



EarthWorks

Multi-Industry Ground Infrastructure Assessment

Product Overview

ASTERRA EarthWorks monitors soil moisture underground for ground infrastructure installations: dams and levees, roads, railways, mining operations, and large, developed properties. EarthWorks monitors the actual moisture gathering below and around at-risk infrastructure to anticipate and mitigate potential failures BEFORE they occur.

EarthWorks is derived via an orbiting satellite and a highly sensitive radar band that reflects off underground moisture. The signal is analyzed through ASTERRA's patented algorithms and visualized as soil moisture contours. EarthWorks can assess underground soil moisture conditions across vast tracts of land simultaneously, up to 800,000 acres (3,200 sq km).

EarthWorks customers receive a subscription to the ASTERRA customer portal. Through the portal, customers can monitor their infrastructure and access reports and dashboards. The service includes data download options in GIS data format for viewing in Esri or other common platforms.



Industries Served by ASTERRA EarthWorks

EarthWorks monitors underground soil moisture near large infrastructure installations to reduce the likelihood of failure.



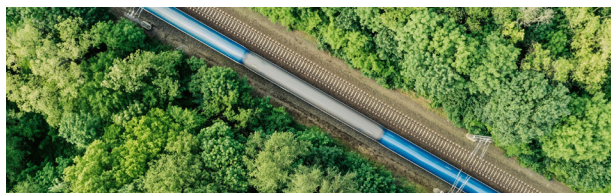
Dams and Levees

There are 92,000 U.S. dams in the U.S. storing either water or toxic waste, many past their 50-year “age alert” for enhanced monitoring, and 25,000 miles (40,000 km) of levees. With a view from a satellite, we monitor seepage across entire systems.



Roads

Moisture is the leading cause of failure along 4 million miles (6.4M km) of U.S. roads. Because EarthWorks penetrates up to 10’ (3 m) beneath asphalt and concrete, its efficiency is unmatched.



Rail

Unseen, unknown pockets of moisture are compromising areas along 148,000 miles (238,000 km) of U.S. rail lines. EarthWorks can monitor large areas at once, and the hillsides above and below, well beyond the right of way.

About ASTERRA

ASTERRA (formerly Utilis) provides data on roads, rails, dams, and mines to water utilities, government agencies, and infrastructure managers. Using SAR (synthetic aperture radar) data from satellites and a series of proprietary algorithms, ASTERRA turns the data into actionable intelligence that supports large-scale decisions and Earth’s resource resilience. Since 2017, in 59 countries, ASTERRA technology has saved over 169,280 million gallons of water, 423,200 MWH of energy, and 108,339 metric tons of carbon. ASTERRA is headquartered in Israel with offices in the U.S., the U.K., and Japan.



Mining

Whether for safely storing waste behind dams, locating underground pipe leaks, or needing stable ground to transport material and support heavy equipment, EarthWorks’ ability to assess multiple situations at once supports diverse mining applications.



Property

Airports, office parks, and other installations represent hundreds of thousands of acres of asphalt or concrete. EarthWorks penetrates the pavement to monitor it over time to spot moisture issues before they become safety issues.