Appendix: Topic Ideas for P3 Projects

Air Quality FON: EPA-G2021-P3-Q1

1. Approaches to prevent and reduce air pollution, particularly in a multipollutant context
2. Emission reduction strategies for stationary sources
3. Emission control technologies to reduce mobile-source-related pollution
4. Measurement and monitoring methods to enable informed air quality decision-making at the state and local level
5. Technologies to measure low ambient concentrations of air pollutants
6. Technologies and approaches to reduce the level of personal exposure to air pollutants or indoor concentrations of pollutants
7. Technologies that reduce the level of air toxics in communities, which may include small, rural, tribal and/or disadvantaged communities
8. Technologies to provide more low-cost, easily implemented mitigation of radon contamination, especially in older homes or in low-income communities

Safe & Sustainable Water Resources -FON: EPA-G2021-P3-Q2

1. Technologies for the rehabilitation of water infrastructure
2. Sampling devices to detect, collect and quantify microplastics in surface water, drinking water, sludge/biosolids and/or discharges from wastewater treatment systems
3. Novel technologies for point-of-use removal of Per-and poly fluoroalkyl substances (PFAS) from Drinking Water
4. Methods for detecting and monitoring waterborne pathogens such as legionella and/or mycobacteria
5. Innovative technologies and processes for stormwater management in small, rural, tribal, and/or disadvantaged communities
6. Non-brine producing technologies and processes for water reuse implementation in small communities
7. Technologies to detect and reduce exposure to lead in drinking water systems, such as developing simple, inexpensive tests for use in homes to check for lead in tap water
8. Innovative and potentially low-cost technologies for the rapid detection of antibiotic-resistant bacteria in wastewater
9. Technologies or methods to rapidly detect and distinguish between sources of pollutants in stormwater runoff or surface waters
10. Methods for analyzing and summarizing continuous water quality monitoring data utilizing user-friendly open-source software packages, statistical methods or technologies

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Sustainable & Healthy Communities -FON: EPA-G2021-P3-Q3

1. Development of replacements for polyvinyl chloride (PVC) and polyethylene (PE) water pipes which currently have a high probability of being discarded to landfills
2. Remediation of PFAS-contaminated soil and sediment
3. Development of construction materials that are less toxic, lighter, more compact, stronger, more durable, longer-lasting, more affordable, reusable and recyclable than currently used materials
4. Development of less toxic building materials for indoor spaces such as in floors, walls, and ceilings
5. Solutions to reduce the amount of food waste including food waste prevention, recycling and disposal technologies
6. Electronic components that are less toxic and/or easier to reuse and recycle
7. Management of disaster debris and waste
8. Research on how extreme events like pandemics may influence contaminant exposures and exacerbate associated health disparities in small, rural, tribal and/or disadvantaged communities.
9. Development of natural shoreline materials or designs to protect coastal communities from pollutant/contaminant migration under extreme events.