Objective 1: Connect industry to opportunity

In partnership with industry, government and research bodies, the DAF Agriculture service area helps the sector and farm businesses lift productivity and profitability. The service area focuses on creating an environment that enables producers and agribusinesses to sustain and grow their businesses, and supports related RD&E. Assessment of the returns from investing in agricultural RD&E reliably demonstrates that for every $1 invested, returns of up to $10 can be expected over the course of 25 years.

DAF's programs and initiatives alleviate the impact of prolonged drought and its effect on production management practices and rising rural debt. Our staff worked across government to ensure Queensland producers realise the expected benefits from free trade agreements negotiated with Korea, Japan and China over the last 24 months by:

- showcasing Queensland's food and fibre products and agri-technology advances overseas and in Australia
- promoting investment opportunities in Queensland agriculture and aquaculture
- improving the security of agricultural land, water and labour.

Outlook

Long-term prospects for the agriculture, fisheries and forestry sectors remain positive due to ongoing demand growth for food and fibre. A review of market opportunities for Queensland agribusiness arising from free trade agreements with China, Japan and South Korea commissioned by DAF and Trade and Investment Queensland will help producers target markets. The Deloitte Access Economics report is expected to be released in August 2016.

In response to climate variability and the ongoing impact of severe drought in certain Queensland regions, many affected Queensland farmers have proactively implemented climate risk management practices—including use of farm business and climate risk decision support tools—to better position themselves for recovery and rebuilding.

The implementation of the Rural Assistance Package is a key priority for the coming year. The package is the government's response to the Rural Debt and Drought Taskforce chairman's report presented in May 2016.

Queensland's RD&E capability and capacity continues to grow through partnerships with industry and universities. Threats from exotic plant and animal diseases and increasing demand for quality produce highlight the need for agricultural RD&E expertise.

The impact of the federal election on decisions relating to northern Australia and agricultural competitiveness agendas is yet to be made clear.

Key performance indicators

- KPI: Market and investment opportunities facilitated by the department
- KPI: Business improvement and sector productivity attributed to research, development and extension products and services
- KPI: Producers adopting improved land management and production practices

Priorities for 2016–17

Our priorities for 2016–17 are to:

- continue drought assistance, including the Drought Relief Assistance Scheme, rural financial counselling services and other drought relief measures
- establish a Queensland drought mitigation centre to improve farm business capacity, seasonal forecasting and decision support tools to better manage climate risk
- implement the Rural Assistance Package, aimed at reducing financial stress and improving financial sustainability, to assist the sector service debt, including the establishment of the Office of Rural Affairs
- advance Queensland's agricultural innovation through the implementation of a 10-year agriculture and food RD&E blueprint
- develop new and innovative ways of commercialising the department's intellectual property
- work with the Australian Government to develop the Northern Australia Cooperative Research Centre, which will identify opportunities for agricultural development and expansion
- continue to improve the practices of producers and agricultural industries impacting on the Great Barrier Reef
- advocate for agriculturally important land, energy and water and the sector's key role in regional economies and employment.

Delivering on our 2015–16 priorities

Grow markets and investment

Our commitment

We said we would grow markets and investment by supporting outbound trade missions to promote existing food and fibre products, and showcase new, niche and emerging products and investment opportunities.

KPI Market and investment opportunities facilitated by the department

What we delivered

We enabled access to new domestic and international trade opportunities.

Targeted trade and investment missions are important as they provide invaluable opportunities to build profitable relationships with overseas trading partners, leverage free trade agreements and bring new investment to the state. DAF supported two ministerial trade missions—one to Indonesia in August 2015 that focused on live cattle exports, and one to China and Japan in late September/early October 2015 that focused on Queensland food produce and products. Although three ministerial trade missions were targeted for 2015–16, the Premier undertook additional trade missions that drove broader promotion of Queensland's attractiveness for investment, innovation and exports. The Premier's trade missions were also used as an opportunity to promote Queensland's agriculture, food and fibre industry.

DAF hosted 11 delegations and participated in 1 international exchange to promote Queensland food and fibre products, expertise and opportunities for investment. These included:

- meeting with the Japanese Ministry for Agriculture Fisheries and Forestry to foster integrated supply chains for Queensland produce going into Asian markets
- leading 10 producers and other industry representatives to Gulfood 2016—the world's largest food and hospitality show that generated 105 significant trade enquiries
- exhibiting at the Northern Beef Producers Expo (approximately 500 attendees) to showcase services including the Grazing Best Management Practice (BMP) program, FutureBeef extension services and current R&D activities
- delegations with Indonesia, Vietnam and Japan to attract investment in dairy cattle, horticulture, aquaculture, probiotics and food processing—delegates also fostered trade relations between Northern Australia beef exporters and the South-East Asian market
- participated in the Advance Queensland Innovation and Investment Summit and Start Up Festival, which attracted more than 700 registrations for the summit and 500 for the festival.

Develop a 10-year RD&E blueprint

Our commitment

We said we would develop a 10-year RD&E blueprint for agriculture and food.

What we delivered

We progressed the development of a blueprint.

A blueprint for agriculture and food RD&E is needed to enhance scientific collaboration within the state, ensure investment is aligned with emerging opportunities and seek new and innovative ways to attract new funds. We have been preparing a discussion paper for release in the second half of 2016. Consultation will occur with industry groups, research providers and the public.

Drive innovation and productivity

Our commitment

We said we would drive innovation and productivity by:

- developing and delivering innovative technologies and practices for farm business and industry
- improving the uptake of innovative technology and practices through the delivery of extension and technical services
- partnering with industry and research bodies to build RD&E capability across Queensland.

KPI Business improvement and sector productivity attributed to research, development and extension products and services

What we delivered

We developed innovative technologies and practices that provided new products, improved supply chain efficiency and access to markets.

The department invests in RD&E to support the productivity and prosperity of the Queensland agriculture and food sectors, and to support the development of the science skills needed to generate regional jobs. The following case studies illustrate the broad range of RD&E activities undertaken by DAF in 2015–16.

Seeing is believing—using YouTube to promote cotton industry best practice

Online video is increasingly being utilised to share ideas and concepts. Studies indicate that while people remember only a small proportion of what they hear and read, they retain about 80 per cent of what they see and do.

The Cotton Production Best Practice Documentaries project, jointly funded by DAF and the Cotton Research and Development Corporation, has adopted this approach to its information production—filming and producing over 60 videos across a wide range of genres and cotton-related topics.

The project's videos utilise a variety of production techniques and include microscopy, time lapse and aerial footage to provide new and unique visual perspectives. They also include transcripts appropriate for use in subtitling, to aid accessibility and search engine optimisation.

Industry support for this project initiative has been excellent, with 36 people from 17 government and private organisations, consultancy firms and farms contributing their time and covering topics from planting a crop to making irrigation decisions utilising the latest equipment and remote-sensing data.

The videos are hosted on the CottonInfo YouTube channel (www.youtube.com/user/CottonInfoAust), which has received more than 15 000 views since its creation in late 2013. Viewer engagement with the channel is growing exponentially as the number of videos increases. Overall feedback has been very positive, with high viewer retention and reports of cotton businesses utilising some of the videos within their staff induction programs.

Queensland innovation transforms mung beans into 'money beans'

Australia's mung bean industry is celebrating the International Year of Pulses with a record crop, near record prices and a new locally produced food product. Most mung beans are grown in Queensland and exported to premium overseas markets for sprouting and processing. A local company has recently started making a new nut-free alternative to peanut butter from mung beans.

The rise and rise of mung beans as a profitable summer pulse crop follows innovation in breeding and research by DAF and our research partners. Mung beans have been transformed from 'mongrel beans' to 'money beans'. DAF mung bean breeding efforts have continued to improve yields, grain quality and crop resilience in the face of drought and disease. Double-digit yield gains from successive DAF-bred varieties have supported extraordinary industry growth, with production rising from 35 000 tonnes in 2003 to more than 130 000 tonnes in 2016.

Local university partnerships are further supercharging our mung bean industry. QAAFI is researching more productive and resilient management options. Revolutionary genetic tools and technologies are being developed and tested in partnership with the Queensland University of Technology (QUT). The University of Southern Queensland (USQ) is using expertise in bacterial pathogens to better address challenges from key diseases such as halo blight. Queensland scientists are also a vital part of a new international network to further improve breeding and research outcomes for our pulse industry and our growers.

Industry partner, GRDC, estimated that every dollar invested in the mung bean breeding program alone returned $18 of benefits to industry.

Our world-class efforts in mung bean breeding and research provide the key to consistently delivering industry's bold target of 170 000 tonnes annually. This will ensure Queensland remains the preferred supplier of premium, quality-assured mung beans in competitive domestic and international markets.

Harvey—robotic harvesting of capsicums

DAF is investing $3 million over 3 years into research at QUT to fast track the development of agricultural robots. As part of this program, the QUT team has developed a new agricultural robot—nicknamed 'Harvey'—to harvest capsicums (sweet peppers). In November 2015, the team conducted the first trials with Harvey on a DAF-led protected cropping trial in Giru, North Queensland. Tasked with identifying and picking red capsicums, Harvey performed significantly better than has been reported for other harvesting robots under development.

Despite significant efforts by the worldwide horticultural research industry, progress in creating robots to harvest fruit or vegetables has been modest to date. As of late 2014, the best published robotic harvest success rate was only 6 per cent in testing scenarios similar to those used for Harvey, and up to 30 per cent when the crop was modified and leaves were removed.

Harvey achieved a fruit detachment success rate of 90 per cent with unmodified crops (i.e. with no leaves removed or fruit moved before harvesting). The research team is continuing to fine-tune Harvey's performance and believes only minor modifications will be required to increase the speed of harvesting and enhance robustness.

Harvey's robotic arm has a camera and a unique cutting tool attached to it. Using data from the camera, the robot creates a 3D model of each fruit and its surroundings, and plans and controls the robotic arm and cutting tool to locate and detach the fruit. The combination of state-of-the-art robotic-vision software and novel crop-manipulation tools enables the successful harvesting of the crop and promises significant benefits for horticulture growers.

QUT is now in discussions with partners both in Australia and overseas to commercialise Harvey. In the future, the researchers plan to investigate how automated harvesting technologies can be used for other crops, such as mangoes, strawberries and avocados.

Cobia—a new high-value fish product from Queensland

In 8 years, DAF's cobia R&D team has helped take cobia from a wild fish with recognised aquaculture potential to a new award-winning seafood served in high-end Australian restaurants and Qantas business class.

Cobia is a fast-growing, saltwater finfish reaching a harvest weight of about 5–7 kilograms in 1 year of culture. It has a firm, flaked, sweet flesh with a high fat content—perfect for both sashimi and cooking.

During development of the production system to bring cobia to market, a number of challenges were overcome—including optimum breeding techniques, diet formulation for various growth stages, stocking densities, harvest strategies, transport and packaging systems, food preparation and consumer taste testing, and marketing and promotion. DAF worked with USQ, feed manufacturer, Ridley Aquafeeds, and industry partner, Pacific Reef Fisheries, from the earliest stages to make sure the research was focused on solving practical production issues and applying them in the production environment.

DAF's food technology team based at Coopers Plains was instrumental in developing packaging systems to maximise the freshness of the product in the market. The team used consumer taste panel assessments to evaluate consumer acceptance and preference for cobia against Atlantic salmon, yellowtail kingfish and barramundi. Pacific Reef Fisheries also worked with leading chefs on preparation methods to develop top recipes for cobia for use in high-end restaurants.

Queensland is now producing 100 tonnes per year of high quality farmed fresh fish. It has overtaken wild-caught cobia (40 tonnes per year) and is competing successfully with 200 tonnes of imported product (mostly produced in sea cage production systems).

We work collaboratively with industry, universities, private sector consultants, natural resource management groups and rural R&D corporations to deliver enhanced research outcomes for Queensland industries. In 2015–16, DAF invested $75 million in agricultural RD&E in order to build Queensland's competitive advantage. Our investment in RD&E partnerships with the university sector and Sugar Research Australia included:

- $7.16 million with UQ in QAAFI—a research collaboration between UQ and the Queensland Government to work together on key agricultural industry challenges
- $0.2 million with UQ Civil Engineering—to co-fund a new Centre for Future Timber Structures, providing solutions to issues inhibiting the widespread adoption of massive timber construction in medium-rise to high-rise construction
- $0.9 million with QUT—research into tropical pulses to develop more productive, profitable and resilient chickpeas, mung beans and other pulses for growers and industry
- $0.4 million with QUT—support for the Australian Centre for Robotic Vision, which is helping the agricultural sector use robots and autonomous systems to make farms of the future more productive, profitable, sustainable and safe
- $0.9 million with USQ—for research areas in wheat and summer grain pathology, agricultural systems modelling, agricultural engineering and winter crop nematology
- $0.36 million with University of the Sunshine Coast—for pre-harvest forestry research
- $0.22 million with Central Queensland University—to co-fund three research positions in vegetable crop protection and farming systems research
- $3.1 million with Sugar Research Australia—to undertake sugarcane RD&E.

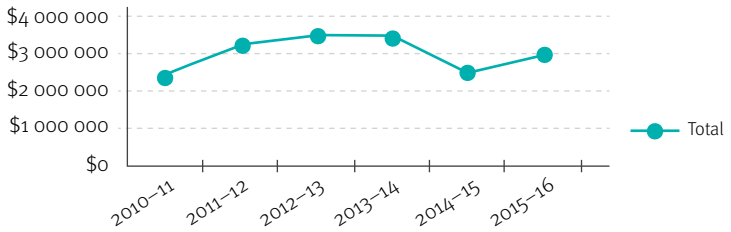


Figure 9: Intellectual property revenue graph—royalty returns from departmental R&D (source: DAF RD&E expenditure and revenue)

In 2015–16, the department received approximately $3.1 million in royalty revenue, which equated to a return on investment of 4.54 per cent. The 2015–16 percentage return is higher than expected due to calypso mango royalties rebounding from increased production and good mango sales for the year; and sweet corn royalty improved from increased international sales.

Table 3 shows that our industry and government funding partners are completely satisfied that the RD&E our department and partners are delivering is contributing to productivity growth in agricultural industries. The business outcomes for the customers who have participated remain consistent with historical levels, but is lower than 2014–15. The ongoing drought may be a contributory factor in reducing or delaying business returns.

Table 3: Service standards—improvements due to RD&E

Service/ indicator	Measure	Results					Variation/ commentary
		2011–12	2012–13	2013–14	2014–15	2015–16	
Service standard Effectiveness	Level of funding partner satisfaction that research outcomes contribute to industry productivity growth	Not measured	Not measured	Not measured	79%	100%	The strong 2015–16 result is partly due to a new, more specific question of satisfaction in the DAF External Funders Survey.
Service standard Effectiveness	Percentage of customers indicating that participation in an RD&E activity contributes to business improvements	60%	54–60%	54–60%	60–73%	64%	This is a new measure replacing two discontinued measures. The results are indicative of trend but not directly comparable. The prior years show the range of results achieved from the former two measures.
Service standard Efficiency	Percentage return on RD&E investment through royalty returns	Not measured	4.98%	4%	4.32%	4.54%	The 2015–16 percentage return is higher than expected due to calypso mango and sweet corn royalties.

Protecting the Great Barrier Reef

Our commitment

We said we would continue the delivery of BMP programs to improve the practices of producers and agricultural industries impacting on the Great Barrier Reef.

KPI Producers adopting improved land management and production practices

What we delivered

We delivered BMP programs, improved agricultural technology and monitored, assessed and evaluated progress against our obligations in the *Reef 2050 long-term sustainability plan* goals and the Great Barrier Reef Water Science Taskforce recommendations.

Approximately 60 regional officers either fully or partly contribute to the 42 full-time equivalent (FTE) staff (supporting research, extension, economic and monitoring services to the sugarcane, horticulture, grains and grazing BMP programs being delivered in Great Barrier Reef catchments. These programs are deliverables under the *Reef water quality protection plan 2013* and aim to promote sustainable use of natural resources by agribusinesses, while also improving business management decisions to improve profitability and resilience through climate extremes.

Table 4: Service delivery standard—best management practice

Service/ indicator	Measure	Results					Variation/ commentary
		2011–12	2012–13	2013–14	2014–15	2015–16	
Service standard Effectiveness	Percentage of primary producers in reef catchments who adopt best management practices after participation in DAF extension programs	NA	NA	20%[1]	74%[2]	58%	The actual result exceeds the 2015–16 target, indicating a positive trend in the uptake of practice change adoption. This measure is influenced by a number of factors, such as a producer's financial situation, seasonal conditions, markets and personal situation, which may impact their ability to adopt practice change. These factors are outside DAF's influence.

1. In 2013–14, this result relates to canegrowers only. Graziers' survey was delayed due to priorities related to drought activities.
2. In 2015–16, this measure was broadened in scope and reworded from 'graziers and canegrowers' to 'primary producers'. This allowed for data to be collected in relation to primary producers other than graziers and canegrowers (e.g. horticulture producers). For this reason, the data for the years 2014–15 to 2015–16 are not strictly comparable.

Grazing BMP

As uptake of Grazing BMP increases, it is expected that the levels of sediment running into the Great Barrier Reef will reduce and grazing business performance and resilience will improve. The program is delivered through a partnership between multiple organisations that includes AgForce, the Fitzroy Basin Association, DAF, the Department of Environment and Heritage Protection (EHP), and natural resource management groups. The program has been implemented in the Burdekin, Fitzroy, Burnett and Mary river catchments—the major catchments flowing to the Reef.

A key aspect of the program is the ability of graziers to compare their own business decisions and land management performance to anonymous data from the wider industry. This enables them to develop action plans to improve their outcomes. In the 2015–16 financial year, 3001 Grazing BMP modules were completed, with 39 producers becoming accredited. The total number of businesses participating in Grazing BMP reached 569 in this financial year, covering a land area of 7 034 831 hectares.

Since 2010, over 1300 graziers managing almost 20 million hectares have participated in Grazing BMP. A cost–benefit analysis of DAF extension support to the grazing industry in the Burdekin region between 2011 and 2014 indicated a net present value benefit of approximately $6.7 million. This is between a threefold and fourfold benefit for industry for every dollar spent. This net industry benefit is in addition to the public benefits of reduced sediment flow into the Great Barrier Reef.

Sugarcane industry support

DAF conducts R&D, agronomic and economic activities for the sugarcane industry, and provides specialised support to the Smartcane BMP program led by CANEGROWERS (the industry peak body). DAF's focus is on farming practices and systems to improve environmental outcomes and business profitability and resilience. This work is carried out in partnership with a variety of organisations, including natural resource management groups, district cane industry groups and Sugar Research Australia, which receives an investment of $0.88 million from DAF for Great Barrier Reef–related research.

DAF sugarcane extension staff have developed a dual herbicide sprayer, designed to improve the efficiency of herbicide application on sugarcane crops and reduce the loss of residual herbicides to waterways and the Great Barrier Reef. DAF is now working with Sugar Research Australia to promote this new equipment in association with integrated weed management workshops delivered as part of the Smartcane BMP program.

DAF's agricultural economists have conducted cost–benefit analyses on the practices promoted through the Smartcane BMP program. These analyses reveal that an accredited grower could increase profitability upon implementing industry best management practices on-farm.

Monitoring and evaluation

Departmental officers are responsible for monitoring and evaluating the improvements in land management being made by producers in Great Barrier Reef catchments. This information supports the Paddock to Reef monitoring and evaluation program, which has been able to attribute improvements in Great Barrier Reef water quality to improved agricultural land management practices.

Great Barrier Reef intergovernmental agreement

The *Reef 2050 long-term sustainability plan* (Reef 2050 plan) provides the related framework under the agreement for protecting and managing the widely recognised value of the Great Barrier Reef. DAF continues to contribute to 31 of the 139 actions in the Reef 2050 plan. The *Reef water quality protection plan 2013* (Reef water quality plan) is a key action of the Reef 2050 plan.

In 2015–16, DAF committed $3.5 million in funding and leveraged a further $3.3 million from Great Barrier Reef funding programs to lead and support actions of the Reef water quality plan, and continue to deliver a number of key milestones for the Reef 2050 plan.

A key deliverable under the Reef 2050 plan was the establishment of three net-free fishing zones, which occurred on 1 November 2015.

The Great Barrier Reef Water Science Taskforce handed down its final report in May 2016 on how the Queensland Government's ambitious Reef water quality targets (reduce nitrogen run-off by up to 80 per cent and sediment run-off by up to 50 per cent) may be achieved and the priority areas for investing an additional $90 million of new funding over 4 years. DAF is involved in extensive consultation with our partner agency EHP, contributing to the whole-of-government response to the taskforce recommendations for the work to be carried out in Great Barrier Reef catchments.

Improve sustainability of agriculture

Our commitment

We said we would improve sustainability of agriculture by:

- continuing existing drought relief arrangements
- working with industry to develop a suite of new measures that will assist producers to improve their climate risk management and preparedness strategies
- providing a 'one-stop' service that supports private sector water and land resource development initiatives to help develop the northern regional economy
- meeting commitments in our intergovernmental agreements.

What we delivered

We provided $21.3 million in drought relief, piloted new measures to assist producers manage climate risks and promoted development of the northern regional economy.

Drought assistance

Since the drought commenced in April 2013, the Queensland Government has spent over $120 million to support farm businesses, families and communities through the Drought Assistance Package. This multi-agency assistance package was valued at $42.3 million for 2015–16. The package included:

- drought relief assistance
- electricity charges, land rent and water licence fee relief
- rural financial counselling
- mental health support and community and educational assistance.

The Drought Relief Assistance Scheme (DRAS) administered by DAF is the largest component of the Drought Assistance Package. DRAS comprises freight subsidies, emergency water infrastructure rebates, charity payments and the provision of rural financial counselling services.

Table 5: DRAS performance

Service/ indicator	Measure	Results					Variation/ commentary
		2011–12	2012–13	2013–14	2014–15	2015–16	
Condition	Percentage of state drought-declared	–	› 40%	79%	80.3%	83.9%	During the year, up to 86% of the state was drought-declared. Following rain late in the financial year, a number of shires had their drought status removed, leaving a total of 83.9% of the state drought-declared at the end of the financial year.
Service standard Quantity	Number of applications received	69	15	6165	7636	4294	Assistance is available annually and the amount of assistance rises if the producer has a drought management plan in the third and subsequent year of drought.
Service standard Effectiveness	Percentage of customers whose application for business assistance as a result of natural disaster or drought is processed within 21 days	Not measured	Not measured	36%[1]	90%	97%	

1. Due to the high number of applications received in 2013–14, claims received in the first three quarters of the financial year were not processed within the required time frame. In response to the number of applications, additional staff were engaged and trained, and this improved processing times to the required standard.

Progressed drought reform as part of intergovernmental agreement

In May 2013, the Intergovernmental Agreement on National Drought Program Reform was signed by the federal, state and territory governments. Under the intergovernmental agreement, the states and territories are required to deliver farm business training, coordinated and collaborative social services, and tools and technologies to inform farm decision-making with the aim to increase producer drought preparedness. The range of measures introduced during this drought as part of the Drought Assistance Package supports some of the objectives of the intergovernmental agreement.

In 2015–16, an initial allocation of $425 000 was provided for drought reform. From this allocation, $100 000 was spent on the Northern Beef Mentoring program and pilot programs for Grazing BMP, which are aimed at improving financial literacy and drought preparedness. The remaining funds were deferred and are now incorporated into the $3.5 million allocated for delivery of the 2016–17 drought reform and climate risk priorities.

Development of the northern Australian economy

New agricultural industries in northern Australia are being fostered in anticipation of proposed Australian Government investment in infrastructure and the development of water resources. DAF's involvement included:

- piloting a one-stop service in Mareeba to assist private sector initiatives with land and water development and approval processes—an evaluation of existing Queensland Government approval systems and services for land and water allocation will inform development and implementation of a permanent one-stop shop service
- advising the federal government on identification of priority water infrastructure developments as part of the $500 million fund to support water development under the Mitchell River feasibility studies
- working in partnership with CSIRO, private agronomic services and large-scale property owners to establish in-field trials of crops and farming systems to test the sustainability and profitable diversification of intensified cropping in the Gulf and lower Cape York regions—producers from the Flinders, Gilbert and Mitchell river catchments have also been engaged in building technical capacity and undertake field research into irrigated and rain-fed systems
- supporting four inbound investment missions from Japan, India, Brazil and China; the Indigenous Opportunities Investing Together forum; and a local investment forum in Julia Creek to focus on development opportunities in North Queensland.

Committee of Northern Australia Agriculture Ministers

DAF plays a lead role in supporting the Committee of Northern Australia Agriculture Ministers, as well as chairing and providing the secretariat for the Northern Australia Senior Leaders Group that reports to the committee. The committee comprises the agriculture ministers from the Australian, Queensland, Western Australian and Northern Territory governments. It takes a coordinated approach to priority northern Australian agriculture matters, addressing a range of issues—from supply chain development to R&D.

The Northern Australia Beef Industry Roundtable is convened by the committee to inform the industry's work plan. The last plan was developed following the Northern Agriculture Ministers' 6th Northern Beef Industry Roundtable at Yeppoon on 5 May 2015. Key priorities in the plan include industry–government collaboration; production of ethical, clean and safe beef; a unified approach to marketing; and maintaining Australia's high standards of biosecurity, including more streamlined regulation. The work plan is currently being reviewed and will be updated following the next roundtable, which will be held in Western Australia in October 2016.

Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin

The Queensland Murray–Darling Basin Regional Economic Diversification Program, now in its third year, is designed to stimulate economic activity and jobs in areas affected by reductions in irrigation water allocations that have occurred as part of the Basin Plan 2012. This program is part of the Intergovernmental Agreement on Implementing Water Reform in the Murray–Darling Basin.

DAF administers two projects under this program:

- The High Value Horticulture Value Chains project is developing new export-oriented horticulture value chains in the region to maximise economic return from each megalitre of available irrigation water. The Australian Government has provided $2.67 million, with in-kind contributions from Queensland of approximately $2.03 million.
- The Improved Economic Productivity from Irrigated Agriculture project works with existing irrigators, mainly in the cotton and grains industries, to demonstrate and evaluate new irrigation practices and technologies, and implement an irrigation benchmarking program so irrigators can measure the efficiency of their irrigation systems. The Australian Government provided $2.21 million, with around $1.24 million in-kind contributions from Queensland.

Support a modern and capable workforce

Our commitment

We said we would support a modern and capable workforce by:

- establishing the Rural Jobs and Skills Alliance
- working with vocational and tertiary education providers to deliver skills-based training.

What we delivered

We established the Rural Jobs and Skills Alliance and the Queensland Agriculture Workforce Network, and improved skills and labour.

The Rural Jobs and Skills Alliance was established in conjunction with industry to ensure there is a collaborative approach to identifying where businesses have difficulties in recruiting appropriately skilled workers and seasonal labour. Comprehensive data on Queensland's agricultural workforce was gathered and is used to provide advice to government, industry and service providers on meeting labour and training needs.

Following consultation with industry peak bodies, the alliance supported the establishment of the Queensland Agriculture Workforce Network. Established in January 2016, the network will operate for 2 years and assist producers to better understand ways to access workers and explore alternative approaches when labour shortages occur. The network comprises six experienced employment officers based with regional agricultural bodies across the state. The employment officers are available to assist any primary producer or group of producers in Queensland.

DAF's involvement in education and training activities is part of a strategy to increase enrolments in agricultural courses to meet increasing industry demand for graduates. Our work has included:

- establishing new partnership arrangements (memorandum of understanding) between the Agriculture Training Colleges of Longreach and Emerald with local universities to deliver skills-based training for the agriculture sector
- continuing the AgForce-managed Schools to Industry Partnership Program on the recommendation of the Rural Jobs and Skills Alliance—the program promotes opportunities in agriculture and the supply chain to Queensland school students and provides direct links for schools with local industry opportunities

- managing the Agribusiness Gateway Schools program (part of the Queensland Government's multi-sector Gateways to Industry Schools Program)—there are currently 38 schools in the program split across 5 regions, and DAF provides guidance and financial support to these schools to complete action plans that include agribusiness in their curriculum (such as science, technology, business, English and mathematics), highlight the broad range of opportunities in the real world of food and fibre production, and support successful transition into further education, training or employment in the agribusiness sector.

Objective 2: Manage biosecurity risk

Establishing and maintaining market access for our products is essential for export growth and the future prosperity of our agricultural, fisheries and forestry industries. Discerning markets and the community demand not only pest-free products, but ethically produced ones.

Biosecurity Queensland works to mitigate the risks and impacts of animal and plant pests and diseases and weeds to the economy, the environment, social amenity and human health. This service area also upholds standards for animal welfare and agricultural chemical use. This involves effective preparedness for and prevention of biosecurity risks, as well as effective responses to and ongoing management of biosecurity incidents. Queensland's inherent vulnerability to biosecurity incursions results from a number of unavoidable factors, including the state's largely tropical climate, geography and proximity to our neighbours in the Asia–Pacific region. As a result, Queensland is a frontline state for biosecurity in Australia, combating the most biosecurity incursions each year.

Over the last 2 years, Biosecurity Queensland has been preparing staff, stakeholders and the community for the commencement of the *Biosecurity Act 2014* on 1 July 2016.

Outlook

The Queensland Biosecurity Capability Review confirmed that Queensland is facing more biosecurity threats more often. The increased movement of products and people around the world; climate, land use and environmental change; and free-trade arrangements play a contributing role to heighten risk. The capability review report released in April 2016 recommended action in four key areas:

1. addressing immediate capability gaps in Biosecurity Queensland
2. developing a best practice Queensland biosecurity system, in which industry, the community and all levels of government accept their proportionate share of risk management responsibilities
3. deciding on levels of investment for specific pests and diseases based on risk, rate of return and distribution of public and private benefits
4. building Biosecurity Queensland as Australia's leading biosecurity agency.

Key performance indicators

- KPI: Significant biosecurity response programs deliver nationally agreed outcomes
- KPI: Minimum standards for normal biosecurity commitments demonstrated

Priorities for 2016–17

Our priorities for 2016–17 are to:

- implement recommendations from the Queensland Biosecurity Capability Review, including development of a 5-year strategy and action plan, a regional shared responsibility pilot program, an investment framework and better information management
- deliver ongoing awareness, training and tools to support the implementation of the *Biosecurity Act 2014* and the *Exhibited Animals Act 2015*

- boost marine pest preparedness and prevention, and enhance diagnostic services
- continue management of Panama disease tropical race 4 in bananas
- continue nationally significant biosecurity eradication responses, including red imported fire ants, red witchweed, four tropical weeds and exotic fruit fly in the Torres Strait
- implement better control of weeds and pest animals in drought-affected areas.

Delivering on our 2015–16 priorities

Implement and modernise legislative arrangements

Our commitment

We said we would implement the *Biosecurity Act 2014* and modernise legislative arrangements for veterinary surgeons, exhibited animals and agricultural and veterinary chemicals.

What we delivered

We prepared for the commencement of two new Acts on 1 July 2016 and modernised regulations.

The *Biosecurity Act 2014* and the Biosecurity Regulation 2016 deliver a consistent, modern, risk-based approach to biosecurity. The Regulation prescribes ways in which an individual's general biosecurity obligation can be met to prevent or minimise a biosecurity risk. It also includes measures to prevent or control the spread of biosecurity matter, sets maximum acceptable levels of contaminants in carriers and sets fees based on a cost recovery approach. Key actions designed to reduce costs to industry while enhancing risk management included:

- discontinuing 54 unnecessary fees, reducing the number of fees from 87 to 33
- providing a 66 per cent subsidy for livestock entity registration
- committing to review plant health and animal health inspection fees during 2016–17
- introducing additional regulatory tools, such as an enhanced livestock entity registration to enable rapid tracing of animal movements in an emergency
- simplifying and strengthening the cattle tick management framework by removing the confusing control zone and aligning the tick line with double-fenced boundaries in some areas
- engaging affected stakeholders through industry meetings, events and tailored information and training
- developing new forms, procedures, guidelines, systems and updated web pages to ensure readiness to meet client needs.

Some regulatory activities of the Veterinary Surgeon Board were also reviewed.

The exhibited animal industry is a major contributor to Queensland tourism. Industry consultation on the regulatory impact of the *Exhibited Animals Act 2015* occurred as part of an extensive stakeholder engagement program.

The Act:

- streamlines and simplifies the regulation of exhibitors, which previously operated under four separate Acts and six licensing schemes
- ensures that risks to animal welfare, public safety and biosecurity are adequately addressed
- enables the exhibition of some exotic species already allowed in other Australian states or territories
- addresses the inequity of previous fees, with fees to be based on the scale and complexity of an operation, the cost of providing a licensing service for the industry and the resources required to authorise and monitor exhibitors.

An intergovernmental agreement for a single national regulatory framework for regulation of agricultural chemicals and veterinary medicines was signed by the Queensland Government in 2013. DAF is represented on the national working groups developing implementation plans for the framework, which is expected to be finalised in 2017.

Strengthen and develop government partnerships and frameworks

Our commitment

We said we would strengthen and develop new state and local government partnerships and frameworks to support shared decision-making and service delivery.

What we delivered

We formed and strengthened state and local government partnerships and shared responsibility frameworks.

To support shared responsibility for pest and disease management, our achievements included:

- providing $7 million to support the community with regionally agreed weed and pest animal management on-ground activities through the joint Queensland and federal government–funded Queensland Feral Pest Initiative
- training more than 400 local government officers to implement *Biosecurity Act 2014* responsibilities, including risk-based decision-making
- completing a pilot Good Neighbour Program case study with the Flinders Shire Council, South Gulf Natural Resource Management Group and landholders to measure the cost of removing prickly acacia along fence boundaries
- delivering more than 35 weed and pest animal research projects jointly with local government
- forming a research partnership with CSIRO and other government agencies in a $12 million national project to find effective biological controls for weeds such as giant rat's tail grass, mother of millions, cabomba and prickly acacia
- moving Johne's disease management from regulatory control to biosecurity measures managed at the individual farm level

- delivering the foot-and-mouth disease awareness campaign, scheduled to conclude in August 2016, to protect our valuable cloven foot livestock—spreading the shared responsibility message for prevention and preparedness to producers, veterinarians, food outlets and supply chain partners
- developing an agreed regulatory framework for banana biosecurity with the industry, under which each party contributes to achieving biosecurity outcomes.

Biosecurity Preparedness Program (foot-and-mouth disease)

Australia's favourable foot-and-mouth disease–free status supports Queensland's access to valuable export markets for many livestock products. Even a small outbreak in Queensland will cost more than $5 billion in lost revenue over 10 years.

The Queensland Government sponsored a 3-year program to enhance preparedness for foot-and-mouth disease in Queensland to protect our valuable livestock industries.

In 2015–16, Biosecurity Queensland introduced a campaign to increase the awareness of the impacts of an outbreak and promote early detection of the disease should it occur in Queensland.

The campaign consisted of advertising, media and social media promotion supported by direct mail of information packs to livestock industry stakeholders. Free online eLearning courses are now available on the DAF website to increase the livestock community's understanding of the disease and raise awareness of prevention and early detection measures.

Queensland is better prepared for foot-and-mouth disease through a dedicated program of activities, including:

- enhanced arrangements to implement and manage a livestock standstill—a critical tool in the management of foot-and-mouth disease to stop the movement of livestock and the virus
- surveillance plans during response and proof-of-freedom phases to allow Queensland's primary industries to return to business as usual in the shortest possible time
- an emergency vaccination strategy for Queensland
- planning for the management of mass animal destruction and disposal.

While the program concluded on 30 June 2016, biosecurity preparedness remains an integral part of the ongoing business activities of Biosecurity Queensland.

Finalise the review of Queensland's biosecurity capability

Our commitment

We said we would finalise the review of Queensland's biosecurity capability.

What we delivered

We released the Queensland Biosecurity Capability Review and allocated further funding to build Queensland's biosecurity capability.

The Queensland Biosecurity Capability Review was a key election commitment for the Queensland Government, with a view to restoring the state's biosecurity response capability to world's best practice. The final report was delivered by the independent panel on 25 September 2015 and publicly released on 11 April 2016, along with the government's interim response.

The final report included 32 recommended actions to set the biosecurity system on a sustainable course for the future. The department has developed a targeted implementation program to deliver on the core outcomes of the report. This is being supported by the government's additional investment of $10.8 million over 4 years to:

- develop a biosecurity strategy and action plan outlining the roles and responsibilities of all key stakeholders within the biosecurity system
- improve biosecurity incident preparedness and response capability
- boost laboratory capacity with improved detection of plant pests and diseases
- develop an investment framework providing for greater consistency and transparency in internal resource allocations
- undertake a regional pilot program to manage biosecurity threats on a local level
- improve management of threats posed by marine pests and diseases through partnering
- invest in Biosecurity Queensland's workforce to meet tomorrow's biosecurity threats.

The department will undertake a consultation program with stakeholders, including detailed discussions on programs and funding challenges presented in the report.

Continue development of biosecurity systems and practices

Our commitment

We said we would continue the development of better bio. security information management systems and practices.

What we delivered

We continued to develop the Biosecurity Information Management System.

The Biosecurity Information Management System project commenced in May 2014. The system aims to speed up access to information needed to support emergency responses and the implementation of the *Biosecurity Act 2014* and *Exhibited Animals Act 2015*. The main spatial component of the system went live for operational use in late 2015. The first stage of the core business systems release was ready to go live to coincide with the introduction of the two new Acts.

Manage nationally significant eradication responses

Our commitment

We said we would manage nationally significant biosecurity eradication responses, including obligations under national cost-sharing arrangements.

KPI Significant biosecurity response programs deliver nationally agreed outcomes

What we delivered

We achieved 100 per cent agreed outcomes for significant biosecurity response programs.

Biosecurity Queensland is currently delivering seven programs under national cost-sharing arrangements:

1. National Red Imported Fire Ant Eradication Program (South East Queensland)
2. National Red Imported Fire Ant Eradication Program (Yarwun)
3. National Red Imported Fire Ant Eradication Program (Brisbane Airport)
4. National Electric Ant Eradication Program
5. National Four Tropical Weeds Eradication Program
6. National Red Witchweed Eradication Program
7. Exotic Fruit Flies in Torres Strait Eradication Program.

Biosecurity Queensland is also delivering significant responses to Panama disease tropical race 4 in North Queensland and cucumber green mottle mosaic virus outside national cost-sharing arrangements.

Table 6: Significant biosecurity responses

Service/ indicator	Measure	Target			Variation/commentary
			2014–15	2015–16	
Service standard Effectiveness	Number of significant response programs		6	7	Agreed cost-sharing responses vary as they are subject to review and negotiation.
Service standard Effectiveness	Percentage of significant response programs on track to deliver nationally agreed outcomes (on time and on budget)	100%	100%	100%	
Service standard Efficiency	Average cost per hour to deliver biosecurity services for Queensland	$60	Not measured	$48	Reforms to the Biosecurity Queensland business model have resulted in lower costs to deliver biosecurity services—the target for 2016–17 has been adjusted accordingly.

Impacts from biosecurity incursions go beyond the industry involved, with significant flow-on effects to the rest of the economy, the environment and social amenity. During 2015–16, Biosecurity Queensland demonstrated its capacity to meet all service requirements by effectively responding to 43 new incidents:

- 2 related to animal biosecurity (both closed)
- 29 related to plant biosecurity (20 closed, 9 ongoing)
- 12 related to invasive animals (8 closed, 4 ongoing).

Contractual arrangements are in place between the federal, state and territory governments and relevant industry groups to collectively prepare for and share the costs of responding to an emergency pest or disease incursion. These are outlined in the Emergency Animal Disease Response Agreement, the Emergency Plant Pest Response Deed and the National Environmental Biosecurity Response Agreement.

Under these agreements, the Queensland Government received funding for its significant response programs. Also, in accordance with these agreements, the Queensland Government provided its commitment to cost-sharing of funding for national responses being managed by other states and territories, including red imported fire ants (New South Wales), banana freckle (Northern Territory), avian influenza (New South Wales) and giant pine scale (Victoria and South Australia).

Raise animal welfare standards

Our commitment

We said we would establish a ministerial animal welfare advisory board and a protecting puppies initiative to raise animal welfare standards.

What we delivered

We established the new Animal Welfare Advisory Board and laws to protect puppies.

DAF improved legislation and strengthened standards to meet community expectations, protect the reputation of Queensland's animal industries and ensure the welfare of animals in Queensland. Our initiatives included:

- establishing the new Animal Welfare Advisory Board, comprising technical, community and industry representatives to advise the Minister on animal welfare matters—the Minister appointed members to the board on 9 June 2016
- amending the *Animal Management (Cats and Dogs) Act 2008* with the passage of the *Animal Management (Protecting Puppies) and Other Legislation Act 2016*—all dog breeders must register, include a breeder identification number on dog microchips and display breeder identification at point of sale and supply of all puppies sold after commencement of the Act
- increasing funding to our key animal welfare partner, the RSPCA, to undertake additional compliance and enforcement activities and improve the organisation's infrastructure in North Queensland
- investigating 1226 animal welfare complaints received by the department.

Benchmark service delivery

Our commitment

We said we would implement a risk-based strategy for biosecurity resources and benchmark service delivery.

KPI Minimum standards for normal biosecurity commitments demonstrated

What we delivered

We participated in a national benchmarking pilot.

The jurisdictional reviews for the National Biosecurity Committee pilot, using a peer review process of normal commitments under the National Environmental Biosecurity Response Agreement, was conducted in New South Wales in November 2015 and Victoria in February 2016. Queensland will be peer reviewed in October 2016. A report detailing learnings and observations will be presented to the committee by November 2016.

The Intergovernmental Agreement on Biosecurity establishes nationally agreed approaches to mitigate risks across the biosecurity continuum and identifies national priorities for action. The agreement helps the federal, state and territory governments avoid unnecessary duplication of biosecurity activities, improve the efficiency of resource use and clarify their respective roles and responsibilities. The agreement is linked to international agreements.

A formal review of the agreement is currently underway, and due for completion in early 2017. Led by an expert panel, the review will also consider the capacity of Australia's national biosecurity system. A discussion paper has been released to inform the final review report. DAF has met with the review panel and also responded to the discussion paper to ensure that the agreement moves forward in a manner that is consistent with the findings of the Queensland Biosecurity Capability Review report

Objective 3: Optimise the value of fisheries and forestry resources

The Fisheries and Forestry service area ensures sustainable and productive fisheries and the responsible allocation and use of state-owned forests and related resources.

The effective management of fisheries supports a balance between the economic, social and environmental value of the resource. Queensland has over 7000 kilometres of coastline, many thousands of kilometres of rivers and streams, and hundreds of freshwater impoundments in which fishing occurs. In addition, a number of commercial fisheries are managed by the Australian Government operating in Queensland and a number of fisheries are managed under joint authority arrangements, including fisheries in the Torres Strait and some fish species in the Gulf of Carpentaria.

The department's forestry group administers the allocation and sale of state-owned native forest log timber, quarry material and other forest products on a commercial basis under the *Forestry Act 1959*. The group oversees the 99-year plantation licence held by HQPlantations Pty Ltd, which enables the company to manage, harvest and regrow plantation timber on some 300 000 hectares of Queensland's state plantation forests.

This group also supports the development of Queensland's forest and timber industry, which has an annual turnover of $3.2 billion and includes the growing, processing, timber product manufacturing and pulp and paper sectors.

Outlook

In 2016–17, we will continue to engage with stakeholders as we work our way through the fisheries reform program to develop fisheries management policy settings and frameworks.

Short- to medium-term demand for state-owned native forest log timber and quarry material is expected to remain relatively constant, with marginal falls expected as the private sector continues to reduce its mining-related activities and infrastructure investment from the high levels experienced in recent years.

Key performance indicators

- KPI: Sustainability of Queensland fish stocks
- KPI: Level of compliance with fisheries laws
- KPI: Financial returns from forestry resources in state-owned forests and other lands
- KPI: Recognised accreditation of fishery and forestry certifications

Priorities for 2016–17

Our priorities for 2016–17 are to:

- continue to progress the government's Sustainable Fishing Policy, including processes to
  - develop a fisheries resource allocation policy based on maximising economic value
  - reform regulatory arrangements governing Queensland fisheries across all sectors
  - review the regulatory structure of commercial fishing to ensure the sustainability of Queensland's fisheries

- release a discussion paper on a charter fishing action plan
- engage with both recreational and commercial fishing organisations to investigate how a commercial net-free fishing area can be best instituted in Moreton Bay to obtain the maximum gain from the fisheries resource for the benefit of the region

- commence implementation of initiatives outlined in the *Queensland aquaculture policy statement*
- continue to implement a range of actions identified in the joint industry–government *Queensland forest and timber industry plan*
- implement the forest and timber industry RD&E program in consultation with industry
- continue to fulfil the state's contracted supply commitments for native forest log timber, other forest products and quarry material
- oversee the plantation licence held by HQPlantations Pty Ltd on behalf of the Queensland Government.

Delivering on our 2015–16 priorities

Implement the government's Sustainable Fishing Policy

Our commitment

We said we would implement fisheries-related elements of the government's Sustainable Fishing Policy by:

- developing a fisheries resource allocation policy based on maximising economic value
- developing a charter fishing action plan
- establishing three net-free fishing zones in North and Central Queensland
- reviewing the regulatory structure of commercial fishing, including consideration of the Queensland Competition Authority review of aquaculture regulations, to ensure the sustainability of Queensland's fisheries
- improving consultation mechanisms for fisheries stakeholders.

What we delivered

We continued to implement the government's Sustainable Fishing Policy.

Progressed a fisheries resource allocation policy

A green paper on fisheries management reform was approved by government and is expected to be released for public comment in the first quarter of 2016–17. The green paper, among other matters, considers resource allocation options, improved consultation mechanisms for fisheries stakeholders and a strategic approach to harvest management that will guide future

reforms to the regulatory structure of commercial fishing. The reform principles are likely to draw considerable public interest and comment. A program of consultation with stakeholders and the general public is planned.

Developed and consulted on a charter fishing discussion paper

Consultation occurred with charter operators, resulting in a draft discussion paper that is now being considered by government.

Established net-free zones

Three net-free zones were created in Central and North Queensland in November 2015. The net-free zone licence buyback scheme supporting the implementation closed on 2 December 2015, which saw QRAA purchase 27 licences. A second buyback scheme will be made available to licence holders in 2016–17. Monitoring of compliance with the zones continues. Local recreational fishers already report better catches and this should only continue to improve over subsequent seasons. An independent monitoring program is in place to determine the extent of any changes.

Consideration of a net-free zone for Moreton Bay is progressing and will likely draw significant public interest.

Establishing net-free zones

A key project in 2015–16 for Fisheries Queensland was to implement the government's election commitment to establish three net-free zones—one in Cairns, one near Mackay and one along the Capricorn Coast east of Rockhampton, including the Fitzroy River.

The commitment was made to reduce commercial net fishing to allow greater access to fish stocks for recreational fishers and boost the economic opportunities based on recreational fishing to be realised.

The task was to complete implementation during 2015. Fisheries Queensland set clear and unambiguous targets, ensured they were completed and built in mechanisms that allowed for modification as the process evolved to allow for changes to both government and stakeholder positions over the year.

The key tasks included:

- confirming clear expectations from the government and Minister about the intent of the election commitment, including timing
- planning the delivery
- engaging in public consultation
- designing a $10 million industry support and adjustment program
- obtaining government approvals at various stages of the process
- developing new fisheries and QRAA regulations (in cooperation with QRAA)
- providing evidence and support to parliamentary processes
- assisting fishers and QRAA with the rollout of assistance schemes and claims for compensation under the *Fisheries Act 1994*.

Fisheries Queensland staff completed the project on time and on budget. The planned approach taken ensured that all stakeholders were involved, relationships were maintained that otherwise may have been strained and the Minister's and government's expectations were met. Fisheries Queensland was recognised in the DAF November 2015 achievement awards, winning the excellence in performance category.

Released the *Queensland aquaculture policy statement*

The *Queensland aquaculture policy statement* was released on 22 April 2016. This policy responds to the Queensland Competition Authority's (now the Queensland Productivity Commission) *Aquaculture regulation in Queensland* report. The statement articulates the government's vision, initiatives and support for land-based and marine non-intensive aquaculture development in Queensland. It provides a framework for the future development and growth of a sustainable, diverse and innovative Queensland aquaculture industry. All the report recommendations were considered by government and the policy supported the following recommendations:

- creating terrestrial aquaculture development areas, including the identification of 450 hectares suitable for aquaculture operations within 2 years
- developing assessment codes that contain the regulatory conditions for aquaculture for each aquaculture development area
- providing certainty about the future price and availability of environmental offsets
- investigating the potential for marine aquaculture development areas.

Balance resource use and sustainability

Our commitment

We said we would balance resource use and sustainability needs by:

- authorising the use of natural resources
- monitoring and assessing fisheries resources
- maintaining trade and access through the accreditation of commercial fisheries
- undertaking education and compliance activities
- adopting new technologies that lead to more cost-effective catch reporting and compliance outcomes
- minimising unintended impacts of fishing and developments
- managing marine waters according to intergovernmental agreements
- continuing the shark control program.

KPI Sustainability of Queensland fish stocks

KPI Recognised accreditation of fisheries

What we delivered

We ensured sustainability of fisheries resources through authorising use, education, compliance and ongoing assessments.

Authorised the use of natural resources

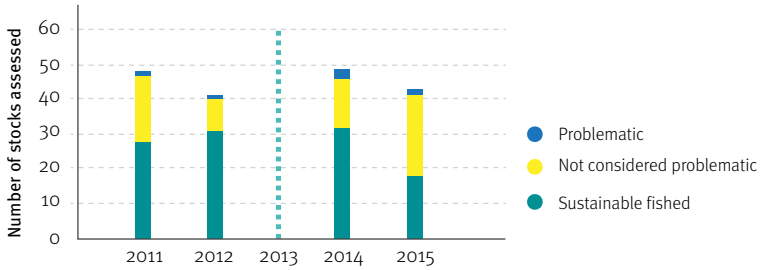
To ensure sustainable fisheries resources, DAF managed access to and monitored:

- wild capture commercial fisheries, in which 1406 commercial fishing boat licence holders may operate in a variety of fisheries (including trawl, net, crab, line and lobster fisheries)
- harvest fisheries, in which 327 licence holders may operate in a variety of fisheries (including aquarium, bait, shell, sea cucumber and trochus).

To support freshwater recreational fishing, fishing-related business and tourism opportunities in Queensland's regional communities we:

- added an additional 31 freshwater dams covered by the Stocked Impoundment Permit Scheme (SIPS), bringing the total to 63 impoundments
- continued to return a significant proportion of the revenue raised from SIPS to 32 stocking groups to raise and release juvenile fish and fingerlings into these waterways.

Monitored and assessed fisheries resources



Note: The figure broadly charts the results of fish stock assessment over time. Results from 2014 and following years are not directly comparable to prior years' results due to changes in assessment methodology.

Differences in the data:

- sustainably fished prior to 2014 included a category termed not fully utilised
- not considered problematic, includes the former stock status of 'uncertain'
- considered problematic prior to 2014, was defined as overfished but is now much broader and captures stocks where stocks are recovering, depleting or environmentally limited.

Figure 10: Assessment of fish stock summary

The department routinely monitors and evaluates key fish stocks. The monitoring and evaluation process constantly evolves to ensure adequacy and reliability of data collection and assessment techniques.

In 2013, the Queensland Government joined other states in moving to agreed national protocols for conducting stock status assessments. The national protocols are now referred to as the Status of Key Australian Fish Stocks program. The program is coordinated by the Fisheries Research and Development Corporation with guidance from an experienced national advisory group, including a delegate from Queensland. The assessments are conducted and published every 2 years. The last process was completed at the end of 2014 and the 2016 assessments are expected to conclude in December.

Every other year, DAF conducts stock status assessments on any important Queensland fish stocks that are not included in the national process. This ensures the status of all key Queensland fish stocks are assessed against nationally agreed criteria at least once in every 2-year period. Stock status assessments combine catch, effort and biological data to assign a status to each fish stock, using a weight-of-evidence approach against clearly defined criteria. In Queensland, the majority of fish stocks are classified as 'sustainable' or 'undefined'. Undefined means that there is insufficient information to confidently assign a status, but no immediate sustainability concerns are evident.

Table 7: Sustainability of Queensland fish stocks

Service/ indicator	Measure	Results		
		Targets	2014–15	2015–16
Service standard Effectiveness	Percentage of key Queensland fish stocks assessed as having no sustainability concerns	85%	94%	93%

Currently there are sustainability concerns over three Queensland fish stocks—snapper, pearl perch and the Gulf of Carpentaria king threadfin. Snapper was first classified as 'overfished' in 2009, while pearl perch and the Gulf of Carpentaria king threadfin stocks were classified as 'transitional depleting' in 2015. Further scientific assessments and monitoring activities have commenced for pearl perch and threadfin.

Maintained trade and access through the accreditation of commercial fisheries

There has been no change in fisheries export accreditations since 2012–13, when the department withdrew the rocky reef finfish fishery from the accreditation process as there had been no export from that fishery. In the same year, the coral reef and deep-water finfish fisheries were combined. The result is based on an independent assessment of how well DAF manages the sustainability of the nominated Queensland fisheries (i.e. those that commercial fishers are interested in exporting). Accreditation to export is granted by the Australian Government's Department of the Environment and Energy.

Table 8: Queensland fisheries accredited for export

Service/ indicator	Measure	Results				
		2011–12	2012–13	2013–14	2014–15	2015–16
Service standard Effectiveness	Queensland fisheries accredited for export	21	19	19	19	19

Maintained a high level of compliance with fisheries laws through education and compliance activities

Our 88 authorised QBFP patrol officers undertook over 45 000 hours of patrols to maintain compliance with fisheries and boating safety laws. QBFP resources are allocated through a formal assessment of compliance risks to target high-risk illegal fishing activity and maintain high visibility in areas of public concern. The community is active in reporting suspected illegal

fishing activity through the Fishwatch online form on the DAF Fisheries Queensland Facebook page, which has 22 000 followers.

Enforcement is supported through joint operations with QBFP's long-time partner, Maritime Safety Queensland, and other agencies such as the Queensland Water Police and Department of National Parks, Sport and Racing. QBFP also undertakes educational activities to inform industry forums, community groups and schools of fishing and boating regulations.

Raising awareness of fishing rules and size and possession limits is supported by the free Qld Fishing app (which has been downloaded over 21 000 times since its launch in August 2014), DAF's website and the annually printed *Queensland recreational boating and fishing guide*.

Compliance with fisheries laws has remained consistently high over the last 5 years, with rates of 95 per cent in 2011–12, 93 per cent in the each of the last 3 years and 92 per cent this year. Maintaining the highest levels of compliance with fisheries regulations ensures the sustainability of fisheries resources and provides fair and equitable access for all users.

Table 9: Service standards for QBFP

Service/ indicator	Measure	Target	Result 2015–16
Service standard Effectiveness	Fisheries inspections that are compliant with fisheries laws	93%	92%
Service standard Effectiveness	Average cost of inspections	$480	$456
Service standard Effectiveness	Average number of inspections per FTE	298	295

Extended the use of eLogs

We conducted on-water trials of eLogs for logbook returns for the east coast line fishery. eLogs are now available in all Queensland line fisheries. Development work progressed to enable eLog submission for the stout whiting fishery.

Minimised the unintended impact of developments

DAF has a statutory and supporting role to provide advice or assess applications or plans to ensure infrastructure developments do not negatively impact fisheries habitats. Advice is provided to a range of stakeholders, including:

- the Department of Infrastructure, Local Government and Planning and the State Assessment and Referral Agency for development applications
- the Office of the Coordinator-General for applications for significant development/major projects subject to environmental impact statements
- Economic Development Queensland for priority development areas
- EHP and/or applicants (*Environmental Offsets Act 2014*) for tidal works and allocation of quarry material from tidal areas

- the Department of Natural Resources and Mines for certain tenure in or adjacent to tidal lands and for 'most appropriate' land-use planning
- Maritime Safety Queensland for buoy mooring applications.

Table 10: Developmental approvals

Service/ indicator	Measure	Results			
		2012–13	2013–14	2014–15	2015–16
Service standard Effectiveness	Percentage of applications for development-related approvals processed within agreed timeframes and within budget	Not measured	100%	100%	100%

Maintained the Shark Control Program

Queensland's Shark Control Program was introduced in 1962 following two fatal shark attacks. The program protects 85 beaches at 10 centres along Queensland's east coast, from the Gold Coast to Cairns.

The Shark Control Program has strong support from local governments, the Queensland Surf Lifesaving Association and business and tourist agencies, as it is seen to provide a safer swimming and surfing environment at popular beaches in Queensland. In 2015–16, the program removed 647 potentially dangerous sharks, including 8 great whites, 258 tiger sharks, 106 bull sharks and 275 other whaler sharks. The removal of such potentially dangerous large shark species is important in reducing the risk of shark attacks.

A mix of nets and drum lines is used, which are designed to catch sharks over 2 metres long that may pose a threat to people engaged in water activities in the immediate vicinity of popular beaches. Given the limited area of operation, the program is unlikely to impact upon the sustainability of shark populations in Queensland waters. To reduce the risk of entanglement and capture of non-target species, such as whales and dolphins, the program:

- fitted new-generation acoustic alarms to nets (net pingers), which appear effective in reducing incidental capture
- trialled a new data logging buoy at the Gold Coast with positive results—this prototype buoy is designed to monitor the operation of pingers at the net and transmit a text message if a malfunction is detected
- was supported by a network of volunteer whale observers along Gold Coast and Sunshine Coast beaches, and a toll free number (1800 806 891) for reporting trapped animals.

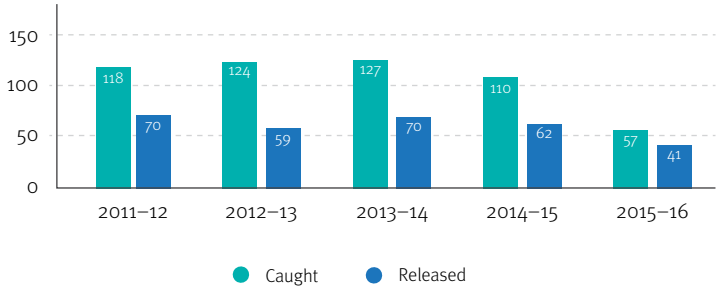


Figure 11: Non-target species catch by the Shark Control Program (source: DAF open data and 2015–16 Shark Control Program statistics)

Intergovernmental agreements for managing marine waters

Accreditation of aquaculture discharge adjacent to the Great Barrier Reef Marine Park (2005)

Queensland law is accredited under the federal Great Barrier Reef Marine Park (Aquaculture) Regulations 2000. Based on this agreement, permission from the Great Barrier Reef Marine Park Authority is not required to operate any land-based aquaculture facility that discharges aquaculture waste to a waterway leading to the Great Barrier Reef Marine Park.

Conservation agreement for assessment of applications under the Great Sandy regional marine aquaculture plan (2011)

The conservation agreement between Queensland and Australian government ministers for the *Great Sandy regional marine aquaculture plan* means that applications for aquaculture that comply with the plan do not require a separate assessment or approval under the *Environment Protection and Biodiversity Conservation Act 1999*. Instead, matters under the Act are covered through the issue and conditions of the development approval (under the *Sustainable Planning Act 2009*) and resource allocation authority (under the *Fisheries Act 1994*), which are assessed under the plan.

Shared waters

Management arrangements for commercial fisheries are established under the Offshore Constitutional Settlement 1995 agreement and resulting memorandum of understanding between the Queensland, Northern Territory and Australian governments to manage shared waters.

The Queensland Fisheries Joint Authority (established in 1995) manages some northern finfish stocks within offshore waters in the Gulf of Carpentaria.

The Torres Strait Protected Zone Joint Authority (established in 1984) manages all commercial fisheries in the Torres Strait Protected zone.

There are no joint authorities operating in the Queensland East Coast.

Great Barrier Reef Marine Park Authority Intergovernmental Agreement—Schedule E

This schedule recognises Australia's international responsibilities for the Great Barrier Reef World Heritage Area under the World Heritage Convention, Offshore Constitutional Settlement arrangements, the intergovernmental agreement, associated Australian and Queensland government legislative provisions and the role of the Ministerial Forum to ensure both governments apply the guiding principles established in the intergovernmental agreement to fishing and collection of fisheries resources in the Great Barrier Reef World Heritage Area.

Fulfil the state's forestry supply commitments

Our commitment

We said we would fulfil the state's contracted supply commitments for native forest log timber, other forest products and quarry material.

KPI Financial returns from forestry resources in state-owned forests and other lands

KPI Recognised forest certifications

What we delivered

We delivered expected financial returns while meeting environmental and community expectations.

Around 30 000 hectares of state-owned native forests are selectively harvested each year, supplying around 14 per cent of Queensland's domestically produced log supply. Native forest log timber sales for 2015–16 were about 251 700 cubic metres, approximately 4.9 per cent above the pro rata target.

The department's quarry material sales are the source of some 16 per cent of the quarry material used in Queensland each year, and these sales play a key role in supporting infrastructure, mining, industry and commercial development across the state. Quarry material sales for 2015–16 were about 3.96 million cubic metres, approximately 5.7 per cent below the pro rata target.

Table 11: Service standard—forest product sales

Service/ indicator	Measure	Results				
		2011–12	2012–13	2013–14	2014–15	2015–16
Service standard Efficiency	Total of forest product sales, quantities per total forest product FTE: – native forest timber (m^3/FTE)	2 297	2 600	3 000	3 210	2 665
	– quarry material (m^3/FTE)	64 585	69 340	66 950	49 790	41 935
Service standard Effectiveness	Percentage of findings from previous third party audit confirmed as satisfactorily addressed in order to maintain certification to the *Australian standard: sustainable forest management* (AS4708:2013)	Not measured	Not measured	Not measured	Not measured	100%

The measures shown assess the efficiency of management and administration of state-owned forest and related resources. Although sales of state-owned forest products are continuing at relatively high levels, demand for quarry material is significantly lower due to reduced mining and infrastructure investment, while demand for state-owned log timber has tapered as hardwood sawmills in particular sourced a larger proportion of their log timber requirements from privately owned native forests.

The department's continued *Australian standard: sustainable forest management* (AS4708:2013) certification provides the necessary basis for sawmillers and other timber processors to obtain chain-of-custody certification, allowing them to label and promote their timber products as being sourced from responsibly managed forests.

DAF's forest certification ensures that state-owned forests continue to deliver a balanced range of custodial and commercial benefits and uses to the community—including conservation, recreation and cultural heritage, as well as the production of timber and other forest products. The audit report from a scheduled independent surveillance audit of DAF's Forest Management System undertaken in November 2015 confirmed that the findings of a recertification audit undertaken in early 2015 had been satisfactorily addressed.

Our role also includes overseeing compliance with the conditions of the licence held by HQPlantations Pty Ltd. HQPlantations Pty Ltd collaborated effectively with the department on plantation licence requirements during 2015–16.

Review the government's response to the forest and timber industry plan, and implement the industry RD&E program

Our commitment

We said we would:

- review and update the Queensland Government's response to the joint industry–government *Queensland forest and timber industry plan* developed in 2012
- implement the forest and timber industry RD&E program in consultation with industry.

What we delivered

We actioned the *Queensland forest and timber industry plan*:

- We continued to implement a range of actions under the plan, including
  - establishing an industry-led RD&E framework and initiating eight aligned research projects
  - introducing new measures to facilitate and manage plantation developments, including the recently completed voluntary *Timber plantation operations code of practice for Queensland*
  - supporting industry to achieve environmental certification of their wood products by providing grants to help businesses develop systems and complete auditing needed for certification
  - publishing an overview of the industry that includes reliable statistics about the industry's contribution to the Queensland economy.
- A private native forestry extension service project, aimed at increasing awareness and investment in private native forestry opportunities, has been initiated by advertising an invitation to offer by prospective service providers.

Streamlined electronic hardwood sawlog sales and inventory management

In April 2016, Parkside Building Supplies Pty Ltd, the department's largest timber processing customer, introduced a sawlog barcoding system for state-owned native forest hardwood sawlogs, which it purchased from the department. The department's Forest Products unit worked closely with Parkside to refine and trial the new system, which is an adaptation to South East Queensland conditions of a similar system already used by Parkside for state-owned sawlogs in the western hardwoods region.

Under the system, Parkside measures and electronically records relevant descriptive information about individual sawlogs harvested from state-owned native forests and affixes a barcoded identifying number to each sawlog. This barcode remains on the sawlog for tracking until it is processed at one of Parkside's three sawmills, which are located at Theodore, Wandoan and Wondai. Relevant data from the system is periodically electronically uploaded to the department's sales management system.

The barcoding system enables Parkside to manage its sawlog processing operations more efficiently through real-time control of its sawlog inventory across its network of sawmills, and to monitor their respective processing rates, sawn timber production and recovery rates. It also streamlines electronic data entry for both Parkside and the department.

Objective 4: Provide customer responsive services

The near universal use of technology in personal and professional life requires DAF to adapt our service delivery, business processes and systems to ensure the community can better access quality and professional services as and when they need them. While a significant proportion of our business is supported by personal interaction with technical experts, phone enquiries and support services, we have made considerable investment in expanding our service delivery channels and updating supporting systems.

DAF focuses on renewing our organisational capability and systems to better meet current service demands, while also looking to develop capabilities to operate more effectively as a contemporary and increasingly digitally enabled business. 'Our organisational capability' section on page 65 provides greater detail about the development of our people, governance structures, financial and business systems, and public accountabilities.

Outlook

Whole-of-government initiatives will continue to drive change and unify the sector to make it easier for individuals and businesses to find and use services, participate in policy and service development, and access open data held by the department. DAF will look to leverage these initiatives for the benefit of our customers and stakeholders.

While maintaining DAF's unique identity as a strong advocate for the agriculture, fisheries and forestry sector, we will work as one government, embodying the public service values to deliver the right outcomes for Queenslanders.

Key performance indicators

- KPI: Integration with the one-stop shop services
- KPI: Customer, stakeholder and partner trust and confidence
- KPI: Reduction of red tape and regulatory burdens
- KPI: Improved staff and partner capabilities
- KPI: Service costs, service standards and benchmarks met

Priorities for 2016–17

Our priorities for 2016–17 are to:

- build better relationships and gain greater understanding of the communities we serve through the DAF *Strategic engagement strategy* and the proposed customer experience strategy
- reflect contemporary governance practices and improve the basis for decisions on how to utilise our resources to achieve the best outcomes
- build our people capabilities through a digital workforce strategy
- continue to nurture a culture where the diversity of ideas, collaboration and responding quickly to changed conditions enables high performance and better customer outcomes.

Delivering on our 2015–16 priorities

Provide services through one-stop shops

Our commitment

We said we would provide services through one-stop shops.

KPI Integration with one-stop shop services

What we delivered

We delivered and increased one-stop shop services.

DAF worked with the whole-of-government one-stop shop service to help define the strategic direction of the initiative for the next 3 years. A new whole-of-government approach, supported by Parliament, will see Queensland Government services rebranded under 'me.qld' and a greater emphasis placed on putting the customer at the heart of service design.

DAF assisted with a content review of the business and industry portal—the Queensland Government's one-stop shop for business—reviewing thousands of web pages to ensure that content owned by DAF was up to date so that customers continue to have access to accurate information.

DAF has adopted the core one-stop shop concepts to design services. As services change or are newly offered, information and forms are made available online to improve the customer experience.

Other one-stop services included:

- participating in the one-stop shop service whole-of-government pilot based in Beaudesert
- piloting a one-stop service to assist private sector initiatives through the North Queensland water and land development approval processes
- delivering and improving the FutureBeef services and website (the one-stop shop for northern beef information)—the website received 102 087 visits in 2015–16.

Improve consultation

Our commitment

We said we would improve consultation with stakeholders and the community, and co-design of policy and service developments.

KPI Customer, stakeholder and partner trust and confidence

KPI Reduction of red tape and regulatory burdens

What we delivered

We streamlined regulations, assessed stakeholder and customer satisfaction, and developed strategies to improve engagement.

DAF measures stakeholder satisfaction for key agriculture services, as the Agricultural service area regularly engages with the sector's peak bodies and co-funders through annual surveys.

The Agriculture service area also coordinates the department's regulatory reform agenda. The hourly costs of this activity are monitored to ensure DAF maintains efficiency in this important and fluctuating program of work. Our major focus for streamlining regulatory burdens in 2015–16 focused on the regulations and supporting processes for business and individuals to meet their obligations under the *Biosecurity Act 2014* and the *Exhibited Animals Act 2015*.

Table 12: Stakeholder and customer satisfaction

Service/ indicator	Measure	Target	Results 2015–16	Variation/ commentary
Service standard Effectiveness	Proportion of stakeholders who have a high level of satisfaction with Agriculture policy and planning, consultation and engagement processes	70%	Not available	The 2015–16 stakeholder survey only received a very limited number of returns; therefore, a valid response was not obtained and the measure is not able to be reported. Survey timing did not permit subsequent follow-up within the reporting period. In 2016–17, emphasis will be placed on improving the survey process and response rates, including consideration of the timing of the survey and additional correspondence to stakeholders raising awareness of the importance of the survey for business improvement.
Service standard Effectiveness	Level of funding partner satisfaction that research outcomes contribute to industry productivity growth	80%	100%	As Agri-Science Queensland receives almost 40% of its funding from external sources, it is important that the research service is delivering the desired industry productivity benefits. The strong 2015–16 result is partly due to a new, more specific question of satisfaction in the DAF External Funders Survey.
Service standard Efficiency	Average cost per hour to conduct regulatory policy and reform activities	$75	$70	
Service standard Quality	Customer service measures: – number of DAF enquiries – first call resolution rate – grade of service – abandonment	No target › 80% 80% ‹ 5%	74 030 84.8% 93.0% 1.9%	The Customer Service Centre's level of service remains above industry standards.

Stakeholder engagement strategy

The DAF *Strategic engagement strategy* has been developed to guide engagement between the department and our key stakeholders. The strategy aims to ensure our stakeholders have greater clarity around the purpose of their engagement with DAF.

Stakeholder engagement in DAF has been classified into two broad groups:

- ongoing engagement that takes place over an extended period of time
- issue-specific engagement conducted over a discrete period of time to elicit a point of view on a particular issue or proposal.

Stakeholders vary in their impact, significance, interest, longevity and relevance in relation to the department's engagement objectives. A spectrum of engagement levels adapted from the International Association for Public Participation was used to define the level of engagement being undertaken for any specific purpose. This spectrum identifies five levels of engagement—inform, consult, involve, collaborate and empower. Nine key steps for engagement have been suggested to help staff prepare, implement and review their activities.

The strategy will be piloted and evaluated with engagement processes for the R&D blueprint and fisheries green paper.

Open DAF data

Our commitment

We said we would open DAF data to support community accountability and transparency.

What we delivered

We opened more data and assessed our open data maturity.

DAF continued to improve the data available through the Queensland's Government's open data portal (www.data.qld.gov.au) and QSpatial (Queensland Spatial Catalogue). As at 30 June 2016, DAF and our portfolio bodies had released 139 agriculture, fisheries and forestry datasets on the open data portal. Many of these datasets are supported by multiple resource files. All existing released datasets and resources were refreshed according to the specified review time frames.

We progressed our commitments in our revised *Open data strategy 2015*:

- We undertook an open data maturity assessment based on the Open Data Maturity Model to improve open data capability. An action plan is under development to help prioritise areas of improvement, including additional support to address the challenge around releasing research data.
- We used the annual stocktake of information assets to promote open data to data custodians and managers, and to target additional data for assessment and release. This stocktake was also used to document the alignment of published datasets with their asset holding.
- We published data catalogues of released and identified datasets in open data. We also commenced the practice of publishing code lists and other explanations to improve the understanding of our data by potential re-users.

We also provide the eResearch Archive, which is a public digital archive of scientific and research output (publications and datasets) by our staff. This research output is freely available to internet users across the world. It is maintained by our Research Information Service operating at the Ecosciences Precinct.

Develop partnerships

Our commitment

We said we would develop existing and new partnerships to achieve innovations in service delivery for the benefit of Queenslanders.

KPI Improved partner capabilities

What we delivered

We consolidated existing partnerships to achieve more effective and efficient outcomes, and found a new partner to improve customer experience.

DAF has long worked with partners to help deliver better outcomes. Our key existing partnerships include:

- university research partnerships that enable DAF and university scientists to work collaboratively to deliver enhanced research outcomes for Queensland food and fibre industries
- R&D corporation partnerships (e.g. The Australian Centre for International Agricultural Research, Horticulture Innovation Australia, GRDC and Meat and Livestock Australia) that enable DAF to co-invest in R&D to deliver agricultural outcomes for industry and the community
- local government authorities and natural resource management groups that work with us to ensure positive biosecurity and land management outcomes
- 'cross decking' or joint patrols with our compliance partners (Queensland Police, Maritime Safety Queensland and the Department of National Parks, Sport and Racing) to achieve efficiencies across compliance programs.

As part of delivering reforms to the management of SIPS, DAF developed a new customer service partnership with Australia Post to make it easier for freshwater recreational fishers to get SIPS permits. This new partnership means that customers can now purchase their permits at any of the 578 Australia Post outlets in Queensland and 10 outlets in northern New South Wales.

Build organisational capability

Our commitment

We said we would build organisational capability.

KPI Improved staff capabilities

KPI Service costs, service standards and benchmarks met

What we delivered

A detailed report on key organisational capabilities follows in the next section. DAF monitors and reviews progress on the following indicators.

Table 13: Corporate indicators of organisational capability

Service/ indicator	Measure	Results		Variation/commentary
		2014–15	2015–16	
Workforce capability	Working for Queensland Survey indicators: – agency engagement – job engagement and satisfaction – intention to leave	 56% 80% 65%	 56% 70–80% 66%	This is a whole-of-government survey conducted by the Public Service Commission. Survey questions in 2015–16 were changed. While the intent of the measures remain the same, the results across the 2 years are not directly comparable. In 2015–16, the former job engagement and satisfaction measure was captured across two indices, with results falling in the range reported.
Workforce capability	Percentage of employees with active performance and development agreements (PDAs): – SES officer PDAs assessed in line with Public Service Commission time lines – employee PDAs established, regularly reviewed and assessed	 100% 85% (averaged across the department)	 100% 49% (averaged across the department)	The PDA process involves an ongoing review cycle. The year saw changes to the way the PDA process is developed and recorded, including electronic lodgement, which may impact on the reported level of activity.
Financial capability	Balanced budget For details of the 2015–16 budget, see p. 78	A balanced operating budget for 2014–15 was recorded as at 30 June 2015	A balanced operating budget for 2015–16 was recorded as at 30 June 2016	The measure reflects the budget outcome as recorded in the department's operating statement. Note: In 2014–15, the break-even result excluded an increase in the asset revaluation reserve.
Service standards Effectiveness and efficiency	Service standards were within or exceeded planned performance targets For details on the service standards, see Appendix 3, p. 120	13 of the 14 standards met or exceeded target	15 of the 18 standards met or exceeded target	In 2014–15, one measure was unable to be reported due to change of methodology. In 2015–16, two standards were 10 per cent below target (RD&E adoption rate and quarry materials). One measure was not able to be reported due to data validity issues. See Appendix 3 for full details on all measures.