



SWEEP Tools for Standardized Data Collection in the Waste Industry

For Local Government & Materials Management Service Providers

Presenters:

Chris Ronson, Emerge Knowledge Design

Rob Watson, Founder and Co-Chair of SWEEP Standard

Presentation Overview

- Importance of consistent definitions and reporting at an industry level
- MMP and SWEEP
 - Easier than you think: simple data collection and reporting
- How SWEEP regularizes data collection and definitions across the industry
- The use of defined terms in SWEEP and how we are coming to consensus on these metrics
- Common SWEEP metrics on ReTrac forms (showing the tools exist for easy reporting with SWEEP)





Rob Watson

***Founder and President, SWEEP
Co-Chair SWEEP Steering Committee***

An international leader in market transformation and green buildings, Watson is known as the “Founding Father of LEED.” Under Rob’s direction, LEED became the largest and fastest-growing international green building standard. Author Thomas Friedman called Rob "one of the best environmental minds in America." Dartmouth Alumni Magazine just recognized Mr. Watson as one of the "25 Most Influential Alumni" in the College's 250 year history. Rob is also the Founder and Co-Chair of the SWEEP (Solid Waste Environmental Excellence Performance) Standard, a system of market transformation standards geared to move the waste industry toward sustainability.

sweepstandard.org

Mr. Watson received his MBA from Columbia University in 2006, a MS in Energy and Resources from UC Berkeley in 1990 and his AB from Dartmouth in 1984. He is married to Green Schools Alliance Founder Margaret Howard Watson and has a 21-year-old son, Max.



Our Current Data is Garbage

- “Official” numbers are off by 70%
 - EPA says 268 million tons; Industry analysis shows ~450 million
- No two waste characterization studies have the same list of material categories and sub-category breakouts
 - Often between 25 & 30% is characterized as “other”
 - Makes it difficult to hit 90% diversion if you don’t know what’s there...
 - “Tower of Babel”
- Conflicting data often found within the same assessment
 - E.g. 10x more metals recovered than generated

Our Current Data is Garbage pt. II

- Inconsistent diversion rate calculations distort performance
 - “Lake Woebegone effect”: Everyone’s above average!
- We know almost nothing about commercial waste characteristics
 - Some WCS conducted on mixed waste
 - Almost no segmentation
 - Data often a decade old
- Both Re-TRAC Connect & SWEEP seek to bring more consistency and transparency to the industry
 - Discarded materials have value if we know what they are





Will Zurier

Program Associate, SWEEP

Head of SWEEPs certification development

Starting at SWEEP as an intern in the Fall of 2018, Will has worked on building the collateral needed to further promote the Standard. As a program associate, Will heads a team of SWEEP interns in developing and building out SWEEP's certification materials. He also manages the internal non-ANS leadership standard-setting process established by the Institute of Market Transformation to Sustainability that SWEEP is following.

Will graduated from Wake Forest University in 2018 with a degree in Environmental Economics. He is now pursuing his M.S in Sustainability Management at Columbia, where he is focusing on sustainable materials management.

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SWEEP Forms: Making the Complex Simple

- Learning from Re-TRAC's MMP Forms
- Expanding forms to cover all stages of the materials management process.
- Many components and organizations involved - so how do we receive accurate and encompassing data?
- Aid to the overall certification process.



SMMP Forms

- 2 Forms
 - Local Government
 - Industry (HQ)
- Not all SWEEP credits are applicable to all certifying parties
- Performance Vs. Prescriptive Paths



Sustainable Materials Management Policy (SMMP) Forms	
Local Government	Industry
SMMP Prerequisite: Comprehensive Sustainable Materials Management Policy and Programs	SMMP Prerequisite: Comprehensive Sustainable Materials Management Policy and Programs
SMMP Performance Path	
SMMP: Comprehensive Sustainable Materials Management Lifecycle Analysis and Policy Program	SMMP: Comprehensive Sustainable Materials Management Lifecycle Analysis and Policy Program
SMMP Prescriptive Path	
SMMP Credit: Materials Processing Infrastructure and Market Development Policy	N/A
SMMP: Adoption of Diversion and Recycling Goals	SMMP: Adoption of Diversion and Recycling Goals
SMMP Credit: Regular Waste Characterization and Generation Study Policy	
SMMP Credit: Advanced Comprehensive Sustainable Materials Management Policy	
SMMP Credit: Solid Waste Greenhouse Gas and Air Emissions Footprint Reduction Policy	SMMP Credit: Solid Waste Greenhouse Gas and Air Emissions Footprint Reduction Policy
SMMP Credit: Source Reduction Policy	SMMP Credit: Source Reduction Policy
SMMP Credit: Market-Based Waste Management Program Policy	N/A
SMMP Credit: Local Government Policy for Comprehensive Public Participation in Solid Waste Management Program Development	N/A
N/A	SMMP Credit: Industry Comprehensive Reporting of Corporate Sustainability

WGP Forms

- 2 Forms
 - Local Government
 - Industry(Hauler/MRF/Landfill)

Waste Generation and Prevention (WGP) Forms	
Local Government	Industry/Hauler/MRF/Landfill
WGP Prerequisite: Measuring and Calculating Waste Generation, Recovery and Disposal	
WGP Credit: MSW Source Reduction Programs	
SMMP Performance Path	SMMP Prescriptive Path
WGP Credit: Reuse and Rescue Programs/Projects	
WGP Credit: Measuring and Calculating Source Reduction and Reuse/Rescue Impacts	
WGP Credit: Litter Prevention and Reduction Infrastructure	
WGP Credit Environmentally Preferable Product Procurement Non-Capital Items)	WGP Credit Environmentally Preferable Product Procurement Non-Capital Items)
WGP Credit: Sustainable Capital and Utility Procurement	WGP Credit: Sustainable Capital and Utility Procurement
WGP Credit: Economic Assessment of Solid Waste Management Program	
WGP Credit: Education and Engagement Programs on Litter and Source Reduction and Reuse	
WGP Credit: Household Hazardous Waste Reduction and Engagement Program	



SWC Forms

- Where things start to get interest
- 6 Waste Streams
 - 2 generation points
 - X amount of Haulers

Solid Waste Collection (SWC) Forms												
Local Government Hauler						Industry Hauler						
Residential		Commercial				Residential		Commercial				
MSW	Recyclables	Organics	C&D	HHW	Bulky	MSW	Recyclables	Organics	C&D	HHW	Bulky	
	SWC Credit: Alternative Collection Options for Recyclable and Compostable Products and Materials						SWC Credit: Alternative Collection Options for Recyclable and Compostable Products and Materials					
SWC Credit: Energy Emissions Optimization of Solid Waste Collection												
SWC Credit: Alternative Fueled Solid Waste Collection Vehicles												
SWC Credit: Household Hazardous Waste Collection Infrastructure												
For Transfer Stations → SWC Credit: Minimizing Emissions from Transfer Stations												
SWC Credit: Solid Waste Collection Cost Transparency												
SWC Credit: Commitment to Safe Working Conditions												
SWC Credit: OSHA Compliant Practices and Safe Vehicle Processes												



PCR Forms

Material Recovery Facilities

-3 forms

--vary based on facility and material

Post-Collection Recovery (PCR) Forms								
SM M	Recycling				C&D		Organics	
	Mixed Waste MRF	Single Stream Recycling	Dual Stream Recycling	E-waste recycling	C&D Recycling Mixed	C&D Recycling Source Separated	Composting Facility	Anaerobic Digestion Facility
	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate	PCR Prerequisite: Minimum Diversion Rate
	PCR Credit: Material Recovery & Per Capita Disposal Optimization	PCR Credit: Material Recovery & Per Capita Disposal Optimization	PCR Credit: Material Recovery & Per Capita Disposal Optimization	PCR Credit: Material Recovery & Per Capita Disposal Optimization	PCR Credit: Material Recovery & Per Capita Disposal Optimization	PCR Credit: Material Recovery & Per Capita Disposal Optimization		
	PCR Credit: Minimize Bale/Output Contamination Rate	PCR Credit: Minimize Bale/Output Contamination Rate	PCR Credit: Minimize Bale/Output Contamination Rate		PCR Credit: Minimize Bale/Output Contamination Rate	PCR Credit: Minimize Bale/Output Contamination Rate		
							PCR Credit: Producing High Quality Products from Recovered Organic Materials	PCR Credit: Producing High Quality Products from Recovered Organic Materials
							PCR Credit: Anaerobic Digestion Infrastructure	PCR Credit: Anaerobic Digestion Infrastructure
	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains	PCR Credit: Compact Commodity/Output Supply Chains



PCD Forms

One form

-All reciprocal

Applicable to: Local
Governments/Haulers/Landfills
Operators



Post Collection Disposal (PCD) Forms
Landfill
PCD Credit: Renewable or Alternative Fueled On-Site Mobile Equipment for Disposal Facilities
PCD Credit: Landfill Stormwater Management
PCD Credit: Landfill Emissions Minimization
PCD Credit: Effective utilization of Recovered Methane
PCD Credit: Material Disposal Cost Transparency
PCD Credit: Post-Collection Disposal Facility Safety Protocols and Training
PCD Credit: OSHA-Compliant Facilities
PCD Credit: Good Neighbor Practices

Helpful Features

- In form calculations
- “SWEEP Assist” - Lets you know when forms must be updated and if any material provided helps achieve a different credit.
- Definitions
- Multi-party collaboration



SWEEP⁺ PILOT OVERVIEW

SWEEP⁺ Pilot Scope

- 2 Phases
 - Demonstration-Technical elements
 - Full Pilot-Administrative elements
- 15 Local Governments
 - 5 Geographical regions (Northeast, Southeast, Midwest, Western, Pacific)
 - Small, Medium & Large from each
 - ReTRAC uses Urban, Suburban, Rural
 - Oceanside is a “Medium” City in the Pacific region
- 15 Industry Partners
 - Range from vertically integrated to single focus, e.g. collection only

SWEEP⁺ Pilot Program Goals

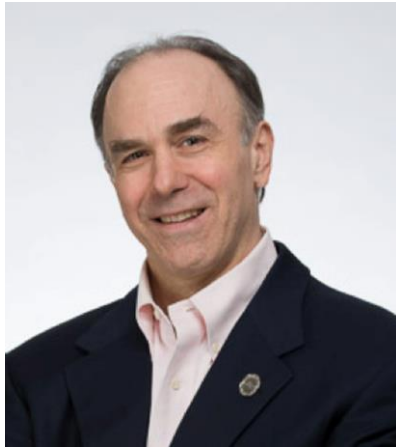
- Develop “ground truth” for SWEEP criteria
 - Resolve and refine criteria and definitions
- Develop practical certification tools and processes
 - Calculators, methodologies, etc.
 - Certification Manual
- Spread awareness about SWEEP and its impact
 - Promote Sustainable Material Management
- Collaboration with local colleges/universities
 - Field experience for students seeking waste management and recycling careers

Future Opportunities and Potential Collaboration

- SWEEP is currently seeking:
 - New members
 - SWEEP
 - Pilot Program participants
 - Grant funding for Pilot Program and standard development activities
- Shared goals:
 - Provide a standardized basis for incentive programs
 - Consistency, not 'one size fits all'
 - Identify and reward leadership in sustainable materials management

Contact Info

We look forward to hearing from you!



Contact Rob Watson:

rob.watson@sweepstandard.org



Contact Will Zurier:

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Contact Chris Ronson:

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How to get involved...

Visit sweepstandard.org to find the full standard and learn how to get involved in SWEEP through:

- [MEMBERSHIP](#). SWEEP seeks leading local governments and materials management service providers (haulers, MRFs, landfills, organics processing facilities, etc) to become SWEEP Members
- [COMMITTEES](#). SWEEP seeks professionals from local governments and the waste industry to serve on various technical committees, ranging from policy implementation to recovery and disposal alternatives. Committee members must come from SWEEP Member organizations.
- [PILOT PARTICIPANTS](#). SWEEP seeks local governments and their industry service providers to join its existing pilot participants and be among the first to become SWEEP Certified.

Q&A

Thank you for your time

We look forward to hearing any questions about our presentation. We thank you for sharing our goal of guiding the waste industry toward sustainable materials management.

If you cannot stay for Q+A, please submit questions to info@sweepstandard.org