

Sniffing Out Leaks and Discharges: Update



A Blast From The Past! ECS At NC-PC Conference 2011



- Founded by Scott & Karen Reynolds in Michigan in 2009
- 2 rescued dogs (Sable and Logan)
- Still building the business in 2011
 - The novelty effect: *"You do what???"*
 - Skepticism: *"But that's not scientific"*

NOW...



2009 - 2019

98 Projects in 15 States & Washington D.C.

*Arizona
California
Colorado
Florida
Maine
Massachusetts
Michigan
New Hampshire
New Jersey
New York
Rhode Island
Vermont
Washington
West Virginia
Wisconsin*

Who We Serve

- *Large and small municipalities, including MS4s*
- *State and local water quality agencies*
- *Riverkeepers, water quality organizations, lake associations*
- *Environmental and engineering consulting firms*
- *Native American tribal communities*

We've Grown! 3 Regional Teams

6 Dogs and Handlers, 3 Environmental Techs

EAST COAST REGION



Remi



Kai

MIDWEST REGION



Kenna

WEST COAST REGION



Crush



Kona



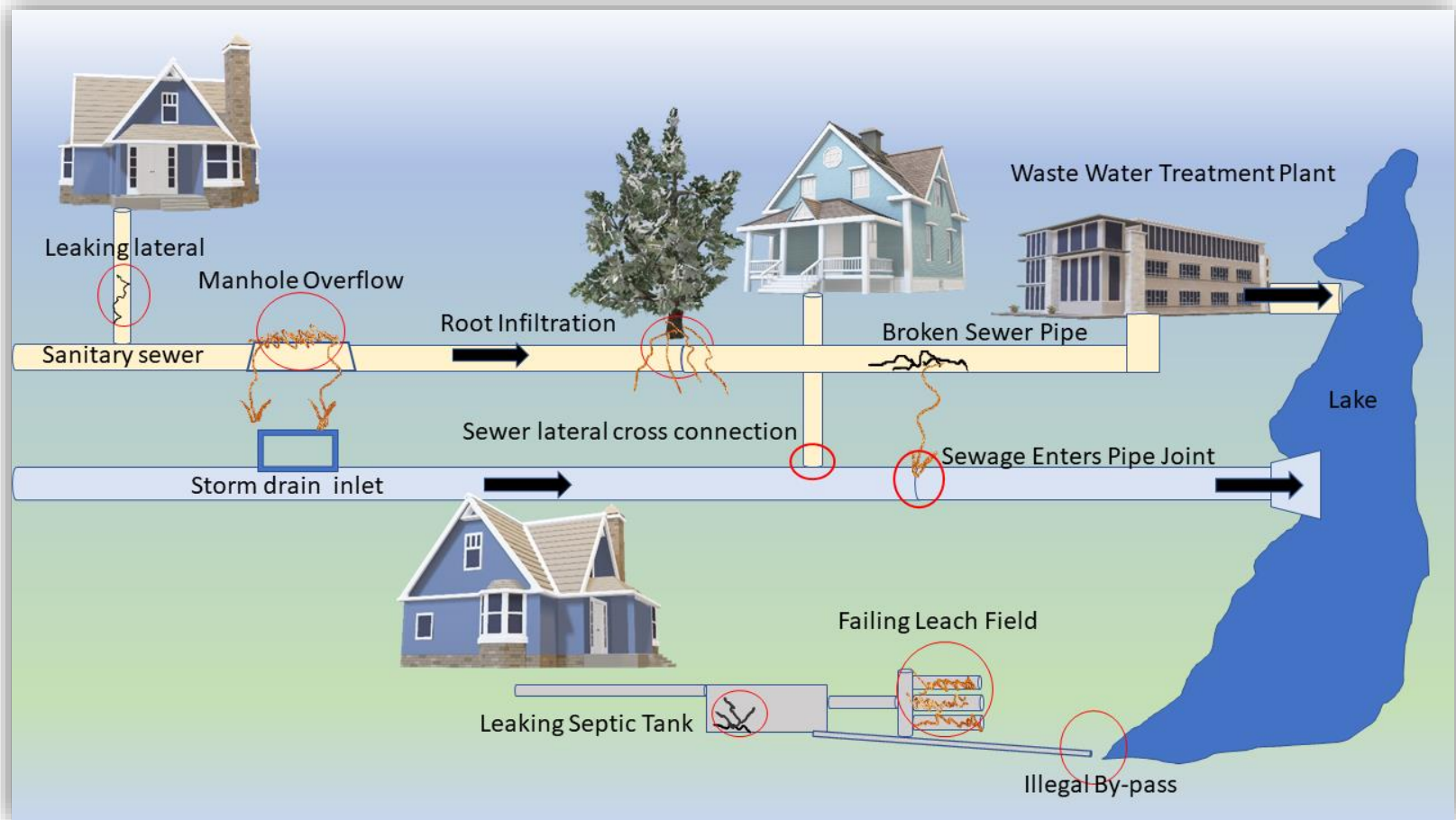
Spec

In The News: What ECS Does AP Video



We love the “Puparazzi”!

Types of Discharges We Help Find



A Complementary Tool to Standard Methods

Lab tests

+

ECS Dog/Handler teams,
Environmental Technicians,
Project Managers

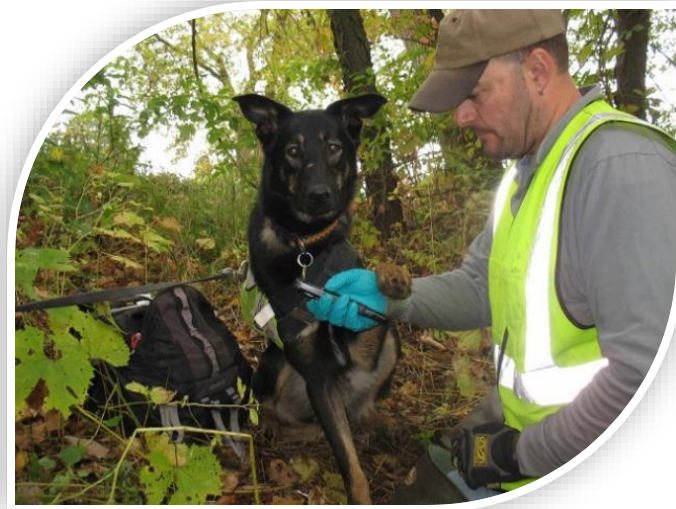
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Client Personnel

+

Collaboration With Local Communities, Local and State Agencies,
Researchers, and Other Stakeholders

= More efficient, accurate, cost effective results!



What Our Dogs Tell Us

The PRESENCE of SEWAGE



Not - The presence or amount of FIB or pathogens

Not - The presence of animal waste

Blackwater

- *From Sewer Systems and Septic Systems*
- *Low or high concentrations*
 - *1 part sewage/1,000 - 10,000 parts water*
 - *Importance of concurrent FIB testing*

Greywater (sometimes)

- *Detergents, Fats/Oils/Grease*



Residual sewage scent

- *Dry stormwater manholes or catch basins*
- *Dry creek beds, ditches*

What Services Do We Offer?



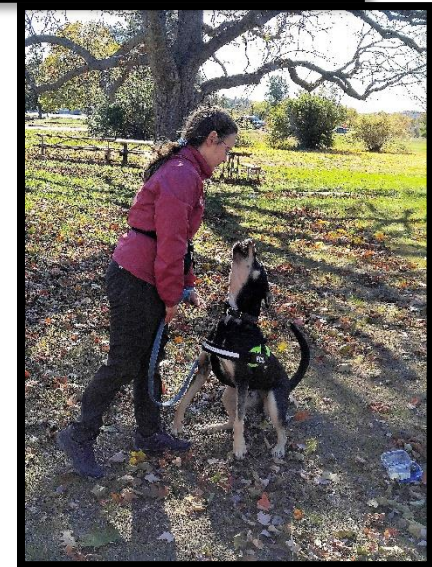
Many Choices to Fit Your Needs

Water Sample Screening

On Site



Ship and Sniff



**ECS Fast, Accurate, Economical Water Sample Screening, Human Source
Lab Results for Bacteria 24-48 hrs, MST Much Longer**



Stormwater System Investigations

Closed & Open Systems, Large & Small Municipalities, MS4s



Outfalls



Catch Basins



Manholes



Drainage Ditches

Surface Water Investigations

Fresh and Salt Water, River/Creek Banks, Shorelines



Prescott, AZ



Lake LeAnn, MI



Narrow River, RI



Skagit County, WA

Recent Projects



Dept. of Energy & Environment Washington D.C. – 2018 116 Sites Investigated & 29 Water Samples in 5 Days

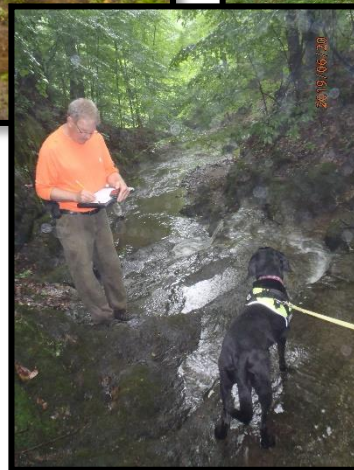


St. Petersburg, FL - 2019

88 Investigation Sites & 29 Water Samples in 3 Days



NYC Dept. of Environmental Protection- 2019 62 Investigation Sites in 2.5 Days



2019/06/18

Advantages of Using ECS Canines

- ❖ Reduced sampling/lab testing costs
- ❖ Immediate results
- ❖ Distinguish human from animal sources
- ❖ Rapid “on-the-fly” source tracking
- ❖ High # sites/day
- ❖ Find or isolate sources in hours or days instead of weeks, months, years

Questions?



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