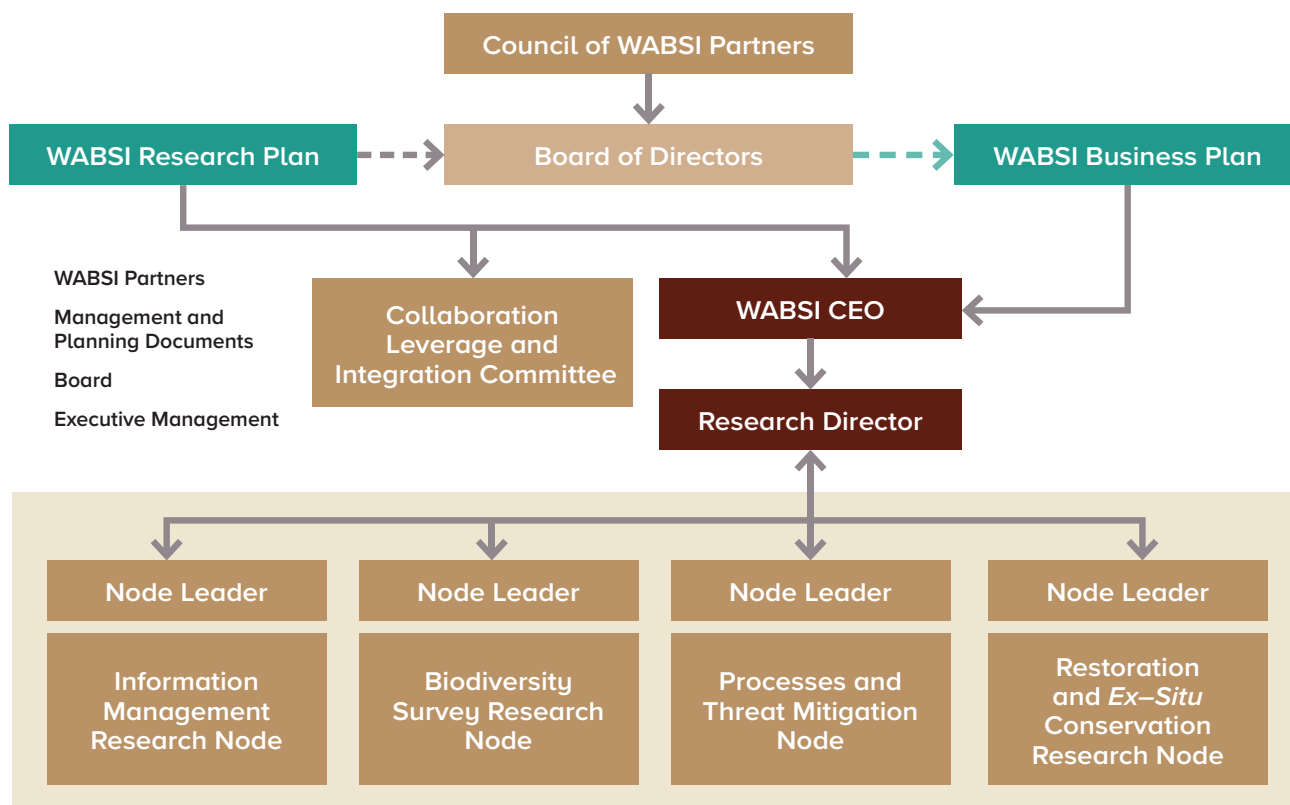
- The opportunity to make a positive environmental, economic, cultural and social impact through collaboration with biodiversity research organisations, government, industry and community.

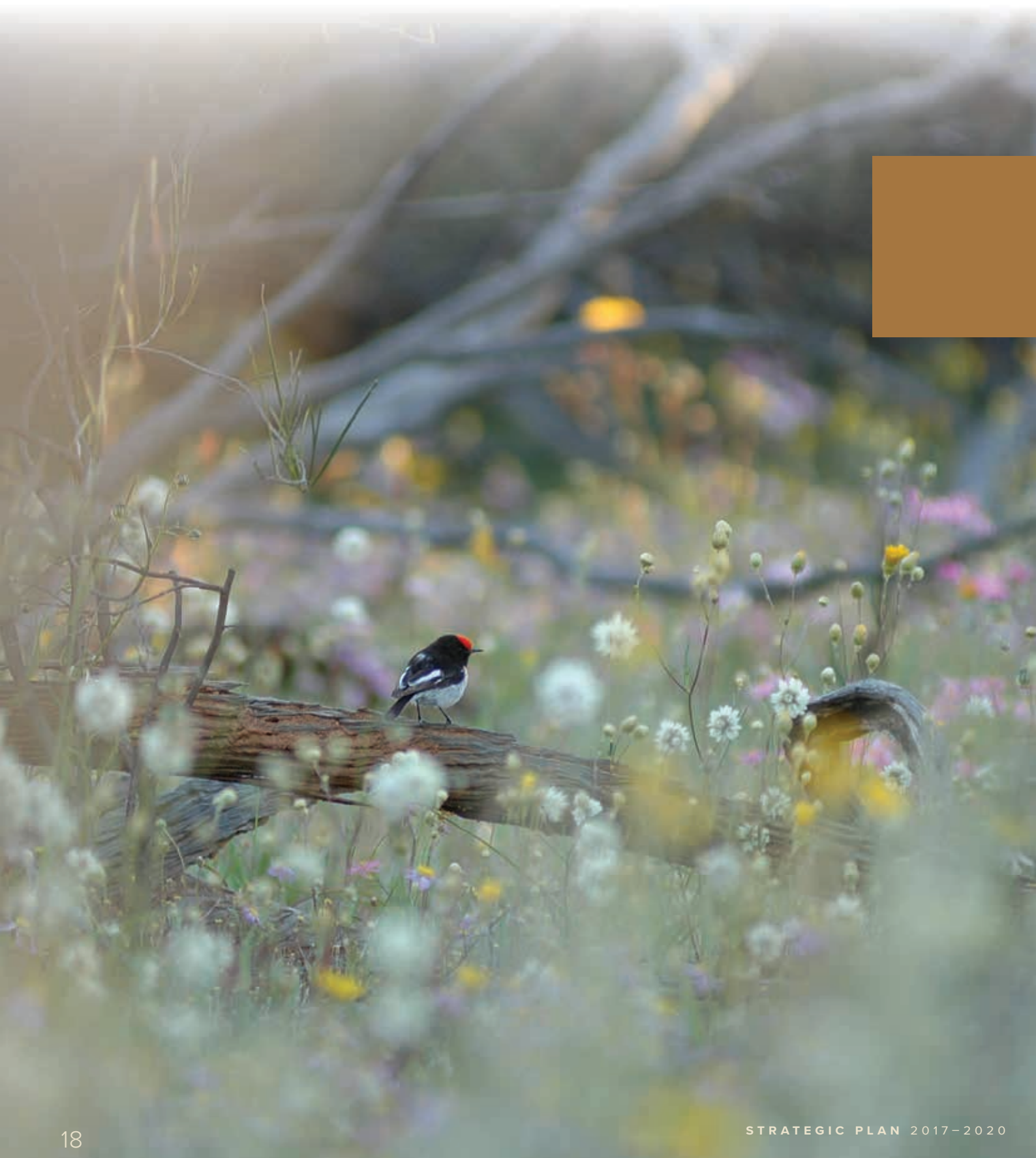


ORGANISATIONAL STRUCTURE

A FOUNDATION FOR OUR COLLABORATIVE ROLE

- **Council:** Performs a 'shareholder' function; the primary role is to review the performance of WABSI and its Board.
- **Board:** Primary decision-making authority, accountable to WABSI partners for governance oversight of WABSI.
- **Executive** is responsible for operational management and business development.
- **Collaboration, Leverage and Integration Committee (CLIC):** Comprises WABSI CEO and senior research leaders from WABSI partner organisations. Its role is to identify and facilitate collaboration opportunities at a project level, identify business development opportunities along with advice and support to the WABSI CEO to capitalise on opportunities.
- **Research Director:** Provides technical and networking support to the CEO and Node leaders.
- **Node Leaders:** Oversee projects within the research nodes, using research project design principles that incorporate the whole-of-project-cycle participation of end users. This will ensure that research delivers end user focused knowledge.







Biodiversity (biological diversity) refers to the variety of lifeforms native to a geographical area.

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