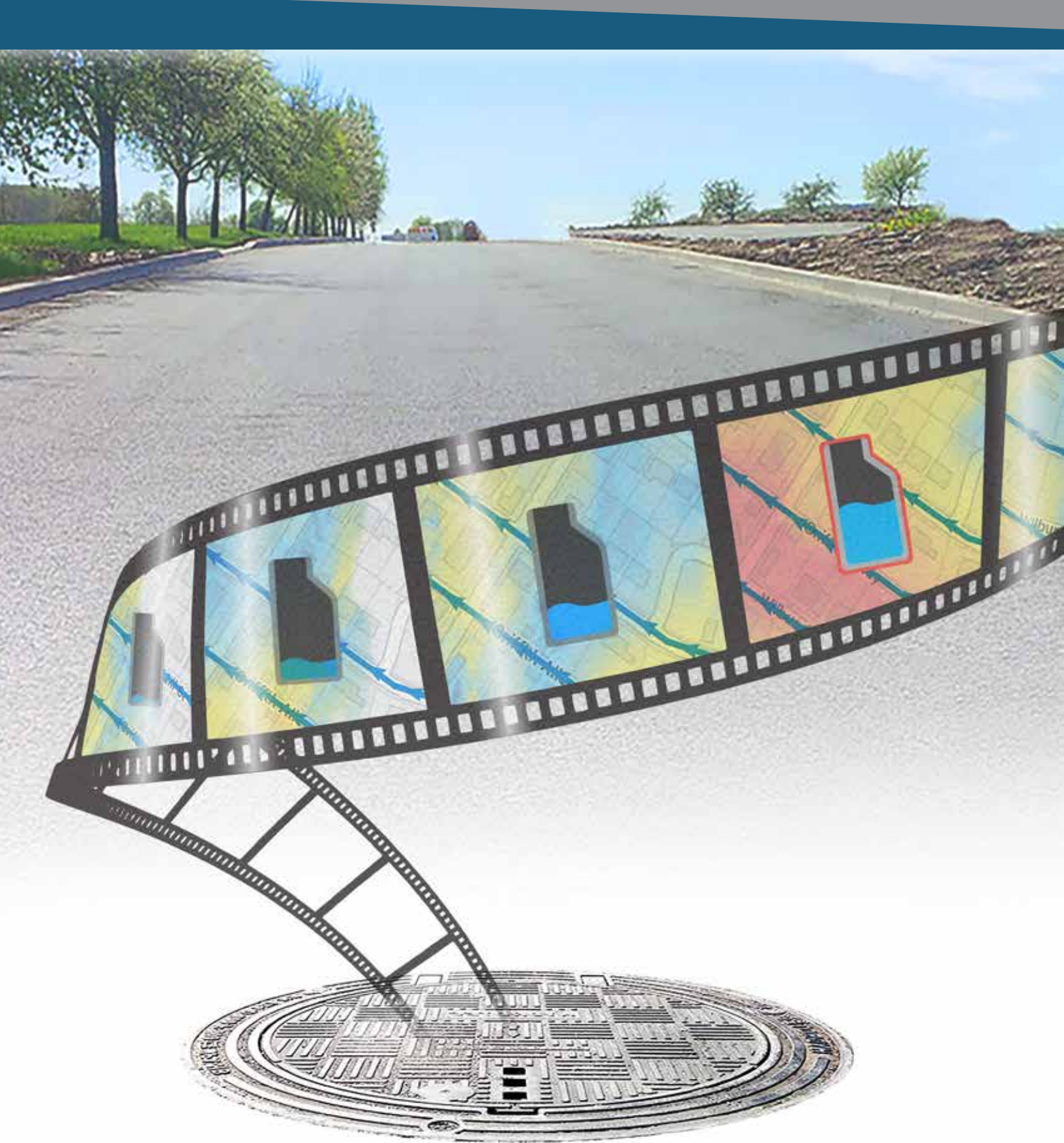**EASTECH**

SMART SEWER
PERFORMANCE
MONITORS

smartwastewater.com

**DATA VISUALIZATION
AT ITS HIGHEST LEVEL**

HIGH PERFORMANCE
COLLECTION SYSTEM **MONITORING**

I&I DETECTION

SEWER MONITORING

PORTABLE METERING

SURCHARGE ALERTING

TRACPAC 7™

**AI-Powered
I&I Micro Detection**

TracPac 7, with Playback™ Video Animation, is a fully integrated I&I Micro Detection package designed to quickly pinpoint areas of I&I to between a set of adjacent manholes.
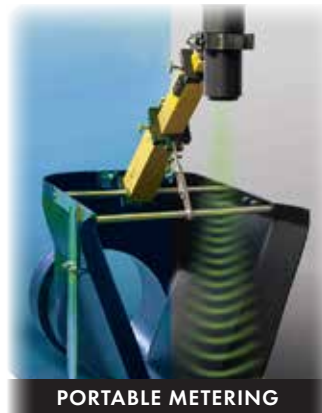
4-11

SEWERWATCH™

Videocentric Sewer Monitoring

With SewerWatch's unique Playback™ feature, alert-based sewer monitoring becomes as simple as watching an animated video of your collection network.

12-17

FLOWPORT™

Portable Open Channel Flowmeter

FlowPort™ is the quickest, simplest way to see what is going on in your collection system. It provides fast, accurate and portable metering of wastewater flows in 8", 10' and 12" sewer pipes.

18-23

1ST RESPONSE™

Early-Warning Surcharge Alerting

Upon wastewater levels reaching user-defined heights, an early-warning text message is dispatched alerting O&M personnel of the possibility of a sewer surcharge event.

24-27

PRICING on back cover

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iTracking®

I&I DETECTION SERVICES

iTracking® I&I Detection Services is a "first of its kind" outsourced solution providing customers with a "Double Guarantee" that not only pinpoints areas of I&I to between micro-basins consisting of just 3-4 manholes but also eliminates all time constraints regarding the success of the project. If we do not precision detect I&I issues residing within your collection network, your money is refunded.

28-35

INTRODUCING TRACPAC 7
with

PLAYBACK™

A new ground-breaking AI-Powered
COMPUTER GENERATED IMAGERY TECHNOLOGY
that makes I&I Detection as simple as
watching an animated video!

iTracking®

TRACPAC™ 7

The First AI-Powered Solution for Pinpointing I&I

EASTECH

TRACPAC™ 7

I&I MICRO DETECTION IN 2 SIMPLE STEPS

The TracPac 7 is a packaged I&I Micro Detection system designed to quickly pinpoint areas of I&I to between a set of adjacent manholes. Provided with (7) iTracker® smart sensors, accompanying hardware and auto-analytical software, the TracPac 7 in two simple to follow steps, will precisely locate major areas of I&I after just a single rain event.

TRACPAC™ 7

Provided with (7) iTracker® smart sensors, accompanying hardware and auto-analytical software.

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 Bluetooth capability, sensors can be deployed in just 20 minutes, do not require confined space entry and are maintenance-free.

- **Non-Contact**
- **Lightweight: 1.9lbs**
- **12 Month Battery Life**
- **(2) - 3.6v Lithium D Cell**
- **Bluetooth 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 Bluetooth 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™ AI-Powered Video Animation

Locating faulty underground wastewater infrastructure has always been a daunting task. Finally, that is all about to change. TracPac 7, along with its groundbreaking AI-Powered Computer Generated Imagery technology (Playback™), is poised to transition the complexities of Inflow and Infiltration (I&I) detection from a difficult and costly process to one that is simple and inexpensive.

With a click of the Playback™ button, users are instantly presented with an animated video showing the relationship between wastewater flows and weather events leading up to the I&I episode in question. Specifically developed AI-Powered algorithms quickly isolate and determine those sites responsible for the greatest volumes of I&I. **The top (3) I&I events at each problematic site are automatically displayed and encircled with a "red ring" for immediate identification.** I&I is quickly isolated down to a set of adjacent monitored sites.
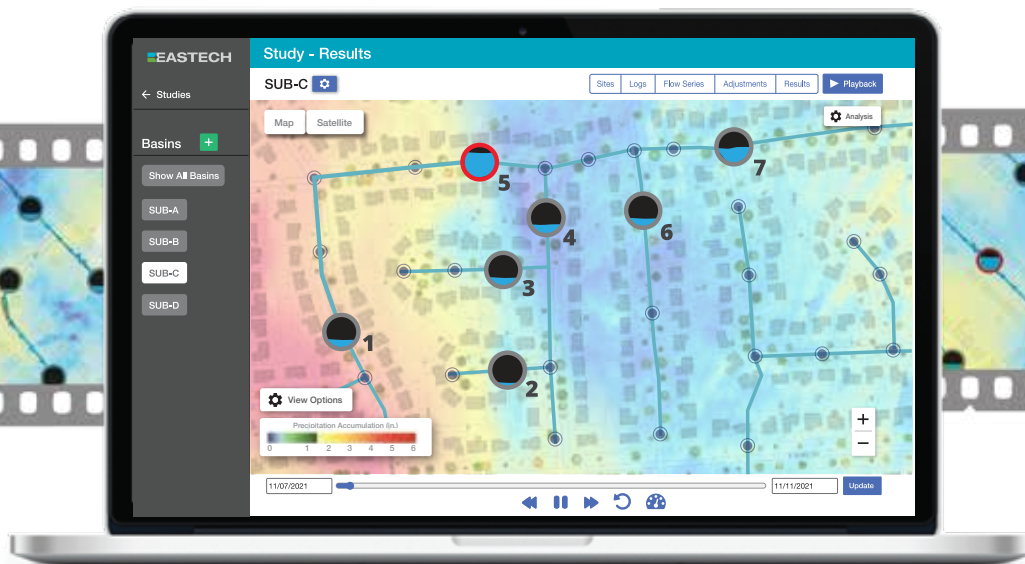
TRACPAC. 7™

Running the gamut from "Major" to "Target" I&I Detection, TracPac 7 provides users with the ability to quickly ascertain the extent of their I&I issues within either "Major" areas of the collection network, or depending upon user preference, conducting a "Target" investigation capable of pinpointing I&I contributions down to a set of adjacent manholes.

Quickly Evaluating the Extent of the Problem

By utilizing just one of the smart TracPac 7 sensors in a specific area of the collection network and then uploading the resulting data to the Eastech Cloud, iTracking® analytics will automatically generate animated videos (Playback™), Volumetric Change in Flow Graphs and EPA-Guided graphical interpretations detailing the severity of I&I within the area selected for initial investigation.

Select	Install	Upload
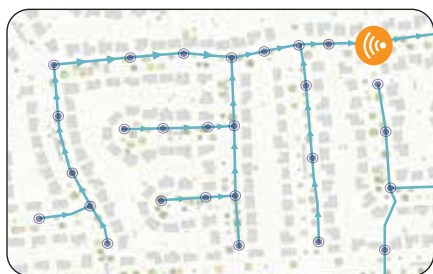
Before initiating a "Target" I&I Study (see pages 10 & 11) within a 1 – 2-mile area of the collection network, it is suggested that a single iTracker smart sensor be installed at the base of the proposed study area to quickly confirm the volumes of I&I presently infiltrating the system while additionally familiarizing utility personnel with the primary features of the TracPac prior to conducting a "Target" investigation

iTracker smart sensor installation is accomplished in 20 minutes without the requirement for confined space entry. Simply hang the sensor weighing less than 2 lbs. from a factory supplied spanner bar, via Bluetooth enter manhole number, pipe size and water level into the calibration screen displayed on your mobile phone and the iTracker is ready to begin collecting data. It's as simple as that!

After one or two rain events, return to the site, retrieve the iTracker by pulling up the stainless chain attached to the sensor housing and with any Bluetooth-enabled mobile device upload the collected data directly to the Eastech Cloud where immediately upon receipt iTracking® analytics will automatically generate animated videos (Playback) and EPA-Guided graphs.

Now... Stop Wondering and Start Watching as Animated Videos and Flow Graphs Automatically Provide Actionable Results

PLAYBACK™

Discovering the location of I&I is as easy as viewing an AI-Powered animated video of the performance of your collection network using any mobile device. Easily watch the effects weather-related I&I has on your wastewater system (updated every 5 minutes). Manhole segments contributing the highest volumes of I&I are automatically highlighted by red rings.

EPA-Guided Results

TracPac 7 uses the EPA's I&I Guidance recommendations (Wet Weather Flows exceeding 4.5 times the 60 GPD per person average daily flow) as the primary benchmark for identifying each major and micro basin within the wastewater collection network responsible for contributing excessive volumes of I&I.
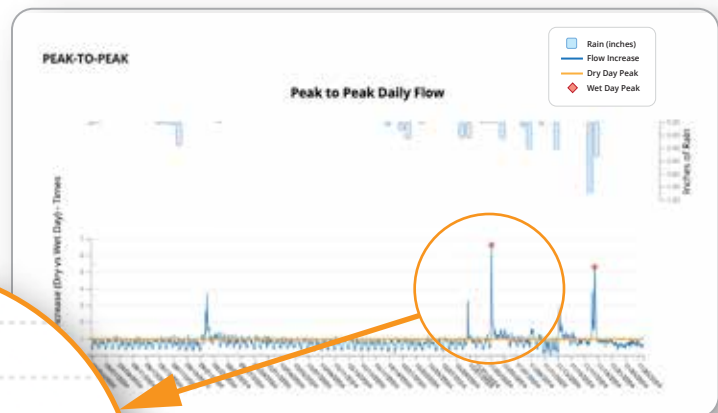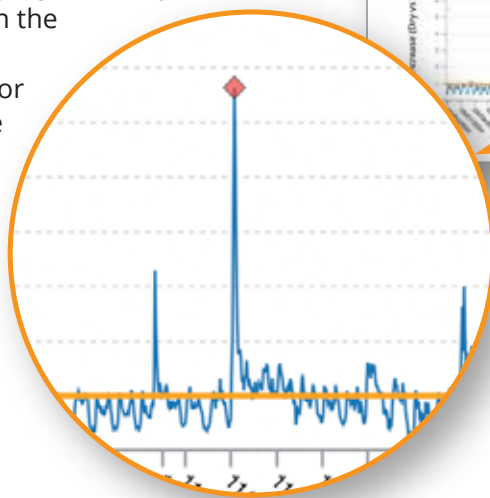
A Red Diamond highlights each RDII event exceeding the "4.5 times increase" EPA benchmark.

Watch the TRACPAC 7 Video at smartwastewater.com

As described above, the TracPac 7 provides users with the option of confirming the need for an I&I Study prior to initiating an in-depth investigation (See Pages 10 & 11).

TRACPAC™7

The TracPac 7 I&I Micro Detection system is designed to quickly pinpoint areas of I&I to between a set of adjacent manholes. In two simple to follow steps, the TracPac 7 will precisely locate major areas of I&I after just a single rain event.

Pinpoint I&I in 2 Simple Steps

STEP 1
Place (7) iTracker sensors within a 1 – 2-mile section of the collection system selected for I&I investigation.

Site Selection

By installing one iTracker every 3-5 manholes (approx. 2 miles) within the area selected for investigation, a high-resolution iTracking grid will uncover the piping segments responsible for the largest contributions of I&I.

Data Retrieval

Immediately following the 1st or 2nd rain event, with any Bluetooth-enabled mobile device upload the collected iTracker data directly to the Eastech Cloud.

PLAYBACK™

Discovering the location of I&I is as easy as viewing an animated video of the performance of your collection network using any mobile device. Easily watch the effects weather-related I&I has on your wastewater system (updated every 5 minutes). Manhole segments contributing the highest volumes of I&I are automatically highlighted by red rings.

AutoAnalysis Results

Data is automatically analyzed on the Eastech Cloud with I&I results presented in animated video and "easy to understand" graphical formats. **[MAJOR I&I DISCOVERED BETWEEN iTRACKER SITES 1 & 5].**
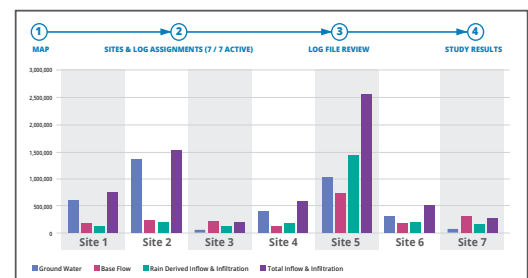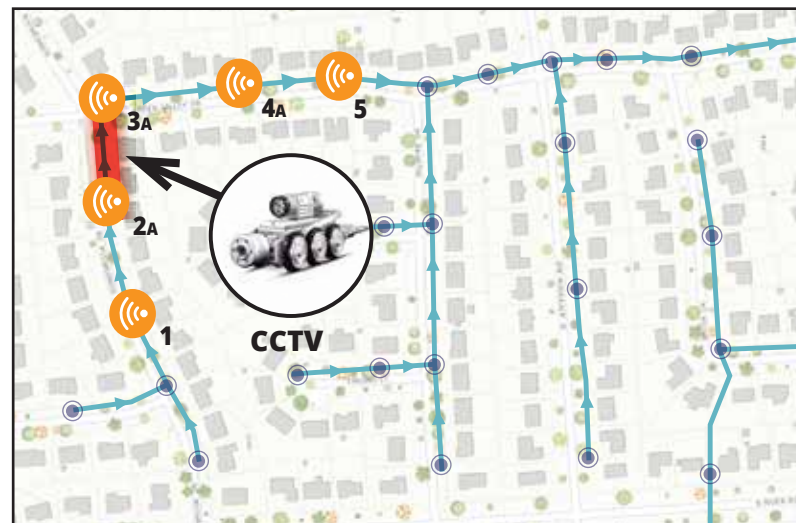
STEP 2
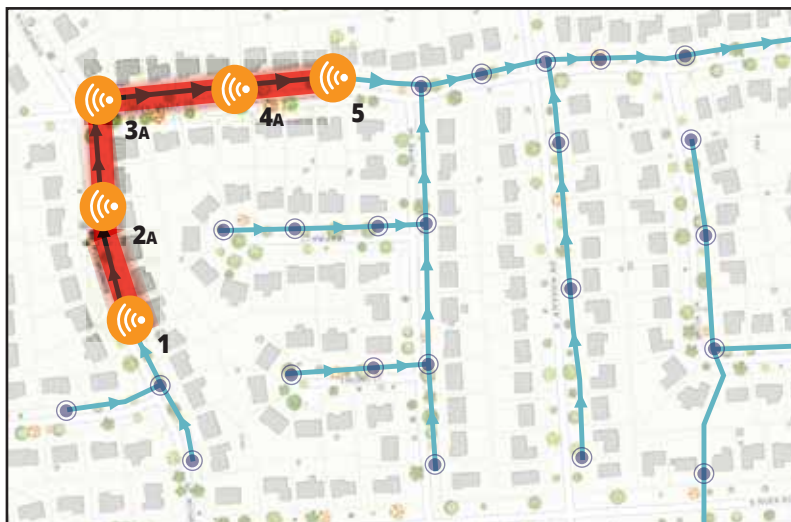
Site Selection

In STEP 1, TrackPac 7 Auto-Analysis determined that 60% of I&I within the study area was generated between Site's 1 & 2. To pinpoint the cause to between a set of manholes, the iTrackers in Sites 1 & 5 are kept in place and (3) iTrackers from the STEP 1 study are removed and relocated to Sites 2A, 3A and 4A.

AutoAnalysis Results

iTracker data is again automatically analyzed on the Eastech Cloud with I&I results presented in visually "easy to understand" Playback™ animated video and graphically generated formats.

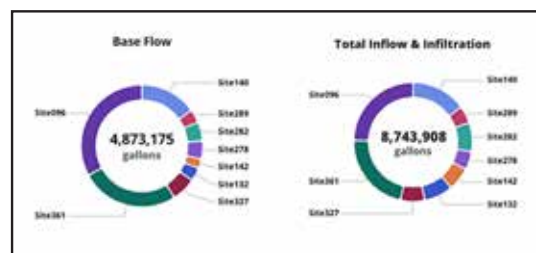## CCTV or Smoke Testing Confirmation

In STEP 2, TracPac 7 Auto-Analysis determined that 50% of I&I within the study area encompassing manholes 1, 2A, 3A, 4A and 5 was generated between Site's 2A and 3A.

For confirmation of TracPac 7 results, CCTV camera inspection or smoke testing is initiated between Sites 2A and 3A.

Pinpoint I&I Detection

The I&I results presented by both Playback™ and graphical visualizations provide users with the ability to precisely detect I&I to between adjacent manholes. [MAJOR I&I DISCOVERED BETWEEN iTRACKER SITES 2A & 3A].

*Sewer*Watch®

Videocentric Sewer Monitoring

Condition, Weather, Videos and Alerts all in the Palm of Your Hand

EASTECH

SewerWatch ®

Sewer Monitoring as Simple as 1-2-3

1. Install SewerWatch® Monitor

SewerWatch® smart cellular-enabled monitors provide users the ability to observe, alert and visualize collection system behavior all within a user-friendly application.

- **Lightweight: 1.9 lbs**
- **Deployed in 20 minutes**
- **12 Month Battery Life**
- **Sensor Range: 8ft**
- **Maintenance-Free**

2. Wait for an Alert

Upon wastewater levels reaching a user-defined height, a text message alert is dispatched along with an animated video detailing current conditions initiating the alert.

- **Surcharge and Blockage Events**
- **Inflow & Infiltration Detection**
- **Cleaning and Capacity Issues**

3. Start Watching

SewerWatch's Playback™ feature visually integrates location, weather, collection system performance and alerts into one clearly understandable animated video. Events leading up to each alert, including present conditions, are visually upgraded on a continual basis.

- **Watch what led up to surcharges and blockages**
- **Watch effects of I&I relative to weather**
- **Watch for cleaning and capacity issues**

Watch What Led Up to Surcharges and Blockages

SewerWatch® transforms the ability of wastewater utility field and office personnel to manage their constantly evolving collection network assets. Its videocentric mobile-first architecture empowers those individuals tasked with maintaining operational integrity with the ability to proactively monitor, capture and visualize collection system infrastructure performance at-a-glance.

With SewerWatch's Playback™ feature, as quickly as a surcharge or blockage text alert is received, an animated video appears providing a clear visual explanation of current conditions initiating the alert along with changing conditions as the situation evolves.


Upon completion of video review, further analysis of alert episodes may be conducted through a graphically based historical assessment of fluctuations in wastewater levels.
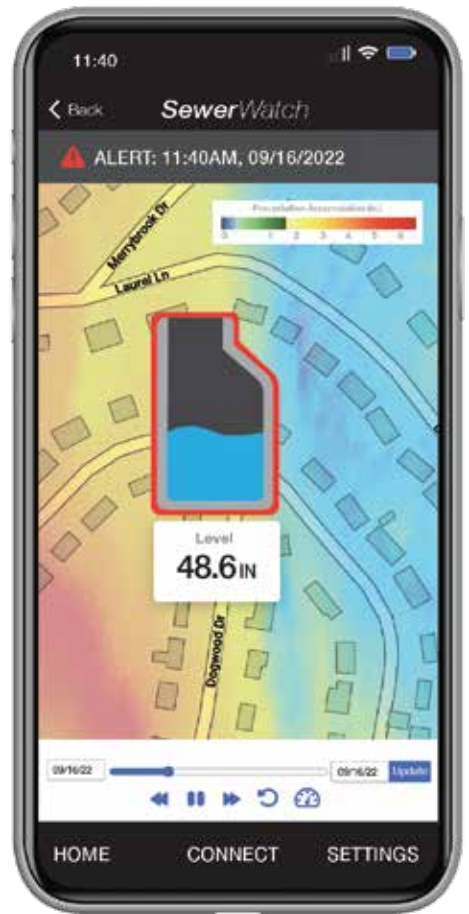
SewerWatch® visually integrates location, weather, performance and alerts into one quickly understandable video of collection system performance.

With SewerWatch's unique Playback™ feature, alert-based sewer monitoring becomes as simple as watching an animated video of your collection network. Users are able to follow along, either in historical or real-time mode, as dynamic visuals provide a moving timeline of wastewater manhole levels.

Within just a few minutes of watching Playback™, O&M personnel are not only armed with the ability to clearly understand events leading up to each alert but continually stay informed by viewing present conditions. Updated once every 5, 10 or 15 user-selectable minutes, videocentric monitoring technology brings collection system performance awareness to an entirely new level.

| 10:55 AM | 11:10 AM | 11:25 AM | 11:40 AM |
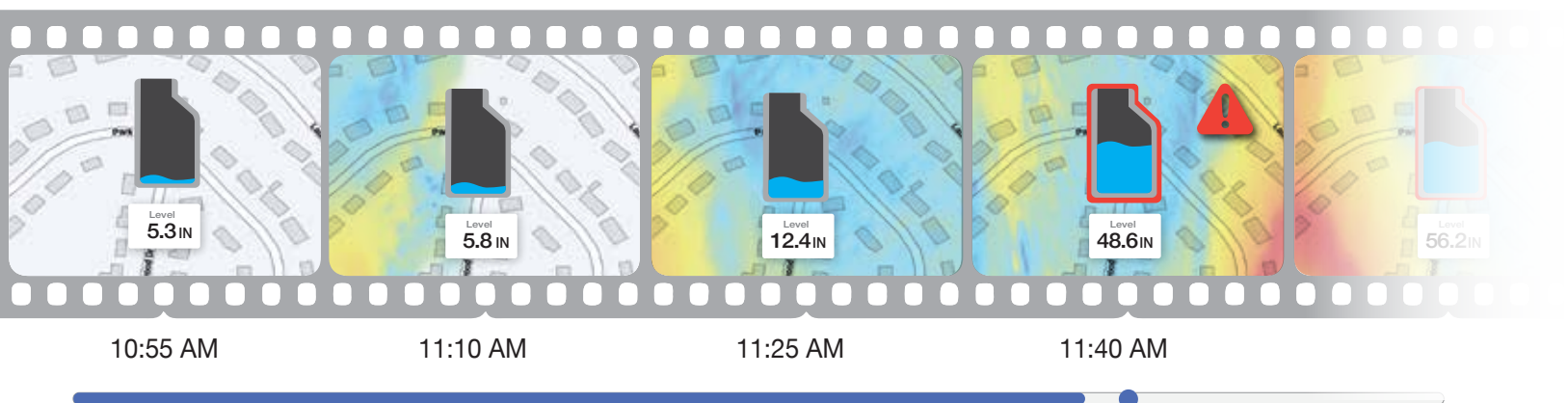
Watch Effects of I&I Relative to Weather

Surcharges and SSO's are primarily the result of either blockages or I&I. With SewerWatch'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. By coupling Playback™ with our proprietary peak volume comparison algorithms (ΔV), the cause and severity of a sudden increase in volume can easily be confirmed to be due to the effects of I&I.

## Introducing Peak Volume Comparisons (ΔV)

The portable SewerWatch® Monitor not only functions as a smart level sensor but also as a state-of-the-art Volumetric Comparator. It has the added capability for measuring and graphically displaying on any mobile device peak volume changes (ΔV) between dry and wet day wastewater flows. For purposes of ascertaining the gravity of issues pertaining to I&I, actual volumetric differences in flow are inherently more "relatable" to an impending problem than level-only data sets. This can be seen when a 2X (times) increase in wastewater level often results in a greater than 5X (times) increase in volume.
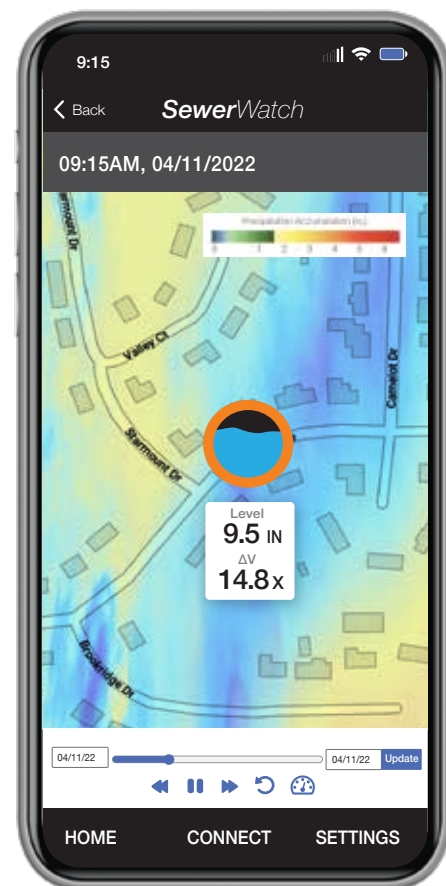
Watch the SEWERWATCH Video at smartwastewater.com

I&I Detection at a Glance

With Playback™, utility personnel are now are able to view, either in historical or real-time mode, wastewater volumes rising or receding in relation to storm intensity. Follow along as dynamic visuals provide a moving timeline of I&I contribution for each monitored location.

| 6:15 AM | 7:15 AM | 8:15 AM | 9:15 AM |
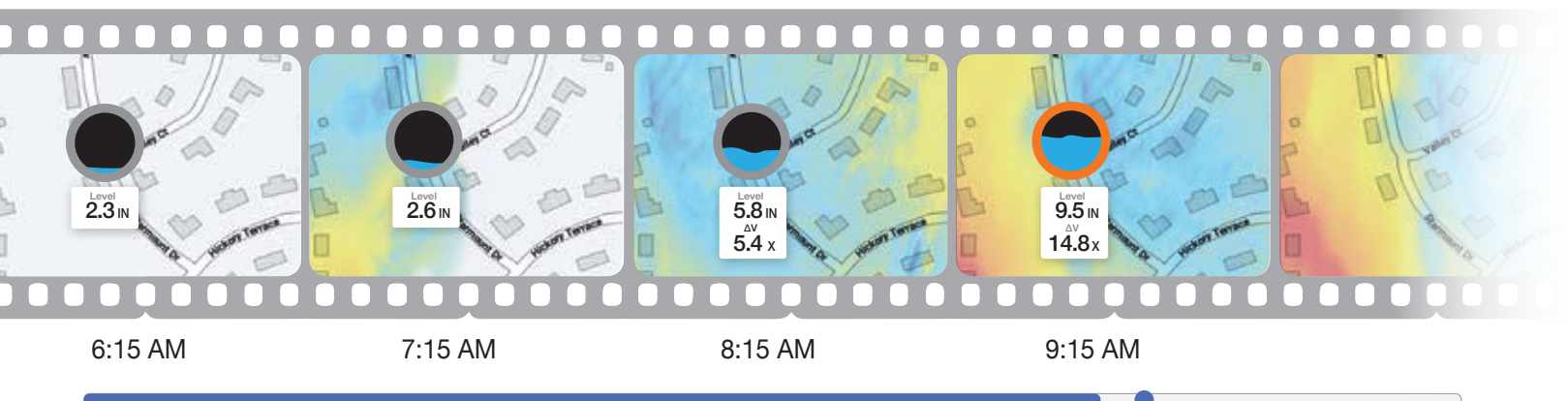
Watch for Cleaning and Capacity Issues

Blockages, the main cause of surcharges, SSO's and residential back-ups, are many times the result of a lack of cleaning or an unidentified capacity issue. Upon receiving a SewerWatch alert, Playback[M] animated videos quickly show the primary cause for initiation of an alarm. Historical level records synced with coinciding weather patterns instantly provide visual confirmation of events leading up to the problem.

Notification of Cleaning

Sewer lines are primarily cleaned according to a preset schedule. But in many cases, the need for cleaning does not adhere to a specific timetable. SewerWatch, in addition to proactively alerting utility personnel of the need for cleaning, provides confirmation through historical data that the alert was initiated by a gradually increasing downstream problem.


Operating Capacity Evaluation

As communities grow, the carrying ability of sewer lines can become unknowingly stressed. SewerWatch algorithms compare original design parameters to actual volume flowing through the system in order to inform operating personnel of the need for investigation regarding potential problems related to capacity issues.

A Visual Tool for Determining the Problem

Gradually increasing diurnal flow patterns designating the necessity for cleaning due to the probable build-up of fats, oil or grease or the presence of collection system capacity issues are both immediately brought to attention by the ability of Playback® to visually confirm their existence.

10/28/2022   11/04/2022   11/11/2022   11/18/2022
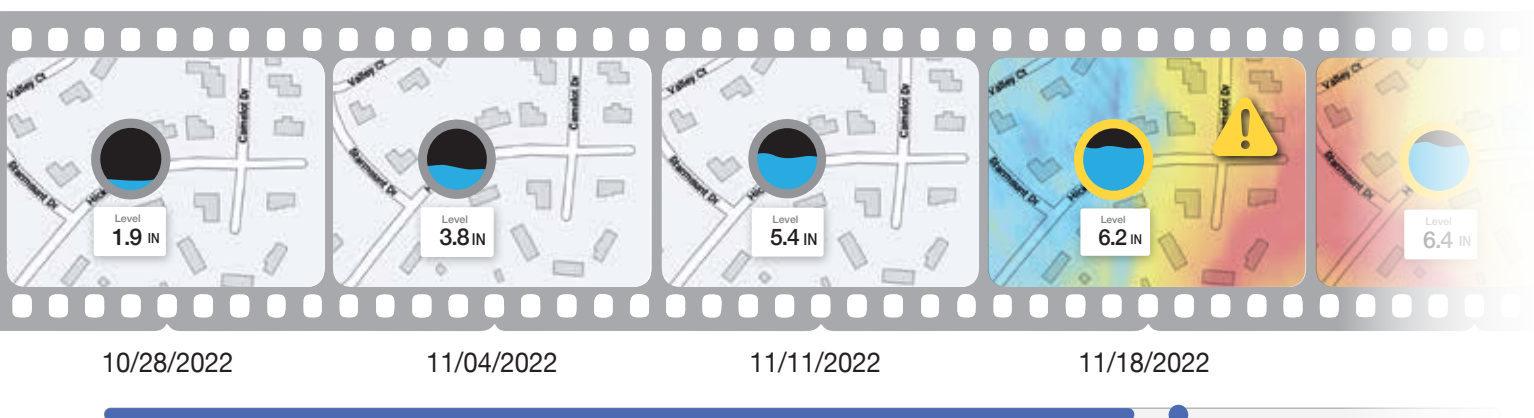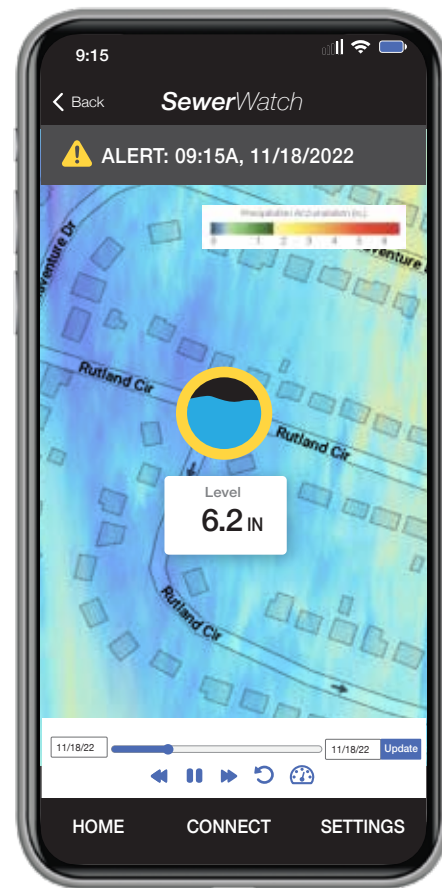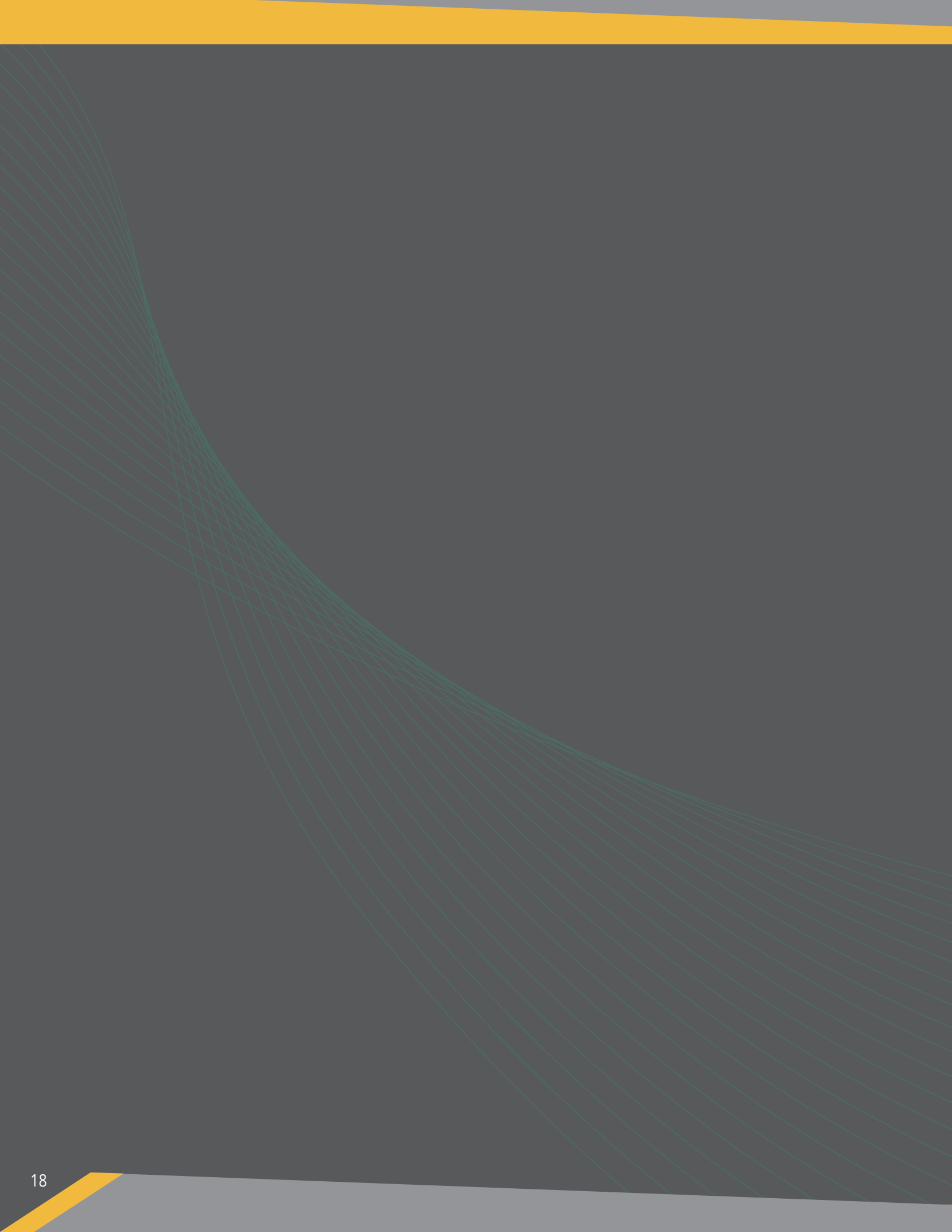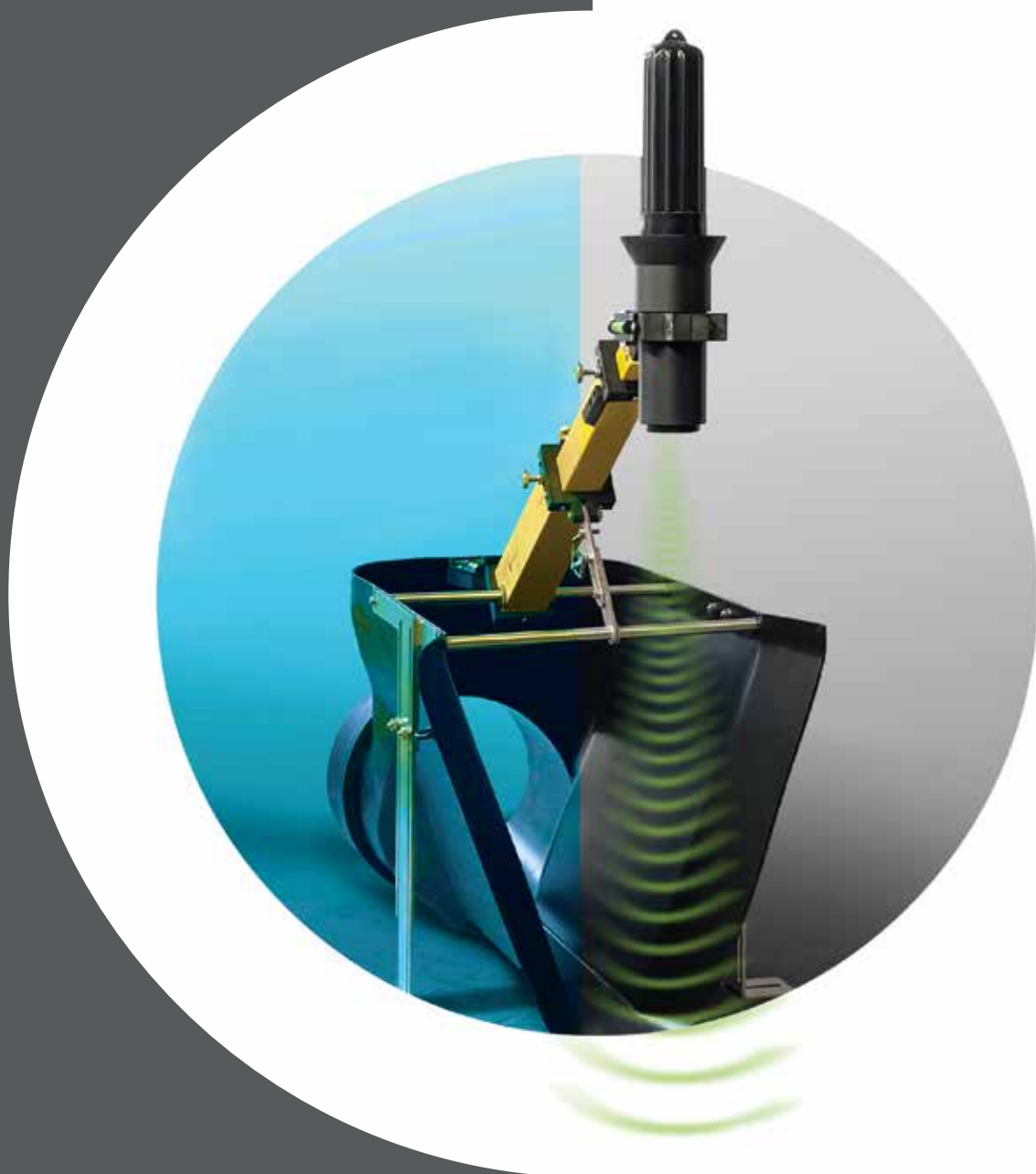
FLOWPORT™

The First Accurate and Inexpensive
Portable Open Channel Flowmeter

EASTECH

FLOWPORT™

Portable • Accurate • Inexpensive

FlowPort™ is the quickest, simplest way to see what is going on in your collection system. It provides fast, accurate and portable metering of wastewater flows in 8", 10" and 12" sewer pipes. Through the integration of (2) proven technologies; a uniquely designed high accuracy flume and a high reliability level meter, the FlowPort™ is an instrument that efficiently delivers open channel flow data under both temporary and permanent measurement conditions.

Covering a wide range of flows along with its "20-minute" ease of installation and self-cleaning, maintenance-free design, the "take anywhere" FlowPort™ is the perfect solution for collection system surveillance studies or for confirmation of revenue-based flows.

- **20-Minute Installation**
- **Wide Range Capability**
- **Self-Cleaning Design**
- **Wireless Data Retrieval**
- **1–3 Year Battery Life**
- **8", 10" & 12" Operation**

20-Minute Installation

With its patented outlet collector design and fully integrated componentry, in almost every instance, the FlowPort™ installs in 20-minutes without manhole modification or reconstruction. Engineered to easily fit into any standard manhole, simply insert the pre-gasketed flume, lock down the legs, raise up the arm and drop in the meter.

Portable & Lightweight

With its lightweight "take anywhere" design, the FlowPort™ allows for accurate monitoring of extremely low flows along with having excellent rangeability for higher flow range applications.

Designed for Efficiency In the Field

The FlowPort™ is a fully integrated meter comprised of (2) lightweight components, a high accuracy flume and a smart battery-operated meter. Fully assembled upon delivery, all that is necessary for field installation is a single bolt for each adjustable leg. Once locked into the outgoing pipe of the manhole, all one needs to do is drop in the Bluetooth-enabled wireless level meter, click a few buttons on your mobile device and the FlowPort™ becomes fully operational.

Designed not only for easy installation, the FlowPort's rugged fiberglass reinforced polyester construction provides for many years of corrosion-free and maintenance-free operation. Once installed, confined-space entry for data retrieval or battery replacement becomes unnecessary. Safely retrieve the meter by its stainless-steel chain and then drop it back into its cradle from above ground.

Wide Range Capability

The FlowPort™ provides wide range flow measurement while maintaining low head loss and high-low flow sensitivity.

- 8"   0 GPM – 550 GPM
- 10"   0 GPM – 1000 GPM
- 12"   0 GPM – 1500 GPM
- Level Accuracy: .05%

Self-Cleaning Design

The trapezoidal throat design of the FlowPort™ mimics the well-known Parshall flume in its self-cleaning property. In addition, the trapezoidal shape opens on increasing area basis with head rise offering an ideal measurement solution when encountering significant debris or solids content.
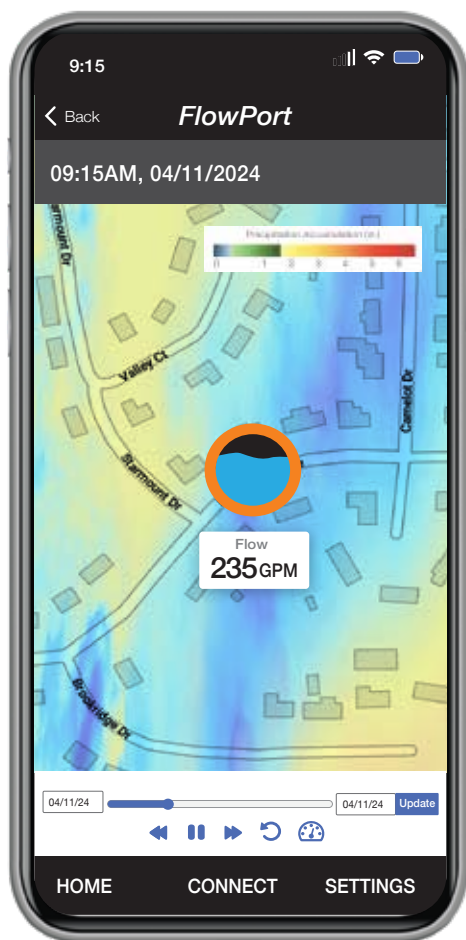
Wireless Data Retrieval

Without the requirement for confined-space entry, data retrieval is simply accomplished in (3) easy steps.

1. Pull Up the Level Meter
2. Connect via Bluetooth
3. Reinsert the Level Meter

Watch the FLOWPORT Video at smartwastewater.com

21

Watch the Effects of I&I Relative to Weather with FlowPort's Playback™ Video Animation Feature

With FlowPort'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. 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.
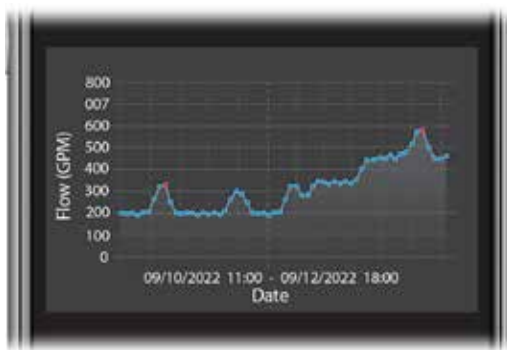

A Fully Integrated User-Friendly Solution

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. 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. 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 transpired within the collection network during the I&I study period.

I&I Detection at a Glance

With Playback™, utility personnel are now able to view, either in historical or real-time mode, wastewater volumes rising or receding in relation to storm intensity. Follow along as dynamic visuals provide a moving timeline of I&I contribution for each monitored location.

| 6:15 AM | 7:15 AM | 8:15 AM | 9:15 AM | 10:15 AM |
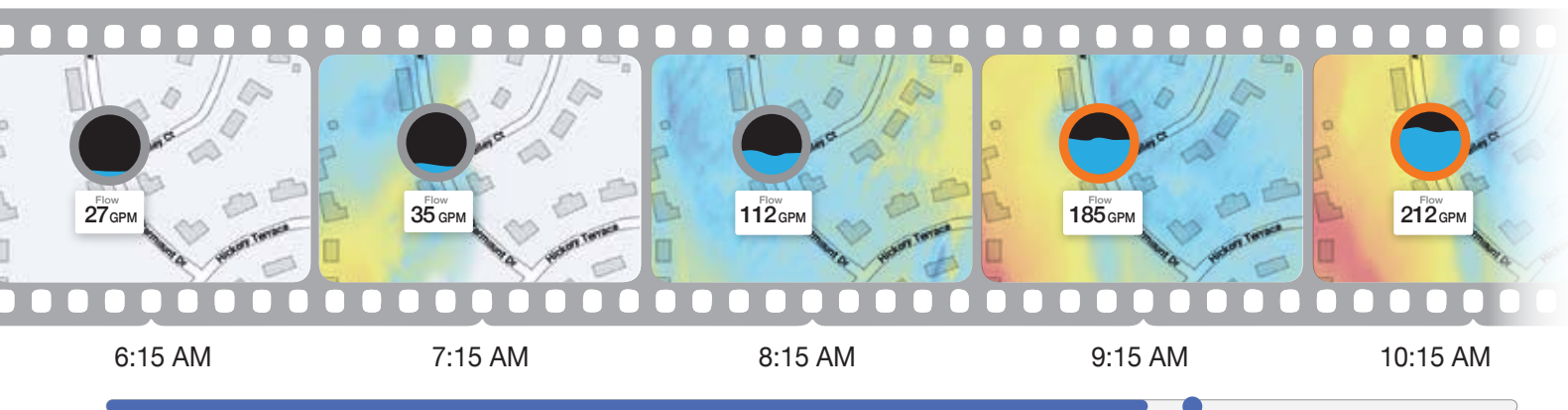
FLOWPORT™
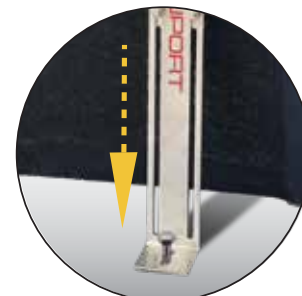# 20-Minute Lock-N-Load Installation

1 SLIDE in the FlowPort

Slide pre-gasketed FlowPort™ into outgoing pipe of manhole.
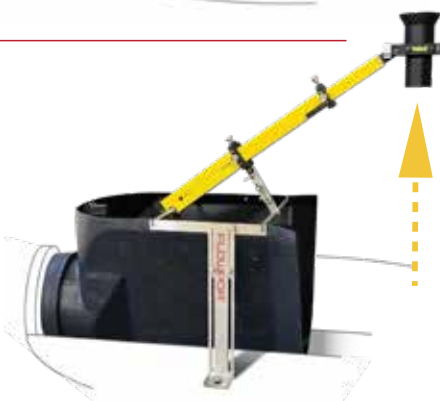
2 LOCK Down the Legs

Adjust each leg until Flume is level and bolt to manhole floor.
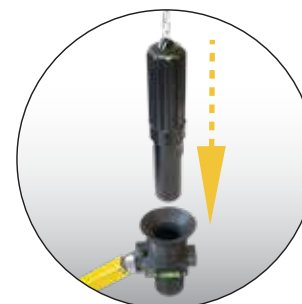
3 RAISE Up the Arm

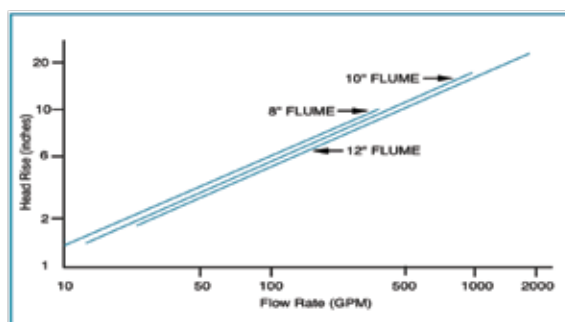Raise up adjustable meter arm and lock in place.

4 LOAD in the Meter

Drop meter into cradle and fasten chain near top of manhole

FLOWPORT™ FLOW RATES

- 8"   0 GPM – 550 GPM
- 10"   0 GPM – 1000 GPM
- 12"   0 GPM – 1500 GPM

- Level Accuracy: .05%

BATTERY	
Description:	3.6V Primary Lithium D Cell (Tadiran TL5937)
Battery Life:	15-Minute Sensing Interval - 12 Months 60-Minute Sensing Interval - 36 Months

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ORDERING GUIDE

FP-3X: $5,875

The FlowPort™ Portable Flowmeter is supplied as a fully integrated instrument that **includes (3) Flume Sections for monitoring of 8", 10", and 12" pipes;** a fully adjustable and interchangeable telescopic arm assembly compatible with each size flume; a smart wireless level meter; all hardware and batteries required for operation and installation; full set of IOMs, on-line training videos and factory technical support.

FP -A/M: $4,750

The **FP-A/M** is an individually packaged Telescopic Arm and Level Meter adaptable to any of the (3) Flume Sections supplied with the **FP-3X** Portable Flowmeter.

Watch the FLOWPORT Video at
smartwastewater.com
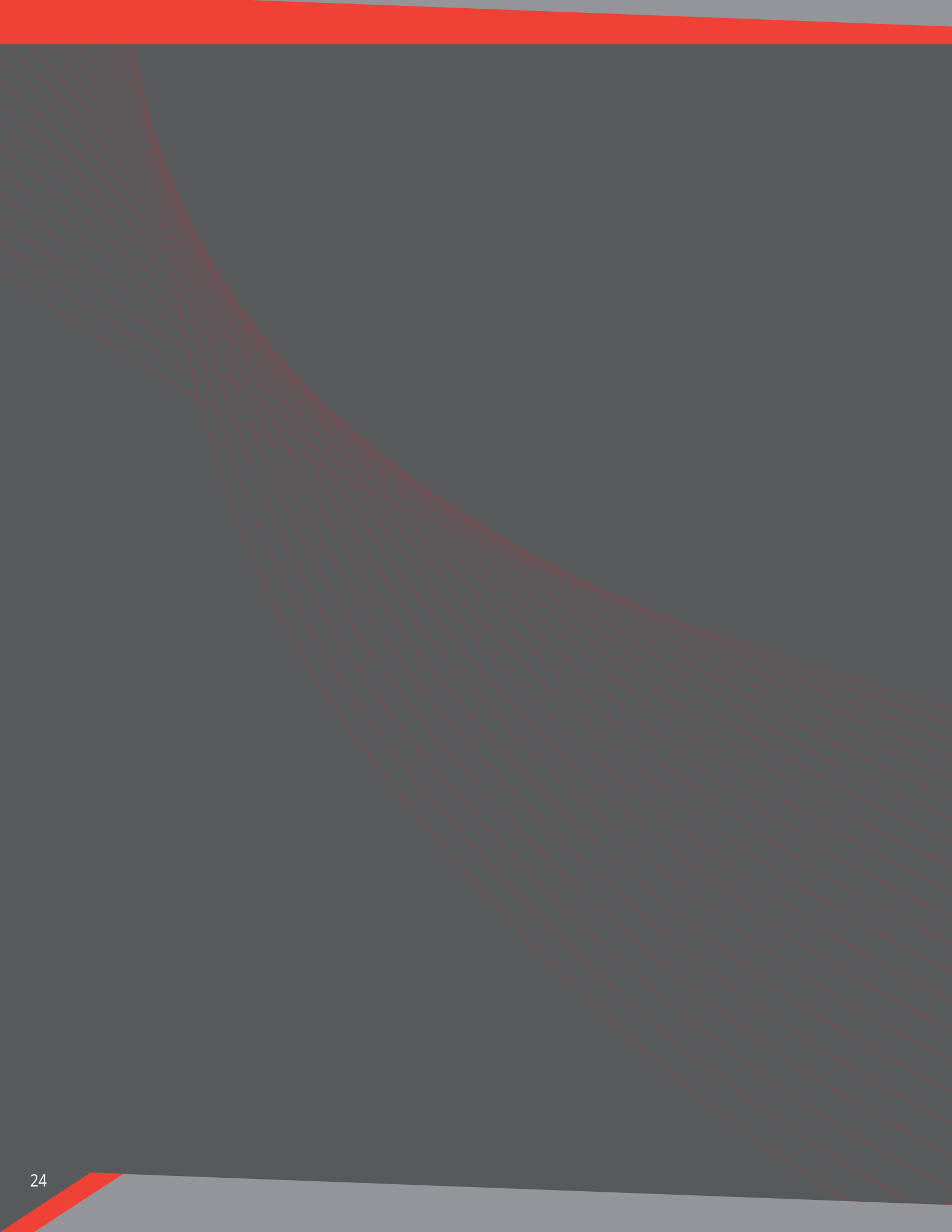
1ˢᵗResponse™

Early-Warning Surcharge Monitor

1ST Response™

Early-Warning Surcharge Monitor

Manholes that are prone to becoming the source of sanitary sewer overflows and residential backups are proactively monitored in order to transmit early-warning alerts to municipal operating personnel. A simple level float switch, in combination with cellular technology, is installed within the problematic manhole. Upon wastewater levels reaching a user defined height, a text message is dispatched alerting field personnel to the possibility of a surcharge event. Cellular text alarms are resent on a continual basis until the alert is successfully delivered.
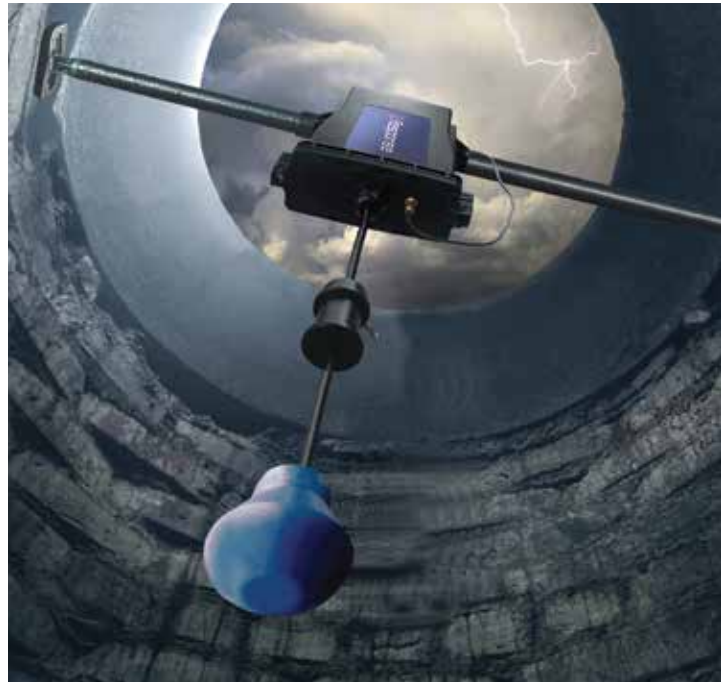
INSTALLATION, MAINTENANCE AND DATA RETRIEVAL COSTS

The true cost of any sewer assessment technology lies in the initial and ongoing expenses associated with confined-space installation, repetitive bottom-sitting sensor maintenance and time-consuming "in the road" data retrieval. 1st Response™ cellular float switches monitor wastewater collection system performance on a 24/7 basis without any of the above negative aspects.
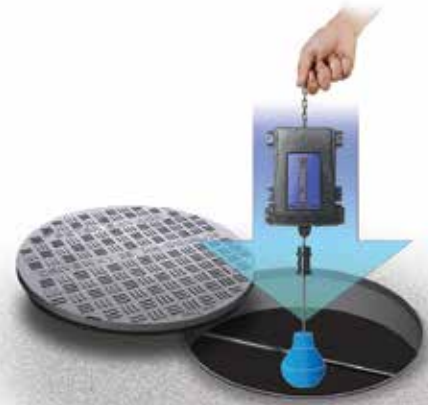
NON-CONFINED SPACE INSTALLATION

Installation of every 1st Response Surcharge Monitor is accomplished from the street level without the requirement for confined space entry; thereby eliminating major cost and safety concerns.

Non-Confined Space Installation

ZERO MAINTENANCE

A fully encapsulated float switch, specifically designed for applications within the wastewater environment, remains free from the everyday concerns of fouling and corrosion.
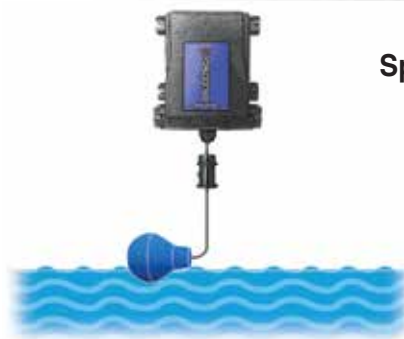
Zero Maintenance

EARLY-WARNING ALERT

Upon wastewater levels reaching user-defined heights, an early-warning text message is dispatched alerting O&M personnel of the possibility of a future sewer surcharge event.

Early-Warning Alert

EARLY-WARNING CELLULAR ALERTS

A level float switch combined with cellular text-enabled technology is installed within the suspect manhole. Upon wastewater levels reaching a user-defined height, early-warning cellular text messages are dispatched alerting maintenance personnel of the possibility of a surcharge event or residential back-up. To confirm that an alert was received, a user response must be activated otherwise the alert will be resent on a continual basis.

With the 1st Response, municipal technicians are now capable of responding proactively by quickly dispatching field crews in order to clear a problem before a more serious situation develops. This immediacy in response can be critically important when dealing with potential fines and lawsuits emanating from residential backups and neighborhood toxic spills.

CLEAR A PROBLEM BEFORE A MORE SERIOUS SITUATION DEVELOPS

Watch the 1ST RESPONSE Video at smartwastewater.com

27

I&I Micro Detection

DOUBLE GUARANTEED
SOLUTION FOR
PINPOINTING I&I

iTracking®

I&I DETECTION SERVICES

iTracking® Services
I&I Detection Reinvented

The EPA/625/6-91/030 Handbook "Sewer System Infrastructure Analysis and Rehabilitation" was developed over 30 years ago to provide guidance on the evaluation and rehabilitation of existing sewers. When it was initially conceived, it included within its 3-Phase Program for identifying I&I intensive CCTV camera work, confined space flow monitoring, nighttime flow isolation and labor-intensive smoke testing procedures.

CCTV Camera

Does not detect inactive I&I
Time consuming
Requires expensive equipment

Flowmeters

Time consuming to install
Results not pinpointed
Requires expensive equipment

Nighttime Flow Isolation

Requires confined space entry
Long setup times
Subject to measurement error

Smoke Testing

Less than 30% Effective
Requires Chemical Safety (MSDS)
Can propagate smoke inside homes

30 **YEARS LATER** *With iTracking's ability to quickly pinpoint major contributors of I&I to between 3 - 4 manholes, 80% of the costs associated with prior I&I investigative methods are eliminated.*

iTracking® I&I Detection Services is a "first of its kind" outsourced solution providing customers with a "Double Guarantee" that not only pinpoints areas of I&I to between micro-basins consisting of just 3-4 manholes but also eliminates all time constraints regarding the success of the project. If we do not precision detect I&I issues residing within your collection network, your money is refunded.

Smart Sensing
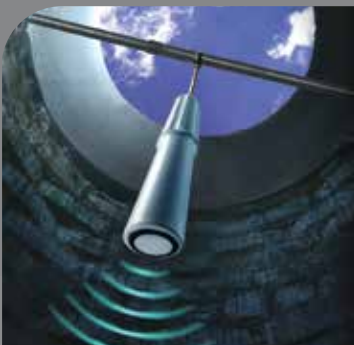
Our crews install iTracker smart sensors in 15 minutes without confined-space entry

Micro Detection
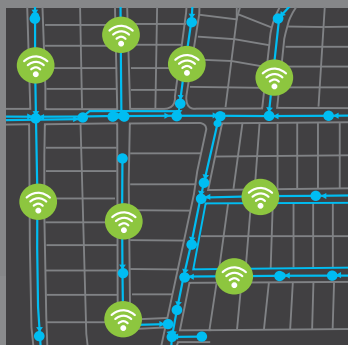
A high resolution network of iTracker sensors micro-detect I&I to 3-4 manholes

Auto-Analysis

With the click of a button, cloud-based algorithms analyze the resulting data

Video Animation

Animated vidoes combine location, weather, data and results on a single platform

Pinpointing I&I
to Within 3-4 Manholes

iTracker sensors are strategically employed throughout the collection system (7 sensors/mile) creating an intelligent series of independent micro-basins every 3-4 manholes. With iTracking's patented ability to isolate flows within each micro-basin from the micro-basin immediately preceding it, the 80% of I&I residing within 20% of the conveyance system is quickly detected... many times after just a single rain event.

The
NO-RISK
I&I Detection
Solution
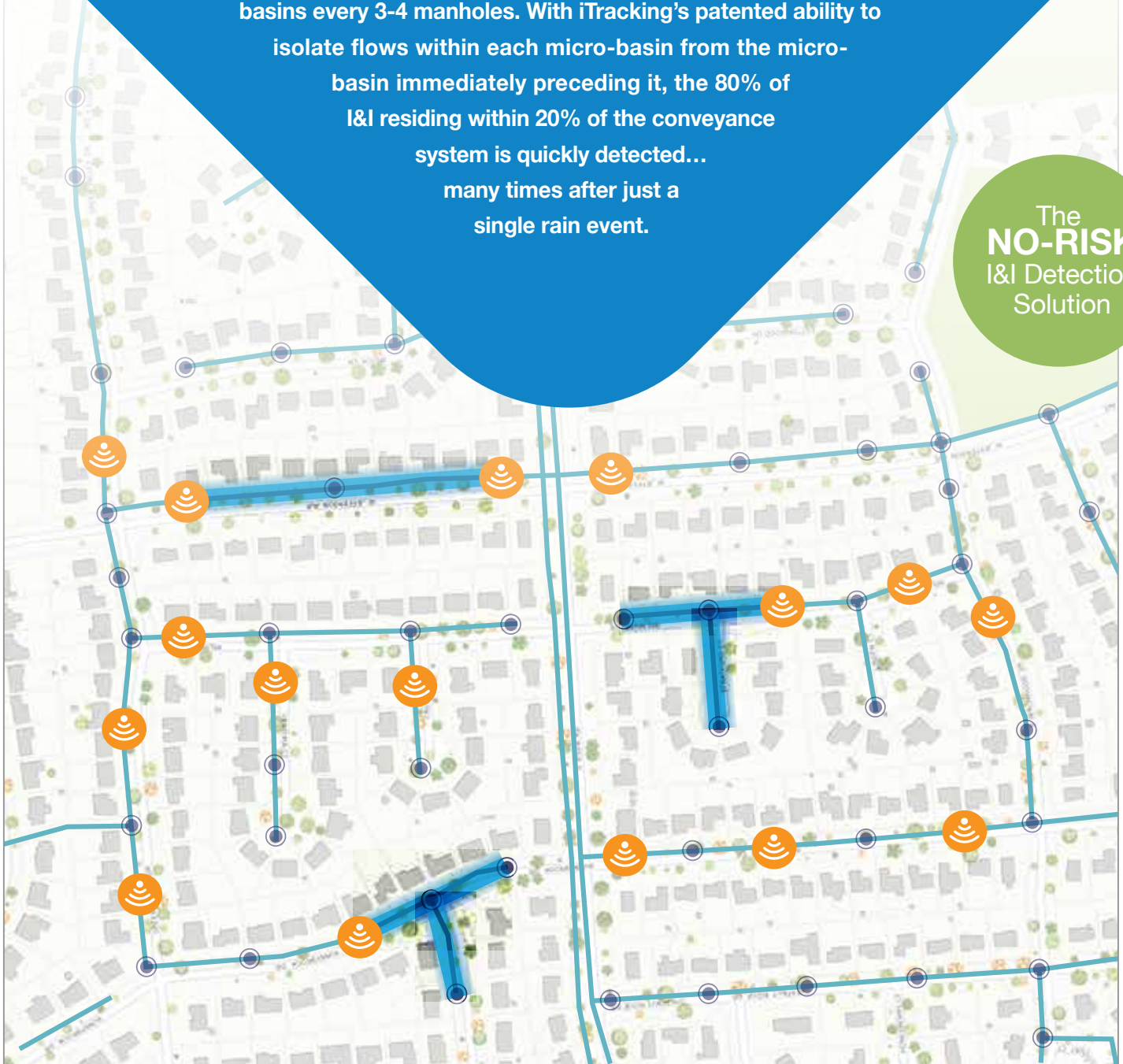
This is what iTracking Services is all about. Whether it rains on the first day of the Study or it takes 9 months for the Rain Derived I&I to appear, iTracker sensors monitor the collection network on a 24/7 basis and are not removed until the greatest contributors of I&I are discovered to within micro-basins consisting of just 3-4 manholes.

Pinpointing Your I&I Has Never Been Easier!

- **Round-the clock collection system performance analysis**

- **Advanced algorithms isolate I&I within each micro-basin from the one directly above it**

- **I&I pinpointed after a single major rain event**

- **Location, weather, data, and I&I presented in "instantly understood" animated videos**

Pre-I&I Study Analysis

Prior to placement of an order, at no cost to the client, a Project Manager will be assigned to your account to review a map of the area selected for I&I investigation, recommend placement of iTracker® sensors and provide a detailed cost estimate for the proposed study.

iTracker® Sensor Installation

Immediately following order placement, a Project Manager will coordinate a mutually agreeable time for our field techs to arrive at the site to begin the iTracker® smart sensor installation process plus familiarize local utility personnel with the basics of the iTracking® hardware and methodology.

Delivery of Study Results

Upon completion of the I&I Detection Study, your assigned Project Manager will set up an initial meeting to fully review each deliverable relating to the results of the investigation. Deliverables (to remain in the possession of the customer) will include animated videos, scattergraphs, hydrographs and visualization tools including bar, pie, and level charts.

GUARANTEED RESULTS!

PRECISE I&I DETECTION OR MONEY REFUNDED

High resolution smart iTracker® sensor placement Is guaranteed to provide precise detection of I&I to between every 3 to 4 manholes and many times after a single rain event. If iTracking® does not perform as promised, your money is refunded.

STUDY COMPLETED REGARDLESS OF TIME

iTracking studies are guaranteed to be completed regardless of the time required. Since successful studies can sometimes take anywhere from a few weeks to "until it rains", our guarantee totally eliminates that concern.

iTracking®

I&I DETECTION SERVICES

Clear and Actionable Results

Watch I&I Develop Right Before Your Eyes

Through a totally unique feature called Playback™, the I&I discovery process becomes as simple as watching an animated video of changes in collection system performance between normal and adverse weather conditions. On-demand, users can watch animated videos showing collection system volumes increasing in direct relation to storm intensity.

Updated every 5 minutes, sites responsible for the greatest increases of I&I are immediately brought to viewers attention by highly visible red rings. Within minutes of watching Playback™, utility personnel are armed with the ability to visually determine the effects and volume of I&I generated at each monitored site within their collection network.
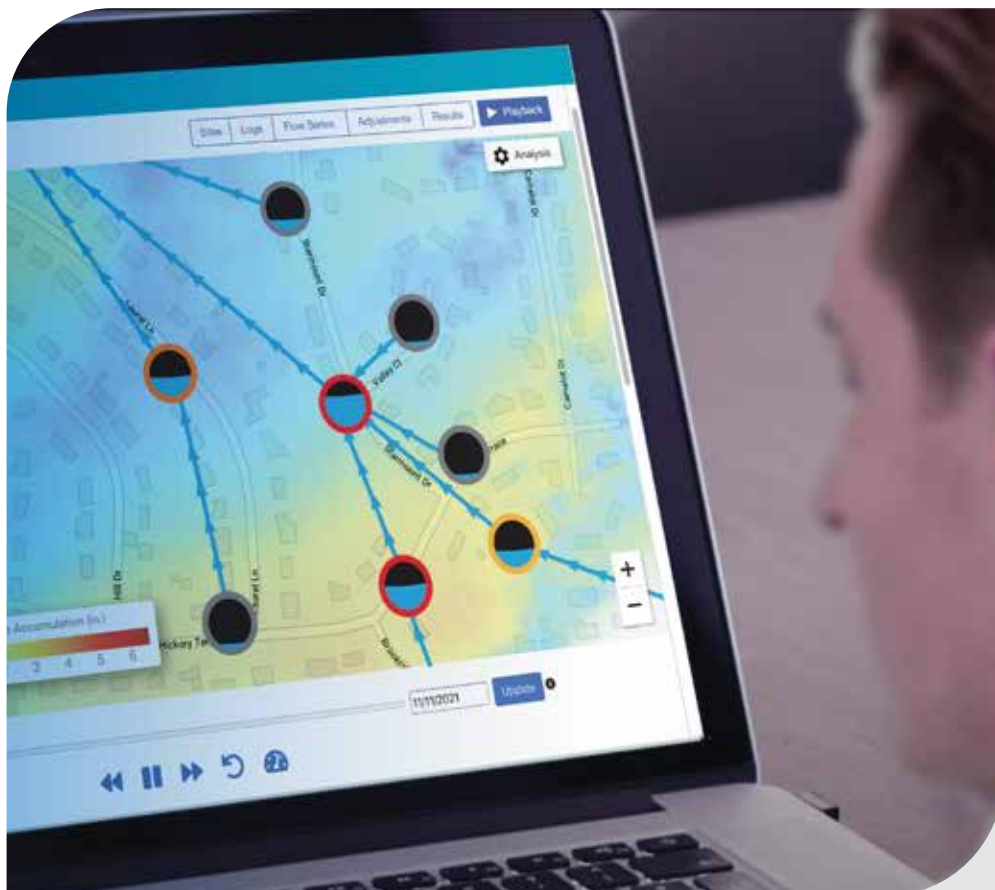
# Data Visualization Reports Support the Conclusions

Hydrographs & Bar Charts

Data visualization hydrographs and bar graphs not only support Playback™ videos but also detail exactly what is transpiring within the collection network on a 5, 10 or 15-minute incremental basis. Developed for each set of micro-basins under investigation, individual hydrographs along with stacked hydrographs instantly highlight which sites are responsible for the greatest influx of I&I. highly visualized bar charts showing Base flows, Groundwater Infiltration, RDII flows and Peak RDII flows provide a quick and complete understanding of collection system performance.

At-A-Glance Pie Charts

Visual presentation tools include color-coded pie charts for instant identification of problematic areas related to the excessive contribution of I&I. I&I analysis reports in simplified pie chart form quickly detail the location, volume, and cost of each micro-basin within the collection network generating various rates of inflow and infiltration.
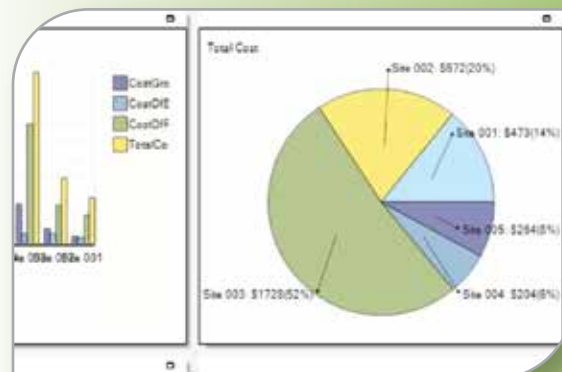
Reports & Performance Mapping®

Concise reports are presented on a single page and detail all pertinent data related to each site under analysis. These reports provide valuable insights into the effects that both dry and wet weather have upon specifically designated areas within the collection system.

In addition to pinpointing specific areas of I&I, an exclusive Performance Mapping® feature also alerts utility personnel to areas in the network that are vulnerable due to impending blockages, capacity issues and the need for unscheduled cleaning.

PRICING

TRACPAC 7™

TracPac 7™ I&I DETECTION PACKAGE   **$19,775.00**
Provided with (7) iTracker® smart sensors, accompanying hardware
Playback™, AutoAnalysis Software and AutoReporting.

Additional iTracker® Smart Sensor (Bluetooth Enabled).   **$2,825.00**

To initiate the Cellular Connectivity Option on any TracPac 7 iTracker, please add the following:
Cellular Upgrade (one time charge)   **$150.00**
Cellular Connectivity (annual charge)   **$360.00**

The above pricing is based upon the first year of TracPac 7™ purchase and implementation. The pricing includes everything
listed above 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 $3,360/annum for the Cloud-Based Analytical Software platform
that includes AutoAnalysis, AutoReporting and Playback.

SEWERWATCH®

3-YEAR SEWERWATCH® PURCHASE PROGRAM   **$2,855.00**
3-Year Program includes SewerWatch Monitor, Cellular Connectivity,
Playback™, AutoAnalysis Software, Text Alerts, Batteries.

RE-UP FOR ADDITIONAL 3 YEARS   **$1,080.00**
Cellular Connectivity, Playback™, AutoAnalysis, Text Alerts.

FLOWPORT™

FP-3X   **$5,875.00**
The FlowPort™ Portable Flowmeter is supplied as a fully integrated instrument that
includes (3) Flume Sections for monitoring of 8", 10", and 12" pipes; a fully adjustable
and interchangeable telescopic arm assembly compatible with each size flume;
a smart wireless flowmeter; all hardware and batteries required for operation and
installation; full set of IOMs, on-line training videos and factory technical support.

FP -A/M   **$4,750.00**
The FP-A/M is an individually packaged Telescopic Arm and Flowmeter adaptable
to any of the (3) Flume Sections supplied with the FP-3X Portable Flowmeter.

1ST RESPONSE™

3-YEAR 1 ST RESPONSE™ PURCHASE PROGRAM   **$2,625.00**
3-Year Program includes 1st Response Monitor, Cellular Connectivity,
Text Alerts, Batteries.

RE-UP FOR ADDITIONAL 3 YEARS   **$920.00**
Cellular Connectivity, Text Alerts.