



SWEEP™: Solid Waste Environmental Excellence Protocol™

SWANAPalooza

February 25-28, 2019

Boston, MA



Vision, Mission

SWEEP Vision

- “A world without waste where materials are valued and continually utilized for their highest and best purpose, without causing harm to human health and the environment.”

SWEEP Mission

- “To promote continuous improvement toward a zero waste society that is environmentally restorative, economically productive, socially just, and to recognize and reward municipal and industry leadership in sustainable materials management.”



SWEEP Goals

- Define consistent metrics and performance goals across all aspects of solid waste industry
 - Consistency, not ‘one size fits all’
- Integrate policy and practice
- Provide a standardized basis for incentive programs
- Identify and reward leadership in sustainable materials management
- Transform the market



Why SWEEP™?

- Environmental impact of once-through material consumption society is growing
- Significant contribution directly and indirectly to climate change
- Diversion rates flat, despite significant spending increases
- Hodge-podge of inconsistent metrics
 - “Lake Woebegon” effect: “everyone is above average”
- Contamination rising



Why SWEEP™? (cont.)

- Market cratering (China)
- Sustainable waste management in “crisis”
- Need a 21st century response
- Comprehensive sustainability narrative to counter waste industry’s “failure” with recycling
- Performance standards can drive significant improvements in target industries
 - LEED 175 countries; Approaching 20 billion sq.ft.
- Efficient industries are profitable industries



What is SWEEP™?

- Triple-bottom-line performance standard for the municipal solid waste sector
 - Defines and recognizes leadership
- Point-based system
 - Similar to LEED (Leadership in Energy & Environmental Design)
- Basic structure developed (6 categories)
 - Weighting/points-per-action being developed



What is SWEEP™? (cont.)

- References existing standards where possible
- **Inclusion of a referenced standard in SWEEP does not imply endorsement of SWEEP by the standard-setter**
- Initial focus on municipalities and waste management industry
 - Entities that generate and control the waste
 - Companies or departments that collect and dispose of the waste
 - Complementary & mutually-reinforcing requirements

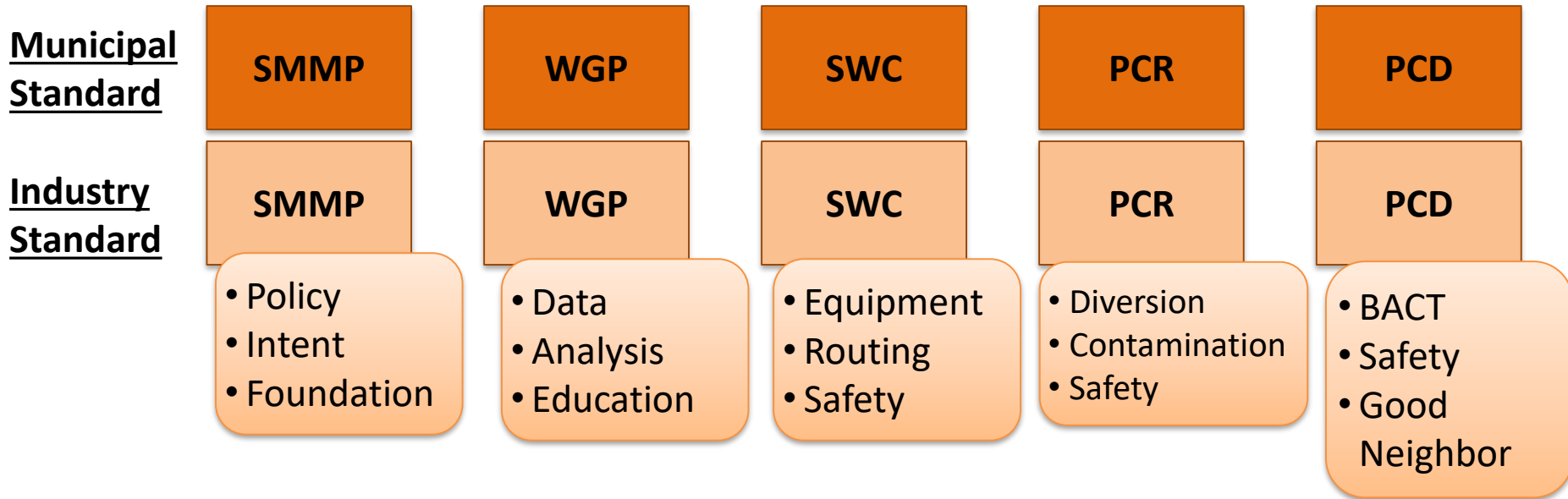


SWEEP Organizational Sponsor

- Northeast Resource Recovery Association (NRRA)
 - www.nrra.net
 - Founded 40+ years ago as the oldest resource recovery association in the U.S.
 - New Hampshire, Vermont, Massachusetts, Connecticut & Southern Maine
- “The NRRA is a non-profit 501(c) organization that provides cooperative purchasing programs, educational and networking opportunities, technical assistance, and cooperative marketing programs.”



Municipal & Industry Standards Complement Each Other



Performance by one secures/supports performance for the other.

SWEEP DEVELOPMENT PROCESS



www.SWEEPStandard.org



SWEEP Development Process

- Volunteer Committees
 - Steering Committee
 - Municipal Standard Committee
 - Industry Standard Committee
 - Technical Committees (Aligned with Performance Categories & KPIs)
- Phone/web meetings
- On-line wiki (comment platform)
 - Draft language is published for comment
 - 60-30-15 day language as credit progresses



SWEEP Committee Structure

Industry input via online Wiki Site

Industry input via online Wiki Site

Industry Committee

Municipal Committee

Senior Advisory Committee

NRRA

- Efficiency/Effectiveness
- Environmental Performance
- Economic Performance
- Working Conditions /Social Impact

- Sust. Matl Mgmt Policy
- Waste Gen. & Prevent
- Solid Waste Collection
- Post-Collection Recovery
- Post-Collection Disposal

Municipal Standard Committee

Steering Committee

Industry Standard Committee

- Sust. Matl Mgmt Policy
- Waste Gen. & Prevent
- Solid Waste Collection
- Post-Collection Recovery
- Post-Collection Disposal

- Efficiency/Effectiveness
- Environmental Performance
- Economic Performance
- Working Conditions /Social Impact

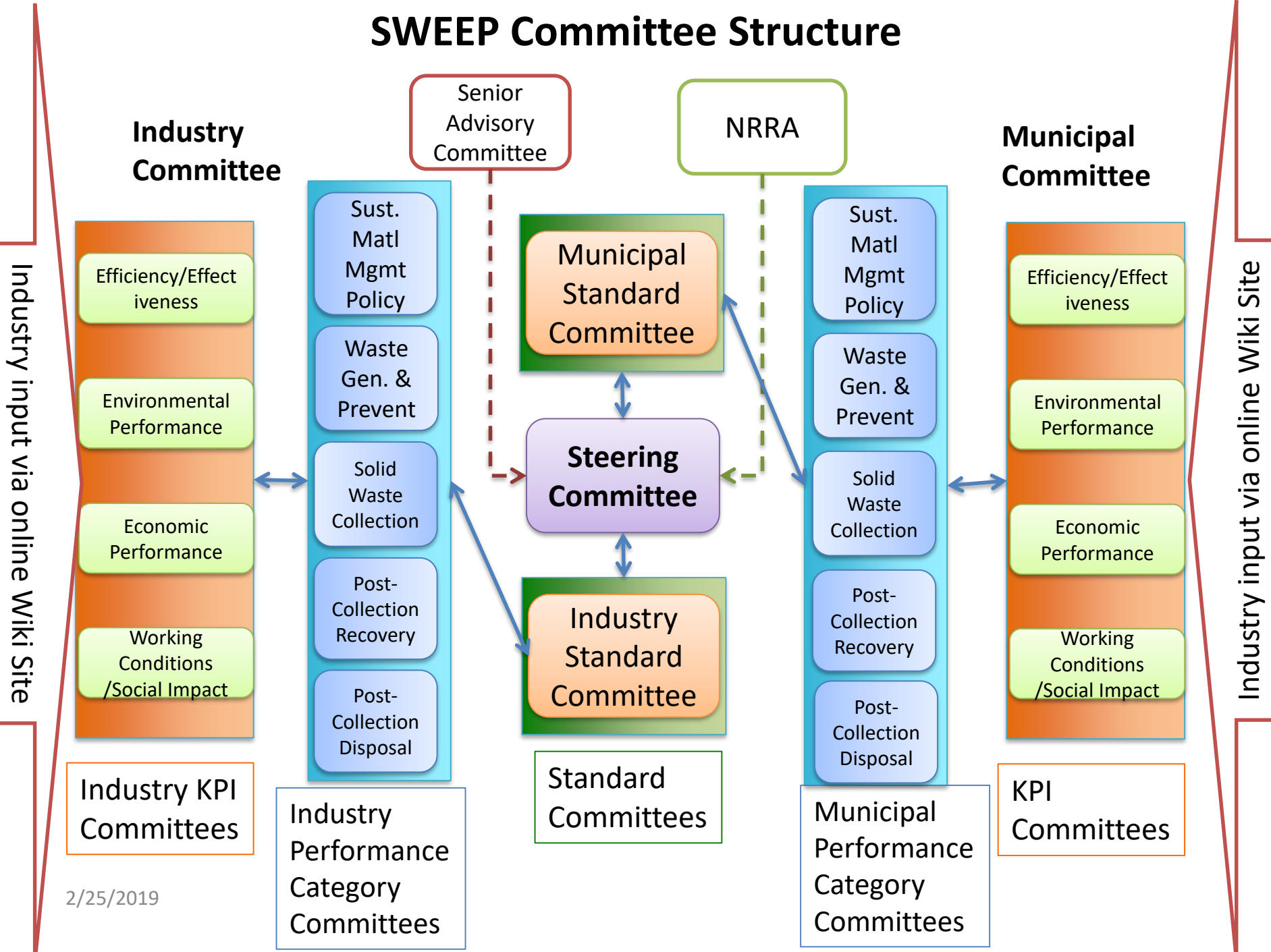
Industry KPI Committees

Industry Performance Category Committees

Standard Committees

Municipal Performance Category Committees

KPI Committees



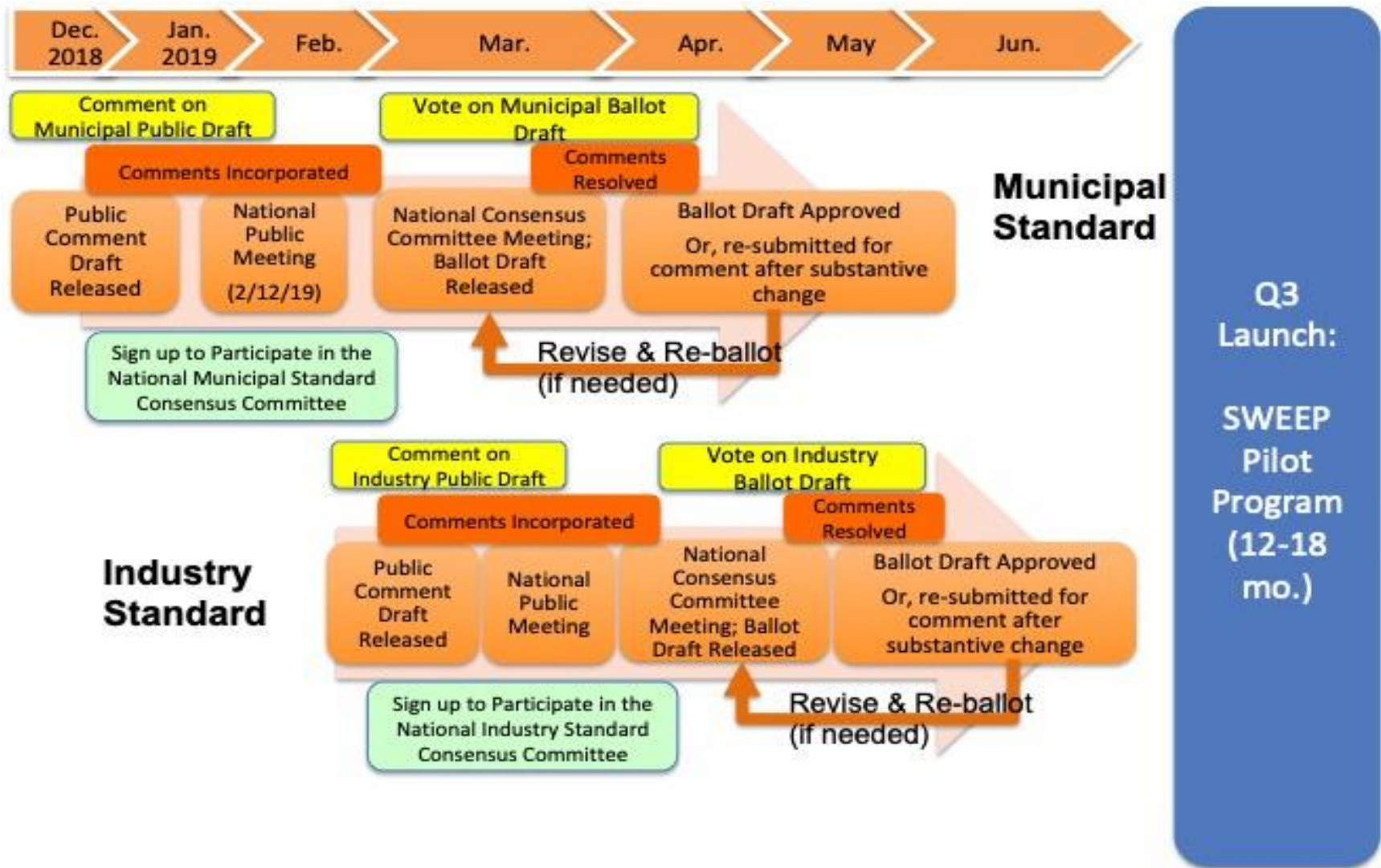
SWEEP CONSENSUS PROCESS



www.SWEEPStandard.org



Anticipated SWEEP Development Timeline



SWEEP Consensus Process

- **SWEEP is the Draft National Consensus Solid Waste Environmental Excellence Standard** for municipalities and industry through an ANSI Accredited Process, and was released for public comment in January 2019.
- **SWEEP Approval requires a 30-day written ballot vote.** Ballot votes can be: approve, approve with comments, abstain, and negative with comments.
- The SWEEP Executive Committee acts as Officers or executive committee of the Full SWEEP National Consensus Committee.
- All Full Committee negative votes must be in writing, germane and persuasive to the full Committee with the Steering Committee making recommendations.



SWEEP Consensus Process

- **Any interested and affected party can vote** and join the SWEEP Full Consensus Committee which has exclusive jurisdiction for all Standard content, approvals, and amendments. The consensus process is transparent and democratic protecting Constitutional due process rights.
- All negative votes by Committee Members must be resolved. If substantive changes to the Standard are made as a result of the Ballot vote, the Standard must be re-balloted to protect due process rights.
- Consistent with ANSI Essential Requirements, all negative votes from any member of the public who are not Members of the SWEEP Full Committee, are treated as comments by the Committee and may or may not be incorporated based on merit, and any appeals to the approved Standard are for procedural errors only, not Standard content.



SWEEP Consensus Process

- **The first step in the SWEEP approval process** is the Feb. 12, 2019 National Public Meeting to review the SWEEP Draft that is open to all interested and affected parties.
- The SWEEP Full Committee Meeting will be scheduled 30 days from the National Public Meeting to consider further comments / Draft Standard changes, and send SWEEP out for 30 day ballot vote.
- The Industry Trade Association Policy as approved by ANSI is in effect for this Standard and all SWEEP Full and Steering Committee Meetings

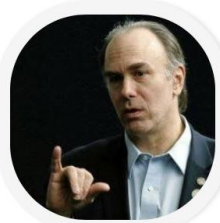


Steering Committee Members



Susan Robinson
CO-CHAIR

Waste Management



Rob Watson
FOUNDER, CO-CHAIR

EcoHub LLC



Bob Gedert
COMMITTEE MEMBER

RRS; NRC



Adam Gendell
COMMITTEE MEMBER

GreenBlue; SPC



James Thompson Jr.
COMMITTEE MEMBER

Waste Business
Journal



Duncan Watson
COMMITTEE MEMBER

City or Keene,
NH; NRRA



Michael Mignano
COMMITTEE MEMBER
International
Brotherhood of
Teamsters



Michael Durfor
EXECUTIVE DIRECTOR
NRRA



SWEEP Standard Committees

Industry Standard

| Member Name | Company |
|---------------|---------------------|
| Will Flowers | Winter Brothers |
| Sarah Bolton | Blue Ridge Services |
| Susan Moulton | Waste Management |
| Don Gambelin | Compology |
| Bob Cappadona | Casella |
| Bill Keegan | Dem-Con. Company |
| Will Zurier | Facilitator, SWEEP |

Municipal Standard

| Member Name | Municipal Entity |
|---------------|--|
| Jeff Azano | Wellesley MA |
| Ms. Kim Braun | Culver City, CA |
| George Payba | Los Angeles |
| Annie White | Washington DC |
| Jordan Fengel | State of Texas Alliance for Recycling (STAR) |
| Heidi Sanborn | National Sustainability Action Council |

SWEEP Categories

Performance Categories:

- Sustainable Materials Management Policy (SMMP)
- Waste Generation & Prevention (WGP)
- Solid Waste Collection (SWC)
- Post Collection Recovery (PCR)
- Post Collection Disposal (PCD)

Key Performance Indicators (KPIs) in:

- Efficiency/Effectiveness
- Environmental Performance
- Economic Performance
- Working Conditions/Social Impact/Public Participation



Seeking New Committee Members

- Municipal Committee (2 new members)
- Industry Committee (2)
- Municipal Technical Committees
 - Sustainable Materials Management Policy (SMMP) (3-5)
 - Waste Generation & Prevention (3-5)
 - Solid Waste Collection (3-5)
 - Post-Collection Recovery (5-7)
 - Post Collection Disposal (5-7)
- **If interested, please send letter of interest and CV to: info@sweepstandard.org**



COMMENTING & BALLOTING PROCESS



www.SWEEPStandard.org



Balloting & Commenting Process

- Comments on the current Public Comment draft of the Municipal Standard will be open through March 3
- Accepted comments incorporated into the Ballot Draft of the SWEEP Municipal standard
 - Ballot draft release: mid-late March.
- National Consensus Committee Meeting in CA late April
- Ballot draft will be commented and voted on for 30+ days
 - Only members of the Consensus Committee may comment and vote after March 1.
 - Sign up at www.sweepstandard.org

SWEEP CRITERIA OVERVIEW



www.SWEEPStandard.org



Anatomy of a Good Credit

- Clear
- Concise
- Doable / achievable
- Documentable
- Verifiable
- Objective
- Meaningful



Credit Structure

- **Credits**

- are defined actions designed to meet the goals of SWEEP that are documented by entities seeking certification and verified by an independent certification body approved by SWEEP. At the outset, SWEEP may perform the certification activity.

SWEEP Credits are Structured as Follows:

- **Intent:**

- States the underlying purpose of the credit (the “Why”).

- **Requirements:**

- 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.



Municipal 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.

- **Efficiency and Effectiveness KPI Credits**
 - Comprehensive Sustainable Materials Management Policy
 - Materials Processing Infrastructure and Market Development Policy
 - Adoption of Diversion Recycling Goals
 - Regular Waste Characterization and Generation Study Policy
 - Advanced Comprehensive Sustainable Materials Management Policy



Municipal Sustainable Materials Management Policies (SMMP)

- **Environmental Performance KPI Credits**
 - Solid Waste Greenhouse Gas Footprint Reduction Policy
 - Source Reduction Policy
- **Economic Performance KPI**
 - Market-Based Waste Management Program Policy
- **Public Participation KPI**
 - Policy for Comprehensive Public Participation in Solid Waste Management Program Development

Municipal Waste Generation & Prevention (WGP)

Overview: Data collection and analysis of the effectiveness and efficiency of waste generation and of waste prevention programs.

- **Efficiency and Effectiveness KPI Credits**
 - Measuring and Calculating Waste Generation & Source Reduction
 - Municipal Source Reduction Programs
 - Food Rescue Programs/Projects



Municipal Waste Generation & Prevention (WGP)

- **Environmental Performance KPI Credits**
 - Liter Prevention and Reduction Infrastructure
 - Environmentally Preferable Product Procurement
 - Sustainable Capital and Utility Procurement
- **Economic Performance KPI Credits**
 - Economic Assessment of Solid Waste Management Program
- **Working Conditions/Social Impact KPI Credits**
 - Education Programs on Waste Reduction and Reuse
 - Litter Education and Engagement
 - Household Hazardous Waste Reduction and Engagement Program
 - Public and Worker Education and Training

Municipal 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.

- **Efficiency and Effectiveness KPI Credits**
 - Alternative Collection Options for Recyclable and Compostable Products and Materials



Municipal Solid Waste Collection (SWC)

- **Environmental Performance KPI Credits**
 - Energy Efficient and Low Emissions Collection
 - Alternative Fueled Solid Waste Collection Vehicles
 - Household Hazardous Waste Collection Infrastructure
 - Minimizing Emissions from Transfer Stations
- **Economic Performance KPI Credits**
 - Solid Waste Collection Cost-Effectiveness
- **Working Conditions/Social Impact KPI Credits**
 - Commitment to Safe Working Conditions
 - Collection Safety Protocols and Training



Municipal Post Collection Recovery (PCR)

Overview: The Post-collection Recovery category covers practices aimed at avoiding landfilling of solid waste by preserving and utilizing its residual material value. There are several methods of recovery including mechanical recycling, chemical recycling, composting, energy recovery, in addition to emerging novel recovery methods.

- **Efficiency and Effectiveness KPI Credits**

- Material Recovery Optimization
- Minimize Contamination Rate
- Producing High Quality Products from Recovered Organic Materials
- Anaerobic Digestion Infrastructure
- Efficient Commodity/Output Supply Chain



Municipal Post Collection Recovery (PCR)

- **Environmental Performance KPI Credits**
 - Energy Efficient and Low Emissions Operations
 - Clean and Efficient Material Recovery and Organics Processing Facilities
 - Alternative Fueled Rolling Stock
 - Minimizing Emissions from Transfer Stations
- **Economic Performance KPI Credits**
 - Solid Waste Collection Cost-Effectiveness
- **Public Participation KPI Credits**
 - Good Neighbor Policy
 - Post-Collection Recovery Facility Safety Protocols and Training
 - OSHA-Compliant Material Recovery & Organics Processing Facilities

Municipal Post Collection Disposal (PCD)

Overview: The Post-collection Disposal category outlines best practices aimed at the disposal of non-recovered waste.

- **Efficiency and Effectiveness KPI Credits**
 - Thermal Conversion Technology Efficiency



Municipal Post Collection Disposal (PCD)

- **Environmental Performance KPI Credits**
 - Alternative Fueled Rolling Stock
 - Minimize Thermal Conversion Emissions
 - Landfill Stormwater Management
 - Landfill Emissions Minimization
 - Effective Utilization of Recovered Methane
- **Economic Performance KPI Credits**
 - Solid Waste Collection Cost-Effectiveness
- **Working Conditions/Social Impact KPI Credits**
 - Post-Collection Disposal Facility Safety Protocols and Training
 - OSHA-Compliant Facilities
 - Good Neighbor Policy

Municipal Standard Innovation

- 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” category serves to acknowledge extraordinary development, and/or implementation of innovative mechanisms related to solid waste management.



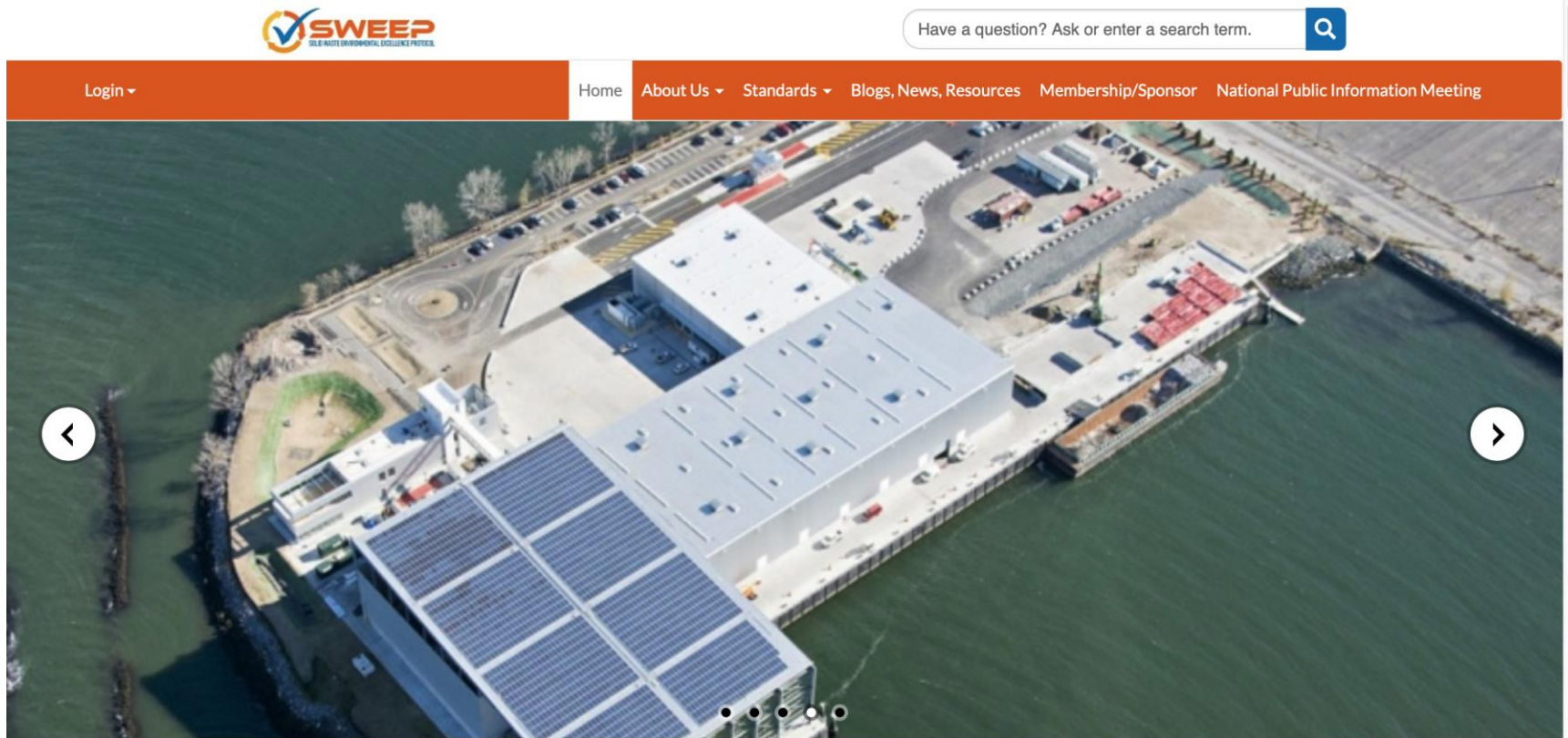
SWEEP TOOLS



www.SWEEPStandard.org



SWEEP Website: www.SWEEPStandard.org



WELCOME TO SWEEP
(SOLID WASTE ENVIRONMENTAL EXCELLENCE PROTOCOL)



www.SWEEPStandard.org



SWEEP Website (cont.)

- Visitors from 165 countries
 - 80% YOY growth in traffic over 3 years
- Industry content—Blogs
 - Guest content welcome
- Text of Municipal Standard posted
 - Industry language going up soon
- Ability to comment on the standard
 - Effective participation will lead to committee invitation

SUPPORTING SWEEP



www.SWEEPStandard.org



Municipal Membership Categories

| Municipal Entity | Membership Contribution | Population |
|------------------------|-------------------------|----------------|
| State/Federal Agencies | \$250 | |
| Small City/County | \$250 | < 50,000 |
| Medium City/County | \$500 | 50,000-500,000 |
| Large City/County | \$1,000 | >500,000 |



Industry Membership Categories

| Organization | Membership Contribution | Revenues |
|----------------|-------------------------|------------------------------|
| Non-Profit | \$250 | |
| Small Company | \$250 | < \$2.5 million |
| Medium Company | \$2,500 | \$2.5 million – \$25 million |
| Large Company | \$5,000 | >\$25 million |

Opportunities for SWEEP Members

- Membership covers all employees of a company/jurisdiction
- Participate on committees
 - Maximum of 3 participants of any member in committee structure
- Comment through the website portal
- Become a pilot jurisdiction or company
 - Pilot scheduled for launch Q1-2 2019



Benefits of Membership

- Improve performance of solid waste programs and services
- Demonstrate environmental and economic leadership & commitment
- Improve current practice and implement best practices in sustainable materials management and zero waste
- Lead change towards an environmentally optimized sustainable materials management system
- Attain third-party certification and validation of environmental performance
- Attract and retain the best people
- Build social responsibility brand
- Participate in the development of a cutting-edge global standard
- Have access to the most current research and insider information
- Attend strategic networking and collaboration opportunities with other SWEEP members and industry thought leaders
- Vote in and be considered for the SWEEP Board of Directors elections
- Achieve recognition for outstanding contributions in the field of sustainable materials management through an annual awards program





Thank You!

**To Join or For more
information:
info@SWEEPStandard.org**