

TO: HENNEPIN COUNTY, MN
FROM: RESOURCE RECYCLING SYSTEMS (RRS)
DATE: NOVEMBER 2022
RE: ZERO WASTE PLAN ACTIONS - DRAFT

The following memorandum contains a listing and description of draft actions for consideration in the Hennepin County Zero Waste Plan. The recommended actions were developed using the data, analysis, and input amassed during the following project activities:

- Hennepin County baseline analysis
- Global scan of high performing zero-waste systems
- Community and industry stakeholder engagement
- Community group cohort input
- Hennepin County gap analysis
- Action planning member work groups

This memorandum is **not** the Zero Waste Plan, it is a listing of the actions that are being considered for inclusion in the plan.

ZERO WASTE ACTIONS

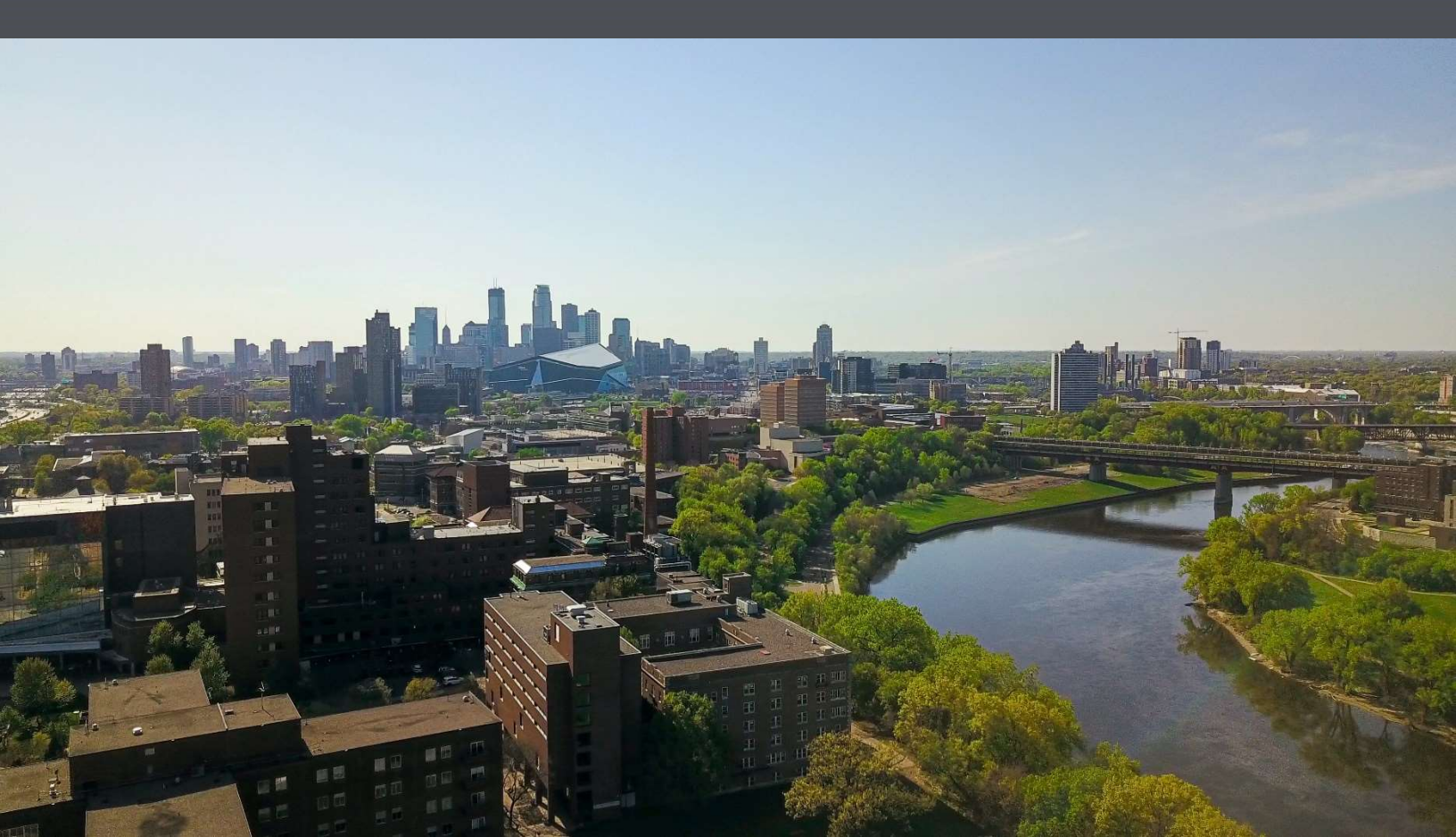
Hennepin County’s vision for zero waste is one in which all materials are designed to become resources for others to use to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. The key performance measure is diverting 90% or more of all discarded materials from landfills, incinerators, and the environment. The future zero-waste system will reduce racial disparities and advance equity for all residents of the county.

The recommended zero-waste aims and actions presented in this document were driven by community and industry stakeholder engagement, are technically and economically feasible, and were identified to maximize environmental and social benefits. The actions are organized around four core aims:

- Create a materials management system that reduces racial disparities and advances equity
- Expand the reach of county waste education, grants, and programs
- Adopt policies that accelerate the transition to a zero-waste future
- Implement programs to advance circularity, reduce waste, and support reuse

Figure 1: Zero-waste planning Core Aims





Aim: Create a materials management system that reduces racial disparity and advances equity

Throughout the zero-waste planning process, county staff, community members, and industry stakeholders identified the following communities as being unfairly burdened by the current system: Black, Indigenous and other people of color, low-income families, residents with disabilities, residents who live in cities with solid waste facilities, multifamily housing units or renters, areas with high rates of illegal dumping and litter, densely populated communities or by busy roads that experience more trash truck traffic, and areas affected by cumulative health impacts from multiple sources of pollution. Inequity in the system places unfair economic burdens or costs on some communities, results in uneven access to services and opportunities, and creates pollution that is unfairly borne by certain communities and neighborhoods. This includes the impacts that facilities such as the Hennepin Energy Recovery Center (HERC) have on their adjacent communities.

For the county to create an equitable zero-waste system, it is integral that all communities in the county are contributing equitably to the effort. If only a portion of the county has access to programs that lead to zero waste, or all the negative impacts of waste diversion are borne by a sector of the community, zero waste will not be achievable nor will the system be equitable. The aim of the following set of actions is to reduce disparities, improve equity and participation, and assure that future actions continue to promote equity in a zero-waste materials management system. It is important to note that these are not the only actions that are designed to address system inequities, and actions listed under other aims may also contribute to a more equitable system.

In total, there are 14 programs recommended to specifically address equity in the future zero-waste system. While all programs will be important in developing a fully functional system, the key recommendations in this section are:

- *Expand Drop Off Options*
- *Increase Access to Organics Recycling Options for Multifamily Residents*
- *Establish and Maintain Community Equity Panel*
- *Establish Milestones to Phase Out the use of HERC as County Approaches Zero-waste*
- *Expand Funding and Support for Community-Centric Solutions*

The full set of recommendations aimed at creating a materials management system that reduces racial disparity and advances equity is presented below.

ZERO-WASTE EQUITY AND ACCESS ACTIONS

The Hennepin County gap analysis identified lack of equal access to recycling, composting, and diversion options as a limitation to an equitable zero-waste system. While access was generally available for single family residents and the majority of businesses, significant gaps were identified in access for multifamily residents, particularly around organics recycling. Gaps were also identified for those without

easy access to transportation and to services beyond conventional recycling. Collectively, these gaps contribute to system inequities as diversion options are not equally available to all community members. The following set of actions seek to expand access to services, reduce inequities, and increase diversion.

System Need: Provide convenient and equitable access to recycling, composting, and other materials management services to all county residents.

A.1 EXPAND DROP-OFF OPTIONS

Evaluate locations of existing drop-offs in relation to areas with a high proportion of residents in multifamily, dense urban areas, rural areas with limited access to curbside, and for communities that do not have equal access to curbside services. Establish evaluation criteria to identify locations for investments in improved or expanded drop-off locations. Use partnerships, such as with libraries, city or county buildings, schools, and businesses to expand the number of drop-offs in county. Evaluate options to support (technical, financial, regulatory, other) neighboring businesses or properties that choose to consolidate and share services for recycling and composting (i.e., shared dumpster); consider allowing and providing financial incentives to those that share service with community to increase local access. Note that allowing shared dumpsters may require changes to local ordinances or regulations and will be a multiphase action. For existing drop-offs, look to expand the materials accepted to include a wider range of items, potentially including food waste.

A.2 INCREASE BULKY ITEM REUSE AND RECYCLING

Mobility, transportation, and lack of convenient access limit the ability for some communities and neighborhoods to keep large bulky items out of the landfill. Under this action, Hennepin County would work with cities, communities, and non-profit organizations in the county to increase collection and reuse opportunities for bulky items. Actions include expanding collection opportunities either at the curb or via expanded drop-offs, hosting or financially supporting drop and swap events, and supporting community led efforts to address transportation and expand access for multifamily residents with mobility barriers.

A.3 EXPAND COLLECTION AND DROP-OFF OPTIONS FOR HARD-TO-RECYCLE ITEMS

Expand collection opportunities via curbside and drop-offs for hard-to-dispose items. Items to be evaluated under the action may include clothes and other textiles, household hazardous waste, plastic wrap, and appliances.

A.4 ADD WASTE AND RECYCLING BINS IN PUBLIC SPACES

Add new collection stations or increase the number of existing public trash and recycling bins in areas of high need by working with cities, park districts and transit providers. Areas of high need include those with significant amounts of litter, those with limited curbside recycling options, and those with dense populations. Included in this action is the identification of areas with high rates of illegal dumping and working to improve illegal dumping cleanup efforts. Once areas are identified, expand and improve access to public collection containers to reduce litter and illegal dumping.

A.5 INCREASE ACCESS TO ORGANICS RECYCLING OPTIONS FOR MULTIFAMILY RESIDENTS

Implement a set of actions to increase organics recycling options available to multifamily residents. Actions include providing and evaluating incentives to property managers, expanding the county's existing grants program that covers the initial start-up costs of collection, countertop bins and compostable bags, and expanding organics drop-off site options in multifamily dense areas of the county. Additional long-term options to consider to address access for organics for multifamily residents include partnering with cities to adopt requirements for service to multifamily properties or expanding the scope of existing requirements in the Recycling Ordinance (#13).

The community group cohort and industry stakeholders identified the need for increased transparency in zero-waste planning as well as a continued and expanded focus on equity in future planning. The following actions seek to capitalize on the momentum gained during the zero-waste planning process and build upon best practices identified in the community scan.

System Need: Ongoing community engagement in zero-waste process to ensure transparency, accountability, and reduce disparity

A.6 ESTABLISH AND MAINTAIN A COMMUNITY EQUITY PANEL

Establish a diverse community panel to provide input to future county zero-waste programs, actions, and facilities. The panel will help to ensure the county waste systems will not put environmental justice areas of concern at greater risk or result in increased inequities.¹ To continue the work begun during the zero-waste action planning and to capitalize on the existing energy and engagement with the county's diverse communities, the community panel will be charged with hosting zero-waste community listening sessions on a more regular basis and in a variety of formats (online, in person, in different parts of the county, etc.). The panel would also support collaboration on implementation, raise awareness of county programs, and facilitate the delivery of resources to communities. County staff will continue to include its Racial Equity Impact Tool analysis in significant zero-waste decisions prior to implementation.

¹ The County should evaluate mechanisms to compensate members that serve on the panel as a way to bolster diversity of representation.

A.7 EXPAND WORKFORCE DEVELOPMENT FOR LIVING WAGE GREEN JOBS

Expand the county's existing workforce development programming (e.g., mattress and battery recycling, deconstruction) to provide training, upskilling, and job certifications to people hoping to work in the recycling industry. Workforce development will be centered around addressing gaps in the system, reducing racial disparities in income and employment, and creating new green jobs.

A.8 IMPROVE MEASUREMENT TO TRACK PROGRESS AND ENSURE ACCOUNTABILITY

Continue to advocate for increased compliance with state reporting requirements, improve data sharing, support consistent county reporting methodologies, and develop additional metrics (i.e., waste prevention, climate impacts, economic impacts) for benchmarking to ensure accountability. Present data in a manner that is accessible, transparent, and understandable to the public.

The Hennepin Energy Recovery Center (HERC) is a waste-to-energy facility located in downtown Minneapolis. The facility incinerates garbage and recovers energy and metal from trash. The HERC is a part of the county's integrated solid waste system, and, while it is above landfill disposal in the state's hierarchy of waste management, falls below all other options including waste reduction, recycling, and composting.

System Need: Reduce reliance on incineration and landfill disposal and create a more equitable system for managing waste materials.

Throughout the community and industry stakeholder engagement process, the HERC was identified as a barrier to the formation of a fully equitable zero-waste system. The point-source pollution, noise, and truck traffic associated with the facility were specifically identified as challenges. The county is currently disposing of over 800,000 tons of trash per year, with approximately 45% being sent to the HERC. Until the county can achieve zero waste, the need for an end-of-life destination for non-recovered items, whether it is an out-of-county landfill, incinerator, or some other option, remains.² As the county approaches zero waste, the need for disposal will be reduced but will not disappear entirely. The following set of actions is aimed at reducing reliance on the HERC and increasing equity.

A.9 EVALUATE HERC UPGRADES TO REDUCE IMPACTS ON COMMUNITY IN SHORT TERM

Continue to evaluate the potential for short term upgrades and operational improvements at the Hennepin Energy Recovery Center (HERC). The aim of upgrades to the HERC may include an improvement in the capabilities for pre-sorting trash to increase material recovery and to eliminate hazardous items from incineration. Additional upgrades may include increases in pollution control measures, traffic reduction measures, or other operational improvements to the facility.

A.10 ESTABLISH MILESTONES TO PHASE OUT THE USE OF HERC AS COUNTY APPROACHES ZERO-WASTE

Establish specific milestones for the long-term phase out of the Hennepin Energy Recovery Center (HERC). The milestones and planning should be tied to performance metrics and include the identification of suitable alternatives for disposal of trash generated in Hennepin County. The county should investigate the adoption of milestones for reducing reliance on the HERC that are based on disposed tons, per capita generation, and linked to targeted bans of material sent to the HERC. For instance, a milestone may state that once the county hits a 50% diversion rate, a set year, or organics, PET, and HDPE are

² For example, at an 80% overall diversion rate, the county will still need to find an end-of-life management option for nearly 300,000 tons of waste per year.

banned from incineration at the HERC. These are materials with recycling alternatives and higher/best uses beyond incineration and should be sent for recovery, not incineration.³

Implementing actions that leverage and financially support local community organizations and leaders, harness the power of the community, reduce financial barriers, and incentivize participation were highly supported by the action planning work groups. The following set of actions advance the connections and networks established during the zero-waste planning process, encourage participation, and reduce economic barriers.

System Need: Encourage participation in Hennepin County materials diversion programs by addressing system costs and barriers.

A.11 EXPAND FUNDING AND SUPPORT FOR COMMUNITY-CENTRIC SOLUTIONS

Provide grants and technical support to local organizations to support them as they engage with residents, businesses, and property managers to harness the power of community-centric engagement solutions for zero waste. Projects may range from providing educational sessions on what and where to recycle to the development of locally managed reuse clinics or organics drop-offs for multifamily. The county would be responsible for supporting program development through both financial backing and technical advice, while the projects themselves would be developed and led by local community partners. Promote success stories of community-driven actions to engage more partners and share lessons learned and best management practices.

A.12 PROVIDE FINANCIAL INCENTIVES TO INCREASE PARTICIPATION IN TARGETED COMMUNITIES

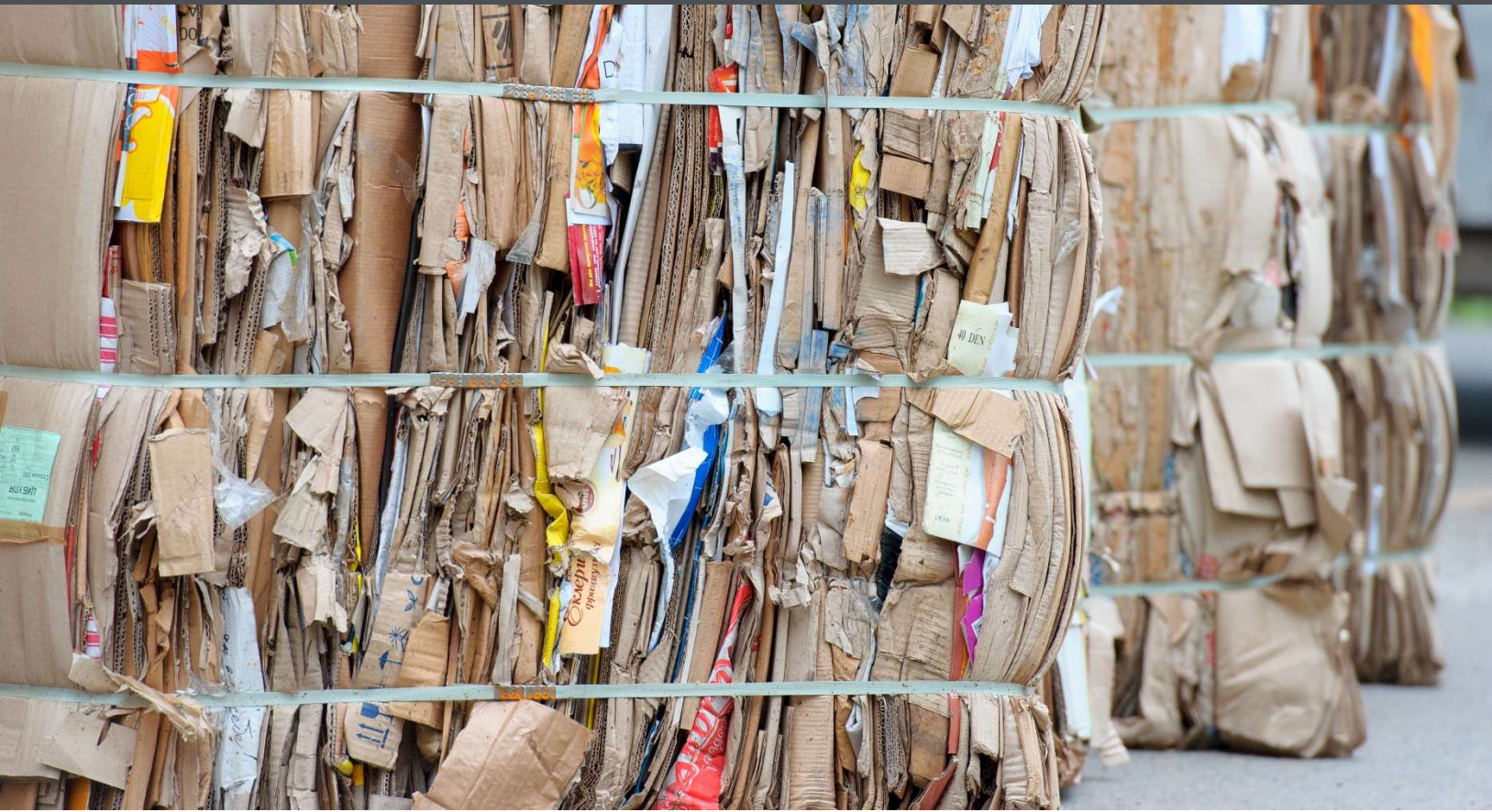
Explore and pilot models to provide direct financial incentives to residents and small businesses in low diversion areas. Incentives will be aimed at increasing participation in recycling, preventing waste, and reducing litter.

A.13 IMPLEMENT LOW-INCOME RATE ASSISTANCE

Work with cities to design and implement trash/recycling collection service payment assistance programs. Programs will be designed to reduce participation barriers and may have age, income, disability, need, or other eligibility requirements depending on location and need. Look to cities such as Los Angeles, Tucson, Denver, Seattle, and others for leading practices in implementation.

A.14 LAUNCH MULTIFAMILY RECYCLING CHAMPIONS PROGRAM

Launch a multifamily recycling champions program to provide direct support to both renters and property managers. Direct support will be provided through resident recycling champions that live at the property. The program should focus on properties in areas with low recycling participation and compensate residents for their time as recycling champions.



Aim: Expand the reach of county waste education, grants, and programs

Hennepin County community members and industry stakeholders identified the need for, and the challenge of, significant behavior change on the path to zero waste. Lack of awareness on where, how, and what to recycle, services available, and how to participate were noted as some of the biggest barriers to achieving zero waste in Hennepin County. Identified gaps include the need to address consumption and waste generation and to educate the community on the impacts that consumer choices have on the environment. The following set of programs relies on expanded engagement, technical assistance, and the growth and optimization of Hennepin County's existing grant programs to move the county closer to zero waste by raising awareness and impacting behaviors. They include actions designed to increase participation in existing and expanded programs. This program set also addresses the need for additional organics processing capacity in the county. Key recommendations in the section include:

- *Improve Marketing of Grant Programs*
- *Improve Compliance with Ordinance 13 Recycling Requirement for Multifamily and Commercial Generators*
- *Increase Compliance with Ordinance 13 Organics Requirement and Expand Requirements*
- *Expand Reach of County Waste Education Programming*
- *Develop Large Scale Organics Processing Infrastructure*

The full listing of recommended actions is presented below.

ZERO-WASTE EDUCATION, GRANTS, AND PROGRAM EXPANSION ACTIONS

Hennepin County provides funding and support for recycling and waste reduction in the community through Examples of existing grants programs include Green Multifamily Recycling Grants, and Business Waste set of actions looks to build upon the base grant increase the impact of the grants, expand their reach,

various groups to advance a wide range of grant offerings Partners, Building Reuse Grants, Prevention grants. The following programming to collectively and add new targets

System Need: Enhance the county's grant programs to help businesses, schools, and institutions achieve zero-waste while supporting neighborhoods and communities

B.1 IMPROVE MARKETING OF GRANT PROGRAMS

Develop and implement a countywide marketing strategy to raise awareness of existing and future grant programs. Include a pathway to provide grant writing and application assistance to those who need it, increase community storytelling to share successes, and the assistance of local community partners for marketing. Leverage community partnerships to increase awareness of the grants, and place an emphasis on neighborhoods, communities, and businesses that have historically been under-represented in grant applications.

B.2 EXPAND BUSINESS GRANTS

Evaluate the existing business grant programs and identify a pathway to expand the grant funding available for commercial generators. Design the grants to help businesses launch new organics recycling and food waste reduction programs as well as improve the effectiveness of existing programs.

B.3 EXPAND GRANTS FOR DECONSTRUCTION

Expand grants and incentives for commercial and residential building demolition and remodeling projects to encourage deconstruction techniques, building moves, incorporation of used building materials, and deconstruction training.

B.4 SUPPORT UPGRADES TO IMPROVE PERFORMANCE AT MATERIAL RECOVERY FACILITIES

Evaluate opportunities for upgrades at material recovery facilities in the county to expand material collection and the use of robotics and artificial intelligence for sorting and data collection. Consider financial assistance, incentives, or grants to offset costs of equipment upgrades. Prioritize facilities and projects that commit to providing a living wage.

Hennepin County Ordinance 13 regulates the separation of recyclable materials, including organics, from solid waste in the county. The county ordinance was last updated in 2018 and requires that cities must have an ordinance to ensure curbside collection of recyclables from all residents. Cities must also provide single-family residents with the opportunity to participate in organics collection.⁴ The ordinance requires that commercial generators implement programs for mixed recyclables. Commercial generators that produce more than 1 ton per week must also implement a food scrap collection program. Food scraps may be diverted through donation, collection for animal feed, anaerobic digestion, or composting. Ordinance 13 requires that multifamily property owners provide recycling services and education for tenants. It does not address organics recycling for multifamily.

System Need: Optimize the implementation and enforcement of Ordinance 13 to increase recycling and organics participation and diversion

The requirements for diversion and access are clearly laid out in Ordinance 13, and the ordinance follows leading practices from the community scan. However, the gap analysis found that enforcement of the ordinance is not as robust as needed. Additionally, the community scan identified opportunities to expand the reach of the ordinance. The following actions are designed to eliminate these gaps and increase the positive impacts of the ordinance.

B.5 IMPROVE COMPLIANCE WITH ORDINANCE 13 RECYCLING REQUIREMENTS FOR MULTIFAMILY AND COMMERCIAL GENERATORS

Provide additional county resources to improve compliance with Ordinance 13 recycling requirements for multifamily and commercial property managers and generators. In addition to expanding compliance efforts, the county should also provide incentives and technical support for building property managers and business owners to implement requirements and to increase program participation. The incentives can be offered through the expanded grant offerings and will be a complement to the increased compliance efforts.

B.6 INCREASE COMPLIANCE WITH ORDINANCE 13 ORGANICS AND EXPAND REQUIREMENTS

Increase staffing to support the implementation of business food waste recycling requirements. In addition, evaluate other resources to improve compliance and participation, such as incentives and technical assistance. To maximize the diversion of organics, consider expanding the applicability of the organics portion of the ordinance to increase the coverage of the requirement in the future. Options for expansion include: a gradual reduction in the minimum commercial generator thresholds, adding multifamily properties to the organics requirement, eventual requirement for all generators to have organics service. Place an emphasis on the food rescue/donation option for compliance with the recommendation to deliver food to their best and highest uses whenever possible.

Recycling systems continue to evolve as new programs are adopted, material composition changes, and processing technologies improve. Thus, information needs to be put in front of county residents on a regular basis in various ways to ensure Material Recovery Facilities, organics processors, and end markets receive good quality material while continuing to decrease the amount of disposed materials. To reach zero waste,

System Need: Provide consistent and relevant messaging and programming to fully engage residents, businesses, neighborhoods, and communities on the pathway to zero-waste

⁴ Opportunity can be provided through contractor hauler or private, open market haulers, or a drop-off site for Class 4 cities.

engagement must also address consumption and encourage behaviors that reduce waste, increase reuse, and minimize litter and pollution.

Despite the strong outreach and education programs already implemented by the county, the gap analysis, and community and industry stakeholder engagement, identified expanded education as a key action for the Zero Waste Plan. Additionally, the county's Climate Action Plan calls for expanded education around the climate impacts of consumption and reducing the environmental impacts of waste. These themes should be amplified in the zero-waste engagement.

B.7 EXPAND REACH OF COUNTY WASTE EDUCATION PROGRAMMING

Expand the reach of existing waste education programs and partnerships to ensure clear and consistent information on what is recyclable, compostable, and reusable, how to participate, who provides services, why zero waste is important, why certain materials cannot be recycled, and the impact of the materials we throw away. Expand collaborations with the private sector and nonprofit partners, identify new marketing channels, and develop clear, consistent marketing collateral that identifies actions steps for targeted community members.

B.8 EXPAND PARTNERSHIPS TO PROVIDE CULTURALLY RELEVANT OUTREACH

Expand partnerships with local, community-based organizations and networks to understand what zero means for different communities and how to customize strategies, approaches, and messaging to resonate with different audiences. Based on community needs, provide culturally appropriate strategies, such as recycling training sessions in different languages and interpreters for technical assistance to non-English speaking business owners.

B.9 IMPROVE NEW RESIDENT EDUCATION

Partner with or incentivize cities, property managers, and realtors to deliver consistent recycling and diversion information to people and businesses who move to a new address. Make it easy for residents and business owners to know service options and requirements where they live and work.

The following set of actions are designed to provide hands-on technical assistance to generators. The technical assistance will help generators set up new review contracts, and troubleshoot issues with odors, vectors, target gaps in school systems' resources, technical commercial generators and multifamily property owners expand service offerings, and target deconstruction.

~~on technical assistance to generators.~~
System Need: Provide technical assistance to support diversion
~~programs, address contamination, or participation. Assistance will knowledge, and contracting, help comply with Ordinance 13 and~~

B.10 HELP SCHOOLS PREVENT AND DIVERT MORE WASTE

Expand funding and staffing to increase technical assistance resources for schools and consider supporting waste champions at school districts in lower-income areas. Focus resources on helping school staff with solid waste contracting, setting up and optimizing school diversion programs, and engaging with students, staff, and families.

B.11 HELP BUSINESSES AND MULTIFAMILY PROPERTIES PREVENT AND DIVERT MORE WASTE

Expand technical support to commercial generators, business owners, and property managers. Expanded technical assistance will support compliance with Ordinance 13 requirements for recycling and organics diversion, help set up successful multifamily recycling programs, and provide marketing collateral to support education and engagement.

B.12 EXPAND DECONSTRUCTION AND BUILDING MATERIAL REUSE

Connect contractors, building owners, architects, and developers to deconstruction and used building material resources, including funding, local outlets for used materials, deconstruction training, sample project specifications, and used building material design guides to support the growth of deconstruction and building material reuse.

Organic materials make up the largest portion of Hennepin County's landfilled waste stream. As the county implements new programs such as enforcing and expanding Ordinance 13, the tons of organics diverted will continue to increase. To ensure that there is both enough processing capacity for additional diversion as well as cost effective access for haulers and generators, the following actions are recommended to increase available processing capacity in the county.

System Need: Address the need for increased capacity for processing organics

B.13 DEVELOP LARGE SCALE ORGANICS PROCESSING INFRASTRUCTURE

Increase the capacity of organics processing through the direct development, establishment of partnerships, or support of private commercial scale processors. Include the potential to develop a county anaerobic digester facility and private/public design build for organics processing.

B.14 SUPPORT GROWTH OF COMMUNITY-SCALE COMPOSTING SITES

Support the development and growth of community-scale (<5,000 cubic yards per year) composting sites and expand backyard composting. Support could be financial (grants), technical (backyard composting, technical assistance for community scale), or educational (sharing information materials, facilitating connections, or identifying partners).

B.15 INCREASE CAPACITY OF TRANSFER STATIONS TO MANAGE ORGANICS

Support investments in transfer stations that complement the needs of organics collection programs and organics processing facilities. This could be through the expansion of transfer capacity, the ability to manage different streams of organics, or the use of technology to implement innovative new methods that increase organics diversion.



Aim: Adopt policies that accelerate the transition to a zero-waste future

To reach zero waste, policy will need to be crafted to ensure responsible recovery of material is standard practice throughout the community, not just the best practice. Well-designed policy at both the local and state/provincial level was identified as a key component of successful zero-waste systems in the global scan. The gap analysis found that while an open market system, like Hennepin County's does provide some benefits to generators and the industry, it also results in inequities in costs, service offerings, and data reporting. A fully open market system also creates an efficiency gap, results in multiple vehicles servicing the same street, and has adverse impacts on pollution, safety, and noise.

The following zero-waste policies are designed to both move the county closer to an equitable zero-waste system and to complement the actions in the Climate Action Plan. For example, Hennepin County's Climate Action Plan identifies reducing food waste as one of the single most effective solutions to addressing climate change. The Zero Waste Plan has also identified the need to address food waste. Additionally, the Climate Action Plan identifies the role that public purchasing has in advancing sustainability and climate change. The draft set of zero-waste actions also includes policy recommendations around procurement. In total, the zero-waste action recommendations include 17 policies to help reach zero waste. The prioritized policy actions are:

- *Support the Transition to Organized Collection Across the County*
- *Mandate Participation in Recycling and Composting Programs*
- *Develop and Implement County Plan to Eliminate Food Waste*
- *Prioritize Extended Producer Responsibility (State Level)*
- *Advocate for Minimum Diversion Requirement for Construction and Demolition Projects (State Level)*

The full listing of policy related actions, at the city, county, and state level is presented below.

LOCAL, COUNTY, AND STATE POLICIES FOR ADVANCING ZERO WASTE

The following set of policy recommendations are suggested for consideration at the county level. The policies address the county's open market collection system, food waste, procurement and purchasing, packaging, and generator behaviors. Collectively, the policies create a system in which zero waste can be achieved in Hennepin County.

System Need: Propose and adopt county level policies to reach zero waste, reduce pollution, and increase equity

C.1 SUPPORT THE TRANSITION TO ORGANIZED COLLECTION ACROSS THE COUNTY

Work alongside cities and haulers to establish a roadmap to transition the county to more organized hauler collection. The aim of the transition is to reduce hauling impacts on infrastructure and neighborhoods, increase cost efficiency, improve access and equity for rate payers, reduce climate impacts, reduce pollution, and provide consistency in service options. Depending on the city and sector, this may include the adoption of hauler contracts, franchising, expanded licensing requirements, or other organized collection schemes for multifamily and commercial. The future organized collection system should incorporate hauler incentives that favor increased diversion and reduced contamination. It will also be integral to include a pathway for local and regional haulers to continue to operate within the system regardless of their size. As the county advances toward zero waste, organized collection policies may be used as a mechanism to explore a pilot for every-other-week trash collection, combined with weekly organics collection for putrescibles. The action can also be leveraged to help support a transition to increased prevalence of alternative fuel sources for collection such as compressed natural gas or electric vehicles. Both the every-other-week trash pilot and alternative fuel source actions should be complemented by county grant funding or other financial incentives.

C.2 EXPAND REGIONAL COORDINATION FOR POLICIES, FACILITIES, AND EDUCATION

Expand coordination with neighboring counties to advance regional planning for zero waste (e.g., with The Partnership on Waste and Energy, Solid Waste Administrators Association, Recycling Education Committee (REC), etc.). Areas of collaboration includes supporting development of end markets through grants, market development accelerators and matchmaking, regional planning for waste facilities, and regional agreements on acceptance of a common set of materials with labeling and consistent engagement.

C.3 EVALUATE ADDING MULTIFAMILY TO SINGLE-FAMILY RESIDENTIAL SERVICE

Evaluate requiring cities to add all multifamily properties to their residential waste programs. Cities could work with private haulers to provide the service, and the county should consider using SCORE or other grant funds to support cities as they make the transition to providing multifamily collection. Grant funds could be for capital (trucks and dumpsters), contract support, marketing, or technical assistance.

C.4 REQUIRE HAULERS TO TRACK AND REPORT MULTIFAMILY WASTE DATA

Modify hauler licensing language or work with cities to require haulers to report tonnage (disposal and diversion) from the multifamily routes they service for trash, recycling, and organics. The county should work alongside the haulers to develop an effective tracking and reporting methodology that aligns with the existing state reporting structure while minimizing hauler impacts.

C.5 REQUIRE EVENTS TO BE ZERO WASTE

Establish a countywide requirement that all events over a minimum size threshold (i.e., 500 people) are required to be zero waste (have recycling, composting, and trash stations with limits or bans on single use and non-compostable products). The county should work with cities to establish similar zero-waste event requirements to create a consistent landscape across the county.

C.6 MANDATE PARTICIPATION IN RECYCLING AND COMPOSTING PROGRAMS

Work with cities to adopt mandatory recycling and organics participation requirements for all generators. The requirements would ban the disposal of recyclable or organics in the trash and mandate source separation. Enforcement would occur through on-call, generator inspections, and at the point of disposal. Include exceptions for lack of space and financial support for those that need it and a monitoring/enforcement plan.

C.7 ADOPT A SINGLE-USE BAN AND ZERO-WASTE PACKAGING FOR FOOD SERVICE

Design, adopt, and implement a policy to transition to zero-waste food service packaging and eliminate single-use, non-compostable, non-recyclable items. In the first phase, the county should ban the sale and use of single-use, non-recyclable, or non-compostable items in county facilities and hosted county events. If the first phase of the program is successful, the county should advance to the second phase. Phase two would be a general single-use ban for food service packaging across the entire county. The county should work with cities and vendors to ban the sale and use of non-recyclable, non-compostable, single-use plastics for food service for all designated generators in the county (including restaurants, universities, event centers, concert venues, sports arenas, etc.). The county policy should also include language to transition to zero-waste packaging that supports the use of reusable containers or no-waste food service packaging.

C.8 ESTABLISH FOOD WASTE REDUCTION TARGETS AND TIMELINE

Establish a baseline and target metrics to guide the identification of the largest areas of food waste and track progress in those areas.

C.9 DEVELOP AND IMPLEMENT COUNTY PLAN TO ELIMINATE FOOD WASTE

Develop and implement a county food waste prevention and rescue plan. Strategy examples may include increasing use and sale of imperfect produce, supporting federal/state tax incentives for donation, encouraging school waste reduction programs through shared lunches, longer lunch periods, and student engagement, regulations on food production to reduce waste, improving data tracking, support for community food hubs, education on food labels and expiration dates, and many others.

C.10 IMPLEMENT COUNTY PROCUREMENT POLICIES THAT SUPPORT CIRCULARITY

Develop and implement a county sustainable purchasing policy on par with other leading public entities and provide sustainable purchasing best practices. Provide model language for cities in the county and support widespread adoption of favorable circularity procurement. Include language to address county procured electronics (computers, phones, others) and electronics waste. Ensure that policies can tie into those included in the Climate Action Plan.

C.11 REQUIRE CART AND DUMPSTER COLOR CODING AND LABELS

Utilize hauler licensing, the Recycling Ordinance (#13), and local ordinances at the city level to require haulers operating in the county to adopt phased deployment of consistent cart color and labeling scheme. The colors would be coded by materials stream (i.e., blue for recycling and green for organics) to reduce confusion for users in the county. During the phase in period, haulers would be required to provide up-to-date, easy-to-read stickers or other labels for carts and dumpsters that have not been replaced.

The following policies must be passed at the state level. If adopted, they will help to advance zero waste across the entire state, not just in Hennepin County. Drafting, passing, and implementing these laws is not solely in the control of the county, so

following through with these recommendations requires working across county and city borders, building coalitions, and long-term planning. The state-level policies address access, upstream manufacturing, labeling, and construction and demolition debris, among others. Their implementation will require Hennepin County to collaborate with partners, stakeholders, and lawmakers to advocate for the adoption of the policies at the state legislature.

System Need: Support state laws that advance zero waste and materials circularity

C.12 PRIORITIZE EXTENDED PRODUCER RESPONSIBILITY

Lead or support the development of a state law for extended producer responsibility (EPR) for packaging and printed paper at the state level. EPR places responsibility for the management of the end-of-life on the producers, importers, and or wholesalers. Under full EPR, producers are charged with designing, financing, and managing the systems that manage the end-of-life of goods. As the county seeks to advance EPR, they should closely watch the implementation of EPR in other states, particularly in Colorado as it is the first state with a 'full' EPR program and Producer Responsibility Organization (PRO) in the U.S. Other states to watch that have recently adopted EPR include Maine, Oregon, and California. The county can also look to Ontario and British Columbia to learn lessons in best EPR practices. The EPR planning should consider the inclusion of eco-modulation fees. Eco-modulation fees, if properly implemented, are used to send an economic signal to manufacturers that incentivizes recyclable and compostable packaging over non-recoverable plastic and paper packaging.

C.13 ADVOCATE FOR THE REPEAL OF THE STATE'S BAN ON BAG BANS

Work with state legislators, neighboring counties, and regional stakeholders to repeal MN statute 471.9998 *Merchant Bags*, a state preemption prohibiting bans. The repeal would allow the county to support and adopt bans at city and county level.

C.14 SUPPORT ADOPTION OF TRUTH IN LABELING LEGISLATION

Support the adoption of 'truth in labeling' legislation, similar to those adopted in Oregon and California.⁵ The aim of the legislation is to require manufacturers to clearly, consistently, and accurately identify local recyclability and compostability of packaging label claims.

C.15 ADVOCATE FOR MINIMUM DIVERSION REQUIREMENT FOR CONSTRUCTION AND DEMOLITION PROJECTS

Work with state legislators to adopt a mandatory minimum diversion requirement for construction and demolition projects. Continue to investigate alternative pathways to adopt the policy at a county or city level. Under the policy, construction and demolition projects over set thresholds and types (i.e., >1,000 sq ft residential remodel and all new construction) would be required to recycle or divert a minimum percentage of total materials (i.e., 50% required diversion) from landfill disposal. Best practices use incentives, fully refundable deposits, and certificate of occupancy final approvals to increase compliance. Additionally, leading programs incorporate mixed construction and demolition waste processing certifications into their programs to reduce logistic and cost challenges for contractors.

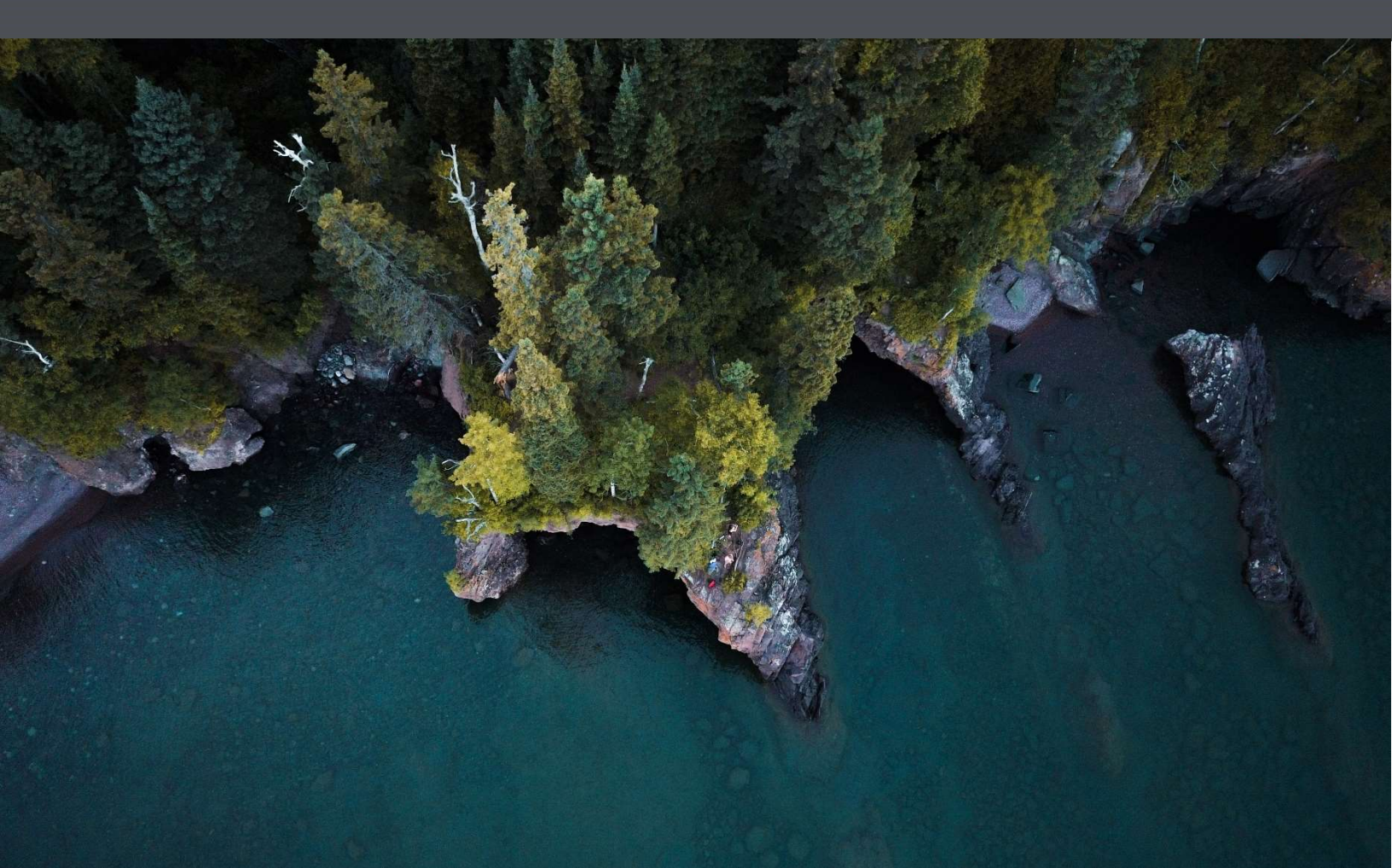
⁵ For example, the Oregon legislation requires that the state DEQ establish a task force to study and evaluate misleading or confusing claims regarding the recyclability of products made on a product or packaging. The CA legislation (SBS 343) prohibits the use of the chasing-arrows symbol and the term "recyclable" on products that are not recyclable.

**C.16 SUPPORT
ADOPTION OF RIGHT
TO REPAIR
LEGISLATION**

Support state level efforts on right to repair laid out in the county's Climate Action Plan. The Climate Action Plan states that Hennepin County should 'support standards for product design that minimize environmental impacts, improve product durability and longevity, ensure the right to repair, and establish producer responsibility for end-of-life management of goods they produce.'

**C.17 SECURE MORE
SCORE FUNDS**

Advocate for increased state funding for SCORE, including solid waste management tax funds that are currently diverted to the general fund, evaluate permissible SCORE expenditures (115A.557, sub. 2), and advocate for deconstruction and reuse as eligible programs.



Aim: Implement programs to advance circularity, reduce waste, and support reuse

Maximizing recycling, composting, and waste diversion alone will not be enough for the county reach zero waste. To truly reach a point at which 90% or more of all discarded materials are diverted from landfills, incinerators, and the environment, the county must broaden its focus to include upstream impacts, consumption, reuse, waste minimization, and the built environment. The materials sold and consumed, the buildings demolished and built, and the waste that is not generated in the first place will determine how close Hennepin County can actually get to zero waste.

Looking upstream will influence the county's ability to achieve broader climate goals and help to build resilient and robust local economies. The U.S. EPA's system-based greenhouse gas emissions inventory, which accounts for the emissions that result from the production, transportation, use, and disposal of materials, shows that 42% of the greenhouse gas emissions in the U.S. are from materials management. On a global perspective, the United Nations Environment Programme's International Resource Panel Global Resources Outlook 2019 report states that 'up to half the global greenhouse gas emissions stem from the extraction and processing of materials, fuels, and food.'⁶ Reducing waste and supporting reuse also has the potential to create local sustainable jobs. For example, Humanim, a nonprofit workforce development organization in Baltimore, MD, reports that for every one job that demolition creates, deconstruction creates 6 to 8.⁷ And a recent study conducted for the City of Austin, TX, found

⁶ <http://www.resourcepanel.org/reports/global-resources-outlook>

⁷ <https://humanim.org/news/humanim-announces-closure-of-details-deconstruction/>

that the circular economy activities in the city, which include waste reduction and reuse activities, contribute 'over \$1.1 billion in total economic activity' to the region and creates 'approximately 6,300 permanent jobs.'⁸

The recommendations for zero-waste actions includes 12 actions related to circulatory, waste reduction, and reuse with the aim of creating a resilient system that is good for people, planet, and business. The key programs are:

- *Establish a Countywide Innovation Hub*
- *Develop Local and Regional End Markets for Recyclable Commodities*
- *Develop Local and Regional End Markets for Construction and Demolition Materials*
- *Adopt City and County Policies to Increase Demand for Finished Compost*
- *Support and Encourage City Adoption of Deconstruction Policies*

The full listing of action recommendations aimed at advancing circularity, increasing reuse, and minimizing waste are included below.

ZERO-WASTE ACTIONS FOR CIRCULARITY

When it comes to the built environment, county staff estimate that 80% of the construction and demolition waste generated in the county could be diverted, but only 30% is being diverted today. At the same time, the U.S. Green Building Council reports that buildings account for 40% of all greenhouse gases, which makes addressing the built environment an imperative for both zero-waste and climate planning.

System Need: Adopt programs to improve circularity of the built environment and reuse, recover, and divert construction and demolition debris.

D.1 ADVOCATE FOR SUSTAINABLE BUILDING CODES

Advocate for research-informed changes to building codes and other regulations to increase use of reused and deconstructed materials in new construction and significant remodels. Investigate the potential to adopt requirements, incentives, or other actions that create a preference for reusing materials, when possible, the inclusion of green/sustainable materials in construction, and phasing in quality materials that can be dissembled in the future.

D.2 SUPPORT AND ENCOURAGE CITY ADOPTION OF DECONSTRUCTION POLICIES

The county should work alongside cities to develop model language and adopt policies that prioritize and incentivize building deconstruction over demolition. The county can work with industry representatives to educate policymakers on the value of deconstruction related to climate change and zero waste.

D.3 REQUIRE BUILDING DEMOLITION NOTIFICATIONS

Require cities to notify the county of demolition permits and include data on the project type and size. The county will publish the building demolition permit application data to increase salvage of reusable materials.

⁸ The Recycling and Reuse-Related Economy of Austin, Summer 2020. TXP Inc., www.TXP.com

D.4 ASSESS THE FEASIBILITY OF A BUILDING MATERIAL REUSE EXCHANGE WAREHOUSE AND YARD

Assess the feasibility of a private/public partnership for a construction and demolition material exchange warehouse and yard. The facility will create a construction materials bank for temporary storage of construction materials where the materials are examined, repaired, and shared. Examples of materials that can be amassed and shared include rubble, fill, bricks and pavers, stone and boulders, clean dimensional lumber, compost, and others. Include a retail area for reusable materials such as cabinets, lighting, doors, and others.

The gap analysis and community and industry stakeholder engagement identified the need for Hennepin County to invest in reuse-focused businesses, activities, and programs. Equitable access to reuse infrastructure (stores) and resources (durables) was identified as a gap. Additionally, there appears to be a need for these resources specifically in lower income and underserved areas. The community scan found that investments into the reuse economy and local innovation hubs can help the county reach zero waste while supporting local economic opportunities and job creation. Focusing on these actions will help the county as it transitions toward circularity and a system that reduces the consumption of new materials and waste and circulates products and materials throughout the community. The following actions look to reduce waste, support reuse and local jobs, and support innovations in local and regional circularity.

System Need: Reduce landfill and incinerator bound materials by intensifying reuse, repair, and waste reduction activities countywide

D.5 HOST AND SUPPORT EXPANDED REUSE, REPAIR, AND FIX-IT EVENTS AND CLINICS

Increase support for existing repair and reuse mobile and temporary events like Fix-It Clinics. Expand programs to reach more neighborhoods and community members. Include clinics for sewing, bike repair, small electronics, and tool sharing. Tie programs into county job creation and workforce training programming and skill sharing. Include virtual options and partnerships with existing organizations to expand the program's reach.

D.6 ESTABLISH BRICK-AND-MORTAR REUSE AND REPAIR CENTERS

Expand reuse and repair clinic to establish fixed location neighborhood reuse or repair hubs, a 'reuse' mall, or other facilities for upcycling, sharing, refurbishment, and reuse. Similar to the mobile events, tie efforts in with workforce development and job training to supporting local green jobs.

D.7 ESTABLISH A COUNTYWIDE INNOVATION HUB

Develop an innovation hub to engage with local entrepreneurs and incubate new ideas and activities that can lead to a more circular economy in Hennepin County. Space will be reserved for tenants focused on using recycled materials as feedstock to improve local circularity and job creation. This includes both conventional recyclables and organics as well as harder to recycle materials such as plastic films, textiles, and others. The innovation hub should include maker spaces, small business support services, mid-scale manufacturing spaces, and a retail component. Facility

System Need: Improve circularity through the support and development of regional end markets

could be established by the county, through a partnership, or by county financial and technical support for a private, nonprofit, or university partner.

D.8 EVALUATE FEASIBILITY OF PROVIDING TAX BENEFITS OR OTHER FINANCIAL INCENTIVES FOR REUSE INDUSTRY

Evaluate pathways and options to provide tax benefits for reuse and repair businesses. Determine feasibility at the county level and advocate at the state level if county level is not possible. Include restaurants that implement reusable to-go programs and companies that offer take back programs.

The success of end markets for the recycling and organics that are collected leads to the success of a sustainable circular economy. By supporting end markets, the county can help to increase demand and create a ‘pull’ for additional materials that in turn, drives supply. Supporting economic circularity on a regional level also creates local jobs and businesses by keeping valuable resources local. The following set of programs is focused on supporting end market development in the region.

D.9 DEVELOP LOCAL AND REGIONAL END MARKETS FOR RECYCLABLE COMMODITIES

Complement state efforts to develop local and regional end markets through grants and public/private partnerships. Grants can range from mini seed grants (less than \$10K) for rapid support of local business development to large scale grants to develop regional end markets. Look to programs in Michigan, Washington, and Colorado that couple end market development support with elements from accelerator programs to leverage public sector grants with private sector investment to grow regional circular projects. Include road construction to spur the use of incorporating reusable and recycled materials into municipal road construction and maintenance projects.

D.10 DEVELOP LOCAL AND REGIONAL END MARKETS FOR CONSTRUCTION AND DEMOLITION MATERIALS

Support and incentivize the growth of end markets for construction and demolition materials (e.g., asphalt shingles, gypsum board, ceiling tiles, carpet, dimensional lumber) through collaboration with agencies, financial support, and other actions.

D.11 ADOPT CITY AND COUNTY SPECIFICATIONS AND

Work with cities to implement a set of actions to grow compost applications in city and county activities. Actions include: model language for ordinances that require the use of soil amendment with sod installation and landscape projects (i.e., contractors

POLICIES TO INCREASE DEMAND FOR FINISHED COMPOST

must apply 4 cubic yards of STA certified compost for every 1,000 sq feet of project area); city specifications for the uses of compost in green infrastructure, parks, top dressing, and capital projects including roadside revegetation and run-off control; local government buyback requirements; engagement with city staff, landscapers, and landscape architects to share best practices for compost application and address concerns and barriers related to compost application; and establishment of test plots and storytelling to demonstrate the advantages of compost use.

D.12 CONDUCT FEASIBILITY STUDY OF RECOVERING RECYCLABLE MATERIALS FROM THE TRASH

Conduct a cost/benefit evaluation and feasibility analysis to determine whether the county should invest in the post-collection separation of trash. This may be particularly useful for sectors of the county that struggle to source-separate materials, such as multifamily properties and small businesses. If implemented, the program would mechanically and manually sort trash to remove and recover reusable, recyclable, and compostable materials. The operation could occur at an existing transfer station or an off-site location. The post collection separation could be limited to high value, easily recoverable items (i.e., cardboard, ferrous metals, plastics # 1 and 2) and would be a supplement, not a replacement, to programs targeted at increasing source separation behaviors by generators.