

# iTracking®

## Videocentric I&I Detection



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A High-Speed  
Solution for  
Pinpointing I&I

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## Videocentric I&I Detection

Locating faulty underground wastewater infrastructure has always been a daunting task. Finally, that is all about to change. iTracking®, along with its groundbreaking Computer Generated Imagery technology (Playback®), is poised to transition the complexities of Inflow and Infiltration (I&I) detection from a difficult and expensive process to one that is simple and inexpensive.

With a click of the Playback® button, users are immediately presented with an animated video showing the relationship between wastewater levels and weather events leading up to the I&I episode in question. Specifically developed algorithms quickly isolate and determine those sites responsible for the highest volumes of I&I. Each problematic site is then encircled with a “red ring” for quick identification. I&I is isolated to within adjacent monitored sites.



### 4 INDIVIDUAL TECHNOLOGIES

Every I&I detection study requires costly and time-consuming integration of four independently derived factors; geographic location, historical weather, sensor data and mathematical analysis.



### 1 USER-FRIENDLY SOLUTION

Utilizing CGI (Computer Generated Imagery) technology, Playback® efficiently integrates all four factors; location, weather, data and analysis, into a user-friendly, easy to understand animated video experience.

## It starts with a Smart Sensor

iTracker smart I&I Detection sensors are packed with powerful features that give you the ability to monitor, analyze and alert on a single platform. Designed with both Bluetooth and cellular capability, sensors can be deployed in just 20 minutes, do not require confined space entry and are maintenance-free.



- Non-Contact
- Lightweight: 1.9lbs
- 18 Month Battery Life
- (2) - 3.6v Lithium D Cell
- Bluetooth and Cellular Enabled
- Onboard Data Logger

## High Resolution Intelligence

iTracker Smart Sensors deliver a network of high resolution data points that quickly pinpoint I&I down to a set of adjoining manholes.

## User-Friendly

### 20 Minute Setup

iTracker sensors can be installed in just 20 minutes without confined space entry.

### 5 Minute Data Retrieval

iTracker sensors allow for effortless setup and retrieval of data through either Bluetooth or cellular connectivity.

### Cloud Connectivity Makes it Simple

Our cloud connectivity allows you to instantly access actionable reports and on-demand animated videos from any location.





# Playback®: I&I Detection at a Glance

Playback® visually integrates location, weather, data and analysis into one simple to understand video



## Stop Wondering... Start Watching

With iTracking's unique Playback® feature, the I&I discovery process becomes as simple as watching an animated video of the performance of your collection network under both normal and adverse weather conditions. Users are able to view, either in historical or real-time mode, wastewater volumes rising or receding in relation to storm intensity and follow along as dynamic

visuals provide a moving timeline of I&I contribution for each monitored location.

Updated every 5 minutes, sites responsible for the greatest increases of I&I are automatically indicated by highly visible red rings. By clicking on these sites, performance related graphs, charts and reports detailing the extent of I&I in GPM are automatically generated.

## Precision Results

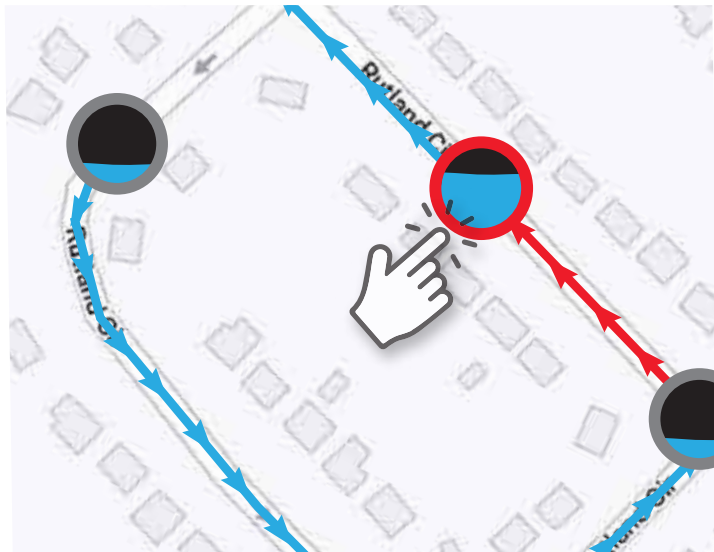
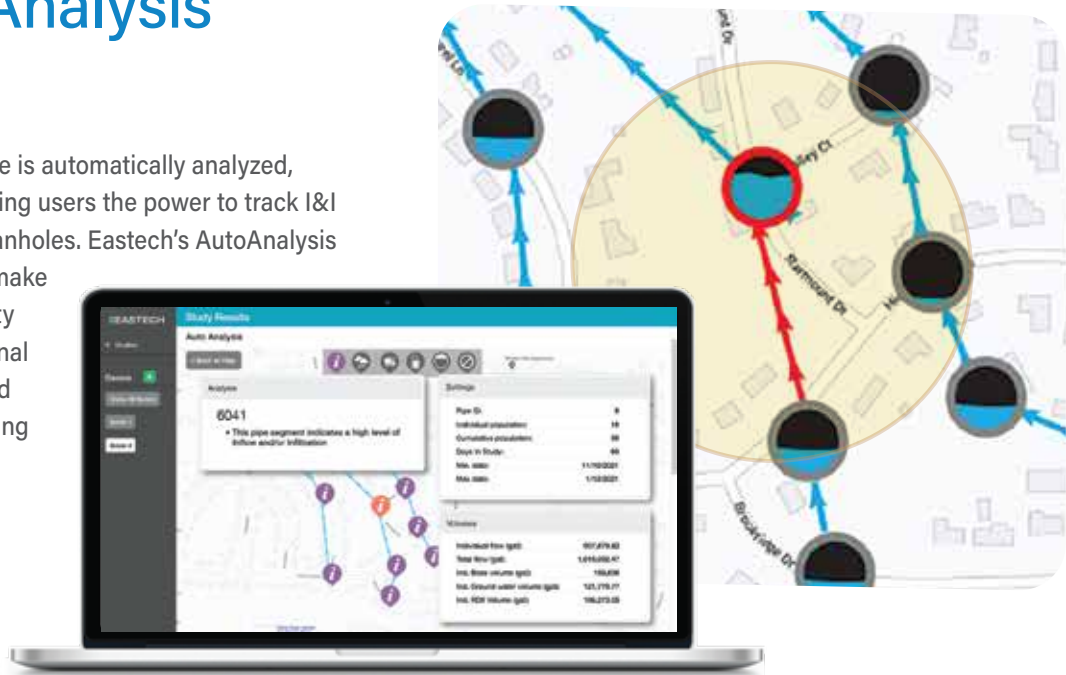
With Playback®, hours and days of animated video showing collection system performance can be compressed into just seconds of viewing time. At each monitored site, historical weather data, updated once every 5-minutes, is synced with 5, 10 or 15-minute interval flow data ultimately providing users with a clearly presented visualization of exactly what had transpired within the collection network during the I&I study period.

- See RDII effects relating to all monitored sites.
- Automatic designation (red ring) of sites exhibiting high volumes of I&I.
- Isolated analysis of monitored pipe segments.
- Automatic I&I analysis and generation of graphs and reports in GPM.



# Automatic Analysis & Reports

Data from each monitored site is automatically analyzed, interpreted and displayed giving users the power to track I&I down to a pair of adjacent manholes. Eastech's AutoAnalysis and AutoReporting features make it easy for municipal and utility personnel to quickly obtain final study results without the need for tedious and time-consuming manual data interpretation.



## The 80/20 Rule Applies

It has been proven over and over again by hundreds of studies dedicated to the detection of I&I that 80% of I&I resides in just 20% of the collection piping. This is why it is so important to select an I&I Detection System that has the ability to locate the 20% down to a set of adjacent manholes. It is here that iTracking® with Playback® differentiates itself from its competition. Every monitored pipe segment within the iTracking System has the analytical capability for generating individual graphs and reports in GPM relating specifically to the isolated segment selected for evaluation.

Clicking on any individual site automatically provides:

- Auto-Analytical Reports detailing the extent of I&I in GPM for each individually isolated pipe segment.
- Flow Graphs for each individually isolated pipe segment.
- Hydrographs for each individually isolated pipe segment.



# Customer Support Program

## 1 Determination of iTracker® Placement

Prior to your placing an order, Eastech will assign a Project Manager to your account who will review a map of the areas selected for I&I investigation and recommend quantity and placement of iTracker® sensors.

## 2 On-Site Installation, Supervision & Training

After order placement, a Project Manager will coordinate a mutually agreeable time to visit the site to supervise installation of iTracker® sensors and train field personnel in the operation of the iTracking® hardware.





# Start to Finish Project Support

## 3 Data Retrieval and Upload Assistance

Collection of data can be accomplished through on-site Bluetooth connectivity or by direct upload to the Eastech Cloud via Cellular means. One of our Project Managers will be available online to assist.

## 4 Review of Results, Reports and Videos

Upon completion of uploading data to the Eastech Cloud, iTracking's auto-analytical software will present animated videos, reports and graphs that can then be reviewed and discussed with the Project Manager.



## COMPARATIVE COST ANALYSIS

Conventional Flow Monitoring I&I Study versus iTracking® I&I Micro Detection  
(90 DAY I&I STUDY – 45,000 Linear Feet (9 Miles))

CONVENTIONAL I&I STUDY	
5 Flow Meters w/Installation	\$25,000
45,000LF Light Cleaning	\$33,750
45,000LF CCTV	\$90,000
Meter + CCTV Reports	\$33,750
TOTAL COST	\$182,500
<b>COST PER FOOT</b>	<b>\$4.05</b>

ITRACKING® I&I MICRO DETECTION	
12 iTracker® Sensors w/ Installation	\$31,500
Cloud-Based Analytical Software	Included
Video Playback®	Included
AutoAnalysis™/AutoReporting™	Included
*Success Program	Included
<b>COST PER FOOT</b>	<b>\$0.70</b>

Add \$0.10/ft for Cellular Transmission

## iTRACKING® PRICING

iTRACKING PURCHASE	
iTracker® Smart Sensor (Bluetooth Enabled) . . . . .	\$2,825.00
iTracker® Smart Sensor (Bluetooth/Cellular Enabled) . . . . .	\$2,985.00
Cloud-Based Analytical Software . . . . .	Included
Video Playback®, AutoAnalysis™, AutoReporting™ . . . . .	Included
SUCCESS PROGRAM . . . . .	Included

The above pricing is based upon the first year of iTracking® purchase and implementation. The pricing includes everything listed above (including mounting hardware) and everything required to conduct a successful I&I Detection Study. No hidden or additional costs.

Each following year, the only costs incurred will be \$480/annum/iTracker® for the Cloud-Based Analytical Software platform that includes AutoAnalysis™, AutoReporting™, Playback® and if requested, \$360/annum/iTracker® for cellular connectivity.



[smartwastewater.com](http://smartwastewater.com)

Watch the iTracking video and see how we're changing the playing field  
with this new technology

**EASTECH**

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