



# Agenda Report

2725 Judge Fran Jamieson  
Way  
Viera, FL 32940

## Resolution/Award/Presentation

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E.2.

1/13/2026

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### Subject:

Presentation regarding PFAS Chemicals in Drinking Water - District 1

### Fiscal Impact:

NA

### Dept/Office:

District 1

### Requested Action:

Presentation to the Brevard County Commissioners regarding PFAS chemicals in drinking water

### Summary Explanation and Background:

Per- and polyfluoroalkyl substances (PFAS) are a large class of man-made chemicals that have been widely used in industrial processes and consumer products since the mid-20th century. PFAS are valued for their resistance to heat, oil, water, and chemical breakdown; however, these same properties cause them to persist in the environment and accumulate in groundwater and the human body over time. For this reason, PFAS are often referred to as “forever chemicals.”

Scientific research over the past two decades has increasingly linked certain PFAS compounds to adverse health outcomes, including impacts on the immune system, thyroid function, cholesterol levels, kidney and testicular cancers, and developmental effects in infants and children. Unlike many other environmental contaminants, PFAS do not readily break down or flush out of the body, and even low-level, long-term exposure, particularly through drinking water, can contribute to cumulative health risk.

PFAS contamination in drinking water most commonly originates from legacy sources such as firefighting foams used at airports and fire training facilities, industrial discharges, landfills, and wastewater treatment processes. Communities with aviation, aerospace, military, and advanced manufacturing activity are statistically more likely to encounter PFAS in groundwater due to historical use patterns. Importantly, PFAS contamination is often the result of past activities and is not necessarily indicative of current practices.

Recent advances in testing technology and epidemiological research have improved the ability to detect PFAS at very low concentrations, measured in parts per trillion (ppt). As scientific understanding has evolved, regulatory agencies have updated health advisories and recommended thresholds to reflect growing evidence of health effects at these low levels. These benchmarks are based on long-term health risk rather than short-term or acute exposure.

The purpose of the presentation is to provide the Board of County Commissioners with a concise, science-

based overview of PFAS chemicals, their sources, health implications, and why they are relevant to Brevard County. The presentation is intended to support informed decision-making by establishing a common understanding of PFAS in lay terms, clarifying misconceptions, and explaining why many communities are evaluating PFAS proactively as part of long-term drinking water stewardship, infrastructure planning, and public communication efforts.

This overview is provided as an educational briefing to ensure the Commission has accurate, up-to-date context regarding PFAS and the considerations facing local governments nationwide as they plan for sustainable water quality and public health protection.

**Clerk to the Board Instructions:**



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Kimberly.Powell@brevardclerk.us

January 14, 2026

MEMORANDUM

TO: Commissioner Katie Delaney, District 1

RE: Item E.2., Presentation regarding PFAS Chemicals in Drinking Water

The Board of County Commissioners, in regular session on January 13, 2026, acknowledged a presentation regarding Per- and Polyfluoroalkyl Substances (PFAS) chemicals in drinking water.

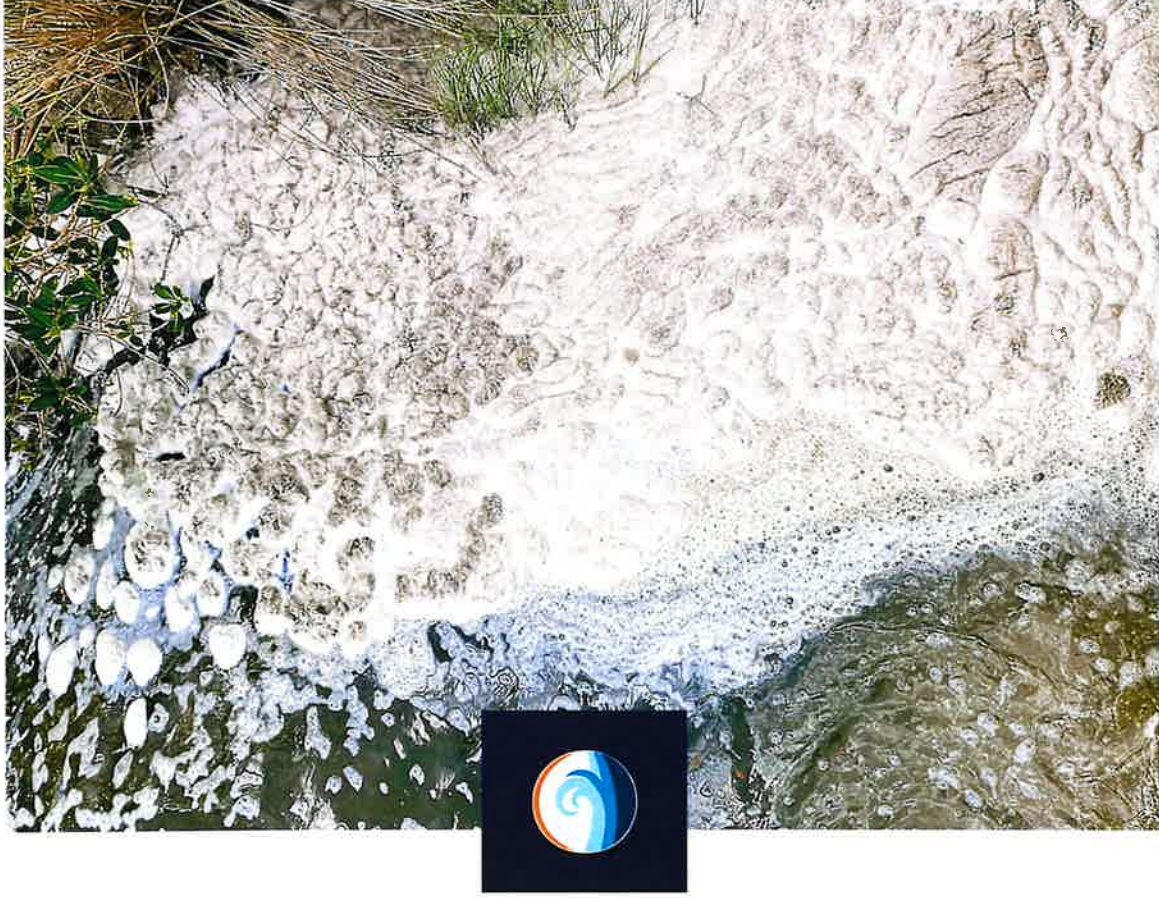
Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS  
RACHEL M. SADOFF, CLERK

  
Kimberly Powell, Clerk to the Board

/ds



# PFAS Forever Chemicals

What They Are & Why They  
Matter to Brevard County

*Protecting water, health, and  
community trust*



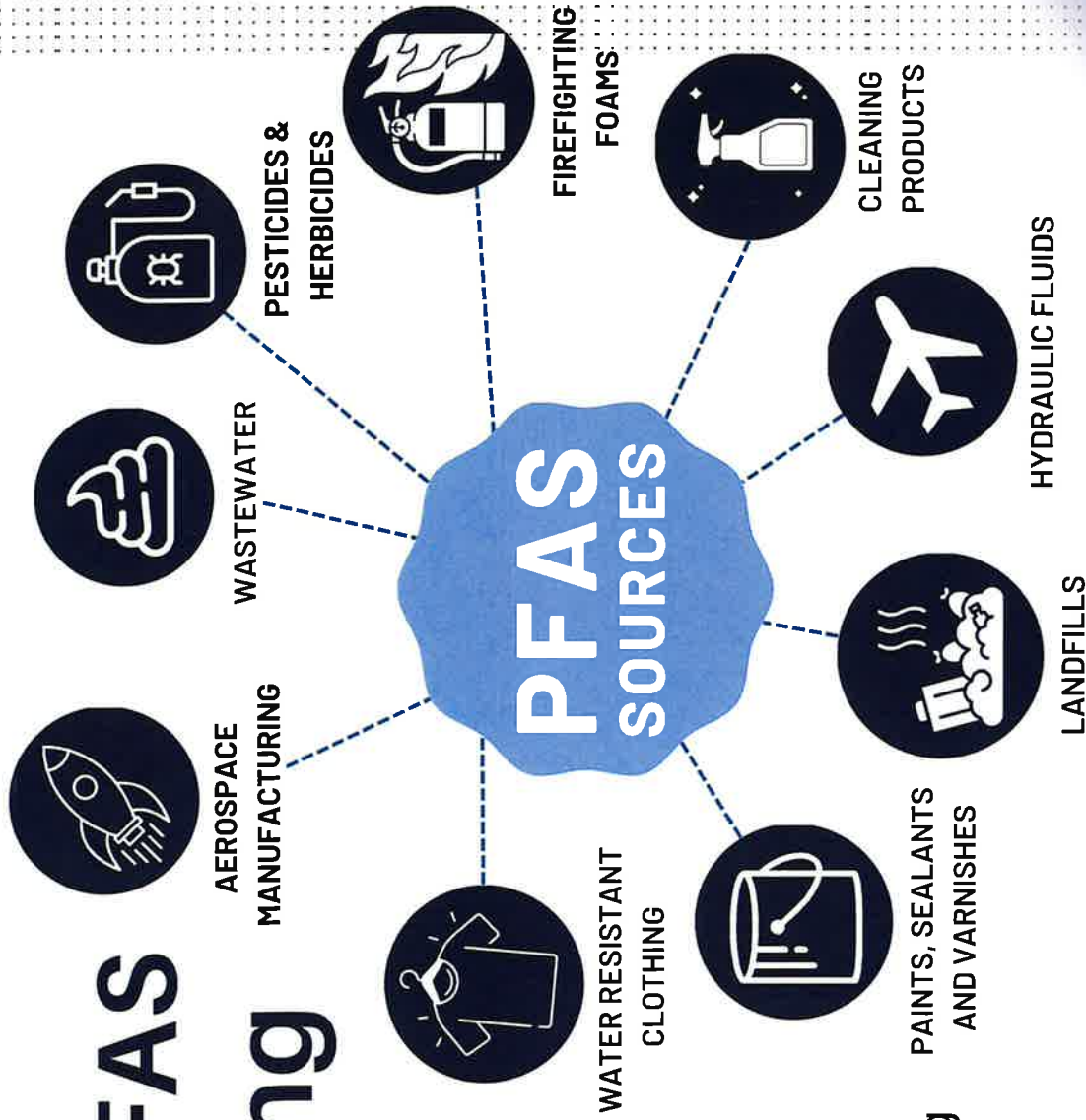
# What are PFAS?

- PFAS = Per- and polyfluoroalkyl substances
- Over 12,000 identified compounds globally
- Carbon-fluorine bond is **one of the strongest bonds in chemistry**
- That bond is why PFAS:
  - Resist heat and breakdown
  - Persist in groundwater
  - Accumulate in human blood and organs
- PFAS are not naturally occurring



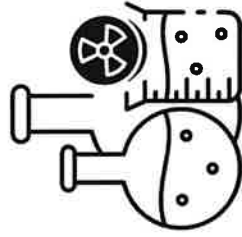
# Where Do PFAS Enter Drinking Water?

- **Firefighting foams** used nationwide for decades
- **Industrial** and advanced manufacturing processes
- **Wastewater** and landfill runoff
- **Everyday products** washing into the environment

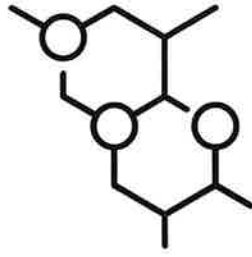




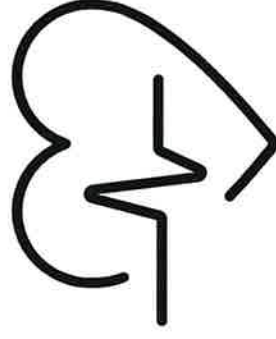
# Why PFAS Is Not “Just Another Chemical”



**Most chemicals degrade or leave the body**



**PFAS persist and accumulate over time**



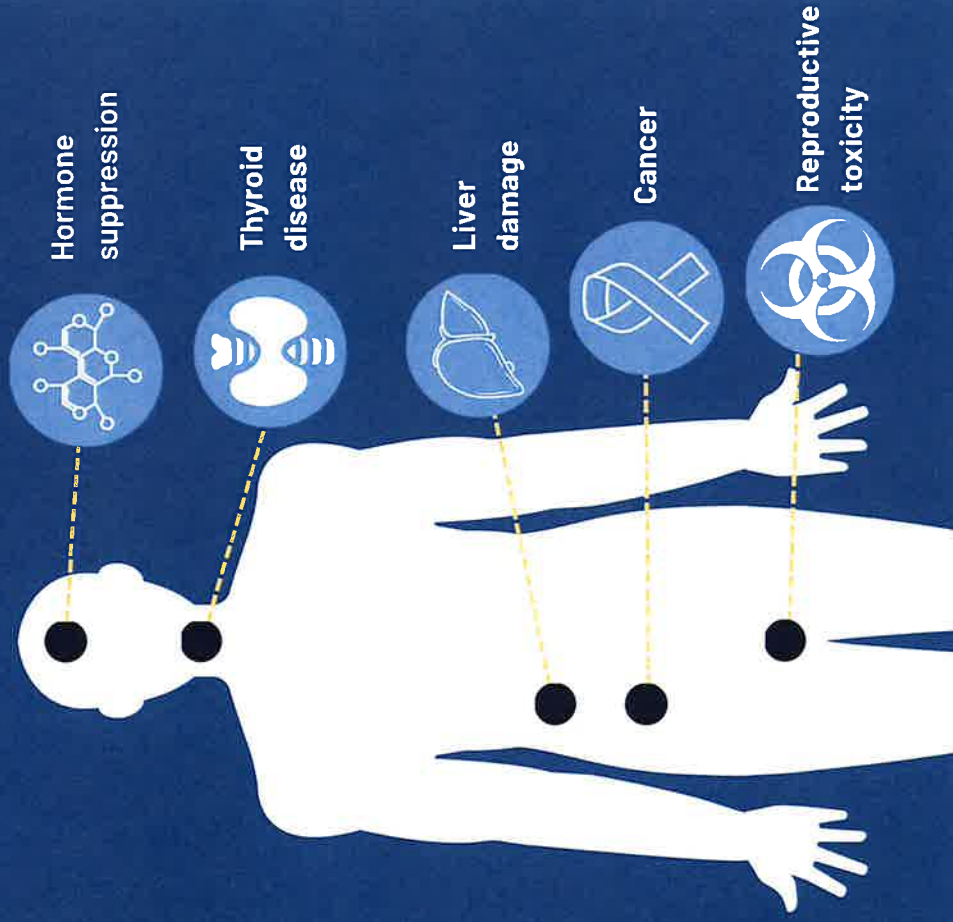
**Even small exposures contribute to total body burden**



**Drinking water creates continuous exposure**



Studies show an association between PFAS exposure and adverse health effects, such as:



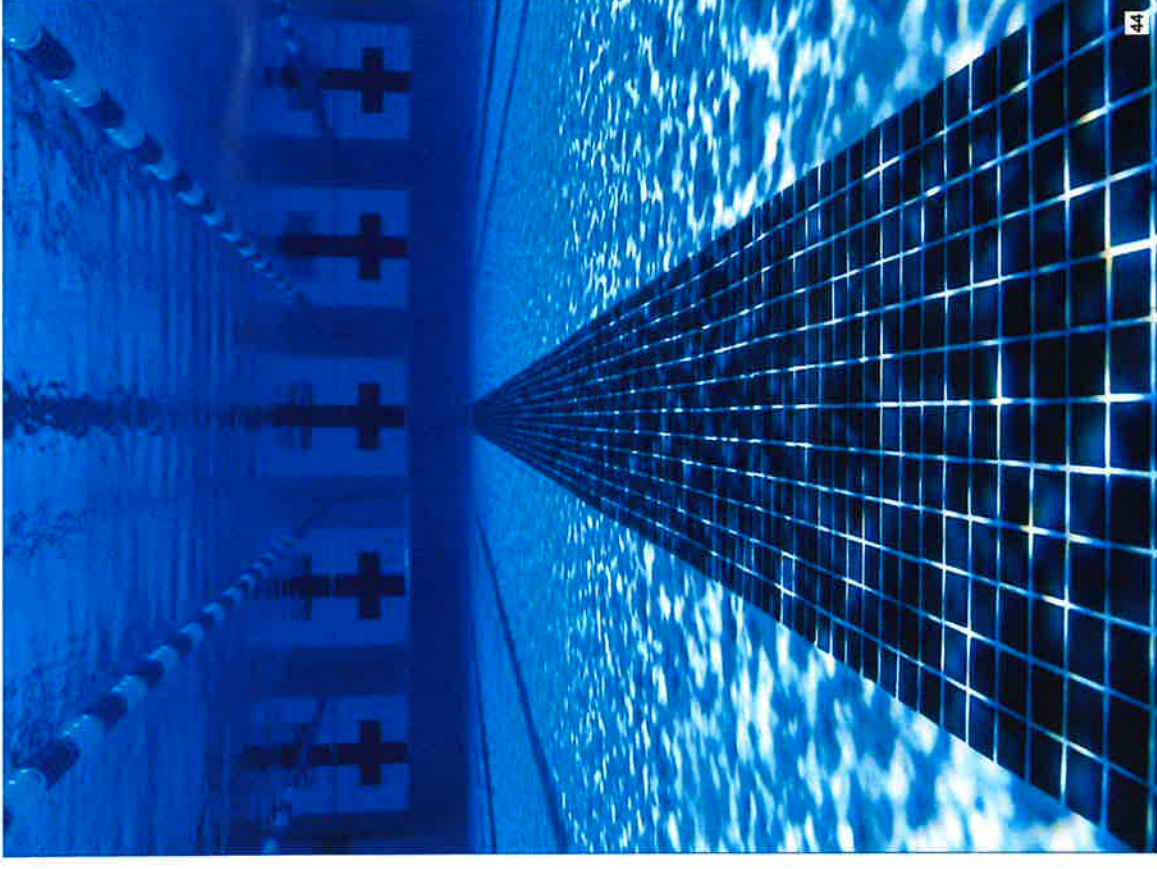
# What the Science Shows

- Linked to kidney and testicular cancers
- Thyroid disease
- Immune system suppression
- Elevated cholesterol
- **Pregnancy impacts:** low birth weight, developmental effects



# Understanding the Numbers

- Parts per trillion = drops in an Olympic-size pool
- PFAS cause harm at levels too small to taste or see
- **Risk comes from years of exposure, not a single glass**
- Standards exist because science shows harm at these levels





# Why Brevard County Should Care

- Brevard County relies on groundwater sources
- Population growth increases water demand
- Long-term planning reduces future costs
- Water quality affects public trust





# What Communities Are Doing

- Test and disclose
- Plan long-term infrastructure solutions
- Communicate clearly with residents
- Avoid costly emergency reactions later

# Thank you!

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