

MasterPlan: Wastewater

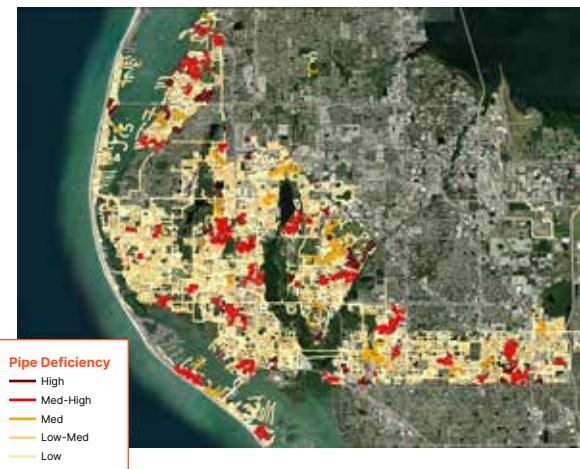
Pipe Deficiency Assessment

Solution Overview

ASTERRA MasterPlan for wastewater systems provides actionable insights to your wastewater system asset management plan as a service. Our patented system uses a newly developed algorithm that's been trained on five years of system leaks discovered by ASTERRA Recover, our leak detection and analysis service. The algorithm assesses pipe deficiencies using multiple synthetic aperture radar (SAR) images and can monitor an entire pipe system, even for large cities.

The trained algorithm scores pipe segments exhibiting non-surfacing leaks detected over time; it also analyzes leak location clusters within them. Data points are then scientifically combined into a single GIS data output with pipes scored on a 1 – 5 scale: 1 indicates low levels of deficiency observed; 5 denotes high levels of deficiency. The data inputs easily to any GIS system or asset planning model.

Utilities and engineers use MasterPlan to gain insight into the pipes' actual condition. The system is compatible with all GIS-based asset planning model software and integrates with attribute data such as pipe age, material, and work orders from surfacing leaks. MasterPlan adds a valuable level of refinement to pipe management planning.





The MasterPlan Differentiators

MasterPlan provides unique insights that are not available elsewhere, monitoring non-surfacing pipe leaks — not a predictive analysis. The system is completely non-invasive as data is collected via satellite, and the pipes' size and composition do not matter. The large area observed from satellite analyzes the most expansive systems with unmatched speed and efficiency.

Why Choose MasterPlan?

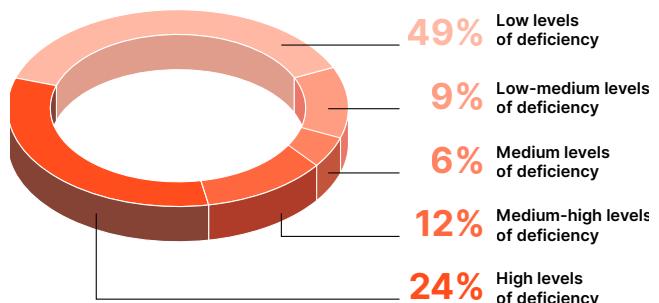
- A full system-wide view to set replacement priorities
- Monitor areas close to sensitive habitat with minimal disruption
- Adds a valuable level of refinement to pipe management planning
- Non-invasive assessment means no cost or disruptions from digging
- Completely pipe agnostic, working on pipes of any size or material
- Easy integration with all GIS and asset management tools such as those from partners Esri and Innovyze

What's Included?

- Pipeline deficiency monitoring service assigned by Pipe ID
- Summary report
- Free online viewer
- ASTERRA customer support

MasterPlan provides customers with pipe deficiency information in a fast, affordable, efficient manner. We help customers improve operational efficiency and optimize budgets with intelligence that facilitates proactive repair and planning.

Synopsis of Findings



About ASTERRA

ASTERRA (formerly Utilis) provides underground soil moisture data on pipes, 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 64 countries, ASTERRA technology has saved over 315,288 million gallons of water, 788,219 MWH of energy, and 201,784 metric tons of carbon. ASTERRA is headquartered in Israel with offices in the U.S., the U.K., and Japan.