



**SNAP™**

*SmartCover Nodal  
Analysis Protocol*

SmartCover's SNAP™ determines how many SmartCovers needed to reduce risk in a system.

SNAP™ is a proprietary geospatial algorithm to optimize sensor placement. SNAP™ delivers sanitary sewer overflow (SSO) reduction without requiring 100% manhole coverage.

SNAP™ provides all the benefits of SNAP LITE™ to maximize coverage for your system plus risk analysis to prioritize your highest risk locations.

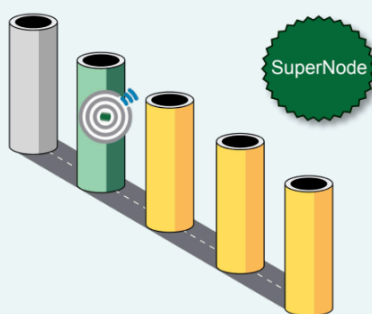
# SNAP™

## Optimized SSO Risk Reduction

### HOW IT WORKS

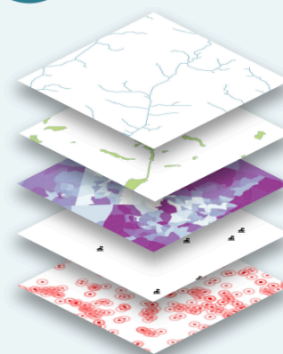
1

Identify high-value locations (SuperNodes) through analysis of your system structure and connectivity.



2

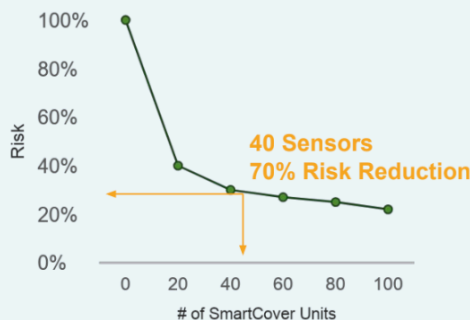
Locate high-risk areas by integrating probability and consequence factors.



- SSO Incidents
- Cleaning Schedule
- Pipe Age
- Schools
- Green Spaces
- Waterbodies
- Hospitals
- Population Density

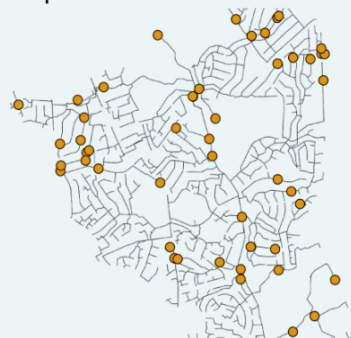
3

Plot the relationship between number of SmartCovers and risk to find optimal coverage.



4

Install sensors in highest value SuperNodes.



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## MAXIMIZE COVERAGE OF ASSETS

SmartCover's SNAP LITE™ is a proprietary geospatial algorithm to optimize sensor placement for maximum sanitary sewer overflow (SSO) reduction & cost savings.

## HOW IT WORKS

SNAP LITE™ uses your existing GIS assets such as pipes, manholes & lift stations to identify high-value locations (SuperNodes) for sensor placement.

SNAP LITE™ uses the structure & connectivity of pipes, manholes & lift stations to optimize system coverage at the lowest investment.

# SNAP-LITE™

## Optimized System Sensor Placement



All we need is GIS asset files, then we do the work of optimizing sensor placement.

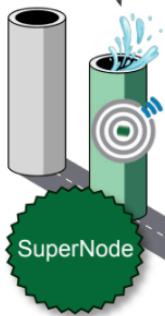


Invest with the peace of mind that our industry-leading hardware is optimally located & will deliver insights to enhance decision making & reduce response time to SSOs.



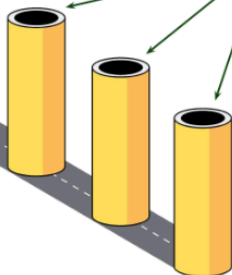
Remove the guesswork & get a high return on your investment by monitoring optimal locations.

Install in one location



SuperNode

...and monitor many



All of your assets



Prioritized manholes



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## DETERMINE SENSOR LOCATIONS TO DETECT I&I

Utilize the SNAP-I™ algorithm to select optimal locations for monitoring I&I by delineating metersheds.

Once I&I response data has been collected, redeploy units into smaller metersheds in areas with high I&I to minimize cost & pinpoint I&I.

SNAP-I™ includes as many deployment plans as needed to discover where & when I&I occurs.

# SNAP-I™

## Pinpoint System Inflow & Infiltration (I&I)

### HOW IT WORKS

1

Identify sensor locations that define metersheds where all upstream flow can be measured. Water level at these locations provides data on I&I for that metershed as a whole.

Choose the number of locations to monitor, & SmartCover delineates that number of metersheds.

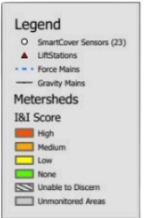
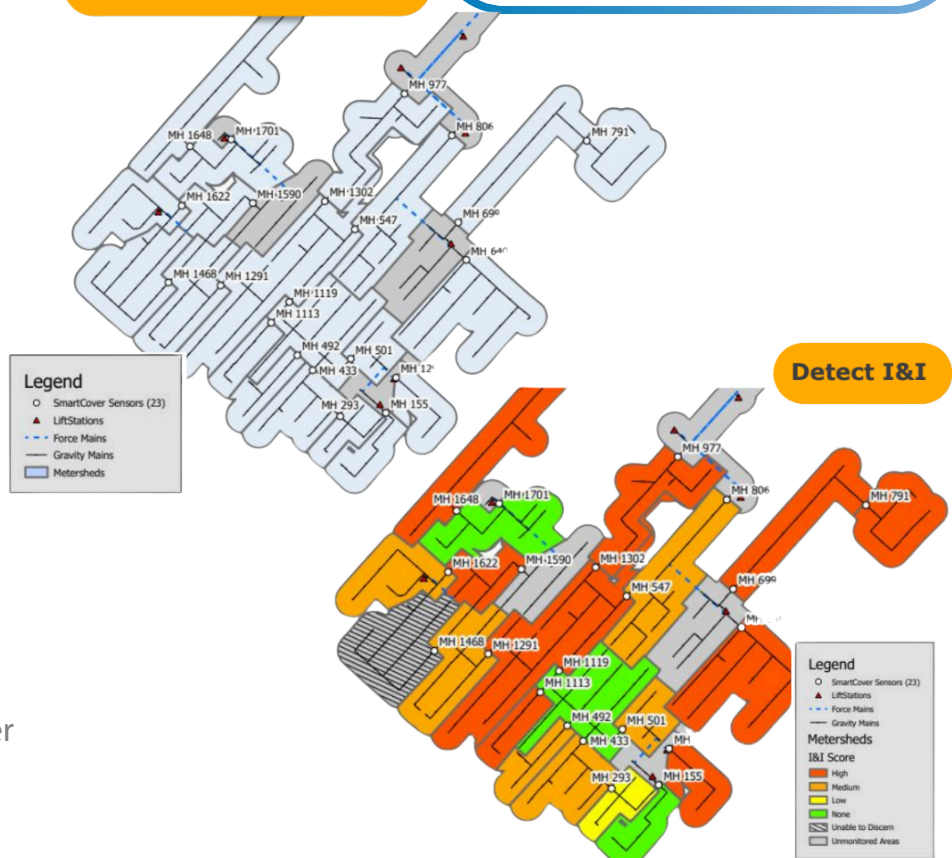
2

Collect data & rank metersheds by I&I level.

3

Move SmartCovers from areas of low I&I to new, smaller metersheds in higher I&I areas to pinpoint where I&I occurs.

#### Optimize sensor locations



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**SMARTCOVER**  
A Badger Meter® Brand