Introduction

The State of Texas Alliance for Recycling’s (STAR) Mission is to advance recycling through partnerships, education, and advocacy for the benefit of Texas. STAR is a 501-C3 non-profit advocacy organization whose membership has approximately 230 people representing government, private industry, educational, and not-for-profit organizations that have an interest in advancing recycling in Texas.

The State of Texas Alliance for Recycling is governed by its Mission, bylaws, and Guiding Principles. The Board of Directors seeks to establish appropriate actions for the organization in fulfilling its Mission by periodically updating the Strategic Plan. STAR’s previous Strategic Plan was created in 2008 and updated in 2012 and 2016. The 2016 Strategic Plan sought to capture the momentum built by the successful Texas Recycling Data Initiative (2015), and the subsequent adoption of HB 2763 that directed the Texas Commission on Environmental Quality (TCEQ) to conduct the 2017 Study on the Economic Impacts of Recycling (SEIR). STAR’s 2020 Strategic Plan continues to build upon previous efforts and the adoption of SB 649 that directs the TCEQ and Governor’s Office of Economic Development to create a Texas Recycling Market Development Plan by 2021.
State of Recycling in Texas

There are quantifiable economic benefits of recycling resulting in, many recycling-based businesses operating profitably in Texas. The 2015 Texas Recycling Data Initiative (TRDI), facilitated by STAR, was the first statewide study since the 1990s to capture the quantity of recycled materials at the Materials Recovery Facility (MRF) level. The 2017 Study on the Economic Impacts of Recycling (SEIR) showed that more than 9 million tons of materials were recycled from Texas municipal solid waste sources in 2015, contributing more than $3.3 billion to the Texas economy and supporting more than 17,000 jobs.¹ Additionally, SEIR indicates even more recyclable material can be recovered and contribute to economic growth in Texas.

¹ The Study on the Economic Impacts of Recycling; July 2017, Burns & McDonnell.
Other local and regional recycling studies show the same trend. A regional recycling survey conducted by the North Central Texas Council of Governments (NCTCOG) determined that the North Texas region’s recycling activity in 2019 resulted in over 435,114 tons of recyclables captured. While this was a substantial amount of materials recovered, NCTCOG determined that there was still an even greater opportunity to grow its recycling based business activity as over 845,868 tons of recyclables valued at over $122 million were landfilled in 2019, according to the study’s author.

Texas has a recycling rate of approximately 22%. This figure includes construction & demolition (C&D) and yard debris which would indicate an even lower percent figure for recycling excluding C&D debris. The U.S. EPA estimates that the U.S. MSW recycling rate in 2017 was 35.2%, including yard debris. Inclusion of C&D debris would likely have made this figure higher. Given the difference in these estimates, there is a substantial amount of recoverable and marketable material remaining in the Texas waste stream that, if captured, could result in additional economic output and jobs.

While urban areas have basic residential recycling infrastructure largely in place, recycling infrastructure is lacking in rural areas, for many multi-family residents, and for many commercial and institutional establishments. Even when recycling infrastructure is present, participation and materials capture rates are lagging. There is a need for greater public awareness of recycling opportunities and benefits, and a need to increase recycling participation. In addition, there are materials in the waste stream that pose public and environmental health concerns that need better waste management infrastructure, i.e., pharmaceuticals, electronics, and household hazardous waste.

**Economics of Recycling: Market-Driven System**

Recycling end markets are volatile. The recycling industry was still adapting to the effects of China’s “National Sword” policy when the COVID-19 pandemic occurred. When commodity prices are depressed it creates financial pressures for processors as well as local governments – especially those which structured their contracts and budgets with the assumption that pricing would remain strong. Government recycling programs are searching for means of addressing budget constraints and decreased tax revenues while keeping recycling services affordable. Processors are managing quality issues, increased costs quality material streams, limited markets materials, and plastic pricing at a low due to volatile oil prices.

While in some areas of the United States, adopted policies have created infrastructure and related programs, Texas lags many states with respect to adoption of such policies. Landfilling is cheap in Texas, and recycling is regarded by many as an optional public service. When market value for recyclables is low, questions arise about the validity of recycling. At the same time, companies and governments across the globe work to address climate change and how to transition to a circular materials economy in which material resources are continuously recaptured for ongoing use and do not leave the system as waste. Many local governments and corporations are developing zero waste plans and implementing

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2 MRF Acceptable Materials Workshop; January 23, 2019, Burns & McDonnell Inc.
broader sustainability strategies. These organizations recognize recycling, recycling-related infrastructure, and enterprises as essential to transitioning to a circular economy.

Even amidst a pandemic and global changes to the way business and society operates, there are opportunities in that our industry supports and plays a role in essential services. The recycling industry provides feedstocks such as paper, metals, and plastics for manufacturers to use when making new products like boxes, containers, masks, and more. STAR is meeting the industry’s needs to get high-demand materials to manufacturers in Texas, and beyond, by working with municipalities and processors to facilitate a more circular material supply chain.

**STAR’s Vision**

It is the vision of STAR that Texas becomes a state in which:

- Access to recycling and composting opportunities is universally available, whether at home or away from home;
- The transition to a circular economy is supported through advancing recycling and beneficial use and reuse of materials in Texas;
- Recyclable and compostable materials are captured in a clean and marketable form;
- End markets exist to consume the recovered materials in making new products;
- Safe and reliable infrastructure exists to manage special waste items such as electronics, paint, and pharmaceuticals; diversion from landfills of these special wastes is encouraged; and product stewardship captures these materials in the circular economy, where appropriate;
- Texans are informed about these opportunities and motivated to recycle;
- Recycling professionals receive the information and data they need to be successful in their respective roles;
- Policy and financing mechanisms are in place to support recycling expansion in a way that reflects sustainability principles and is supported by industry and government alike;
- The economy prospers and jobs are created as a result of recycling-based business activity;
- The environment thrives because of sustainable materials management practices.
STAR Strategic Plan

The STAR Board of Directors, with member input, has identified strategies to guide the work of STAR in support of achieving the Mission and Vision.

I. **Enhance Recycling Infrastructure**

   STAR will support recycling infrastructure development to improve access to recycling opportunities in Texas. STAR’s will support the work of member organizations who are directly engaged in infrastructure development. Current strategies planned are as follows:

   a. Continue work with the state and other stakeholders to gather data and monitor recycling system performance in Texas and identify opportunities to address system gaps and deficiencies.
   
   b. Work with STAR councils, and other organizations, to assist small and rural communities, multi-family residents, schools, commercial and institutional establishments, and public places in developing and expanding recycling programs and infrastructure.
   
   c. Establish regional workgroups and committees to address specific infrastructure needs and issues.

II. **Address Materials Quality Concerns**

   For recyclable materials to have value they must meet the feedstock specifications of end users. Many of today’s recycling systems in Texas struggling to meet these specifications due to contaminants in incoming materials, including processing a evolving array of packaging types in the marketplace. STAR will work to address this challenge as follows:

   a. Produce and disseminate communication materials for use by STAR members aimed at informing participants on what is/is not recyclable/compostable and the proper way to prepare materials for set out or drop off.
   
   b. Partner with industry stakeholders to assist with facility upgrades to improve materials sorting and removal of contaminants.

III. **Enhance Recycling Market Development**

   Recycling requires end market demand for recovered materials, and healthy and viable recycling-based businesses in Texas are central to STAR’s mission. There is ample opportunity for developing additional end markets to consume recyclables generated in Texas, as well as other states. Recycling based businesses provide jobs and tax revenues in addition to consuming materials that might otherwise be wasted. STAR will continue to promote the growth of recycling-based business activity in Texas, while showing the economic benefits associated with recycling. The following strategies have been identified in support of recycling market development and enhancement:

   a. Promote businesses that use recycled content for their products and bring manufacturing business into the state and region; encourage markets to develop in Texas.
   
   b. Promote the importance of recycling, economic benefits and “success stories” associated with the importance of recycling from a financial and business perspective.
c. Encourage public and private entities to implement environmentally preferable purchasing policies.
d. Participate in completing the 2020-21 TCEQ Recycling Market Development project and encouraging participation by Texas recycling industry stakeholders.

IV. **Promote Recycling to the Public**
Successful recycling requires active participation on the part of individuals throughout Texas. STAR will work to improve the outreach and promotion capabilities of Texas recycling professionals and to support best practices with respect to communicating how, what, and why to recycle. Strategies planned for STAR implementation include:

a. Promote standardization of recycling messages, including promotion of a common set of materials for collection and industry recommended descriptions of those materials targeted for recovery.
b. Identify and communicate jobs creation and economic benefits of recycling to encourage investment in recycling, boost recycling participation, and support STAR policy advocacy work.
c. Utilize the STAR website as a resource for STAR members and others to find best practices information, while highlighting recycling business and community program successes.
d. Continue to promote the economic impact of recycling for the State of Texas. A key mission of STAR is to promote the continued growth of recycling within the State of Texas, while showing the economic benefits associated with recycling.

V. **Policy Advocacy**
Policies that support increased recycling are common to all states and local governments that have high recovery and recycling rates. Many such policies meet with broad stakeholder approval given the important role that recycling plays in the economy and meeting waste diversion goals. STAR intends to be active both at the state and local level in supporting policies that provide for recycling system improvements and provide incentives for increased materials recovery and recycling. Proposed policy advocacy strategies are as follows:

a. Advocate for funding mechanisms supported by industry and government to advance recycling and composting in Texas in accordance with sustainable materials management principles.
b. Support and promote regional and local policy strategies to increase recycling (e.g., PAYT, universal collection) by facilitating information sharing and best practices on successful local policy; support STAR members by providing resources or testimony for local issues if requested.
c. Advocate for data reporting requirements to better monitor recycling progress and activities in Texas.
d. Monitor state legislative activity and promote state policy development as deemed appropriate by STAR membership.
e. Advocate, and continue to educate, concerning the benefits and importance of product stewardship for difficult to manage materials (e.g., batteries, paint, and electronics).
VI. **Encourage Professional Development and Capacity Building**

Effective recycling systems depend on a workforce armed with up-to-date information. Central to the work of STAR is providing opportunities for STAR members, and Texas recycling professionals in general, to exchange information, receive training, and learn about best management practices. Strategies supporting this objective are listed below:

a. Manage with committee and volunteer support STAR’s annual Summit
b. Identify opportunities for other networking/educational events for industry representatives.
c. Identify and distribute best management practice tools for reuse, recycling, and materials management.
d. Host educational webinars for STAR membership and other participants as appropriate.
e. Manage with committee and volunteer support STAR Master Composter training and compost facility operator training (Compost Summit).
f. Host periodic topic-specific regional workshops and/or trainings.
STAR’s Organizational Plan

To achieve the Vision of STAR, the organization itself must be financially sustainable and have sufficient organizational capacity to effectively implement the strategies outlined herein.

Financial Sustainability

Currently STAR has limited reserve funding and relies on revenue from the annual summit event as a primary source of funding. Goals for achieving diversified financial sustainability for the organization, are as follows:

VII. Develop financially stability by diversifying funding sources:
   a. Secure more contractual and technical assistance work either directly or via partnership with other organizations for the purpose of leveraging STAR resources while obtaining partner funding for projects and programs of mutual benefit.
   b. Obtain additional mission partners and increase partnership levels for existing partners, with a primary focus on businesses and those who join STAR as members. After representatives from these organizations become engaged as active STAR members, they will most likely be receptive to becoming STAR mission partners.
   c. Promote active involvement in STAR regional and topical councils and encourage those active in STAR councils to become STAR members.
   d. Work on strengthening the Councils. Work to increase the membership in the Business Council in particular, recognizing that Business Council members are potential future STAR mission partners and Summit exhibitors. Ensure that STAR Councils are involved in fundraising and have a “positive cash flow,” generating some level of funding to assist in promoting the STAR vision at the state level.
   e. Hold the annual Summit, with a focus on growing the number of exhibitors, as well as the number of attendees. When it is feasible to hold in person events, work to assure that all costs for meals breaks, and hospitality events are covered by sponsorships and/or other fundraising efforts.
   f. Over the next year, achieve a 5% growth in individual members, and 3% increase in mission partnerships. The number of individual memberships and mission partnerships will be documented prior to the start of the next fiscal year (July 1, 2020 – June 30, 2021) so a clear benchmark is in place.
   g. Establish a fundraising target for each of the Board member consisting of one mission partnership by the end of the second quarter of each year, with consideration of
government vs. private sector employees. The partnership should be a new partner or a level up from existing partnership (Foundation -> Pillar)

h. Conduct periodic fund raisers such as raffles and silent auctions to raise supplementary funding.

Organizational Capacity

a. Assure good organizational governance through selection of qualified board member candidates, new board member orientation, and adherence to STAR’s internal policies and procedures.

b. The STAR Board of Directors is a working board. Board members should perform not only strategic duties, but also partner with staff to fulfill management and technical functions. All members of the Board should strive to create time within their professional or personal obligations to fulfill their commitment to the Board by being present at all Board meetings and actively developing content outside these meetings to support STAR needs as they are identified.

c. Work to maintain qualified and dedicated staff, through addressing staff retention including appropriate compensation and provision of professional development opportunities.

d. Manage the business of STAR via sound recordkeeping and accounting practices and effective program management.

e. Provide opportunities for STAR members to participate in the work of the organization, to increase their engagement and stake in the organization and to cultivate future leadership in STAR’s Councils, and the Board.

f. Establish a continuous improvement plan to include setting performance metrics related to achieving STAR’s mission and evaluating the results of STAR programs and services on an annual basis. Utilize the evaluation results in developing STAR’s annual report to its members.