



EPA builds powerful surveillance platform and uncovers illegal dumping operations

about EPA

The Environmental Protection Authority (EPA) of South Australia is a government organisation dedicated to protecting land from the adverse impacts of pollution and waste, ensuring the water quality of surface, ground, coastal and marine waters, and monitoring for atmospheric pollutants that impact on air quality. Its Illegal Dumping Unit (IDU) targets illegal dumping of hazardous waste, controlled waste and commercial quantities of construction and demolition waste. The IDU works closely with others in the EPA to ensure a consistent approach is used for compliance and enforcement, and provides operational support where needed.

the challenge

The task of delivering a better environment, protected for all South Australians, requires the EPA to be constantly seeking to improve its monitoring capability, operational efficiency and support for strategic planning initiatives, such as Operation Austrans, which aims to provide insight into the transport of waste and uncovered waste loads. To achieve these goals, EPA needed to deploy higher resolution aerial-survey imagery, and provide an integrated technology platform that would enable ready access to a range of detailed geophysical information. In short, it required its people to be able to see more, more clearly, in the present but more especially in the past, and with complete confidence in the accuracy of the information provided.



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Shellie Humphries, Senior Environment Protection Officer, Illegal Dumping Unit, EPA

why **nearmap**

The exceptional quality of **nearmap**'s frequently refreshed aerial imagery—up to 10 captures a year—enabled EPA officers to view locations of interest from a desktop or mobile browser in more detail than was previously possible. Moreover, by providing archived aerial surveys through its Timeline feature, **nearmap** made it easy to monitor potential environmental risk resulting from onsite developments. “We can see when an activity, such as the importation of waste soils or the stockpiling of construction waste, started on a particular site,” said Shellie Humphries, a senior environment protection officer with the IDU. “Using Timeline, we can inspect images of the same site, months or years apart, on a single screen, and have a good idea of the impact on water-ways, for example, or native vegetation.”

EPA uses **nearmap** imagery to overlay the different geospatial systems it uses, including Google Maps, Google Earth and Enviro-Map, and provide quick access to detailed, accurate site information. “Being able to view the street map and property boundaries in real-world detail is tremendously helpful, especially for rural sites, which are often less clearly marked” said Humphries. “It helps us to work out that it is, in fact the right property we’re looking at, who owns it, what the dimensions are, and even whether the property has been extended without authorisation.”

further benefits

With an expanded surveillance capacity, and a greatly improved ability to virtually identify activity on the ground, EPA is now better placed to focus on specific industries, such as construction and demolition, and target known illegal-dumping hotspots. “**nearmap** enables us to monitor unauthorised activities at a particular site, which, in the past, would have been a vague blur,” Humphries said. “Its high resolution images allow us to identify the type and extent of the activity, and provide us with the evidence needed to support further investigation.”

In addition to minimising the number of site visits its officers have to make, the clarity of **nearmap**'s aerial surveys also enables EPA to reduce OHS risk and increase productivity by better preparing investigators for when they are required to visit a site. When they arrive onsite, they are aware of potential risks and can be immediately productive, instead of having to perform a range of time-consuming preliminary measures, such as information gathering.

As an intuitive technology—if you can use Google Maps, you can use **nearmap**—there is no user-training requirement, and high user engagement. “We have around 200 staff who have access to **nearmap**, and 75% of these use it to perform a variety of tasks, including providing advice on development applications and monitoring land-use changes over time,” said Humphries. “I love it and use it all the time. It is much more current, much better resolution than Google Earth, and the timeline feature is amazingly useful in the kind of work we do.”

at a glance

CHALLENGES

- Monitor land use over time to identify when an activity started, such as the importation of waste soil or other kinds of landfill, and assess its environmental impact
- Increase operational efficiency by integrating complementary technologies to provide quick access to required information, and gain insight into the extent of land use, especially for larger and more remote land parcels
- Support strategic planning by improving surveillance of known illegal-dumping hot spots, and enabling it to more effectively target certain industry types

SOLUTIONS

- Identified potential environmental risk by using **nearmap**'s archived aerial surveys to monitor potential land and waterways contamination, ascertain duration of these activities, and assess environmental impact, such as damage to native vegetation
- Enabled easy access to detailed, accurate site information, and gained insight into suspected illegal dumping by using **nearmap**'s timely, high-resolution imagery to overlay various geospatial technologies, including Google Maps, Google Earth and Enviro-Map
- Improved strategic planning by gaining the ability to target broader areas—known to be illegal dumping hotspots—and certain industry types by leveraging the high resolution of **nearmap** imagery to provide greater intelligence and the evidence required to issue more penalty notices
- Assisted up to 200 staff members across the organisation by implementing intuitive **nearmap** technology to provide information relevant to development applications and land-use changes
- Reduced OHS risk and increased productivity by using **nearmap** aerial surveys to better prepare EPA investigators for site visits

next step

To learn more about how **nearmap** can help you drive better operational outcomes for your organisation [click here](#)



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