I. PROPOSED SUSTAINABLE MATERIALS MANAGEMENT (SMM) ROAD MAP FOR NRC

A. BACKGROUND

In an effort to illuminate and elevate the issues around Sustainable Materials Management (SMM) to the forefront of national policy and create a plan of action to move SMM forward, the National Recycling Coalition (NRC) organized the first ever SMM Summit on May 12-13, 2015 at the University of Maryland, College Park, MD. More than 130 individuals representing a diverse set of stakeholders came together to discuss the challenges and opportunities around SMM and strategize how the NRC network relates to and can support implementing SMM nationally.

The SMM Summit dialogue and participant-submitted white papers\(^1\) generated hundreds of suggestions and concepts that NRC will use to facilitate the development of a National Recyclers+\(^2\) SMM Action Plan (Action Plan). The volume of suggestions, along with the importance of the issues and the magnitude of the job make it imperative that NRC works in collaboration with all interested parties and stakeholders to develop a consensus on the recommendations for an Action Plan.

While facilitating the development of this consensus Action Plan, NRC will implement this Strategy as an internal work plan which will continue to support recycling and Recyclers+, various SMM initiatives utilizing existing NRC assets and tools, and obtaining additional resources to grow the SMM program over the next 24 months. NRC will continue collaborating and forming partnerships to support these efforts, as well. Ultimately NRC’s work will focus on the role of Recyclers+ in SMM, complementing and informing broader SMM initiatives.

Recyclers+ benefit from being part of an overall sustainable materials management strategy. Reuse, recycling, composting and other downstream activities are critical to any SMM Strategy. There are many benefits that downstream processes confer, including conservation of natural resources and the return of resources back into the production process. In addition, Recyclers+ are involved in a whole host of activities, organizations, programs and businesses that create the infrastructure around using an item more than once, thus extending the life of the initial resource. Some Recyclers+ focus on waste prevention (also called source reduction), the most preferred method in the solid waste hierarchy adopted by EPA and many states. Waste prevention involves the avoidance or reduction of waste

\(^1\) For white papers and SMM Summit summary documents go to http://nrcrecycles.org/whitepaperguidelines/

\(^2\) Recyclers + refers to professionals broadly involved with reuse, recycling, composting, anaerobic digestion, and extended producer responsibility.
through changes to how much products are purchased and used, as opposed to managing discards. More resources are saved, and negative environmental impacts avoided, through prevention than through other methods of downstream activity. While NRC’s efforts to support Recyclers+ have traditionally focused on downstream activities, SMM gives NRC’s stakeholders an opportunity to seek out upstream solutions, many of which will also benefit downstream activities. Focusing on SMM strategies, such as design and production upstream, could create more innovation and technological advances in new product manufacturing that leads to better and more environmentally-sound, cost-efficient and effective options for reuse, repair, recycling and composting downstream. Education, a key role of NRC since its inception, also drives the best consumer purchases and best management practices to support positive upstream choices. Therefore, another critical role of NRC is to support and enhance the domestic infrastructure for reuse, recycling and composting efforts. Building capacity among Recyclers+ professionals in SMM, along with new players, new tools and resources will be critical to NRC’s relevance and success.

The SMM Summit leaders propose the following strategy to develop a consensus on the recommendations for a National Recyclers+ SMM Action Plan and to continue NRC’s work on SMM. This Proposed SMM Strategy, once adopted by the NRC Board, will guide the work of the NRC in SMM.

Based on the National Recycling Coalition’s past efforts, the goal of the NRC SMM Strategy is to focus NRC efforts on initiatives that fall within the organization’s principles, core knowledge and expertise. The NRC will engage in activities, that fall within its greatest areas of influence and continue to concentrate downstream, as well as upstream. The NRC will bring together diverse partnerships, as well as engage in the activities of other groups working to advance SMM. The following illustrates priorities for NRC’s SMM efforts:

**Scope of NRC Role in SMM**

- Rethink: Avoid Consuming and Wasting
- Source Reduction: Reduce Amount and Toxicity of Materials Used in Manufacture
- Redesign: Design for Reuse, Recycling and Composting
- Market Development: Support and Enhance Infrastructure for Reusable and Recyclable Materials
- Consumer Behavior: Reduce Consumption, Buy Reuse-, Recycled- and Compost-based Products and Services
- Waste Prevention: Reduce Amount and Toxicity of Materials Used by Consumers
- Reuse: Used, Reusable, Repair, Repurpose, Upcycle
- Recycle: Commodity Recycling, Organics Recycling/Composting
B. Vision of NRC SMM Strategy:

The vision of the NRC is: Waste reduction and sound management practices for raw materials in North America lead to an environmentally sustainable economy.

Within this organizational vision, under the targeted SMM Program, the NRC will provide leadership for Recyclers+ in embracing and implementing SMM strategies.

C. Mission of NRC SMM Strategy:

The mission of the NRC is to partner with and facilitate activities between and among non-profit organization (NGOs), businesses, trade associations, individuals and government to maintain a prosperous and productive American recycling system that is committed to the conservation of natural resources.

Within this organizational mission, NRC’s SMM Program builds and strengthens the capacity of local, state, regional, provincial and national Recyclers+ organizations, businesses and communities to adopt and implement SMM policies, programs and facilities through communications, policy and program best management practices, professional training, peer-to-peer networking, SMM design and other collaborative efforts.

NRC’s Vision, Mission and 30 Guiding Principles articulate NRC’s values. Many of the recommended SMM activities have been areas of focus for NRC programs in the past and are consistent with the values that NRC has adopted to guide its policies and programs in the future.

D. Goals of NRC SMM Strategy:

1. Provide a consensus definition of SMM for the purposes of this program
2. Continue to engage Recyclers+, NRC’s affiliate organizations, and other SMM stakeholders
3. Recommend NRC’s efforts and activities during the first 24 months while writing a comprehensive National Recyclers+ SMM Action Plan
   Utilize existing NRC assets and tools
   Strongly support (i.e. funding and/or resources) expanded Recyclers+ SMM professional training
   1) National Standards Certification Board training program
   2) Other training options, workshops, webinars
   Strongly support Recyclers+ activities in this area
4. Recommend a process NRC should follow to facilitate the development of National Recyclers+ SMM Action Plan
5. Write a National Recyclers+ SMM Action Plan collaboratively with NRC network, Recyclers+ and other SMM stakeholders

---

3 Businesses means any size commercial enterprise or establishment be it corporation, partnership, LLC, S Corp,
4 See: http://nrcrecycles.org/about/our-mission/
E. **Milestones of NRC SMM Road Map - Months 1 – 24**

Throughout the 24-month period, the SMM efforts will be adjusted to ensure that the highest priority efforts are being undertaken, and that new opportunities not known at the time of the creation of this Strategy are incorporated and prioritized. A full analysis will be made of the progress at the end of Month 24 to determine success and opportunities for improvements and enhancements. Beyond the first 24 months, NRC will be able to use the foundation built during the start-up phase to continue to drive policy, fill gaps and service the needs of its membership and partners.

1. Reach a consensus definition of SMM
   a. Highlight SMM definition options
   b. Recommend one SMM definition for NRC to adopt
2. Focus on education, training, policy initiatives, identifying and compiling needed resources
3. Continue to Engage Recyclers+, NRC affiliates and SMM stakeholders
   a. SMM Summit attendees (including engaging those who volunteered to help more)
   b. SMM Summit Advisory Committee
   c. NRC Policy Committee
   d. NRC Recycling Organizations Council (affiliate organizations)
   e. Recycling Organizations (ROs) that did not attend
   f. Non-NRC affiliate RO’s
   g. NRC’s current and past Board members
   h. The Recycling Partnership
   i. Leading SMM Businesses (including Retailers and Manufacturers)
   j. Members of the Media, including Resource Recycling
   k. Government
   l. Trade Associations
   m. Academia
4. NRC’s efforts and activities during the first 24 months while writing a comprehensive National Recyclers+ SMM Action Plan (Action Plan) will include the following tasks. These tasks are recommended at this time based on the fact that volunteer leaders of the NRC Board, members, and stakeholders have come forward to lead and assist in implementing these tasks. These will be coordinated by the NRC SMM Committee on a volunteer basis, supported by existing NRC staff and a new SMM Program Manager as directed by the NRC Board and NRC President.
   a. Conduct a Roundtable for ROs and Local Communities to engage stakeholders in moving from downstream management to a shift to SMM, particularly focused on the areas of:
      1) Infrastructure (collection and processing)
      2) Communications, Education and Outreach
      3) Policies
   b. Host NRC SMM Webinars – possible topics but not limited to the following:
      1) Background on SMM (EPA)
      2) How SMM differs from traditional national, state, and local recycling focus
      3) Green Finance
      4) How businesses have transitioned to SMM
      5) How communities have transitioned to SMM
6) How ROs can transition from recycling focus to SMM based on Oregon model
7) How State governments environmental policy can shift to SMM based on Oregon model
8) How college and universities have transitioned to SMM (Campus Council)
9) Promote three webinars NRC already broadcast
10) Solicit other ideas from Recyclers+ and other SMM Stakeholders
c. Pursue North American Industry Classification System (NAICS) codes for Recyclers+
d. NRC SMM Google group or Listserv
e. Organize SMM Mini-Summits
f. Organize SMM Founders Council
g. Organize SMM Recyclers+ Design Roundtables
i. Prepare a User’s Guide to LCA for NRC members including data collection and gathering, defining boundaries, product design and product end of life management
j. Partner with universities to:
   1) Develop funding plan for enabling university research and development programs to address problem materials, product design and recycling sector innovation.
   2) Support research into new technologies in the use of recyclable materials in manufacturing.
   3) Facilitate campus workshops and training
   4) Expand intra-collegiate and external college and university SMM networks.
   5) Offer ratings, standards and resources that campuses and similar institutional facilities can use to plan, implement, measure, report, compare, and progress with.
   6) Fund and promote student scholarships and internships for training in SMM.
5. The following efforts and activities are recommended to also be pursued if individuals agree to lead and assist them after the adoption of this Strategy.
a. Engage NRC existing assets in SMM – identify roles
   1) Recycling Organization Council (ROC)
   2) National Standards Certification Board (NSCB)
   3) NRC Campus Council
   4) Jobs through Recycling Task Force
      a) Make the economic case for SMM
   5) Restart Buy Recycled Business Alliance
b. Promotion strategies
   1) NRC Newsletter articles that ROs could include in their newsletters
   2) NRC SMM Speakers Bureau and proposed topics for those speakers to be considered for conferences, workshops, seminars, webinars of ROs and Recyclers+ and other SMM stakeholders
   3) Develop NRC’s SMM Social Media presence
   4) Enhance NRC’s SMM Website Resources
      a) Model policies, ordinances, laws and regulations
      b) Link and share other websites and social media
   5) Highlight business case for SMM on website
c. Organize SMM Summit 2

d. Promote SMM Certification and Training Programs, such as:
   1) Cradle to Cradle’s Product Certifications
   2) How2Recycle
   3) Recycle Across America
   4) Reuse Institute’s Master Reuser™ Training Program
   5) US Composting Council’s Certified Composter™ Training
   6) Institute of Scrap Recycling Industries (ISRI) Recycling Industry Operating Standards (RIOS)™ Training

e. Work with others to create an open Life Cycle Analysis (LCA) resource clearinghouse focused on materials and products

f. Establish a resource clearinghouse of model SMM programs and policies

g. Organize local, regional, state and national SMM workshops and/or seminars with affiliate support
   1) Members and stakeholders
   2) Key public officials

h. Prepare a User’s Guide to SMM LCAs for NRC’s members

i. Help seek funding for one or more SMM Research and Development Centers with the EPA Pollution Prevention Network

j. Coordinate with and engage Federal Agencies (e.g., EPA, Sustainability Office (old OFEE), Commerce, Defense, Agriculture, Labor, Education, Energy)

II. DEVELOPING NATIONAL RECYCLERS+ SMM ACTION PLAN

A. Process for Drafting National Recyclers+ SMM Action Plan

The next step is to draft an NRC Recyclers+ SMM Action Plan (Action Plan), focusing on issues raised during the SMM Summit process. The framework utilizes issues-based planning concepts since the SMM Summit process identified myriad goals, objectives, actions and issues arranged in topic areas.

The Day 1 SMM Summit report lists 9 “takeaways” that are primarily objectives and actions without assigned roles or responsibilities. The SMM Summit report also produced 10 broad topics with between 1 and 14 ideas; totaling 69 ideas. Some of the ideas are goals, some are objectives, some are actions, and some issues.

The SMM Summit Program Subcommittee has reviewed and compared information from various discussions with the SMM Summit report. The Subcommittee now will compile an organized list of goals, objectives, issues, and actions (with roles and responsibilities) incorporating the ideas. This will provide a framework to begin discussing the Action Plan with other stakeholders.

The final draft National Recyclers+ SMM Action Plan should identify explicit roles and responsibilities, and provide monitoring and feedback to track progress and adjust strategies. Including these steps serves to clarify goals, objectives, issues and actions; and is a reality check against aspirations and resources.
1. NRC will launch a SMM Founders’ Council⁵ and secure other financial resources to hire a SMM Program Manager⁶ and help launch NRC SMM initiatives
2. NRC will issue RFP to solicit SMM Program Manager
3. NRC will hire SMM Program Manager
4. SMM Program Manager will work to draft National Recyclers + SMM Action Plan⁷ by:
   a. Summarizing ideas from SMM Summit and White Papers
   b. Describing how existing NRC programs support SMM
   c. Describing past NRC programs that could support SMM
   d. Working with NRC SMM leaders and Recyclers+ stakeholders to identify potential priorities and consensus areas
   e. Working with NRC SMM leaders and Recyclers+ stakeholders to identify issues requiring further input to identify priority and consensus
   f. Drafting, issuing and compiling surveys to obtain consensus
   g. Working with NRC SMM leaders and Recyclers+ stakeholders to organize Webinars to review key issues and approaches
   h. Encouraging ROs to have sessions at their conferences to discuss
   i. Working with NRC SMM leaders and Recyclers+ stakeholders to review key issues
   j. Completing Draft National Recyclers+ SMM Action Plan
5. NRC Board review Draft National Recyclers+ SMM Action Plan
6. SMM Program Manager revise Draft National Recyclers+ SMM Action Plan per input from NRC Board
7. NRC Board adopt National Recyclers+ SMM Action Plan

B. Draft Outline for National Recyclers+ SMM Action Plan
1. Background on SMM and what is needed to realize SMM goals
   a. What does SMM mean for Recyclers+
   b. What do Recyclers+ mean for SMM
2. Define role of NRC in SMM by identifying:
   a. Strengths and weaknesses of NRC role in Policy and Program Development
   b. Past Policy Successes of NRC
   c. Resources that could help NRC in this role – staff, Board, other volunteers, time, money
   d. Opportunities for NRC to participate on other group’s efforts (e.g., EPA’s Strategic Plan, McDonough Innovations, national stakeholder dialogs)

---

⁵ Composed of Supporters that will help fund NRC SMM initiatives.
⁶ Proposing to call this person SMM Program Manager, assuming that the SMM Program Committee, Board and others will continue to lead the effort to getting to consensus with support from this person. Until SMM Program Manager is hired, SMM Program Committee will lead the effort. An all-volunteer-led effort will result in a much more limited effort, with a duration of significantly longer than the 24 months estimated under a staff/contractor-run effort.
⁷ SMM Program Manager will also support other NRC’s SMM efforts, activities and opportunities that arise during the first 24 months, as time permits. The priorities for the SMM Program Manager will be directed by the NRC Board and the NRC President.
3. Identify roles for Recyclers+ and other SMM stakeholders
   a. Federal Agencies
   b. ROs
   c. State and local governments
   d. Businesses
   e. Campus Council and academia
   f. NGOs
   g. Trade associations

4. Issue areas to address (at a minimum, from report of Day 2 SMM Summit
   a. Sustain and grow the domestic infrastructure for reuse, recycling and composting
   b. Markets for recyclables, domestic and export
   c. Roadmap and Model Policies to help make decisions based on community characteristics
      (e.g., community size, tipping fee levels, )
   d. Match programs with performance
   e. Begin dialog with business, designers, state and local governments on how to better design
      products considering life-cycle impacts.
   f. Incorporate SMM into climate action plans
   g. Certification/Training of people— not one solution but multiple options.
   h. Promote Certification of products to help businesses to have clear direction so not
      challenged as greenwashing under FTC Green Marketing Guidelines (e.g. support for
      How2Recycle label)
   i. Best practices and resources – model ordinances/model contracts
   j. Educating on upstream and downstream
   k. How to launch initiatives with good information that will have an impact.
   l. Beyond Recycling: Reduce and Reuse
   m. Metrics, Measurement and Definitions (including LCAs)
   n. Recycling integrity, quality and highest and best use
   o. General SMM Principles
   p. Political Will
   q. Economic/ Jobs/ Market Development
   r. National Legislation
   s. Public Messages
   t. Zero Waste
   u. Introduce new SMM Graphic (developed by John Davis)
   v. Existing NRC programs that support SMM
      1) NRC Campus Council
      2) National Standards Certification Board
      3) Recycling Jobs Task Force
      4) NRC Awards Program (could recognize SMM leaders)
      5) Website
      6) Newsletter
   w. Past NRC programs that could support SMM
      1) Buy Recycled Business Alliance
      2) Source Reduction Technical Council (rename Reduction and Reuse Technical Council)
3) National Resource Recovery Advisory Council (with Al Gore and other luminaries)
4) National Recycling Economic Information Project

5. Timeline and Budget
6. Appendices
   a. Summary of White Papers
   b. Summary of SMM Summit Proceedings
   c. SMM Resources List

Acknowledgements

Thank you to all those who provided input and assistance in the development of this SMM Strategy, including the NRC Board of Directors, NRC’s Affiliated Recycling Organizations and their members, government agencies, regional recycling organizations, SMM Summit Advisory Committee, SMM Summit attendees and many others. We especially thank the SMM Program Sub-Committee who have worked tirelessly to prepare this Strategy and to incorporate the vast and varied input received on earlier drafts, including: John Davis, MaryEllen Etienne, Marie Kruzan and Leanne Spaulding. The SMM Program Sub-Committee looks forward to working with all of NRC stakeholders to continue this critical effort.

Gary Liss and Julie L. Rhodes, SMM Committee Co-Chairs