

California 100 partners with the Moore Institute for Plastic Pollution Research to develop open source data monitoring of microplastics in drinking water

Microplastic pollution has infiltrated every part of the environment and may be impacting human health. California 100 has partnered with the Moore Institute for Plastic Pollution Research, the State Water Resources Control Board, and San Francisco Estuary Institute to position California to be the first government in the world to monitor for microplastics in drinking water.

Because microplastics require complex data sets (due to a variety of shapes, sizes, polymers, and their occurrence as particles as opposed to dissolved substances), state agencies must develop innovative solutions to the current significant incompatibilities between existing data portals and microplastic datasets to fulfill the legislative requirements of SB 1422 and SB 1263. The ideal solution includes a solid foundation for microplastic reporting that encompasses visualization tools, intuitive user interfaces, and best practices for data reporting and documentation.

The current system falls short of achieving these goals due to the closed source code by which the existing data systems were developed. Data accessibility is critical to ensuring transparency and trust in government, and data transparency is an integral component in California 100's Innovation projects. Open source software allows all data input and analysis to be transparent to the public: democratizing water quality monitoring while increasing civic and public engagement for this vital resource. This partnership allows California to not only take the lead in microplastics monitoring, but also in the development of open-source government software in the nation and throughout the world.

"We envision a future where all the software used in the public sector is built on open-source code and is supported and developed in collaboration with the community it serves." - The Moore Institute

The open source nature of this project allows anyone to observe and contribute to the development of the data portal, while the modern interface and visualization tools enable diverse communities to use and interpret the data and work together towards addressing this emerging contaminant.

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