

*We keep the sewer out of the environment and the environment out of the sewer.*

*– Greg Quist, Founder & Inventor*



*SmartCover serves the water and wastewater industries driven by the mission to safeguard public health, protect the environment, and preserve the quality of life throughout our communities. We are the leader in remote monitoring technology for collection systems – helping to predict, detect, and prevent sewer spills.*

**ASSET MANAGEMENT | SSO PREVENTION | CLEANING OPTIMIZATION  
I&I CORRELATION | CSO MANAGEMENT | H2S MONITORING  
STORMWATER MANAGEMENT | ENTRY DETECTION**

**SMARTCOVER**

WE'VE GOT IT COVERED™

SmartCoverSystems.com



# GUARDING AGAINST EMERGENCIES: HOW IT WORKS

*It's like having silent sentries standing guard 24/7/365 in any type of weather*

Wastewater utility operators use SmartCover for real-time oversight and advance warning of potential issues coming from the labyrinth of pipes buried beneath our sidewalks and streets. The system drastically reduces the likelihood of sewage overflows backing up into homes and businesses or contaminating our neighborhoods and waterways.

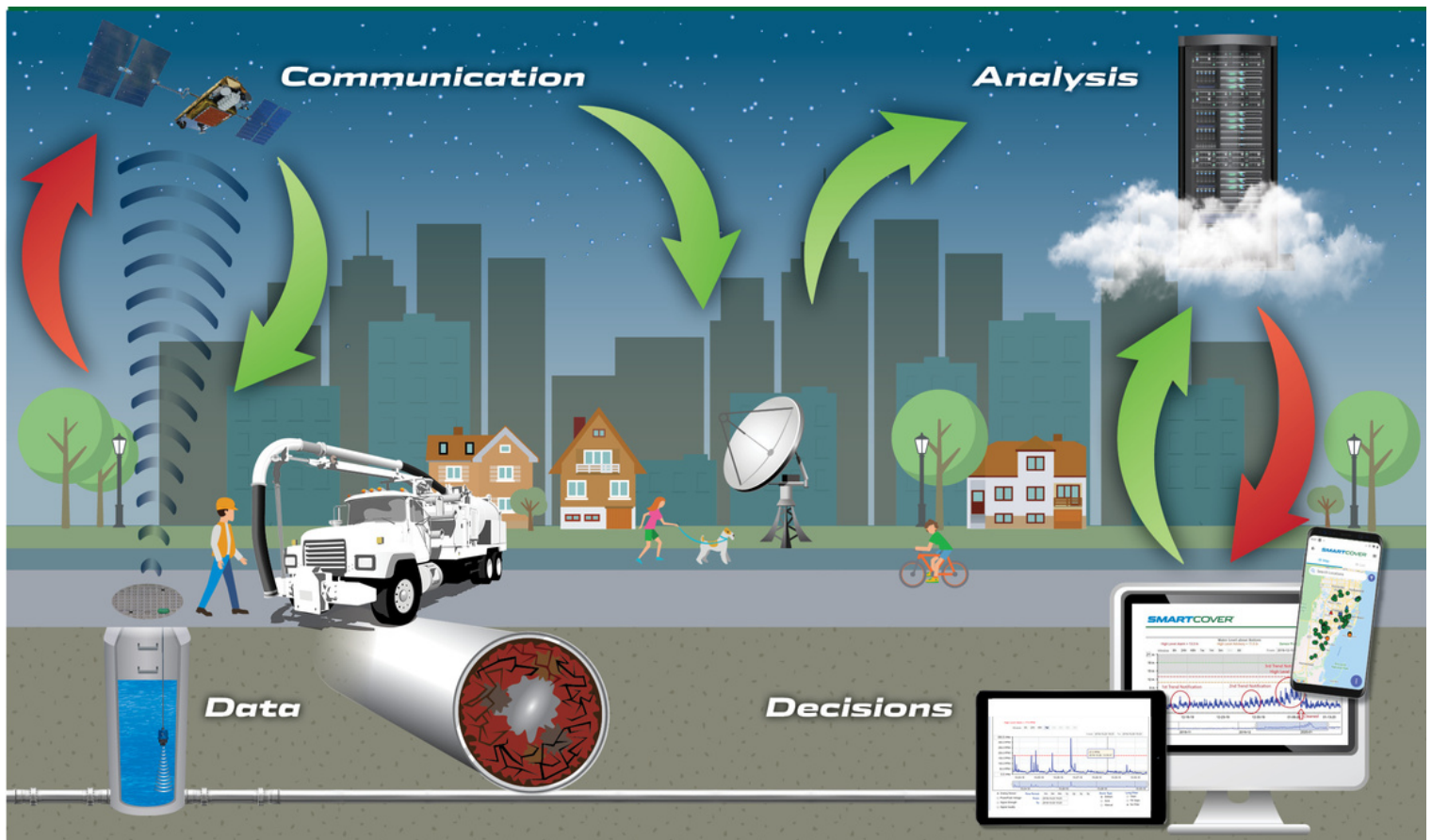
The award-winning SmartCover system combines patented sensors, satellite communications, robust analytics, visual graphics, and a web-based interface to provide real-time conditions of buried infrastructure. Starting from an intelligent sensor attached to a hatch or manhole cover, the powerful combination of ultrasonic and pressure readings are taken from over the channel and transmitted via military-grade satellite communications to encrypted servers.

From there, our proprietary software scans millions of data points to accurately recognize irregularities within a collection system. Trends and anomalies are packaged in easy-to-read reports.

Timely notifications are delivered to enable informed decisions – well in advance of emergency situations. All of this is done without having to pop a manhole, lift a lid, or roll a truck.

Since 2005, SmartCover has predicted and prevented tens of thousands of catastrophic overflows saving millions of dollars in damages and fines, while mitigating safety and reputational impacts of these public emergencies. Utilities have come to depend on our predictive and proactive technology to help protect the things that matter – residents, employees, communities, infrastructure, public health, and the environment.

But, we're so much more than just data and analytics. What sets us apart is the unwavering level of assurance and peace of mind we deliver – even in the most unpredictable situations. This level of confidence is not only possible because of our superior technology, but by our attentive, world-class customer support, meticulous R&D, as well as a deep sense of empathy and understanding of what utilities face every day.



*Advance warnings come from automatically analyzing activity in the labyrinth of buried pipes*

**SmartCover creates a profile of monitored assets with a range of solution applications including:**

- SSO prevention
- Cleaning optimization
- Inflow and infiltration correlation
- CSO management
- H2S monitoring
- Stormwater management
- Entry detection

## Sanitary Sewer Overflow (SSO) Prevention

SmartCover allows a collection system operator to know what's happening inside a sewer or lift station before there's a spill. With real-time Sewer Intelligence® the system predicts and prevents overflows.

## Targeted Cleaning Saves More

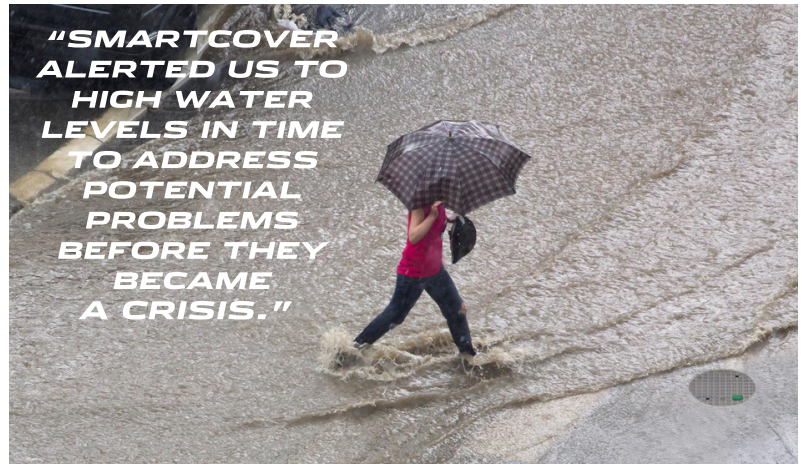
It takes expensive equipment, logistics, and human resources to stay ahead of pipe blockages. Precautionary overcleaning is a common principle, but high-frequency cleaning is costly and notorious for shortening the lifespan of underground assets. SmartCover eliminates unnecessary cleaning and continuous monitoring assures ongoing protection against overflows. By following our cleaning optimization program, utilities have reduced cleaning by 95% with NO SPILLS.

## Pinpointing Inflow & Infiltration (I&I)

Excessive I&I can overwhelm hydraulic capacity, create overflows, and increase flow into treatment plants. SmartCover uses data fusion to compare wet versus dry flows, reports correlation magnitude, and pinpoints I&I locations to help prioritize capital repairs, enhance usage of valuable resources, and control treatment costs.

## Combined Sewer Overflow (CSO) Management

Cities using combined sewer systems can often find themselves struggling to meet regulatory requirements for CSO monitoring while staying within budget constraints. SmartCover is able to notify when a CSO event starts, when it stops, and in most cases quantify how much volume was discharged. The ability to easily document a CSO event, organize and analyze the data is critical for CSO reporting and compliance requirements.



## H2S Monitoring

Quantifying H2S levels not only supports more accurate water treatment dosing and diminishes pipe corrosion, it offers significant public benefits by reducing the possibility of odor complaints. Using a specialized sensor, SmartCover has a 90 day continuous calibration and service protocol requiring fewer visits to the field.

## Storm and Surface Water Monitoring

Storm events, rising surface water or tidal action can quickly surpass the capacity of a wastewater system. SmartCover integrates weather, tide, river, and stream data with level or flow to enable a comprehensive cause and effect picture of how these factors impact a collection system to improve long-term planning.

## Entry Detection

SmartCover gives you the ability to remotely detect real-time authorized or unauthorized opening of infrastructure.

## Infrastructure Asset Management

Performance, capacity and condition assessment reports support risk mitigation, cost containment, capital improvements planning and decisions.



# ENGINEERED FOR THE HARSHTEST ENVIRONMENTS

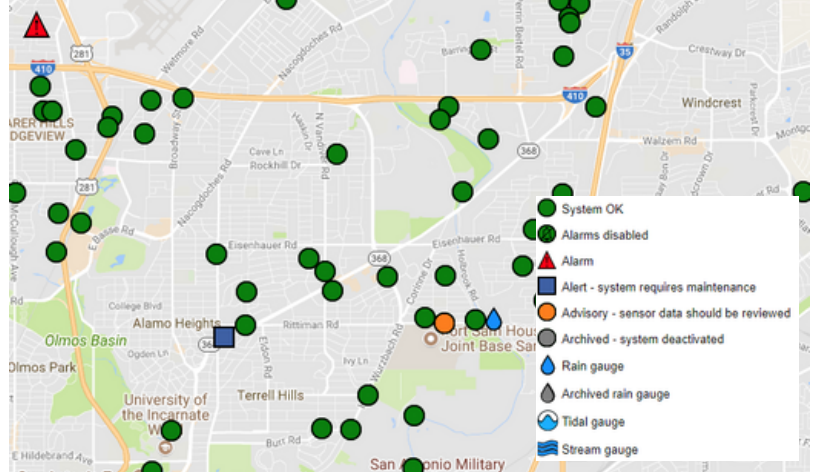
## Instant infrastructure anywhere in the world in minutes

SmartCover was specifically designed to operate in and withstand the most difficult conditions. Starting from underground, SmartCover automates and streamlines processes making it easier for utilities to multiply their manpower, reach fast, accurate decisions, reallocate resources, and accomplish more.

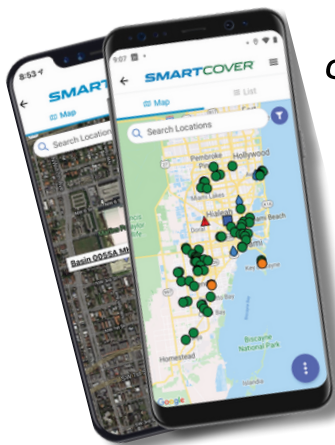
### Resilience During Critical Times

Because the SmartCover communication architecture uses a global satellite network – instead of terrestrial transponders – reliable connectivity is achieved requiring a small fraction of skyline visibility. The combination of long-lasting battery and satellite communications makes the system autonomous during power or cell outages, when information is needed most.

The secure dashboard is easily accessed through any web browser on a computer, tablet or smartphone. An intuitive, user-friendly display of graphs, maps and visual icons show the status deep within your collection system. Bi-directional remote communication with your monitored sites makes setting changes or disablement possible from anywhere at anytime.



- Hardware components engineered to function in wet, humid, corrosive conditions
- Flexible patented sensor designs and deployment
- NO CONFINED SPACE ENTRY\* installation or service
- Reduces traffic management resources
- Compact, long-lasting battery
- Two-way communications permit remote settings management
- Done-for-you analytics performed by proprietary software
- Fusion with rain, river, and tide data
- Variable timing options for data scans and notifications
- Secure, online dashboard with easy-to-read, visual reports
- Unlimited data storage and user accounts
- Satellite coverage works with sites difficult to access and withstands cellular outages
- Works when there is no power
- Configurations for open channels, canals, holding tanks, lift stations, outfalls, reservoirs, and utility vaults
- Experience with military bases, nuclear power plants, universities, and drainage districts
- Mobile app for iOS and Android



**COMPATIBLE  
MOBILE APP  
INCLUDED FOR  
ALL USERS**

**INSIGHTS FROM  
ANYWHERE AT  
ANYTIME**



\*as defined by OSHA 29 CFR 1910.146b

## SMARTCOVER AT-A-GLANCE

- Founded in 2005 by two elected water board officials
- Invented the first real-time remote monitoring system to prevent sewer spills
- Serving public and private utilities throughout North America
- Headquartered in San Diego with additional offices across the U.S.

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