SWEEP
SOLID WASTE ENVIRONMENTAL EXCELLENCE PERFORMANCE

Overview of **SWEEP+ Pilot Program**
for Local Government & Materials Management Industry

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.

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.

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Presentation Overview

- SWEEP Overview
- Development process for the Standard
- SWEEP Pilot Program and its developments
- How to Certify to SWEEP
- The Future of SWEEP

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Overview

- The SWEEP (Solid Waste Environmental Excellence Performance) Standard for Sustainable Materials Management is designed to identify and reward leaders in the field.
  - Local Governments and Materials Management Companies are the focus
- Volunteer professional committees and industry commenters have been developing the standard for the last 4 years.
- The Pilot Draft of the SWEEP^{+} Standard approved 2020.
- We are seeking Pilot projects to implement the program.

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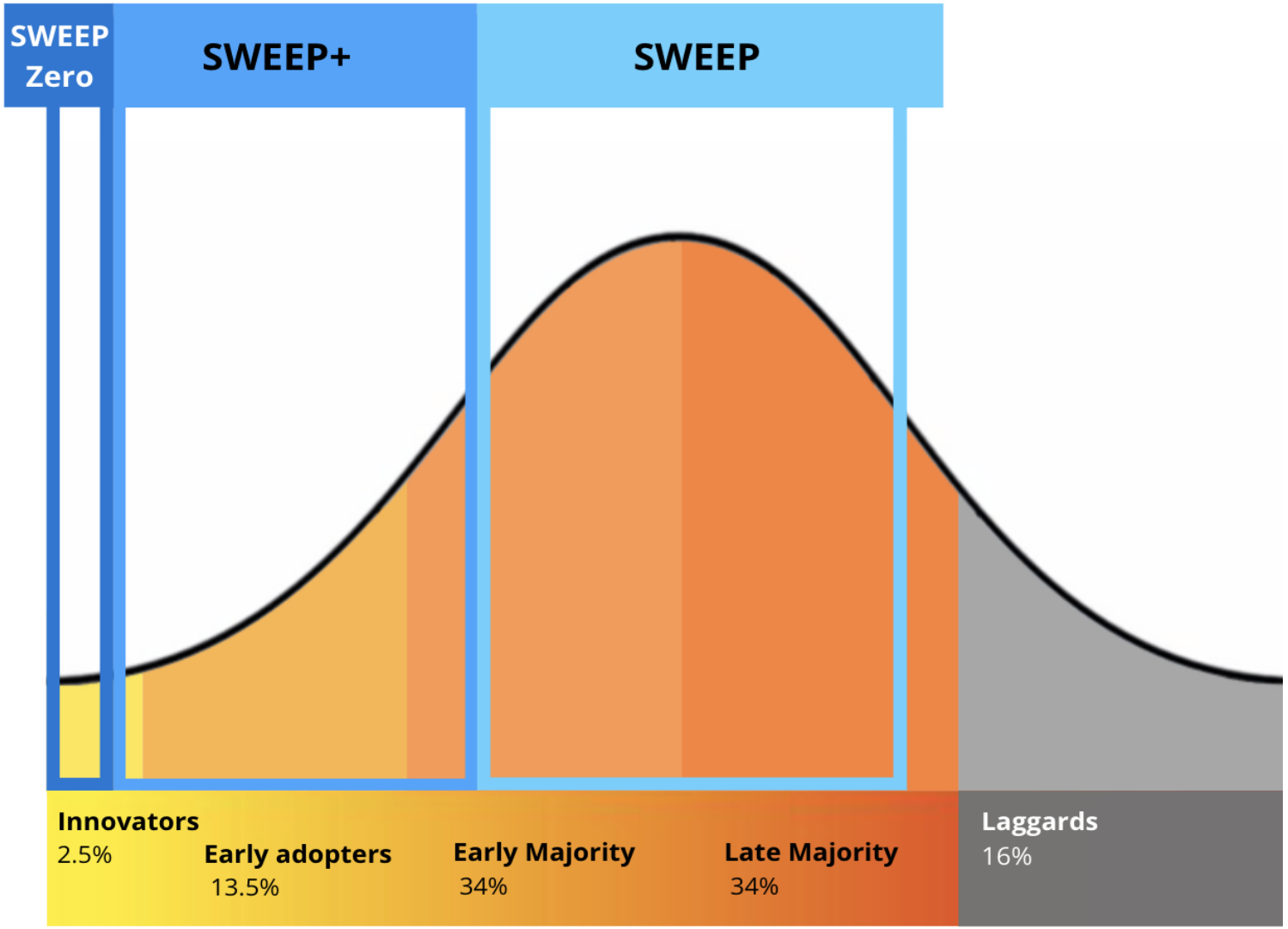
Suite of SWEEP Standards Cover 75% of the Market



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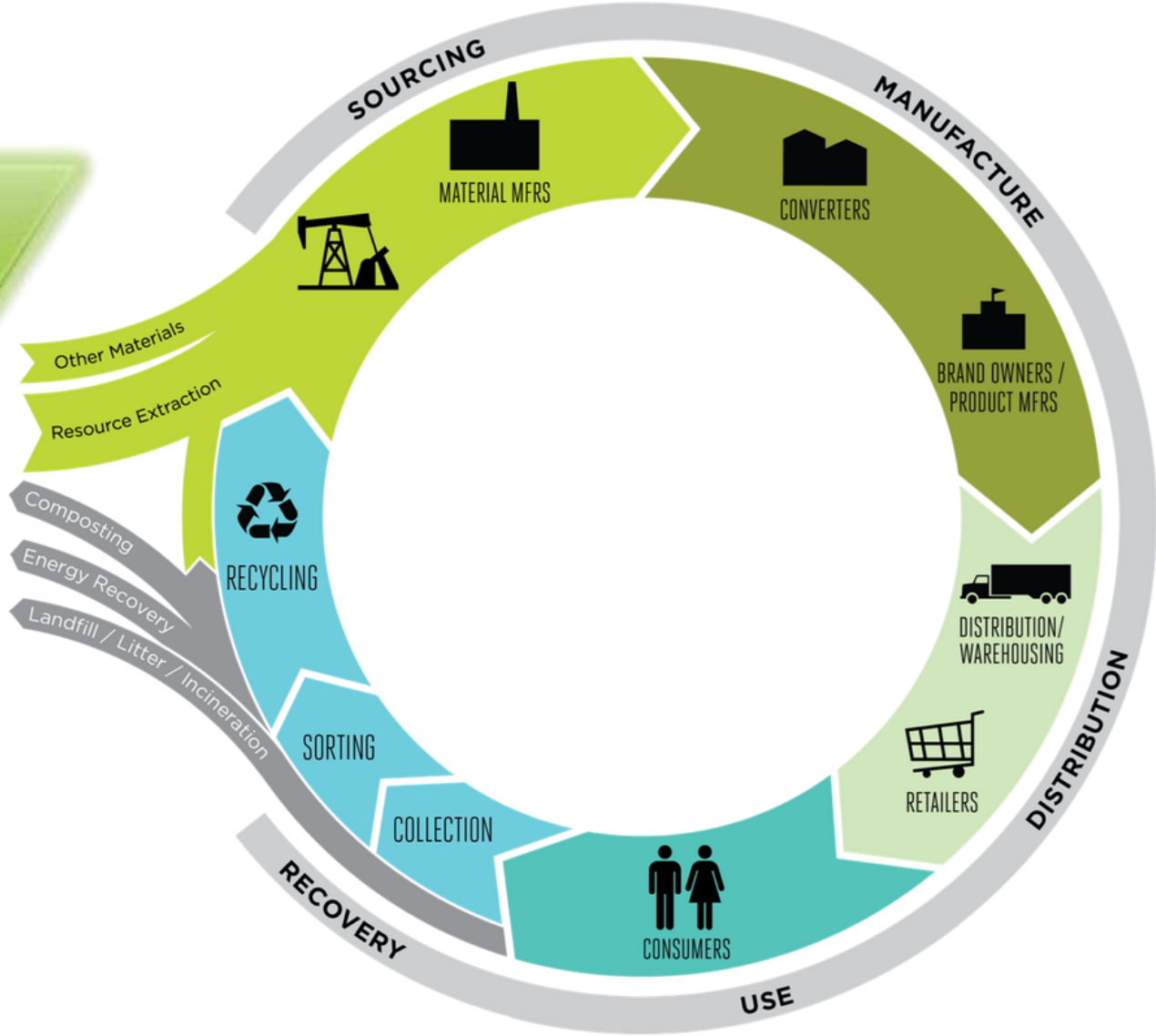
SMM Maximizes the Value and Minimizes Environmental Impact of Material Life Cycle



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General Benefits of SWEEP

- Only comprehensive sustainability standard for solid waste management industry
  - SWEEP+ standard currently being piloted focuses on top quartile of industry
- 3rd party recognition for leadership in the field
- Roadmap that drives innovation
  - Improved data and best practices lead to better and more cost-effective services
- Guided certification process during the Pilot guarantees success
  - Work with SWEEP staff to ensure certification

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Specific Benefits of SWEEP

Local Government

- 3rd Party Recognition as a leader in the field
- Demonstrate sustainability commitment to constituents
- Ensure program/contractual performance
- Ability to underwrite green bonds
- Reduce costs
- Reduce liability

Waste Industry Service Provider

- 3rd Party Recognition as a leader in the field
- Demonstrate sustainability commitment to customers
- Ensure program performance
- Additional service offering to secure contracts
- Reduce costs
- Reduce liability

Large Business

- 3rd Party Recognition as a leader in the field
- Demonstrate sustainability commitment to customers and to the market
- Ensure waste program performance supports CSR objectives

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SWEEP Is Driven By Members

- Join other leaders in SMM to set the agenda for the future
- SWEEP member receive:
  - Discounts on SWEEP products and services
  - Participation on SWEEP Committees

Member Type	Population	Dues
Small Local Government	<30,000	$250
Medium Local Government	30,000-300,000	$500
Large Local Government	>300,000	$1,000
Small Business	<$2.5 million	$250
Medium-sized Business	$2.5 to $25 million	$2,500
Large Business	>$25 million	$5,000
State & Federal Agencies		$250
Non-Profits		$250
Individuals		$50
Students		Free

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Committee & SWEEP Members

DEM-CON
COMPANIES

Upland
Road

STAR
State of Texas Alliance for Recycling

WINTERS
BROS.
WASTE SYSTEMS

ABOUT SWEEP

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What is SWEEP™?

- Suite of triple-bottom-line sustainable materials management standards for Local Governments and materials management Industry
- Defines and recognizes leadership and best practices
- Point-based systems
  - Similar to LEED
  - SWEEP Zero is “pass/fail”

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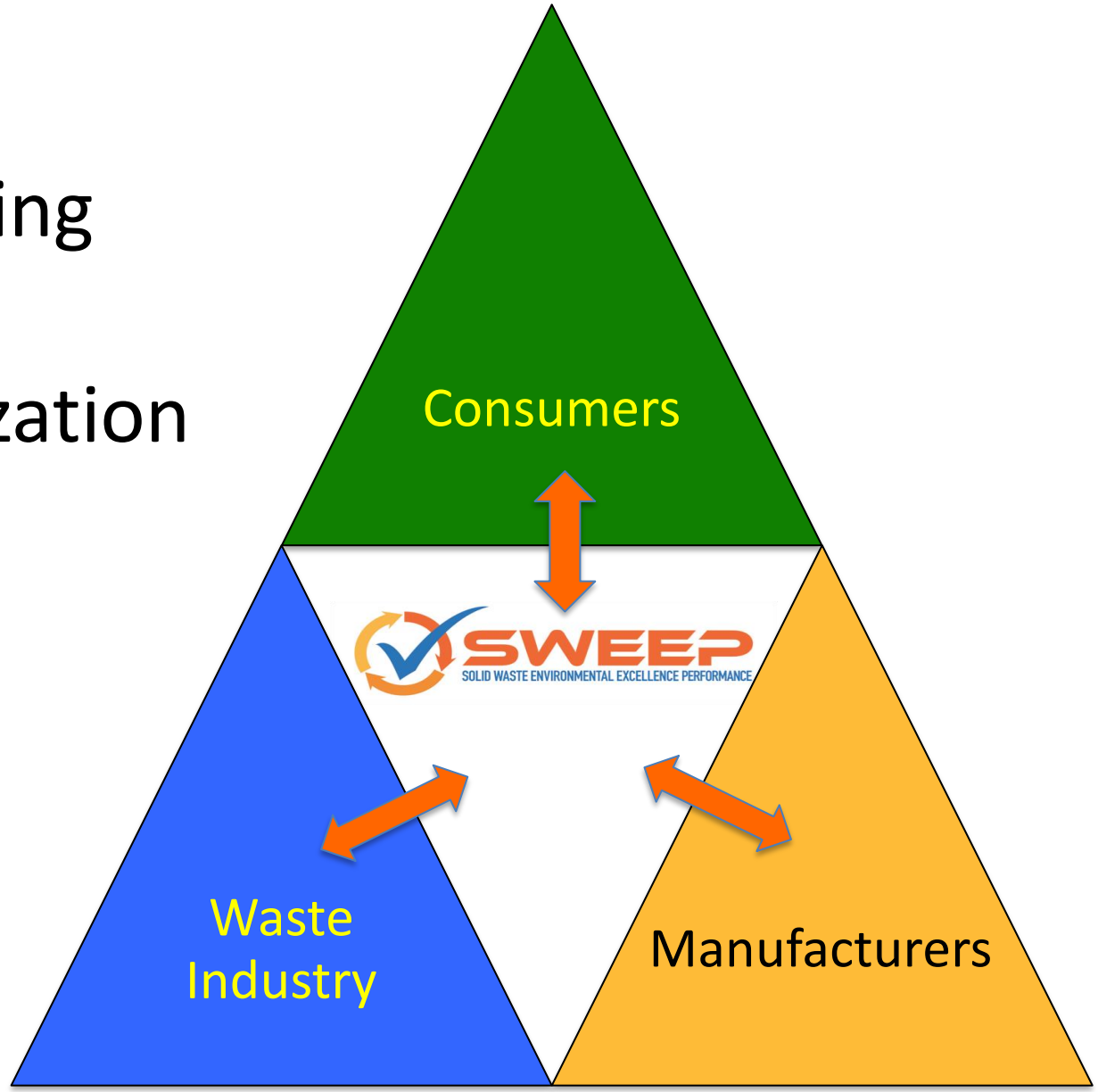
Standardizing Material Characterization



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SWEEP Goals

- Define consistent metrics and performance goals across all aspects of the discarded materials management industry
  - Integrate policy and practice
- Provide a standardized basis for incentive programs
  - Move away from Hodge-podge of inconsistent metrics
  - Consistency, not 'one size fits all'
- Identify and reward leadership in sustainable materials management
- Transform the market

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Why SWEEP™?

- Environmental impact of take-make-waste society is growing
  - Significant contribution directly and indirectly to climate change
- Diversion rates flat, despite significant spending increases
  - Contamination rising
  - Need a 21st century response
- Hodge-podge of inconsistent metrics
  - "Lake Woebegon" effect: "everyone is above average"

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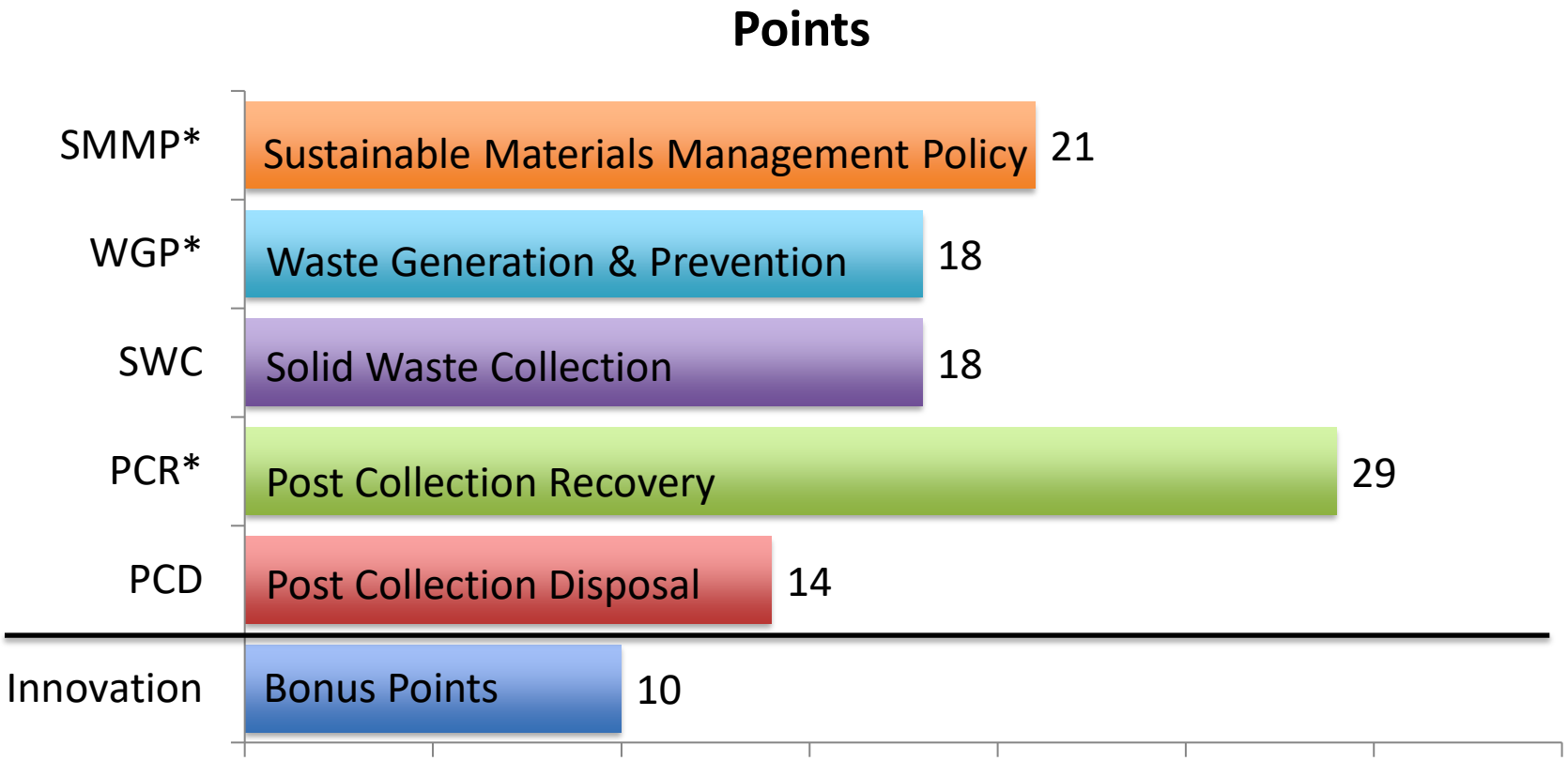
Structural Overview of the SWEEP+ Standard



* Performance Category contains a Prerequisite

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Who is eligible for SWEEP Certification?

- The SWEEP Standard certifies the comprehensive sustainable materials management operations of local governments and the industry service providers with whom they contract
- SWEEP also certifies private entities operating in any one or combination of the five Performance Categories of SWEEP

SWEEP Performance Categories

Policy (SMMP)
- *Local Governments*
- *Corporate HQ Offices*

Analysis (WGP)
- *Local Governments*
- *Corporate HQ Offices*

Collection (SWC)
- *Haulers*
- *Transfer station operators*

Recovery (PCR)
- *MRFs*
- *Organics processing*
- *eWaste processing*

Disposal (PCD)
- *Landfills*
- *Waste to Energy Facilities*

SWEEP & SWEEP^{+} Certification

Complete Prerequisites + Points

- SWEEP Certified: 50 – 59 Points
- SWEEP Silver: 60 – 69 Points
- SWEEP Gold: 70 – 79 Points
- SWEEP Platinum: 80+ Points

- SWEEP-Zero will be Certified only

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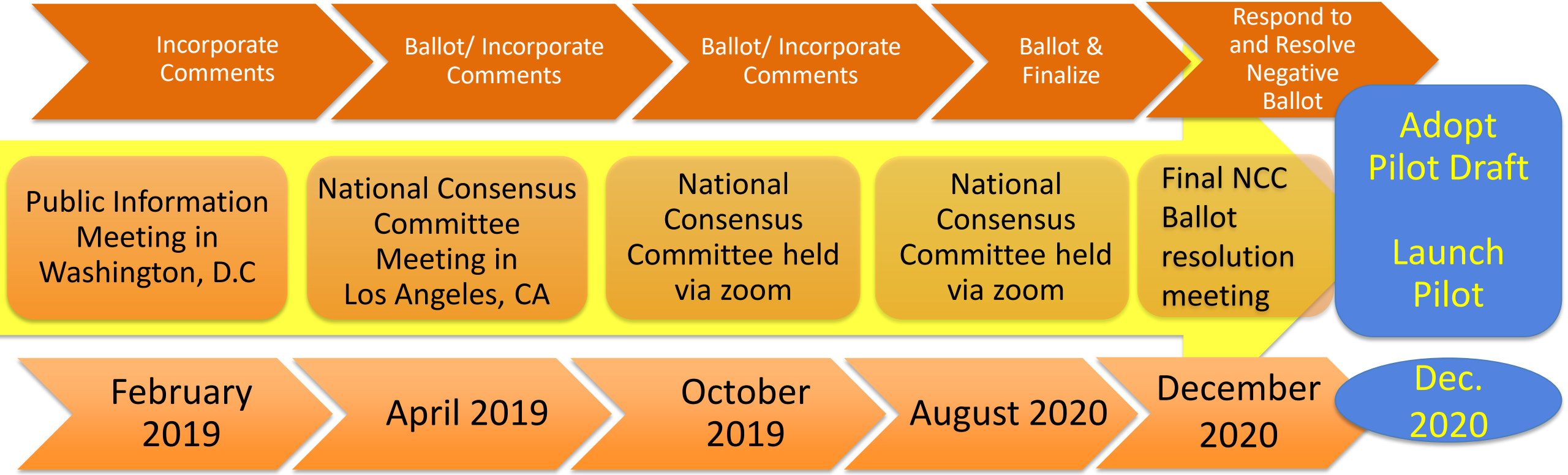
SWEEP+ Standard Development Timeline



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SWEEP+ STANDARD CREDITS

Credit Structure

Credits are defined actions designed to meet the goals of SWEEP that are documented by entities seeking certification and verified by SWEEP or an independent certification body approved by SWEEP.

SWEEP Credits are structured as follows:

- **Intent:**
  - States the underlying purpose of the credit (the "Why").
- **Requirement:**
  - Describes the specific actions the applicant needs to take to achieve credit toward certification (the "What").
- **Potential Strategies:**
  - Examples of how to achieve the Requirement(s) (the "How"). Strategies are for reference only; projects are not required to follow the examples given.

Key Performance Indicators (KPIs)

- Within the Performance Categories, credit is given for specific measurable and verified actions. Credits under these Performance Categories are organized by four **Key Performance Indicators** (KPIs) that define the framework that SWEEP measures success.
  - **Efficiency and Effectiveness**
  - **Environmental Performance**
  - **Economic Performance**
  - **Public Participation, Working Conditions and Social Impact**

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Sustainable Materials Management Policies (SMMP)

- Overview: SMMP credits cover a broad array of regulatory and policy measures aimed at minimizing solid waste generation, improving the performance of solid waste collection, processing, and recovery practices.

	Local Gov	Industry
Sustainable Materials Management Policy (SMMP)	21	21
Prerequisite 1: Comprehensive Sustainable Materials Management Policy	**REQ.**	**REQ.**
Performance Path		
Credit: Comprehensive SMMP Life-Cycle Analysis & Policy Program	10-19	10-19
Prescriptive Path		
Credit: Materials Processing Infrastructure and Market Development Policy	2	NA
Credit: Adoption of Diversion and Recycling Goals	1-3	1-5
Credit: Regular Waste Characterization and Generation Study Policy	2	2
Credit: Advanced Comprehensive Sustainable Materials Management Policy	2	2
Credit: Solid Waste Greenhouse Gas and Air Emissions Footprint Reduction Policy	1-3	2-5
Credit: Source Reduction Policy	4	4
Credit: Market-Based Waste Management Program Policy	1-3	NA
Credit: Local Government Policy for Comprehensive Public Participation in Solid Waste Management Program Development	1-2	NA
Credit: Comprehensive Public Reporting of Corporate Sustainability	NA	1-3

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Waste Generation & Prevention (WGP)

- Overview: Data collection and analysis of the effectiveness and efficiency of waste generation and of waste prevention programs.
- 18 points; 1 Prerequisite & 9 Credits

	Local Gov	Industry
Waste Generation & Prevention (WGP)	18	18
Prerequisite 1: Measuring and Calculating Waste Generation, Recovery & Disposal	**REQ.**	**REQ.**
Credit : MSW Source Reduction Programs	1-3	1-3
Credit: Reuse and Rescue Programs/Projects	1-3	1-3
Credit: Measuring and Calculating Source Reduction and Reuse/Rescue Impacts	1-2	1-2
Credit: Litter Prevention and Reduction Infrastructure	1	1
Credit: Environmentally Preferable Product Procurement (Non-Capital Items)	1-2	1-2
Credit: Sustainable Capital and Utility Procurement	1-2	1-2
Credit: Economic Assessment of Solid Waste Management Program	2	2
Credit: Education and Engagement Programs on Litter & Source Reduction and Reuse	2	2
Credit: Household Hazardous Waste Reduction and Engagement Program	1	1

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Solid Waste Collection (SWC)

- Overview: The Solid Waste Collection category covers the process of gathering, consolidating, and transporting solid waste, encompassing considerations related to waste receptacles and hauling practices.

	Local Gov	Industry
Solid Waste Collection (SWC)	18	18
Credit: Alternative Collection Options for Recyclable and Compostable Products and Materials	2	2
Credit: Energy and Emissions Optimization of Solid Waste Collection	1-3	1-3
Credit: Alternative Fueled Solid Waste Collection Vehicles	1-2	1-2
Credit: Household Hazardous Waste Collection infrastructure	2	2
Credit: Minimizing Emissions from Transfer Stations	2	2
Credit: Solid Waste Collection Cost Transparency	2	2
Credit: Commitment to Safe Working Conditions	3	3
Credit: OSHA Compliant Practices and Safe Vehicle Processes	2	2

Post Collection Recovery (PCR)

- Overview: The Post-Collection Recovery category covers practices aimed at avoiding disposal of solid waste by preserving and utilizing its residual material value.
- Conventional methods of recovery rewarded including mechanical or chemical recycling, composting, as well as emerging novel recovery methods.

	Local Gov	Industry
Post-Collection Recovery (PCR)	29	29
Prerequisite 1: Minimum Diversion Rate	**REQ**	**REQ**
Credit: Material Recovery & Per Capita Disposal Optimization	1-3	1-3
Credit: Minimize Bale/Output Contamination Rate	1-3	1-3
Credit: Producing High Quality Products from Recovered Organic Materials	1-3	1-3
Credit: Anaerobic Digestion Infrastructure	1-2	1-2
Credit: Compact Commodity/Output Supply Chain	1-3	1-3
Credit: Energy Efficient and Low Emissions Operations	1-2	1-2
Credit: Clean and Efficient Material Recovery and Organics Processing Facilities	1-2	1-2
Credit: Alternative Fueled On-Site Mobile Equipment	1	1
Credit: Material Recovery Cost Transparency	1	1
Credit: Good Neighbor Practices	1-3	1-3
Credit: Post-Collection Recovery Facility Safety Protocols and Training	1-3	1-3
Credit: OSHA-Compliant Material Recovery & Organics Processing Facilities	1-3	1-3

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Post Collection Disposal (PCD)

- Overview: The Post-Collection Disposal category outlines best practices aimed at the disposal of non-recovered waste.
- 14 points; 9 Credits

Note: While this Performance Category does not explicitly cover incineration or waste to energy plant performance, some credits may be applicable to these facilities.

	Local Gov	Industry
Post Collection Disposal (PCD)	14	14
Credit: Renewable or Alternative Fueled On-Site Mobile Equipment	1	1
Credit: Landfill Stormwater Management	1	1
Credit: Landfill Emissions Minimization	1-3	1-3
Credit: Effective Utilization of Recovered Methane	1-2	1-2
Credit: Material Disposal Cost Transparency	1	1
Credit: Post-Collection Disposal Facility Safety Protocols and Training	1-2	1-2
Credit: OSHA-Compliant Facilities	1-2	1-2
Credit: Good Neighbor Practices	1-2	1-2

Innovation in Sustainable Materials Management

- Overview: The Innovation Category covers practices or actions not necessarily outlined in the 5 core sub-standards (SMMP, WGP, Collection, PCR and PCD), but demonstrate **unique innovation or exemplary performance** within solid waste policy, generation, collection, and/or recovery processing and disposal.
- This "extra credit" (up to 10 points) category serves to acknowledge extraordinary development, and/or implementation of innovative mechanisms related to solid waste management.

SWEEP PILOT OVERVIEW

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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

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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
- 15+ Industry Partners
  - Range from vertically integrated to single focus, e.g. collection only

Pilot Participants (Technical Phase)

- Chester County, PA (Large Local Government)
- El Paso, TX (Large Local Government)
- Keene, NH (Small Local Government)
- Monterey Regional Waste Management District, CA (Medium-sized Local Government)
- Paramount, CA (Medium-sized Local Government)

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Key Certification Tools & Materials

- Certification Manual
  - Text of standard
  - Background materials and other knowledge resources
  - Calculation methods and tools
    - Linkage with Online Certification Forms
    - Incorporated into ReTRAC Connect Municipal Measurement Program platform
      - Program data analytical report
  - "How To" Guide
  - Definitions
    - Will follow ReTRAC Connect initially
  - Case Studies & Examples

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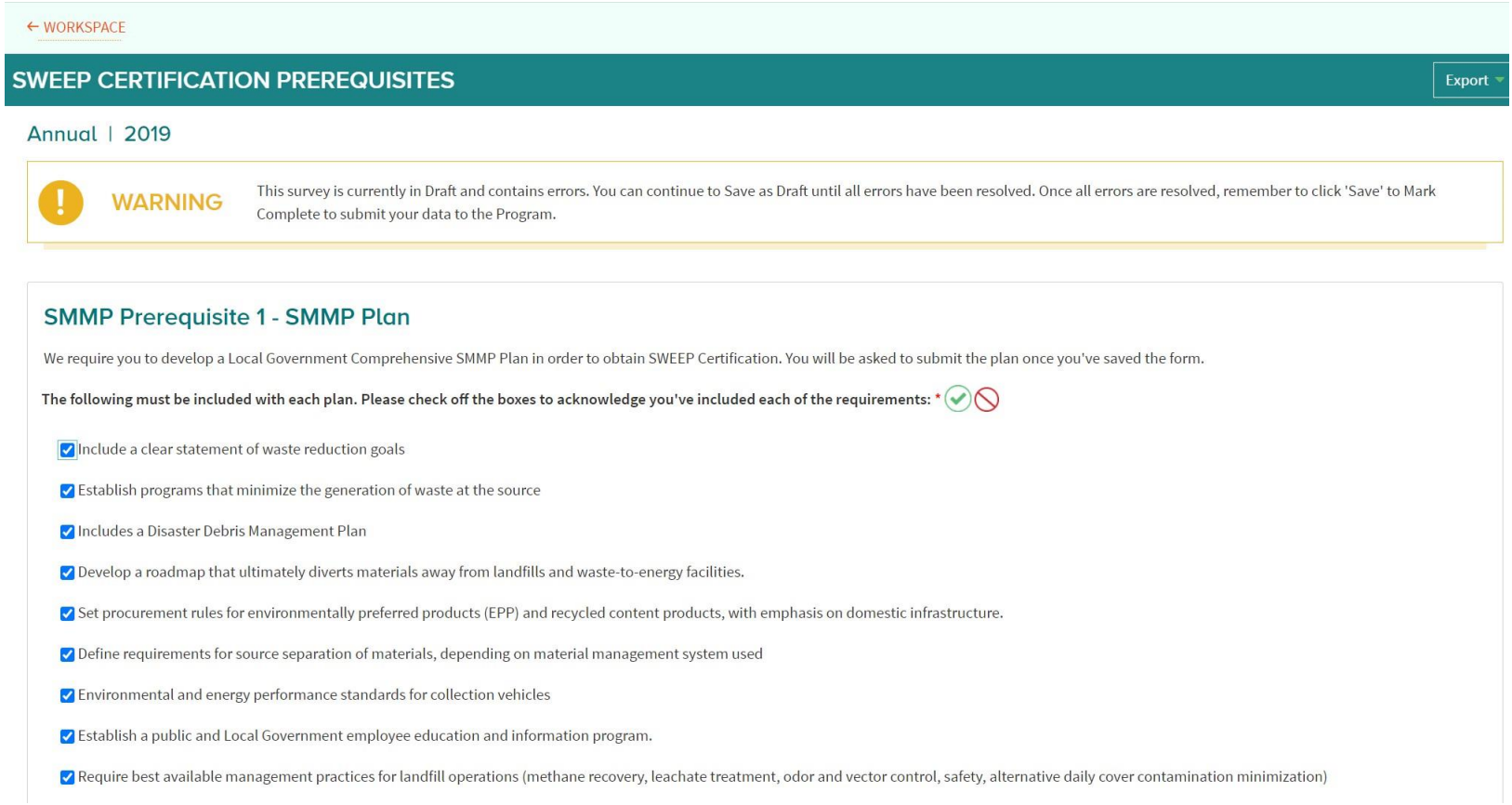
Key Certification Tools & Materials (cont.)

- Certification Forms: ReTRAC Connect
  - Build on existing data entry and reporting forms
  - SWEEP-specific forms
    - Off-line calculators that can be incorporated to online forms



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Roles & Responsibilities: SWEEP

- Program administration
  - Data protection and privacy
- Developing and providing certification materials
  - Certification Manual
  - Calculators, etc.
- Regular communication with participants
  - Phone calls
  - Webinars
  - Newsletters, etc.
- Pilot Program funding
- Full launch preparations

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Roles & Responsibilities: Pilot Participants

- Program participant role
  - Agree to regular communication with SWEEP
  - Prompt payment of certification fee
- Conduct an initial assessment
  - Initial benchmarking exercise
    - “Yes”; “Yes-Maybe”; “No-Maybe”; “No” credits
- Provide high quality data
  - Allow access of SWEEP to their ReTRAC forms
- Collaborate with Industry Partner
  - Data validation, etc.
- Advertise and promote SWEEP Program

How Much Does it Cost To Certify?

Category	Annual Membership	Registration	Certification (Members 10% Off)	Internal
Small Local Government	$250	$200 - $300	$300 - $700	TBD
Small Business	$250	$200 - $300	$300 - $700	TBD
Medium-sized Local Government	$500	$400 - $2,100	$850 - $4,900	TBD
Medium-sized Business	$2,500	$400 - $2,100	$850 - $4,900	TBD
Large Local Government	$1,000	$2,300 - $7,500	$5,200 - $17,500	TBD
Large Business	$5,000	$2,300 - $7,500	$5,200 - $17,500	TBD

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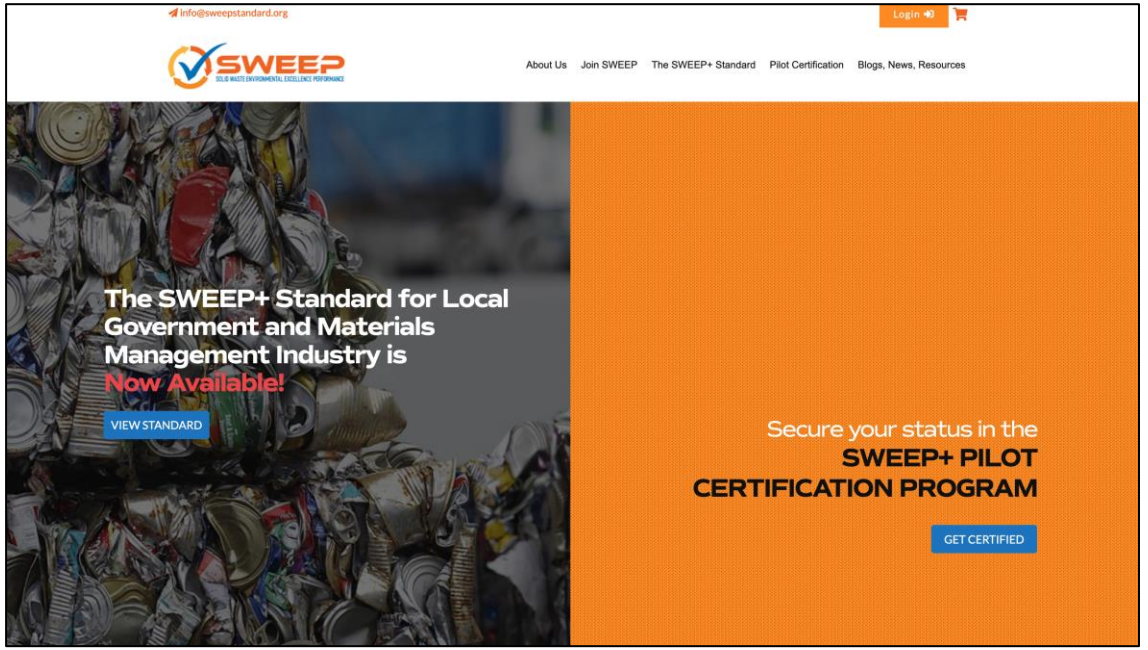
Working with SWEEP will help reduce internal costs.

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.



SWEEP is proud to announce the launch of an updated & streamlined new website:

www.SWEEPStandard.org

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Please join us for our next webinar:

- **Date:** February 18th
- **Time:** 11 am PST/ 2pm EST
- **Presenters:** Judi Gregory (Go2Zero Strategies) and Rob Watson (SWEEP)
- **Topic**: Los Angeles Waste Characterization Case Study and its applications to SWEEP

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Contact Info

We look forward to hearing from you!

Contact Rob Watson: rob.watson@sweepstandard.org

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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**

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