

Maggie Clarke, Ph.D.  
Beyond Waste Solutions  
mclarke@hunter.cuny.edu  
212-567-8272

Maggie Clarke, Ph.D. is a zero waste consultant at Beyond Waste Solutions, has been an educator and researcher in environmental science and promoter of zero waste practices for over 25 years, and a professional in solid waste management for 35 years.

Maggie is the Chair of the National Recycling Coalition's task force on disaster debris mitigation and on the NRC board of directors. She is Vice Chair of the Air & Waste Management Association's Sustainability and Resource Conservation Division, and is a Fellow at A&WMA, also having organized and peer reviewed many sessions since the 1980s. She is chair of the Waste Prevention and Reuse committee of the Manhattan Solid Waste Advisory Board. Maggie has taught environmental science and policy and related topics at four of the CUNY colleges and Rutgers as adjunct professor in earth and environmental sciences, and has authored numerous articles and conducted research in various aspects of zero waste, including understanding and increasing recycling participation and measuring impacts of zero waste on climate change. A number of these publications are available on her website: [www.maggielclarkeenvironmental.com](http://www.maggielclarkeenvironmental.com) Her doctoral dissertation designed and tested environmental shopping campaigns at supermarkets in New York City.

#### National SMM Plan Recommendations

Behavior science is one of those areas that is not typically deeply understood by those who fund and implement solid waste/zero waste programs, designers of legislation, and even solid waste conferences. The latest brochure or TV commercials might be shown, but I find it critically important that this conference and all concerned in moving us all to zero waste need to understand clearly why capture rates and participation rates are so poor, often 50% or less. Zero waste will never be achieved as long as this is the case. My doctoral dissertation explored this using before and after questionnaires administered around environmental shopping campaigns. Knowledge of what to recycle accounted for less than 15% of the reasons for behavior change. Most had nothing to do with this or attitudes. How much is due to perceived inconvenience, peer pressure, misunderstanding, etc.etc? If we knew, we could address it. The ways people get their information varies as well; some TV, some radio, some print. How to effect behavior change is quite well understood in the advertising industry; zero wasters would do well to learn from them.

Reuse is also not well understood with spotty implementation by government because no one wants to measure it. There would be no MRFs or composting facilities if we had no idea of the recyclables and organics in the waste stream. Waste characterization studies starting in the late 1980s have focused mainly on these two types of material. We have next to no information about the amount and types of reusable, repairable, and refurbishable products in the waste stream, and what it would take to get these products back into their original use. It's necessary to measure all the reusables that make their way into private sector and public sector programs, as well as yard sales and online. No one seems interested in even attempting this. Yet, how can we design municipal reuse programs to collect / repair as much as possible without this information? I made specific recommendations in the workshops leading up to the writing of New York State's "Beyond Waste" plan regarding the need for measurement in the reuse sector. I would like to see this conference seriously address how we get reuse taken seriously and funded.

One of the lowest hanging fruit that is still dangling is disaster debris. Much of the debris could be entirely avoided by proper planning, zoning, buyouts and education. Much material is thrown out for disposal as fast as possible with no plan for triage to allow for reuse, recycling or organics management. The solutions are not rocket science (e.g., get people and movable assets out of harm's way, permanently if possible, have plans for immediate installation of intake, triage, processing capacity in the event of disaster, etc.). Utilities have been set up to go into disaster zones for many decades and much can be learned from that sector. There is no universally accepted methodology and plan for disaster debris prevention, reuse, recycling and composting, and NRC would do well to prepare a best practices manual in consultation with those already involved in disaster debris management, and work to get it formally adopted.