Project team cuts CSO optioneering from weeks to half a day

sensat

A UK water company was tasked with delivering several hundred storm overflow tanks across a large catchment area as part of its CSO programme.

The challenge was not designing the tanks. It was deciding where they should go, quickly and with confidence, across hundreds of possible locations.

The delivery team used Sensat to bring all site information into one shared view, allowing them to rule out unviable options early, reduce site visits, and move from longlists to shortlists in hours rather than weeks.

THE PROBLEM

Optioneering was slowing everything downstream

Early-stage optioneering had become a major bottleneck.

To identify suitable locations for CSO tanks, teams needed to consider:

- Geology and ground conditions
- Topography and constraints
- Existing assets and utilities
- Prior studies and survey data

This information existed, but it lived across different systems, files, and teams.

As a result:

- PMs struggled to get a clear view of feasibility early
- Specialists spent time assessing sites that would later be ruled out
- Site visits were booked before basic viability was clear

> "I've got the geology, options, topography and everything in one place. It's making my life much easier.

GROUND INVESTIGATION SPECIALIST,
TIER ONE WATER COMPANY

The workaround wasn't working

Before Sensat, optioneering involved:

- Pulling together information manually for each site
- Reviewing options one location at a time
- Multiple site visits to confirm basic constraints
- Long discussions to explain why certain sites would not work.

This made optioneering slow, expensive, and difficult to scale across a large programme.

How Sensat was used

The delivery team used Sensat to visualise large areas of the catchment in a single, shared view.

They brought together:

- Geology and ground investigation data
- Topography and environmental constraints
- Existing assets and underground utilities
- Early option shapes and layouts

This allowed PMs and specialists to assess multiple potential sites from their desks and compare options side by side.

What changed for the delivery team

Faster option filtering

PMs and specialists could quickly see which locations were viable and which were not, before committing time or resources.

Rapid feasibility checks

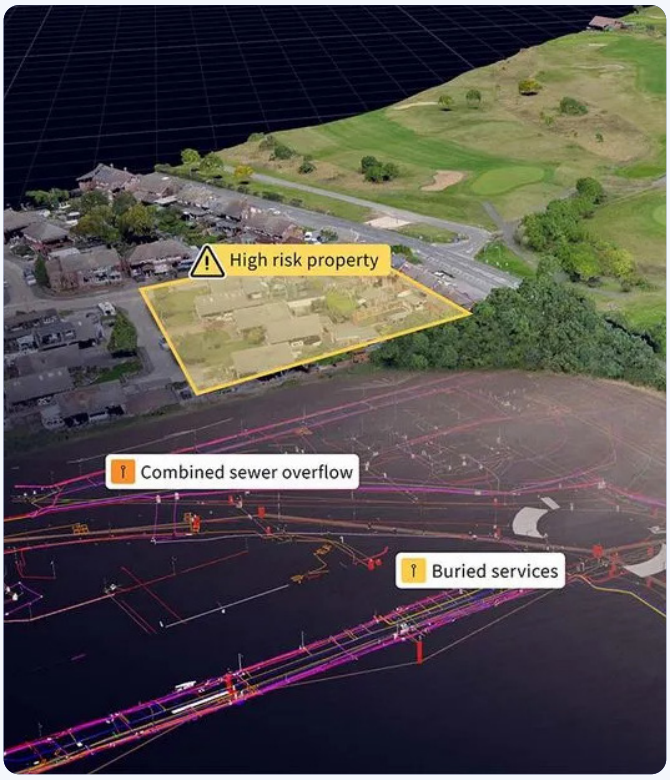
Teams could sketch, move, and test basic option shapes against real constraints, speeding up early decisions.

Fewer site visits

By reviewing up to 30 km² in one view, teams only visited sites that had already passed basic feasibility checks.

Better use of specialist time

Engineers and ground teams spent less time exploring dead ends and more time progressing viable solutions.



The result

6 weeks

Optioneering cut from weeks to under half a day per cluster of sites

Significant reduction

in early-stage site visits

Specialist time

focused only on viable locations

Why this mattered

For the project delivery team, Sensat was not about producing a better visual. It was about removing friction early.

By speeding up optioneering, the team could:

- Keep programmes moving
- Reduce wasted effort
- Focus resources where they would have the most impact

Where this approach works best

CSO programmes with many potential sites

- Early-stage optioneering and feasibility
- Catchment-wide planning exercises
- Projects where site visits are costly or slow to arrange

See how this would work on your sites.

Contact us