

“Comparing the Quality of Rainwater Collected from Roof Surfaces and Ground-Level Surfaces”

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Rainwater harvesting systems are becoming more common across the United States leading states and municipalities to develop regulations for this emerging technology. Unfortunately, these regulations are often not grounded in science. For example, many regulations only allow rainwater harvesting from roof surfaces (excluding rainwater collected from streets, sidewalks, etc.) but only one study has compared the quality of runoff from roofs with the quality of runoff from these other impervious surfaces. In this project, we will measure runoff quality from roofs and other impervious or relatively impervious surfaces and conduct a literature review to determine if roof runoff is significantly cleaner than runoff from other surfaces. This project is an important first step towards linking rainwater harvesting regulation with research.