

# The Impact of PFAS on Municipal Utilities and Biosolids Management : A Cost Analysis

TACWA May Meeting

Sarah Jakositz, EIT

May 21<sup>st</sup>, 2021



**CDM  
Smith**

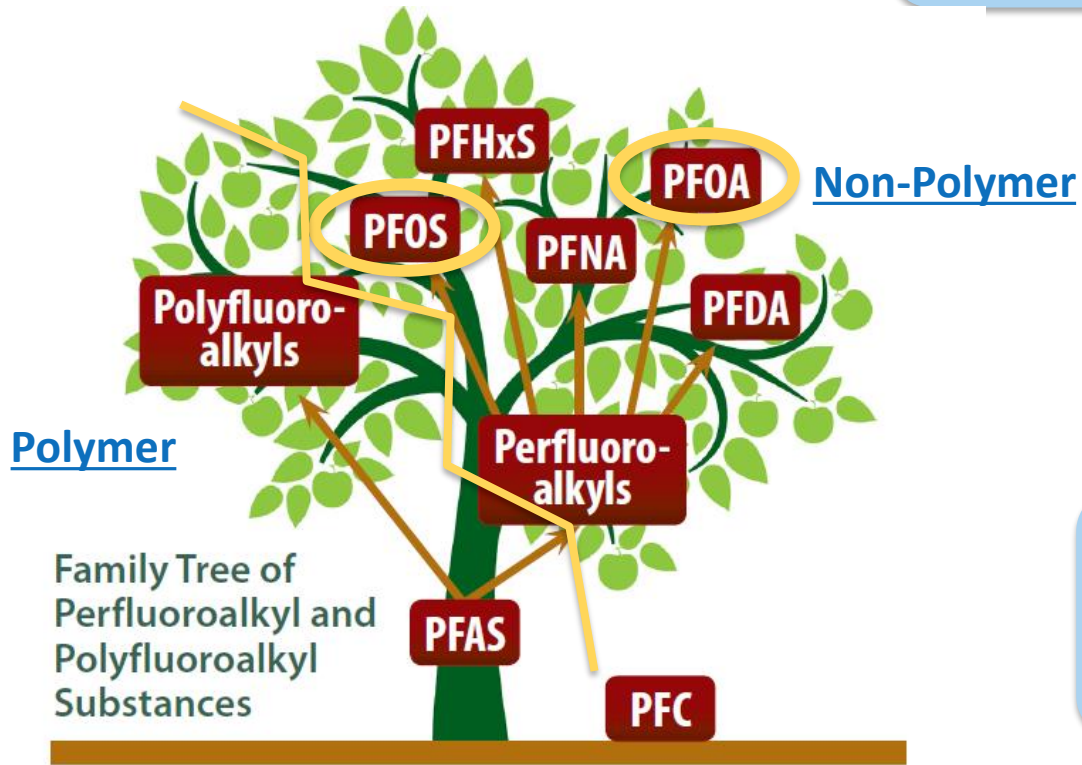


# Outline

- Overview of PFAS in biosolids
- What does this mean for the biosolids market?
- Cost Analysis of the Impacts on Municipal Utilities and Biosolids Management to Address PFAS Contamination

# What Are PFAS?

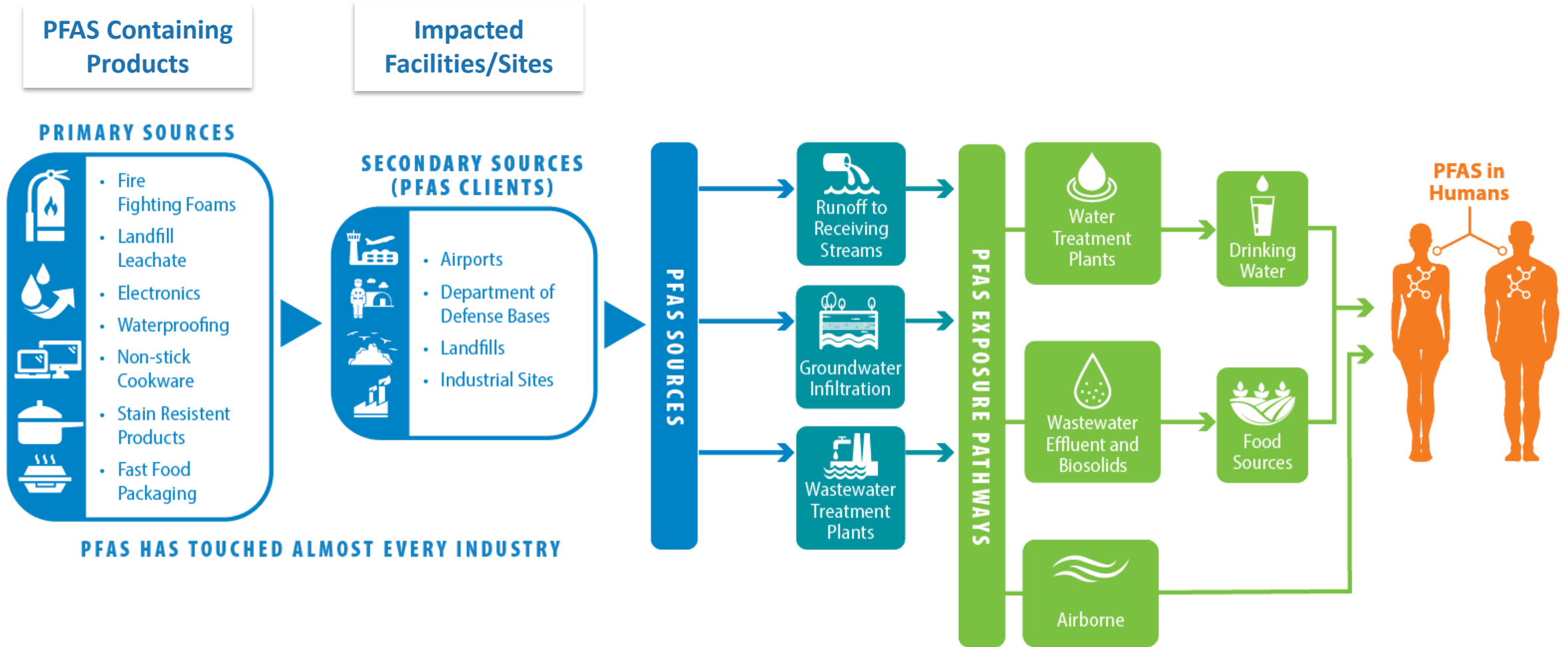
- Ubiquitous, Persistent & Widespread Emerging Contaminants



Polymer

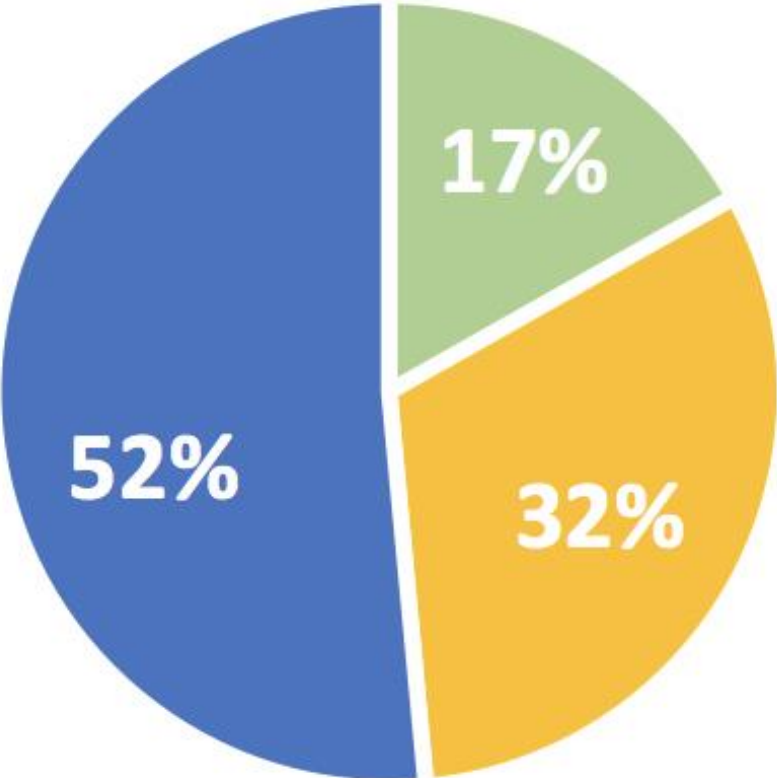
Family Tree of Perfluoroalkyl and Polyfluoroalkyl Substances

# PFAS Lifecycle



# What Does This Mean for the New England Market?

### Biosolids Management Practices in New England (Dry Tons)

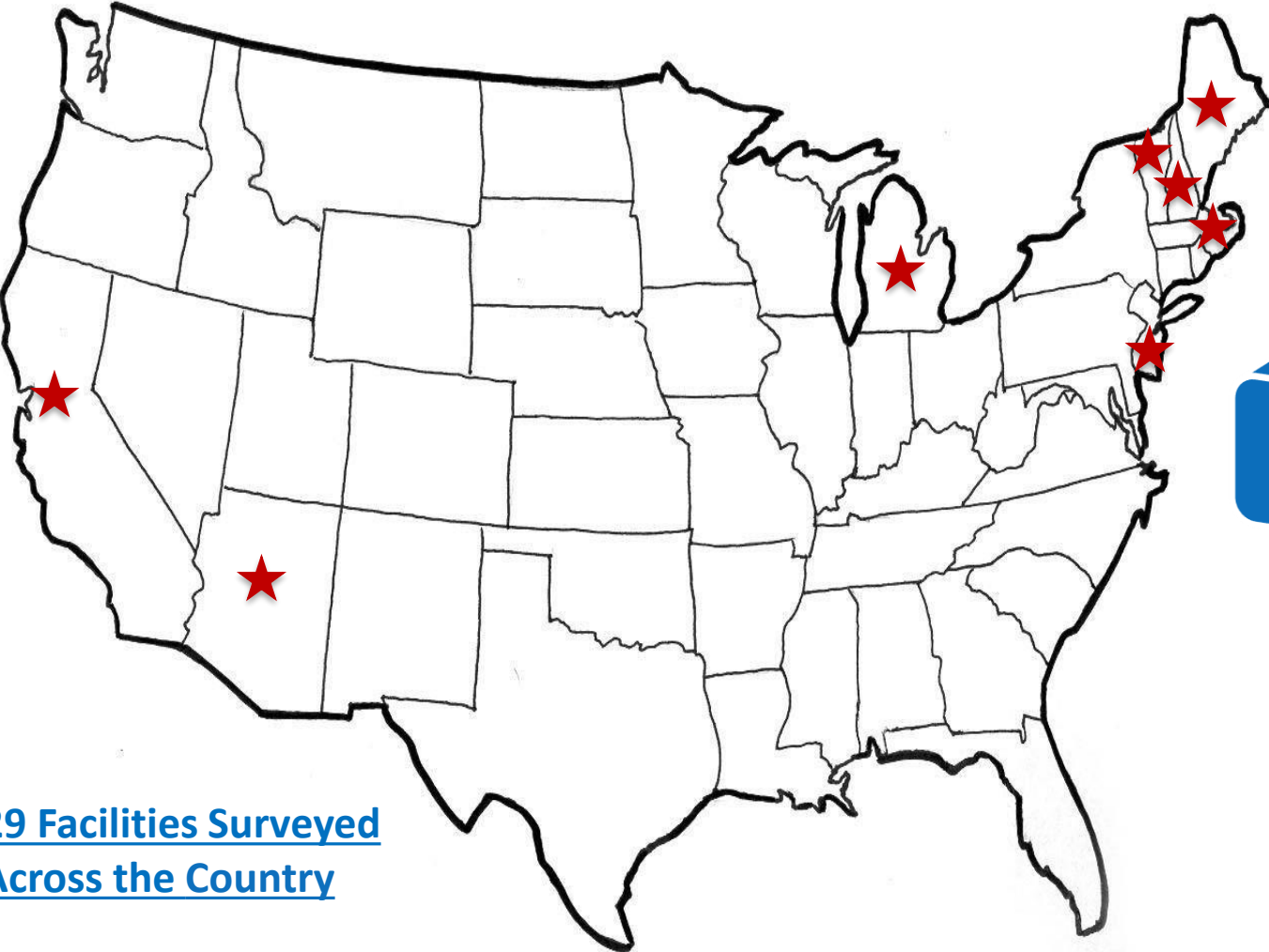


- Beneficial Reuse
- Incineration
- Landfill



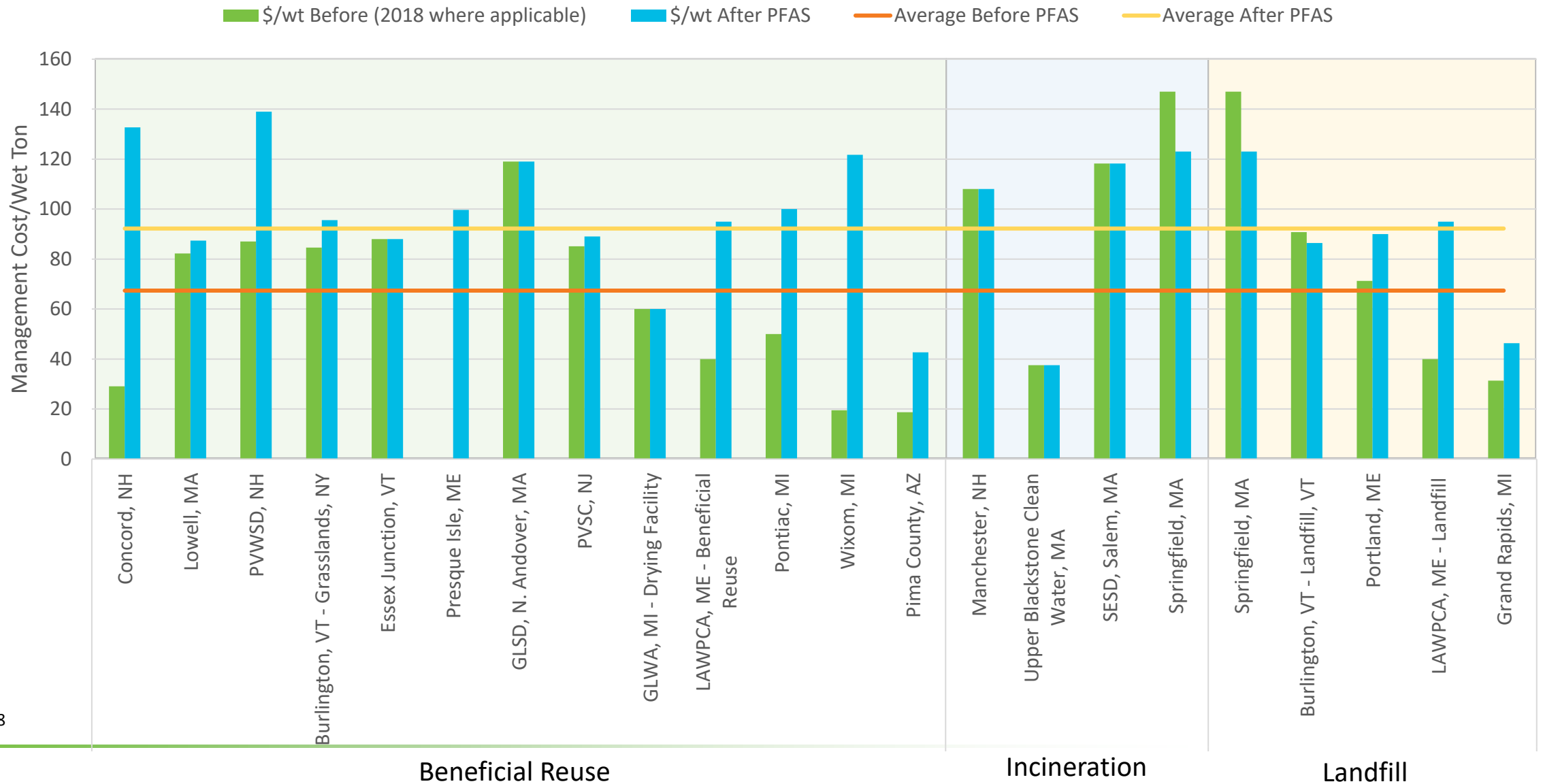


# Impact on Biosolids Management to Address PFAS Contamination



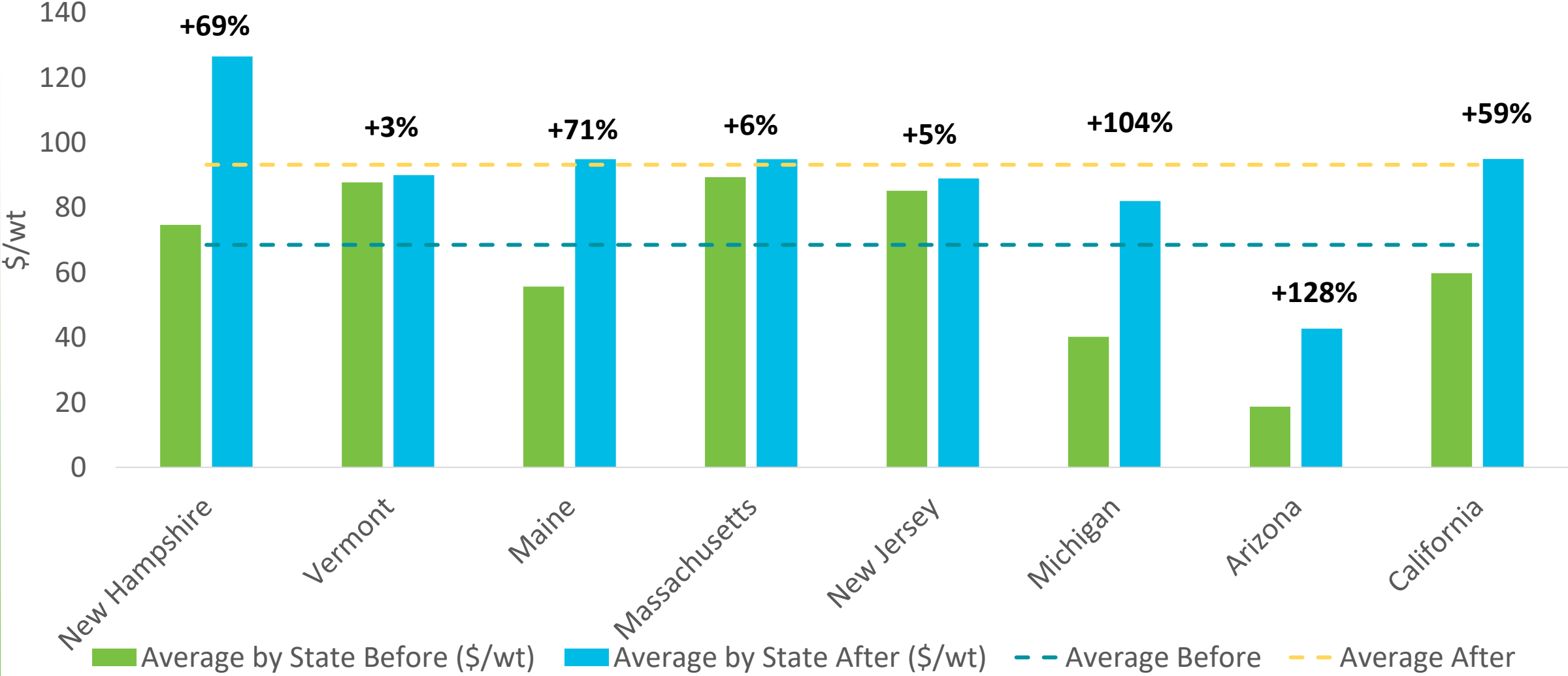
29 Facilities Surveyed  
Across the Country

# Residuals Management Cost Impact – Community Impact

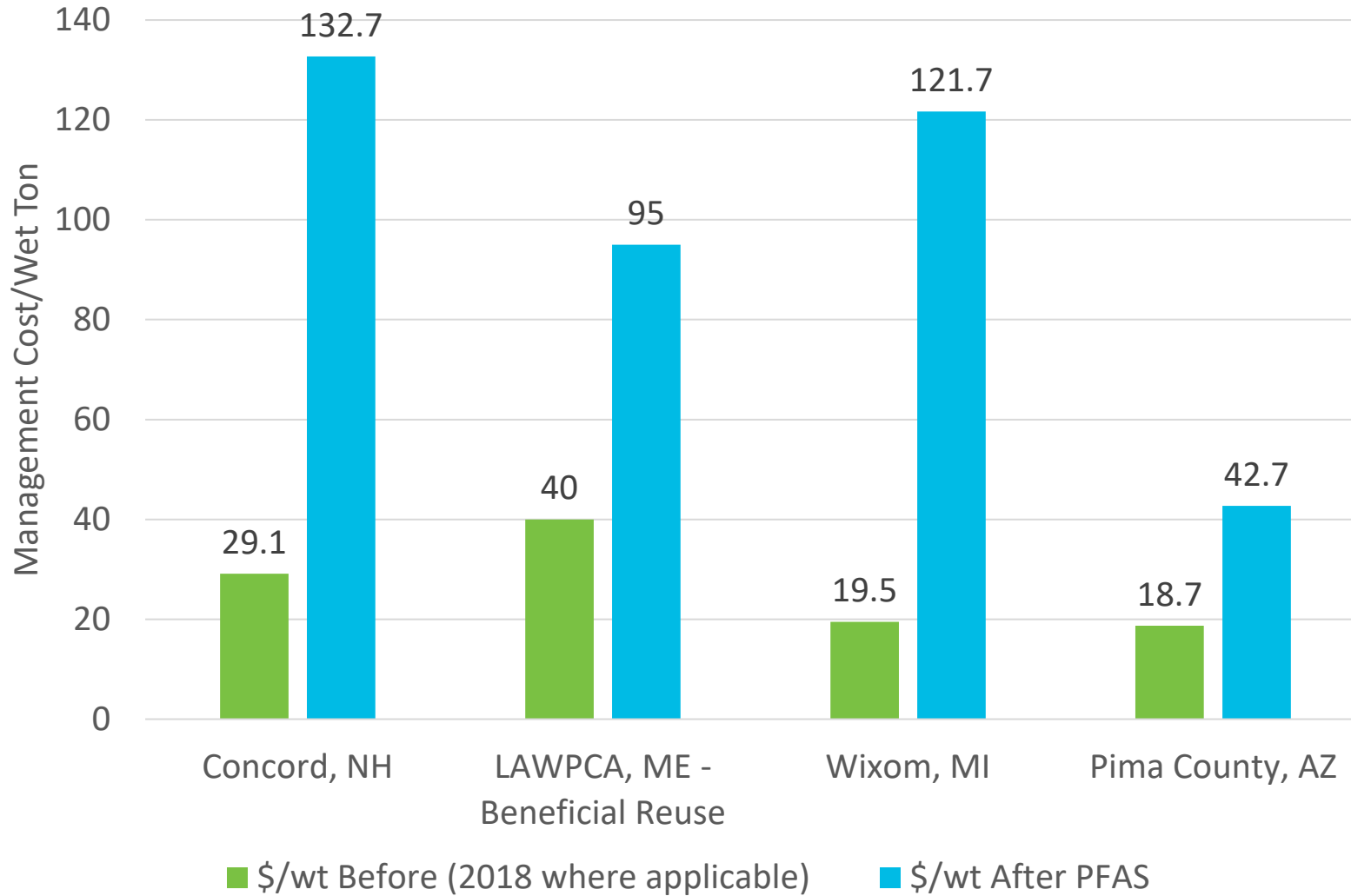




# Residuals Management Cost Impact By State



# The Beneficial Reuse Market



“IF BIOSOLIDS WERE BANNED FROM LAND APPLICATION, WE WOULD NEED AN ADDITIONAL 500,000 CUBIC YARDS OF LANDFILL AIR SPACE EVERY YEAR TO MANAGE [WISCONSIN’S] SLUDGE...”

Coalition of Solid Waste & Wastewater Organizations, PFAS Webinar, July 29, 2020, <https://www.wcswma.org/>

# Qualitative Results and Associated Trends



Greatest Concerns



Anticipated Challenges

# Conclusions

- Average biosolids management cost increased by 74%
- Beneficial reuse programs appear to experience the most significant cost impacts due to PFAS
- Need for consistency
  - EPA approved method for testing biosolids
  - Federal guidance
- Common concerns
  - lack of capacity for biosolids disposal
  - public perception
  - political vs. science-based decisions
  - liability and cost burden



# Thank you for listening!

**Sarah Jakositz**

603-222-8358

JakositzSA@CDMSmith.com

[Download our full report!](#)



[Thank You To Our Partners!](#)

