

Open Data Strategy

July 2019 – June 2020

Department of Environment and Science

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Queensland
Government

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Our Principles

Principles

Department of Environment and Science shares the Queensland Government's commitment to open data as outlined in the Queensland Government Open Data Policy Statement¹.

The Policy Statement commits to the six principles from the International Open Data Charter. These principles are:

1. Open by default
2. Timely and comprehensive
3. Accessible and usable
4. Comparable and interoperable
5. For improved governance and citizen engagement
6. For inclusive development and innovation

In continually improving the way we publish open data, Department of Environment and Science follows these principles.



Why Open Data is Important

Benefits of Open Data

We recognise our important obligation to publish data about spending, operations and performance to...

- Foster transparent, accountable, efficient responsive and effective government

We also recognise how open data can be used to benefit Queensland...

- Support the design, delivery and assessment of better services for citizens and businesses
- Improve the evidence-base for policy and programs
- Provide major opportunities for innovation and underpin growth of the digital economy

Our open data in action



Using weather data to assist farmers schedule their irrigation

"Having access to the data has significantly improved our ability to represent local weather."

Steve Attard
Agitech Solutions

Sharing Queensland wildlife data

"Access to WildNet data lets us develop a fuller understanding of the overall health of our biodiversity."

Dr John LaSalle
Atlas of Living Australia



Using soil datasets to inform client decision-making

"Quick, reliable access to soil datasets is critical in my day-to-day work."

Jon Walton
O2 Environment + Engineering

Sharing information about environmental authorities granted in Queensland

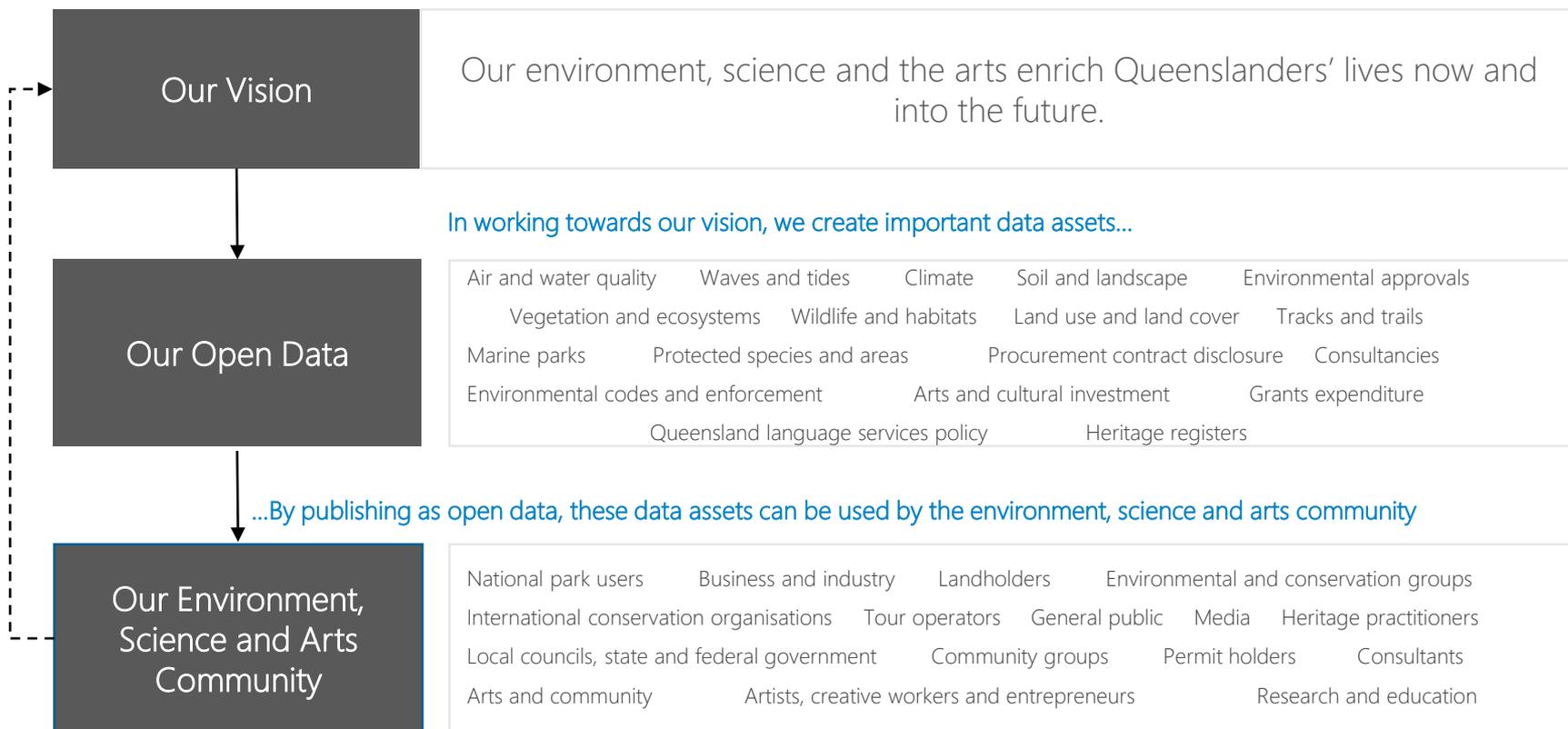
"We are a search broker that provide the s540 register searches for our client. Our clients use the data provided by the public register as part of their due diligence during their conveyancing process. We are very satisfied with the service via email provided by the public register."

InfoTrack Pty Ltd



Alignment to our Vision

Open Data supports our department's strategic vision when we make our open data accessible to the environment, science and arts community.



...To create products and services that contribute to a sustainably managed environment and promote engagement with science, heritage and the arts.
...And to make more informed decisions about how to safeguard the state's environmental values, and reduce impacts from environmental harm.

Alignment to our Vision - Case Study

An example of open data supporting our department's vision.

Online public register of environmental authorities

The Environmental Services and Regulation division of Department of Environment and Science (DES) maintains an online public register providing free access to environmental authorities (current, surrendered, suspended or cancelled). Current transitional environmental programs, environmental protection orders, environmental evaluations, enforceable undertakings, direction notices, clean-up notices and cost-recovery notices are available upon request.

The online public register is particularly valuable for members of the public, environmental groups, consultants, industry bodies and landholders seeking to view the conditions of environmental authorities or obtain information about environmentally relevant activities (ERAs) being undertaken in their local area. The online public register contains information about mining, petroleum, geothermal and greenhouse gas storage ERAs and is regularly updated. Updates relating to matters of strong public interest are prioritised. Enforcement decisions are updated quarterly.



The screenshot displays the Queensland Government website. At the top, the Queensland Government logo and name are visible. Below the logo, there are navigation links for "For Queenslanders", "Business and industry", and "Government employees". A blue header bar contains the breadcrumb trail: "Queensland Government home > For Queenslanders > Environment > Public register - Environmental Protection Act 1994". The main content area is divided into two columns. The left column, titled "Licences and permits", lists several options: "Environmentally relevant activities", "Public register - Environmental Protection Act 1994" (highlighted in blue), "Development application process", and "Development within coastal zones". The right column, titled "Public register - Environ...", contains introductory text about the Environmental Protection Act 1994 and lists two links: "Environmental authorities register" and "Enforcement register".



Alignment to our Vision - Case Study

An example of open data supporting our department's vision.

Improving policy and decisions using accessible and ready-to-use climate data

DES shares its SILO climate datasets through open data. SILO has been spatially and temporally infilled through tried and trusted scientific methods and provides complete national coverage and time series data from yesterday and back to 1889.

SILO was originally developed in partnership with the Australian Bureau of Meteorology to support biophysical modelling and, as open data, is now used across Australia for purposes including:

- Assessing drought conditions in Queensland
- Evaluating agricultural development feasibility
- Modelling reef catchment water quality
- Climate analysis using mobile apps
- Understanding climatic context during mosquito reduction research.

SILO Climate data is always a popular choice of UQ Studio 3 Projects.



Alignment to our Vision - Case Study

An example of open data supporting our department's vision.

Innovation and engagement with Science open data through use of digital assistants

"Alexa, what's the air quality in Flinder's View?"

Science Division demonstrated the potential of the open data Automated Programming Interface (API) through Advance Queensland's Testing Within Government (TWiG) program. Amazon Alexa can interrogate the Air Quality API to answer questions about air quality, for example, before travelling to a location with asthma.

"Alexa, what's the pH of the Brisbane River?"

Further potential was demonstrated at the World Science Festival using data from a water quality monitoring buoy in the Brisbane River to enable the digital assistant.

Hourly Air Quality data

Region	Station	Carbon Monoxide	Nitrogen Dioxide	Ozone	Sulfur Dioxide	Particles TSP	Particle PM10	Particle PM2.5	Visibility
South East Queensland	Mountain Creek		3	16			23		4
	Deception Bay		14	2					
	Wynnum		3		3		8	3	
	Wynnum West				4		6	2	
	Lytton				3		5	6	
	Cannon Hill			14		14	17	22	
	Brisbane CBD						10		2
	Woolloongabba	4	19				19	20	
	South Brisbane	0	25				16	13	
	Rocklea		16	0			11	10	2
Springwood						9	7		



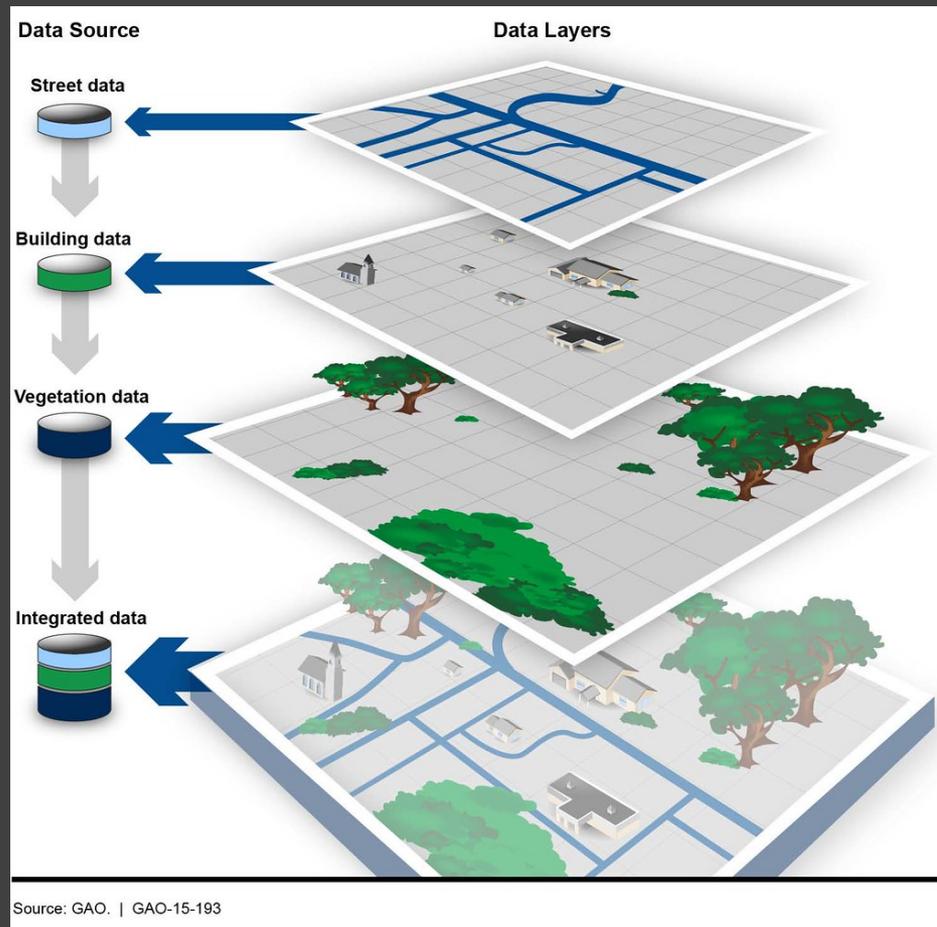
Alignment to our Vision - Case Study

An example of open data supporting our department's vision.

Spatial data use in applications

We contribute data relating to our protected area boundaries to Queensland Globe, Esri Community Maps and Open Street Maps.

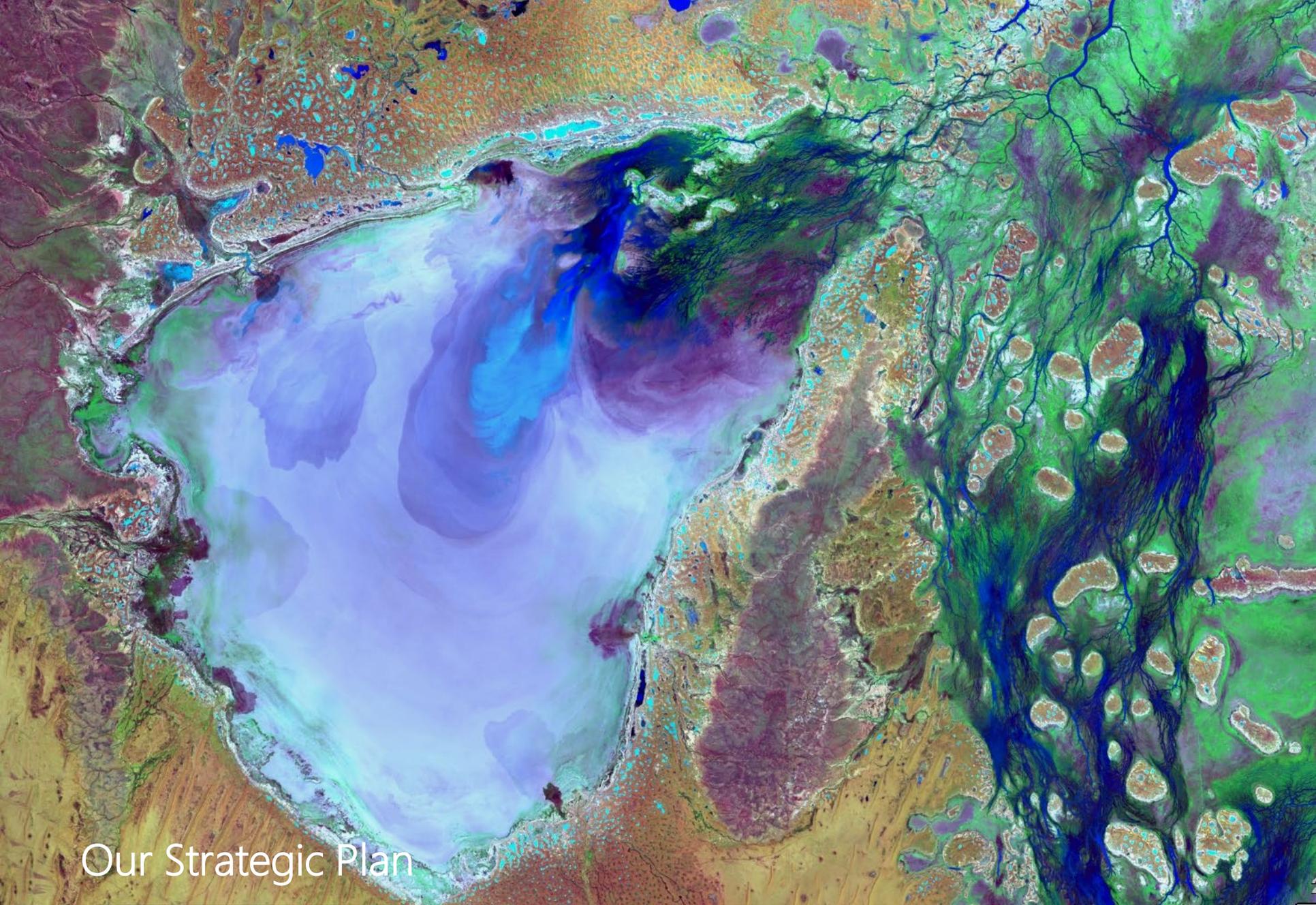
These contributions increase the accuracy and reliability of foundation spatial data used in hundreds of thousands of applications worldwide.



Obligations

We also have specific obligations to publish open data.

Document	Summary of Relevance to Open Data	Citation
Queensland Government Open Data Policy Statement (2017)	The cabinet endorsed Queensland Government commitment to open data, including various specific obligations for all agencies.	Queensland Government, Open Data Policy Statement, available at https://www.qld.gov.au/data/qld-data-policy-statement.pdf accessed 25 June 2019
Information access and use policy (IS33)	The Policy mandates departments to “provide government information to the public to the maximum extent possible”, free of charge and with consistent licensing.	Queensland Government, Information access and use policy (IS33), available at https://www.qgcio.qld.gov.au/documents/information-access-and-use-policy-is33
<i>Right to Information Act 2009</i>	Queensland Government’s obligation to give access to information in the government’s possession or control unless it is in the public interest not to.	Queensland Government, Right to Information Act 2009, available at https://www.legislation.qld.gov.au/view/pdf/2015-06-11/act-2009-009 , accessed 25 June 2019
<i>Information Privacy Act 2009</i>	Various responsibilities to protect personal information, including not disclosing personal or identifying information as open data.	Queensland Government, Information Privacy Act 2009, available at https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2009-014 , accessed 25 June 2019
Queensland Procurement Policy 2018	Requirements for the disclosure of procurement contracts over \$10,000.	Department of Housing and Public Works, Queensland Procurement Policy, available at http://www.hpw.qld.gov.au/SiteCollectionDocuments/QLDProcurementPolicy.pdf accessed 25 June 2019
Annual Reporting Requirements	Various open data requirements to support annual reporting activities.	Queensland Government, Annual Reporting Requirements, available at https://www.forgov.qld.gov.au/sites/default/files/annual-report-requirements.pdf accessed 25 June 2019
DIGITAL1ST: Advancing our digital future	Commitment to this Queensland Government strategy to provide access to information, foster innovation, collaboration and build trust in Government.	Queensland Government, Digital1st Strategy, available at https://www.forgov.qld.gov.au/digital1st
Various Acts specific to the activities and services of the Department of Environment and Science	Various Acts stipulate the open publishing of data. A comprehensive list is under development.	

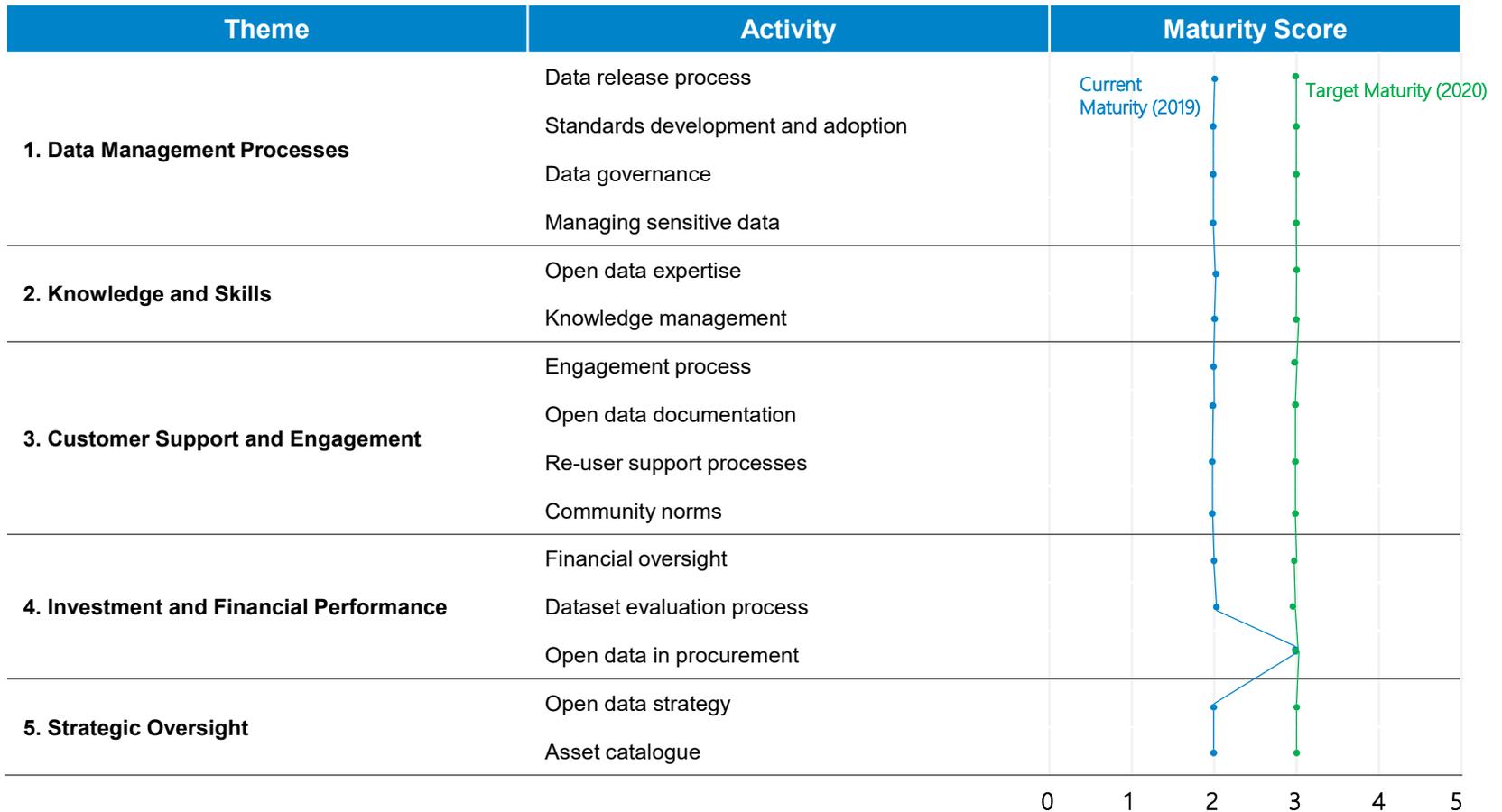


Our Strategic Plan

Maturity

To improve and sustain our cost-effectiveness we plan to improve our maturity in targeted areas over the 12 months from July 2019 to June 2020.

The Open Data Institute Maturity Assessment² was used to assess the current state of our overall departmental maturity as well as to identify a target state maturity. It is noted that where divisions also conducted individual maturity assessments, some divisions scored higher levels of maturity than others.



²Open Data Institute, Open Data Maturity Assessment, available at <https://theodi.org.au/open-data-maturity-assessment/>, accessed 21 March 2018.

Objectives

To realise value, our specific focus will be to...

Target policy priorities using open data

There are policy priorities relevant to our department that we think open data can contribute to solving. We will work with the private and/or academic sector on an initiative to identify and contribute to solving one of these policy priority with open data.

Success Metric:

- Value delivered to Queensland

Improve the quality of our open data

We recognise it is important to users that our open data is high quality and easy to understand. We will identify our most valuable open datasets and actively improve the quality, frequency and metadata of these datasets.

Success Metrics:

- % of datasets with bronze-gold ODI certificates
- User data quality feedback

Improve the availability of spatial data

We undertake a number of activities for which spatial data exists. We will proactively identify and publish this data.

Success Metrics:

- Number of spatial datasets made available

Proactively open more data

We have a number of datasets we have not yet opened to the public, which we think could provide value to users. We will proactively identify and publish these datasets.

Success Metric:

- Number of datasets on data.qld.gov.au

Stocktake datasets currently published

We have a number of datasets published, which may not be current or provide value to users. We will proactively identify, cease or continue frequent publishing.

Success Metrics:

- % of datasets reviewed for currency and value

Improve the currency of our open data

We recognise it is important to users to have access to data that is as current as possible. We will identify our most valuable open datasets and actively move from static to real/near real time data, using Automated Programming Interfaces (APIs).

Success Metrics:

- Number of datasets available by API

Responsibilities

We also have a number of day-to-day responsibilities.

- Publish open data as committed to in our open data publishing schedule
- Update/refresh our open data as specified for each dataset
- Monitor our open data email inbox
- Respond to data.qld.gov.au data requests and general enquiries
- Support and train new open data publishers
- Participate in Government open data forums – Senior Officers Working Group and Open Data Practitioners Community
- Contribute to and adopt Queensland Government Enterprise Architecture policies and other documentation
- Engage with industry and the open data community
- Review and re-publish an open data strategy annually
- Conduct an open data maturity assessment annually
- Provide support and mentoring at GovHack events

Action Plan

Our action plan includes delivering the initiatives we have planned to improve maturity and meet our objectives.

Update/Refresh
strategy and progress
against action plan

Category	Initiative Title	2019		2020	
Maturity improvement	1.1 Data management: Define a process and technical standards (formats, sensitivity, anonymisation, aggregation) for release of new and refreshed datasets	█	█		
	1.2 Knowledge and skills: Identify training needs, a training program and train key staff, as well as identify ways to capture and share information throughout a dataset and project lifecycle	█	█		
	1.3 Customer engagement: Identify a common set of documentation and metadata for each open data release, as well as support arrangements for re-users of datasets and ways to engage with re-users for insights into dataset use	█	█		
	1.4 Investment and financial performance: Review project and operational budgets to release datasets, identify metrics to quantify value and cost savings with data release	█	█		
	1.5 Strategic oversight: Develop an open data asset catalogue, define and assign ownership for strategic oversight of datasets	█	█	█	

Action Plan cont.

Update/Refresh
strategy and progress
against action plan

Category	Initiative Title	2019		2020	
Objectives	2.1 Target policy areas using open data				
	2.2 Improve the quality of our open data				
	2.3 Improve the availability of spatial data				
	2.4 Proactively open more data				
	2.5 Stocktake of datasets currently published				
	2.6 Improve the currency of our open data				
Data publishing and other day-to-day responsibilities	N/A	As specified in Appendix 2 – Data Publishing Schedule			

Appendix 1 – Published Data

At 25/06/2019 we have 600 datasets published to data.qld.gov.au. For a updated list of all our datasets click [here](#).

Appendix 2 - Data publishing schedule

We plan to publish the following datasets to data.qld.gov.au over the next 12 months. This is not an exhaustive list. We will update this list as we identify more datasets to publish and when this strategy is next refreshed.

Dataset name	Description	Target Publishing Date	Frequency of Update	Licence
Application data - arts and cultural investment	Data about applications to Arts Queensland investment programs by program and round.		Bi-annually	CC BY
Artist in residence - arts and cultural investment	The Artist in Residence program (AIR) invests in creative collaborations between professional artists and Queensland schools, including Queensland Government-approved kindergarten program providers.		Annually	CC BY
Arts Grants Expenditure	List of grants awarded by Arts Queensland		Bi-annually	CC BY
Arts Peer Assessors	Peer Assessors assess applications against criteria and moderate with consideration of: available funding; balance across art forms; geographic spread; target groups and government priorities. The assessors make recommendations to the Deputy Director-General, Arts Queensland and Minister for the Arts.		Annually	CC BY
Arts touring - arts and cultural investment	Funding towards performing arts touring expenses for tours throughout Queensland.		Annually	CC BY
Awards - arts and cultural investment	Details of awards supported by Arts Queensland.		Annually	CC BY
Indigenous arts - arts and cultural investment	Funding approved through Arts Queensland for Indigenous arts.		Annually	CC BY

Appendix 2 - Data publishing schedule cont.

Dataset name	Description	Target Publishing Date	Frequency of Update	Licence
Individuals - arts and cultural investment	Successful applicants to Arts Queensland's Career Development grants.		Annually	CC BY
Innovation- arts and cultural investment	Funding approved through Arts Queensland for innovation.		Annually	CC BY
Local government - arts and culture investment	Funding provided to eligible local government councils through the Regional Arts Development Fund (RADF).		Annually	CC BY
Organisations - arts and cultural investment	Small to medium organisations funded by Arts Queensland		Every 4 years	CC BY
Outcomes data for organisations - arts and cultural investment	Outcomes data for small to medium organisations funded by Arts Queensland.		Annually	CC BY
Projects and programs - arts and culture investment	Funding approved through Arts Queensland programs for arts and cultural activities by an individual, organisation or collective.		Annually	CC BY
The Queensland Heritage Register	The Queensland Heritage Register		Monthly	CC BY
WWII historic places	WWII historic places		Bi-annually	CC BY
Qld Heritage Register boundaries	Qld Heritage Register boundaries		Monthly	CC BY
Qld Heritage Council Remuneration details	Qld Heritage Council Remuneration details		Annually	CC BY
Recipient data Community Sustainability Action	Information regarding recipients of funding under the Community Sustainability Action grant program.		Bi-annually	CC BY

Appendix 2 - Data publishing schedule cont.

Dataset name	Description	Target Publishing Date	Frequency of Update	Licence
Recipient data Non-Government Conservation Funding	Information regarding recipients of funding under the Non-Government Conservation Funding grant program.		Annually	CC BY
Public Register	Register of Environmental Authorities under <i>Environmental Protection Act 1994</i> .		Annually	CC BY
Contaminated Land Register	Contaminated land register.		Annually	CC BY
Environmental Management Register	Environmental management register.		Annually	CC BY
PRC Plan and PRCP schedule	Progressive Rehabilitation Closure Plans (PRCP), audit reports of PRCP schedules, PRCP schedules that are no longer in effect, submitted plans of operations, Estimated Rehabilitation Cost decisions for environmental authorities.		Annually	CC BY
Environmentally Relevant Activity standards and codes of environmental compliance	Environmentally Relevant Activity standards and codes of environmental compliance.		As changes occur	CC BY
Queensland Heritage register	Ongoing upkeep of the Queensland Heritage register.		Annually	CC BY
Registered suitable operators	Ongoing upkeep of the Registered Suitable Operators register.		Annually	CC BY
Camping and vehicle permits	This tabular data contains details of the permits issued for camping and vehicle access to the Protected Areas, Recreation Areas and Great Walks managed by Queensland Parks and Wildlife Service.		Quarterly	CC BY

Appendix 2 - Data publishing schedule cont.

Dataset name	Description	Target Publishing Date	Frequency of Update	Licence
Protected areas of Queensland	Protected areas of Queensland represent those areas protected for the conservation of natural and cultural values and those areas managed for production of forest resources, including timber and quarry material. These areas are defined spatially using cadastral parcels.		Quarterly	CC BY
Fire management	Fire management zones show the principal purpose(s), in terms of fire management, for any given part of a reserve and therefore the way in which the area will generally be managed for fire. They are a component of the Queensland Parks and Wildlife Service Fire Management System.		Annually	CC BY
State marine parks	Zonings within Queensland's marine parks.		Annually	CC BY
Fish habitat areas	The 72 fish habitat areas in this dataset are declared under Section 120 of the <i>Fisheries Act 1994</i> and Schedule 3 of the <i>Queensland Fisheries Regulations 2008, effective 17 March 2017</i> . This is a composite of all fish habitat boundary areas gazetted/re-gazetted between 1998-2017.		Annually	CC BY
Tracks and trails	Queensland Parks and Wildlife Service estate access data including roads, tracks and trails, and associated data.		Annually	CC BY
Regional boundaries	Boundaries delineating Queensland Parks and Wildlife Service regions.		Annually	CC BY

Appendix 2 - Data publishing schedule cont.

Dataset name	Description	Target Publishing Date	Frequency of Update	Licence
CrocWatch	Summary of estuarine crocodile reports across the state under the Queensland Crocodile Management Plan from 14 March 2007	Monthly	Monthly	CC BY
Queensland Parks and Wildlife Service and Partnerships Authorities register	The authorities register lists approvals issued for prescribed activities issued under the <i>Nature Conservation Act 1992</i> .	2019-2020	Annually	CC BY
2020 State of the Environment Report	Data sets from the report.	2019-2020	Annually	CC BY
Recycling and waste in Queensland 2019	Data sets from the report.	2019-2020	Annually	CC BY
Air quality	Air Quality at Queensland monitoring stations.	30/06/2019	API	CC BY
Digital images of plant specimens	Queensland collection as digitised.	2019-2022	As digitised	CC BY
Biodiversity datasets	Sightings and surveys.	2019-2022	API	CC BY

Appendix 3 – Closed Data

Some data is not in the public interest to release publicly. The following datasets are closed and we will not release them as open data. This is not an exhaustive list. We will update the list as more closed datasets are identified when this strategy is next refreshed.

Dataset Title	Reason for not publishing
Commercial-in-confidence information	Data that relates to any commercial-in-confidence documents
Cabinet-in-confidence information	Data that relates to any cabinet-in-confidence documents
Environmental Authority holders' personal details	Personal information of Environmental Authority holders including names and addresses are to be kept in confidence unless required by the Public Register to be released
Financial provisioning schemes	Data relating to the financial provisioning schemes not releasable under the <i>Environmental Protection Act 1994</i>
Current court proceedings	Information relating to matters that are undergoing a court proceeding
Current litigation proceedings	Information relating to matters that are undergoing a litigation process
Documents that are not publicly available under the <i>Environmental Protection Act 1994</i>	Documents not available under s540 and s540A of the <i>Environmental Protection Act 1994</i>
Procurement contracts kept on the non-disclosure register	
Property owner details	<i>Privacy Act 1988</i> requirements
Heritage applications	The nature of the information associated with applications is complex and some of it is sensitive. Heritage makes certain details about applications available through the Department and Science website, through a controlled program of release, for the purpose of inviting submissions. This data is associated with a statutory process.

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Dataset Title	Reason for not publishing
Development assessment information	This is information involved in a statutory process under the <i>Queensland Heritage Act 1992</i> and other legislation. There is no legislative obligation to make open this data, and some sensitivities are involved. Some of the data does not belong to the Department of Environment and Science and is provided to enable to Department of Environment and Science to provide advice.
Compliance information	State heritage place management information related to Department of Environment and Sciences' regulatory role is private & confidential.

This publication has been compiled by Department of Environment and Science.

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