



Environment strategy

2014–2019



Foreword

In our increasingly globalised society, aviation plays a vital role in facilitating the growth of international trade and investment and in connecting people, enabling them to travel the world, learn about new places and to stay in touch with friends and family. Aviation also has an impact on the environment through aircraft emissions, aircraft noise and the use of natural resources.

As an air navigation and aviation rescue fire fighting service provider, safety is our paramount priority, however we also want to support the growth of the aviation industry whilst minimising its impact, and our own, on the environment.

To do this, we need to focus on environmental sustainability and ways to reduce these impacts to 'meet the needs of the present without compromising the ability of future generations to meet their own needs'.¹

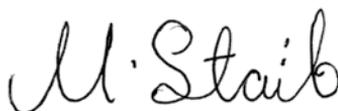
Many of our partners and customers are also committed to environmental sustainability and are working together with leaders in the industry such as International Air Transport Association (IATA), Air Transport Action Group (ATAG) and Civil Air Navigation Service Organisation (CANSO) to achieve a global annual average fuel efficiency improvement of two per cent until 2020 and carbon neutral growth for aviation from 2020.

We are in a unique position to have a whole-of-industry perspective on environmental issues. As such, we will continue to listen to, respond to and support the industry by working together to achieve a more environmentally-sustainable aviation industry. Through international collaboration, efficient air traffic management, community engagement, monitoring and measuring emissions and reducing natural

resource use, we will strive to contribute to the global outcomes mentioned above but also improve our own environmental impact.

Airservices Environment Strategy 2014–2019 is not just about business as usual and meeting legislative obligations. It is our vision and commitment to achieve excellence in environmental management, striving to have a neutral impact on the environment from our activities whilst removing, as much as possible, constraints on aircraft operations. It is aligned to the priorities of Airservices Corporate Plan and includes all aspects of the organisation's operations, ensuring we act as a good neighbour. From air traffic management to aviation rescue fire fighting, from large-scale infrastructure projects to corporate activities, we want to know, measure and reduce our environmental impact. We also want the environment to be considered in how we manage aircraft on a day-to-day basis, in how we develop our airspace and procedures, the investment decisions we make and how we run our business.

We recognise that our vision will take time to achieve. It will require incremental changes to our decision-making processes, how we use technologies and how we integrate more sustainable actions into our service delivery. This strategy is an organisational commitment to deliver world's best industry performance.



Margaret Staib
Chief Executive Officer
Airservices Australia

¹ Report of the World Commission on Environment and Development: Our Common Future, Brundtland Commission, 1987.

Sustainability means balancing economic, environmental and social priorities so that the needs of the present do not compromise the needs of the future.





Environment Policy

Airservices is a provider of safe, secure, efficient and environmentally responsible services to the aviation industry. We are committed to improving the environmental sustainability of our organisation while facilitating improved environmental outcomes for our customers and stakeholders.

We will proactively work with aviation industry stakeholders to protect the environment by:

- implementing innovations which ensure the environmental efficiency of our services;
- working with airlines and other stakeholders to minimise aircraft emissions;
- minimising our environmental footprint and preventing pollution;
- enhancing environmental management practices through a fit-for-purpose Environment Management System; and
- embedding an organisational culture which is environmentally aware.

This will be achieved in a manner which assures that we are compliant with applicable legislation, regulation and government policy, and that we maintain a focus on continual improvement.

We will collaborate with our customers and stakeholders in efforts to meet industry and community expectations in regard to our environmental practices and performance.

All staff are responsible for sound environmental management and all managers are accountable for environmental performance in their areas of responsibility.

Sound environmental management is an integral and vital part of the provision of an efficient, effective and sustainable air transport system.

Margaret Staib
Chief Executive Officer
Airservices Australia
1 November 2013

Corporate Policy No: **C-POL:AA 000 6** Version 6

Organisational context

Airservices is a statutory authority which provides safe, secure, efficient and environmentally-responsible air traffic management and related services to the aviation industry. Airservices is recognised worldwide as an organisation that is both an operational and technical innovator. This reflects the expertise of our staff and the forward-looking industry to which we provide services.

Airservices currently manages airspace covering 11 per cent of the earth's surface. We provide air traffic operations for nearly 90 million passengers, travelling on more than four million domestic and international flights each year.

Our service delivery requires a complex and vast infrastructure network and Airservices owns or leases more than 1000 sites which are spread across Australia and outlying islands including Cocos in the Indian Ocean and Lord Howe in the Pacific Ocean.

Airservices continues to invest in a national capital expenditure programme and over the next five years, will spend nearly \$1 billion on new or upgraded infrastructure and services. This programme will ensure that we deliver safe, efficient and modern services for our stakeholders. Such a programme presents

both challenges and opportunities from an environmental perspective. Airservices is also working jointly with the Department of Defence on a new air traffic management platform (OneSKY Australia) to establish a harmonised, national civil and military air traffic management system.

Airservices employs over 4000 people at 31 geographic locations across Australia. Like the broader Australian community, we are placing increasing value on the environment, striving to exceed our environmental goals and improve our environmental performance. Some of our facilities have been recognised for their heritage value and many sites are located in areas that are recognised for their unique biodiversity and fragile ecosystems. Airservices ensures management of both heritage and biodiversity through our heritage strategy and our environmental management system.



Environmental context

As the Australian and global economies grow, so too does the demand on the aviation industry, with resulting consequences for our planet. Aircraft impact the environment by creating noise pollution and burning fossil fuels that emit greenhouse and other gases. The technology and infrastructure required to provide safe navigation and surveillance services consume significant amounts of resources, which may affect conservation areas and sensitive ecosystems.

Airservices is committed to a future in which more sustainable business practices are carried out across its corporate activities, on-ground operations and air traffic management service delivery. Refining, developing and implementing new practices will not only have environmental benefits but may lead to better management of risk and produce operational efficiencies.

Airservices has various legislated obligations in relation to environmental management. In particular, we are bound by the:

- *Air Services Act (1995)*
- *The Minister's Statement of Expectations*
- *Environment Protection and Biodiversity Conservation Act (1999)*
- *Airports (Environment Protection) Regulations (1997)*
- *Airports Act (1996).*

Airservices is accountable to the Australian Government through the Minister for Infrastructure and Regional Development. We are required to meet Government policy, including statements of direction issued by the Minister. Airservices also works with the International Civil Aviation Organization (ICAO), which is responsible for global aviation policy.

In addition to our legal obligations, Airservices aims to apply the following principles of ecologically-sustainable development to help conserve the natural environment:

- **integration principle:** decision-making processes should effectively integrate both long term and short-term economic, environmental, social and equitable considerations
- **precautionary principle:** if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- **intergenerational principle:** the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- **biodiversity principle:** the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.

Airservices environmental management system is designed to ensure we meet our compliance obligations with regard to Commonwealth, state and territory legislations. Airservices obligations also include compliance with relevant building standards and obligations as a landowner and leaseholder.

Our environment strategy is aligned to the *Corporate Plan 2014–2019* which outlines three strategic themes to support the delivery of Airservices vision over the next five years:

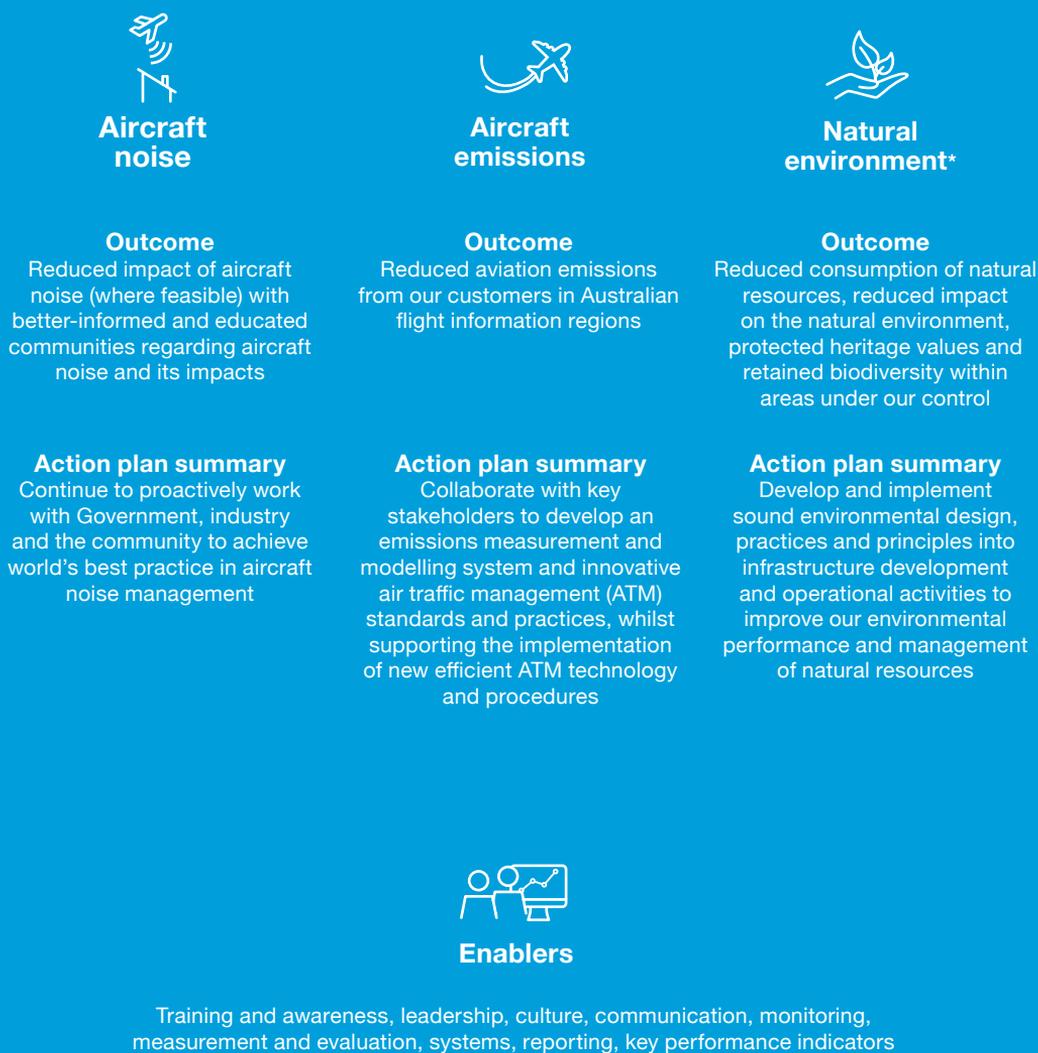
- maximising safety performance
- high-performing organisation
- core operational and business excellence.

FIGURE 1 Airservices environment strategy—framework

ENVIRONMENT STRATEGY

Airservices environment strategy describes our vision to achieve excellence in environmental management and our commitment to an environmentally-sustainable aviation industry. Subject to the primacy of safety, we will work to reduce the environmental impact of aviation in collaboration with the Australian Government, the aviation industry and community.

We will measure our progress and performance against targeted performance indicators and similar service providers.



* Including energy, water and waste; pollution and contamination; and biodiversity and heritage

Airservices environment strategy—framework

Aviation plays an important role in the Australian economy. With air passenger movements through Australian airports projected to grow by 50 per cent over the next 20 years, the need to address environmental impacts is gaining increasing importance. The aviation industry is united in its commitment to develop global environmental solutions.

Airservices environment strategy is based on the industry's vision for a more environmentally-sustainable aviation industry. With this vision, and our organisation's corporate vision to deliver world's best industry performance, in mind, we will pursue a strategy beyond mere compliance in environmental sustainability matters. Subject to the primacy of safety, we will not just look to meet legislative requirements, but proactively and collaboratively reduce our environmental impact, implement innovative solutions and advance the principles of sustainable development, as we work with key stakeholders, government and the community. Good environmental outcomes equal good business outcomes for Airservices, the industry and the community.

The environment strategy focuses on achieving outcomes in three core environment areas—aircraft noise, aircraft emissions and the natural environment. These environmental outcomes and a summary of how each will be achieved are shown in Figure 1.

To support and enable the delivery of these environmental outcomes, we will undertake continuous improvement across our people, processes and technology to ensure:

- our staff are trained and aware, and our stakeholders are informed of our commitment to reducing our environmental impact, creating a culture of environmental responsibility

- our progress and performance is measured and benchmarked against industry and non-industry organisations and communicated publicly
- our environmental management system remains fit-for-purpose.

Measurement

Measuring environmental performance is important not only to manage increasing costs of our operations and deal with market, regulatory and public pressures, but also to benchmark and evaluate our progress.

Our strategy recognises the importance of having appropriate key performance indicators (KPIs). We will develop new KPIs to measure trends and drive environmental innovation, to improve performance towards reduced environmental impacts, more efficient use of resources, increased efficiency and productivity and a more sustainable future.

Environment action plans

Airservices environment strategy is implemented through action plans for each of the focus areas. Within these action plans are activities and initiatives that are specifically designed to achieve the strategy outcomes. A summary of these action plans and initiatives are noted in the following sections. A progress update of the initiatives is reported in our annual Environment Action Plan.



Outcome

Reduced impact of aircraft noise (where feasible) with better-informed and educated communities regarding aircraft noise and its impacts

Action plan summary

Continue to proactively work with Government, industry and the community to achieve world's best practice in aircraft noise management

Action plan key initiatives

1. Deliver our Commitment to Aircraft Noise Management.
2. Develop a suite of information and data tools that meet the needs of all stakeholders.
3. Identify, investigate and (where feasible) implement changes to aircraft flight procedures that reduce the impact of aircraft noise.

Aircraft noise

A by-product of increasing air traffic is aircraft noise, which results in the most significant cause of adverse community reaction to increased aviation operations. Proactive management of the impact of aircraft noise to deliver better outcomes for all stakeholders is a key environmental goal for the Australian aviation industry. Through our legislative requirement to provide environmentally-sustainable air navigation services, and our vision to connect the Australian aviation industry, we are uniquely-positioned to facilitate a collaborative effort to achieve this goal.

The recent launch of Airservices Commitment to Aircraft Noise Management (Noise Commitment) highlights our commitment to achieving better noise outcomes and striving to achieve world's best practice in aircraft noise management.

Our Noise Commitment supports this strategy, detailing five key areas with associated guiding principles that, with their application, will increase stakeholder engagement and collaboration across the aviation industry.

Recent progress results have shown improvements in complaint management and the availability of noise information, increased engagement and collaboration with the community and aviation industry on flight path changes, improvements to the air traffic system and the implementation of recommendations from the Aircraft Noise Ombudsman.

Airservices will continue to investigate and where feasible, implement operational changes to reduce aircraft noise impacts on the community.

Responsibility for aircraft noise management is shared between a number of key stakeholders including Airservices, airlines and aircraft operators, airports, Government regulatory and planning agencies and the community. A key part of our strategy is to work with Government, industry and the community to deliver better noise outcomes.

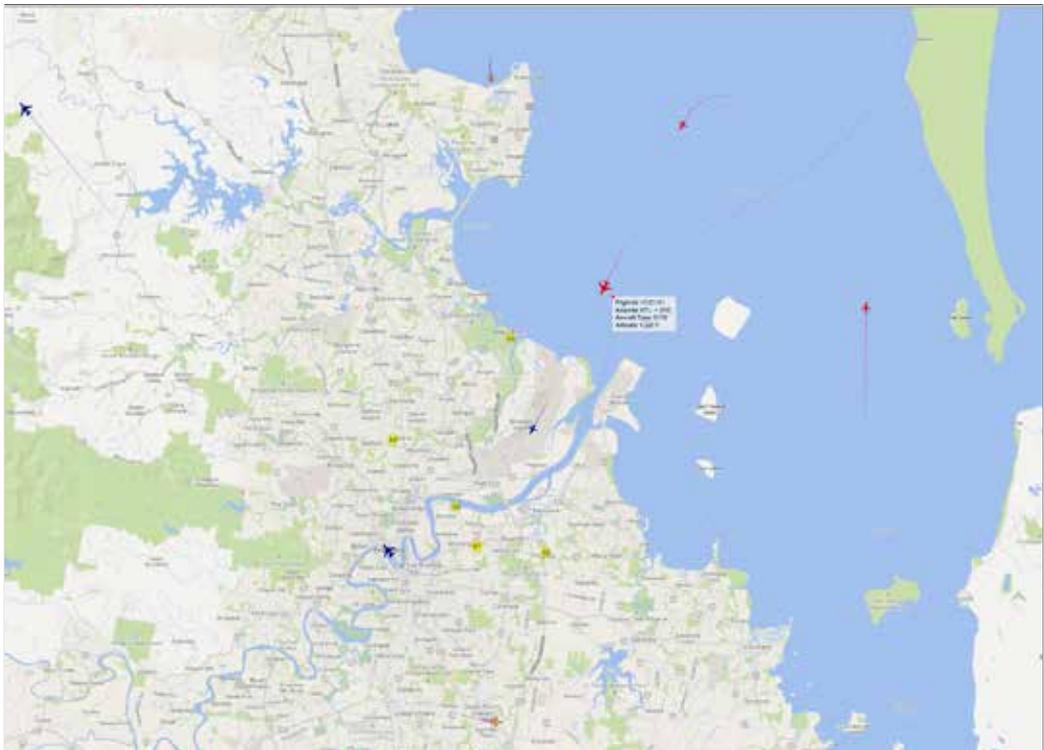


FIGURE 2 Webtrak is an online tool that allows people to access flight activity of aircraft over metropolitan areas. Using a map to display surrounding suburbs within 55 kilometres of a selected airport, WebTrak provides information about arriving and departing aircraft over a time span of 40 minutes to three months ago.



Aircraft emissions

Outcome

Reduced aviation emissions from our customers in Australian flight information regions

Action plan summary

Collaborate with key stakeholders to develop an emissions measurement and modelling system and innovative air traffic management (ATM) standards and practices, whilst supporting the implementation of new efficient ATM technology and procedures

Action plan key initiatives

1. Improve environmental measurement, monitoring and reporting.
2. Actively participate and collaborate in international working groups and forums.
3. Identify, investigate and, where feasible, implement changes to airspace management procedures.

Aircraft emissions

The aviation sector's business improvement activities have resulted in continuous reductions in fuel consumption, leading to greater fuel efficiency. These measures include new air traffic management technology and procedures, improvements in aircraft utilisation and fleet renewal. Improved airspace design and the availability of fuel efficient trajectories directly link to reductions in emissions and a reduced impact on the environment.

Airservices plays an important role in facilitating and supporting improvements in aviation efficiency. We work with regulatory authorities, airports, airlines and other air navigation service providers to improve air traffic management (ATM), reduce fuel burn and emissions and minimise the impact on the environment.

Participation in programmes such as the Asia Pacific Initiative to Reduce Emissions and the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE) are examples of Airservices commitment to reducing the impact of aviation on the environment through technological innovation and best practice ATM. Measures developed by Airservices to improve fuel efficiency include user preferred routes, flexible flight tracks, improved air traffic flow management programs, continuous descent approaches and better management of aircraft on the ground. Implementation of these measures has resulted in significant savings for both the airlines and environment. For example, in early 2014, INSPIRE and Arabian Sea/Indian Ocean Air Traffic Services Coordination Group shared in an IHS Jane's award for service provision to the aviation industry. The award was

granted in recognition of the work undertaken to improve operational efficiency and safety for aviation. Specifically, establishing user preferred routes over one of the world's largest proportions of airspace—the Arabian Sea/Indian Ocean User Preferred Route (UPR) geographic zone. It is estimated that more than 320 flights a week will take advantage of this UPR and that each flight will save an average of 740 kilograms of fuel.

Airservices is also an active member and participant of various international organisations, such as the International Civil Aviation Organisation (ICAO) and Civil Air Navigation Services Organisation (CANSO). These organisations provide an excellent forum to share information and provide expert advice to standing committees and working groups developing solutions to address environmental challenges.

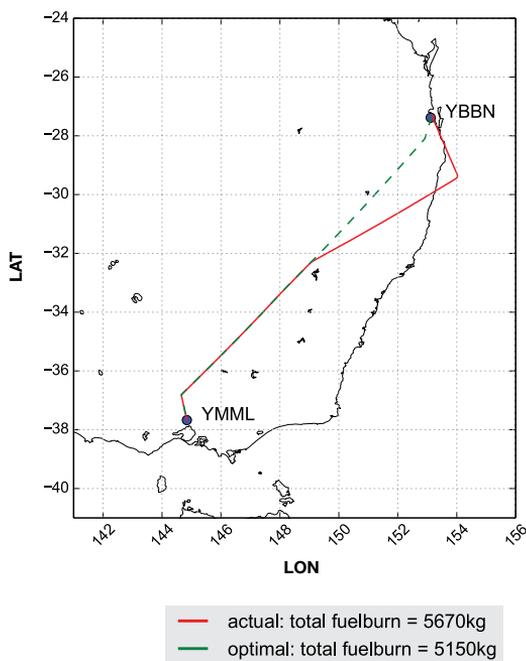
In 2010, Australia (and all member states of ICAO) agreed and committed to working through ICAO to achieve a global annual average fuel efficiency improvement of two per cent until 2020 and to strive to achieve carbon neutral growth for international aviation from 2020. In 2012, Australia (as a member state) submitted its first action plan in response to the ICAO agreement and is expected to submit the next action plan in 2015.

Airservices has developed an ATM analysis tool that has a fuel burn and emissions modelling capability to improve decision-making and help develop future emission reduction measures. Through the modelling of flight paths, we have been able to determine the difference between actual emissions and the lowest possible emissions for a particular flight and then assess the causes of this difference (for example, traffic load, inefficient responses to capacity constraints such as vectoring and holding or airspace design and route structure).

Figure 3 shows how the ATM analysis tool can compare an actual flight (from Brisbane to Melbourne) with the optimal flight to obtain net fuel burn differences.

Airservices will continue to work with our customers to identify the most effective way to remove constraints that cause unnecessary fuel burn and minimise aviation emissions within Australia's flight information regions.

FIGURE 3 Flight tracks in actual and optimal.





Natural environment

Outcome

Reduced consumption of natural resources, reduced impact on the natural environment, protected heritage values and retained biodiversity within areas under our control

Action plan summary

Develop and implement sound environmental design, practices and principles into infrastructure development and operational activities to improve our environmental performance and management of natural resources

Action plan key initiatives

1. Improve the environmental management system.
2. Implement responsible energy, water and waste management practices and principles across all operations, premises, plant and equipment.
3. Implement robust energy, water and waste measurement, monitoring and reporting systems.
4. Proactively work with industry stakeholders and scientific partners to research and develop solutions for preventing pollution and managing contaminated sites. This includes implementing tools and methods for determining type and levels of contamination.
5. Identify, assess and proactively manage for heritage and biodiversity values, in those parts of the natural environment directly under Airservices control.

Natural environment

As a member of the aviation community Airservices contributes to the economic prosperity of Australia, and like many businesses, we are conscious of the impact that our operations have on the environment and continuously assess ways to reduce that impact.

Airservices owns and leases a vast infrastructure network with more than 1000 sites across Australia and surrounding islands. The network includes corporate office buildings, navigational aids, radar facilities, communication stations, control towers, fire stations and fire training grounds across environments as diverse as airports, cities, heritage sites and National Parks.

Airservices goes to great efforts to avoid places of environmental significance. However, as safety must be our paramount priority, there are times when there is no practical alternative to locating navigational aids in a National Park or conservation area. Our environmental management system aims to ensure our impact is kept to a minimum.

For future generations to continue to benefit from the prosperity we enjoy, it is essential to improve our own environmental performance by minimising our environmental footprint and reducing the impact of our operations on the natural environment. Consequently, we will ensure environmental considerations are fully integrated into our decision-making, whether it relates to a new infrastructure project, the upgrade of a radar or minimising water and energy use in office buildings.

A recent example is the new Learning Academy Hot Fire Training Ground in Melbourne. The waste water treatment plant is expected to deliver approximately 80 per cent water recycling which can be used by ARFF in its trucks for training. In two-and-a-half months, the treatment plant has recycled more than three million litres of water.

Airservices is currently piloting a utility management plan for its sites at Canberra Airport and Gold Coast Airport. The pilot uses energy and water audits and an analysis of energy usage to identify potential energy savings and potential reductions in greenhouse gas emissions. This allows us to calculate the capital and operational

costs of achieving those savings and the results will be used to identify future opportunities across other sites.

Airservices aims to reduce its consumption of natural resources, reduce its impact on the natural environment and maintain heritage values and biodiversity in areas within our control. Due to the diversity of our assets and the complexity of the natural environment, initiatives and activities in this focus area are divided into sub-groups of energy, water and waste; pollution and contamination and heritage and biodiversity.



Saddle Mountain



Enablers

Training and awareness, leadership, culture, communication, monitoring, measurement and evaluation, systems, reporting, key performance indicators

People, processes and technology

To support and deliver our environment strategy, Airservices will undertake continuous improvement across our people, processes and technology.

People

Airservices recognises that providing strong values-based leadership, encouraging a healthy culture and building capability through training and awareness, will contribute to building a flexible, empowered and engaged workforce. This process of building an engaged workforce will also evolve our corporate culture to enable us to meet the challenges we're facing today and those new challenges that will arise in the future.

Ongoing environmental education and awareness, tailored to the operational work being undertaken, is a key factor to creating a culture of environmental responsibility. Training and awareness will also help people at operational units to identify and implement opportunities for improvement themselves. Furthermore, providing regular reports on our environmental performance to our people and our stakeholders will increase awareness of our environmental commitments and help achieve the organisation's corporate vision to be a high-performing organisation.

Processes

Airservices Environmental Management System (EMS) provides a framework of documentation, processes and tools to guide and assist the organisation in:

- satisfying its legislative and regulatory obligations
- meeting its environmental accountabilities
- effectively managing environmental risks
- achieving sound environmental performance.

Under the EMS, our staff are responsible for sound environmental management and managers are accountable for environmental performance in their areas of responsibility.

Continuous improvement of our processes, in particular those within the EMS, will not only enhance business efficiency but assist in achieving core operational and business excellence.

Technology

Successful environmental management requires internal and external information sharing and collaborative efforts to track the impact of our energy, water and waste management programmes and processes across our operations. Technology also facilitates decision-making for noise and emissions management and therefore, plays a vital role in gathering, monitoring, measuring and reporting information.

Airservices recognises the importance that technology plays in both facilitating the successful implementation of our environment strategy and in adding value to our services for our customers.





Further information

More detail on Airservices environmental work is available from the Airservices Environment website www.airservicesaustralia.com/environment

For more information, email environment@airservicesaustralia.com



airservices
www.airservicesaustralia.com