Environment and Science Data Challenge: How might we use environment and science data to better engage with the community?

data.qld.gov.au

- Queensland is home to five World Heritage areas and has a diverse array of ecosystems.

- The Queensland Government is committed to long term protection and conservation of the environment and ecologically sustainable use of its resources.

- How can you use data to better tell a story and engage Queenslanders with our environment?

What is your solution?

Your solution to this challenge must use at least one environment and science dataset from the Department of Environment and Science.

A list of useful open datasets and resources is on the following page.

https://data.qld.gov.au/article/news-and-events/govhack-2019-challenges/environment-science-data-challenge

Guidance to help you prepare your GovHack project video to pitch your solution (3 minutes):

1. Introduction: state the project title, team name and members.
2. Problem: what is the challenge your hack addressed? Why does it matter to find a solution?
3. Vision: in one sentence, describe the ideal end state / long-term goal you are trying to achieve through your solution.
4. Data/resources: what was your approach to solve the problem? How did you investigate the problem? Provide an overview of the open data and information used and how it helped you to develop your solution.
5. Minimum viable product: describe your solution (proof of concept). What makes the solution unique? What would be the impact of the solution?
6. Next steps: outline a road map on how the solution could be developed and implemented to achieve your vision.

+ For more tips see the GovHack handbook

data.qld.gov.au

Queensland Government

Locating open data

Queensland Government open data is accessible at data.qld.gov.au. Search for other government open data at data.gov.au and local government websites. Below is a list of open datasets and resources you might like to use for this challenge.

To qualify for this challenge your solution must use at least one environment and science dataset from the Department of Environment and Science.

Open data

Either click on a link below or search for the dataset on data.qld.gov.au

Climate

1. SILO scientific information for land owners
2. Climate
3. TERN
4. Bureau of Meteorology – climate
5. Southern Oscillation Index

Water and Coastal

1. Water quality monitoring
2. Water monitoring information portal
3. Science in the Queensland Government
4. Bureau of Meteorology – water
5. Wave monitoring
6. Assessing water quality
7. Bureau of Meteorology – environment

Air

1. Air quality
2. Air quality monitoring

Soils

1. Soils
2. Land suitability
3. Soil chemistry
4. Acid sulfate soils series
5. Environmental characteristics series
6. Land resource areas series
7. Land systems series
8. Mapping erodible soils
9. Queensland soil survey sites
10. Soil and Landscape Grid of Australia

Agriculture

1. Online Farm Trials data / Online Farm Trials portal
2. Climate Kelpie
3. Agricultural Production Systems simulator (APSIM)
4. Queensland Agricultural Land Audit
5. Queensland Agricultural Training Colleges Sites
6. Rabbit barrier fence
7. Cattle tick clearing facilities - Locations
8. Agricultural Chemicals Distribution Control (ACDC) Atlas
9. Australian Bureau of Statistics - Agricultural Commodities
10. Department of Agriculture and Water Resources - ABARES
11. Queensland Alliance for Agriculture and Food Innovation crop outlook

12. The Long Paddock – SOI and AussieGRASS
13. The Long Paddock – FORAGE Property Reports

Biodiversity

1. Wildlife
2. Qld Wildlife data API
3. Vegetation
4. Broad vegetation groups – pre-clearing and 2017 remnant – Queensland series
5. Plants/animals – species list – useful links
6. Queensland wetland data version 4 series
7. The vegetation of the Australian tropical savannas
8. Biodiversity and Climate Change Virtual Laboratory (BCCVL)
9. Regional ecosystem

Remote sensing

1. Landcover mosaic series
2. Landsat fire scars Queensland series
3. State-wide Landcover and Trees Study Queensland series
4. Queensland spatial catalogue - QSpatial

Parks

1. Marine Parks
2. Protected areas
3. Find a park

Waste

1. Waste

Great Barrier Reef

1. Reef datasets
2. Reef report card (interactive map)

Other Resources

1. Department of Environment and Science
2. Department of Agriculture and Fisheries
3. Department of Natural Resources, Mines and Energy
4. Gazetteer of Australian Place Name Search
5. Queensland Globe
6. TERN AusCover
7. Australian Research Data Commons
8. Geoscience Australia
9. Atlas of Living Australia
10. National Environmental Information Infrastructure
11. NationalMap