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ORD's Center for Environmental Measurement & Modeling (CEMM)

Overview for Sustainable and Healthy Communities CENTRONMENTAL MEASURE **BOSC Subcommittee** June 16, 2020



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Center for Environmental Measurement & Modeling

Research Planning & Implementation Staff Gene Stroup, Chief

Center for Environmental Measurement & Modeling

Tim Watkins, Director Alice Gilliland, Deputy Director William Fisher, Associate Director Andrew Gillespie, Associate Director **CEMM Program Operations Staff** Van Anderson, Chief

Air Methods & Characterization Division Lara Phelps, Director Valerie Garcia, Associate Director

Atmospheric & Environmental Systems Modeling Division Alan Vette, Director Tom Pierce, Associate Director

Gulf Ecosystem Measurement & Modeling Division Beth George, Director Jeanne Scott, Chief, POS Atlantic Coastal Environmental Sciences Division Wayne Munns, Director Peter Celone, Chief, POS

> Ecosystem Processes Division Brian Schumacher, Director Gerald Brunson, Chief, POS

Watershed & Ecosystem Characterization Division Kevin Oshima, Director (Acting) Tom Behymer, Associate Director

Approximately 375 federal staff total

Center for Environmental Measurement and Modeling (CEMM)

Protecting human health and the environment by delivering innovative measurement and modeling solutions to EPA and our partners



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CEMM Research Mission

What

CEMM develops, evaluates, and applies measurements and models to characterize the sources, occurrence, transformation, transport and effects of pollutants and stressors in the natural environment.

The results of CEMM research will:

- Provide fundamental methods and models required to implement environmental statutes.
- Position the Agency and it partners to take advantage of innovations in measurement and modeling science.
- Identify approaches and tools to inform effective management of water/airsheds and ecosystems.
- Generate data to inform human and ecological exposure, health, and risk assessments.

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To fulfill this mission, CEMM scientists will collaborate and partner within and outside of ORD to deliver solutions-driven research that is responsive and impactful.

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CEMM Contributions to SHC

Торіс	Research Area	CEMM Contribution
Contaminated	Site Characterization and	Bioavailability/bioaccessibility and passive sampling to
Sites	Remediation	support remediation
	Vapor Intrusion	Characterize vapor intrusion in large buildings
		 Guidance on sub-slab sampling of soil gas
		Data and models of temporal and spatial variability
	Chemicals of Immediate	Lead bioavailability to inform exposure assessment
	Concern	Analyses of lead/PFAS concentrations in residential sample
		(soil, dust, drinking water)
		Thermal treatment of PFAS
		PFAS Innovative Treatment Team
Healthy and	Community Benefits from	Approaches/tools to evaluate effectiveness of R2R2R efforts
Resilient	Remediation, Restoration,	• Ecosystem Goods and Services
Communities	and Revitalization	Community Revitalization
	Community-Driven Solutions	Approaches/tools to identify community vulnerability and to
		build resiliency



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