



# NGIS

## TAKING NATURAL RESOURCE MONITORING INTO THE FUTURE



Frequent satellite imagery generates critical environmental insights for Queensland, Australia



## CHALLENGE

Enable the Queensland state government to better monitor, manage, and protect natural resources.

## SOLUTION

More frequent imagery updates with Planet Monitoring and improved accessibility to the data through the Planet Platform.

## RESULTS

- Frequency of capture of the entire state increased by over 700 percent, enabling more timely decision-making
- Gap between capture and delivery of imagery reduced from many months to 24 hours, improving the ability to act quickly
- Terabytes of satellite data made available easily through cloud-based solutions, significantly reducing the time required to work with large imagery data sets

Balancing economic growth and land preservation is a sensitive task—especially when it involves natural treasures such as the Great Barrier Reef.

In Queensland, Australia, monitoring mainland activity near the reef is just one of many important tasks that fall to the state’s Department of Resources. With a vast 1.8 million square kilometers of farmland, forest, and other resources to manage, the Department of Resources relies on satellite imagery as a critical source of information.



## LEVERAGING HIGH-FREQUENCY IMAGING AND TIMELY DELIVERY

Over the last decade, the Department of Resources used a more traditional satellite imaging technology, which focused on resolution rather than timeliness. The department acquired a capture of the entire state only every couple of years.

“When the Department of Resources contract came up for renewal, we knew we could offer the department a solution that focused more on timely delivery of content,” says Nigel Conolly, sales and marketing manager at NGIS, an Australian-based geospatial IT consulting company.

“This solution would provide the department with current information, empowering them to make more informed decisions.”



Monitoring runoff sediment load in rivers provides data to those working to improve coastal water quality and reef health. Image captured May 6, 2017



“Now that this technology is in place, other states in Australia are looking at what we’ve accomplished in Queensland with real interest.”

NIGEL CONOLLY, Sales and Marketing Manager, NGIS

## + CHALLENGED BY A TIME-CONSUMING LEGACY PROCESS

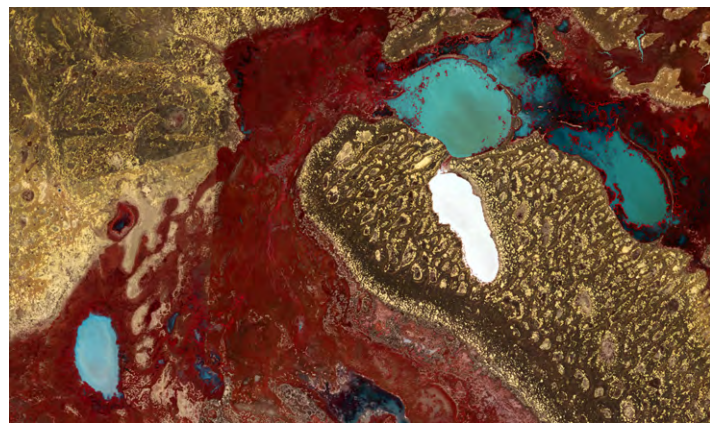
The more traditional approach commonly took many months to capture the entire state of Queensland. It also required more time to deliver the final product. For instance, the client had to wait for delivery of the imagery on a hard drive. Once the drive was received, the client loaded it into their Geographic Information System, which also took time. All this put the Department of Resources in the position of making decisions based on information that was quite old.

The Department of Resources’ new request for proposals called for full coverage of the entire state to be delivered each year instead of every couple of years. But NGIS proposed doing much more: offering access to the Planet Platform, which provides a constant flow of imagery to clients.

## + MORE SATELLITES FOR BETTER COVERAGE AND FASTER UPDATES

Planet uses many satellites, providing much-more regular imagery updates over large areas. In addition to delivering regular updates of the entire state, NGIS and Planet are going beyond the traditional way of doing things to provide daily updates via web browser.

Planet sends all of the content from its satellites directly into a cloud environment, where it is processed and made available through a web portal for the client to use within 24 hours. Those daily updates cover large swaths of the state. The Queensland government can augment the regular whole-state capture with fresh data. “That is a massive improvement compared to the traditional approach where images could be many months old when first viewed,” says Conolly.



Satellite imaging is an essential tool for management of natural resources by the state government of Queensland, Australia.



## MONITORING RESOURCES FROM THE UPLANDS TO THE OCEAN

The new NGIS and Planet solution is already helping Queensland government scientists, technicians, and managers work more efficiently. For example, the department can use more frequent imaging to better monitor the catchment area of the Great Barrier Reef, where rainwater falls on the continental uplands and then flows into the ocean. By imaging factors such as the amount of vegetation in the area and how it is changing, the government can track the influences that affect the health of the reef.

Another activity to be monitored by the Queensland government is land clearing. By imaging the land before and after land-clearing operations, the government can document whether these activities took place within permitted zones. The government wants to create a reporting system that allows them to formally engage with property owners in relation to questionable activity. With the rapid satellite revisit rate provided by Planet, technicians can now spot these areas quickly enough to significantly improve the management of the entire ecosystem.



## TAKING A STEP FORWARD FOR BUSINESS, ACADEMIA, AND GOVERNMENT

The new solution allows the Department of Resources to provide Planet imagery to any Queensland government agency. Steve Jacoby, Executive Director, Land & Spatial Information, Department of Resources, says “We are very excited to be working with daily imagery over Queensland that the Department of Resources has been able to acquire through the Planet platform. The access to high quality, daily imagery for use by all government agencies under this arrangement sets a new benchmark that we expect will have far-reaching benefits for the state.”

NGIS is currently building tools on top of Planet’s Application Programming Interface (API), and sees Planet as an innovator that has disrupted the industry with forward thinking. “This project is an example of how innovation pays off,” says Conolly. “Working with Planet, we’re helping the Queensland government adopt technology that will take them into the future, with the flexibility to deal with what’s ahead. Now that this technology is in place, other states in Australia are looking at what we’ve accomplished in Queensland with real interest.”

### FOR MORE INFORMATION

To learn more about Planet Monitoring, visit [planet.com/products/monitoring](https://planet.com/products/monitoring)

For more about NGIS, go to [ngis.com.au](https://ngis.com.au)



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