

**City of Ann Arbor
Solid Waste Resource Management Plan
Advisory Committee Meeting #2
January 15, 2019 Meeting Summary**

Participant List – see page 2.

- 1. Welcome** - Cresson Slotten, City of Ann Arbor Project Manager for the Solid Waste Resource Management Plan (SWRMP) Project welcomed the participants as follows:

This is a very important project for the City and the Ann Arbor community for the direction of our resource management programs over the next several years. Looking at what programs and services to provide, looking at options on how to deliver them, and understanding what resources are necessary to implement them. You all will play an important role in it being a successful effort. After the November meeting and prior to this meeting, we have received many comments/suggestions from Committee members. This input is much appreciated and as you will hear, has already made a difference in our approach.

- 2. Review 11/14/18 Committee Summary and Pre-Meeting Commentary** - Charlie Fleetham, the Public Engagement Facilitator for the project, summarized the previous meeting and the comments that had been received post meeting including a request to delay the planned procurement of Solid Waste Program contracts. Cresson reviewed the City's response to this request which was a recommendation to the City Council to delay the contract action in order to synchronize the procurement with the completion of the SWRMP. (The memo from City Administrator Lazarus, dated 12/24/18 is included in the transmittal email of this summary.)
- 3. Critical Project Questions re: Operations and Functions** - Christina Seibert, Project Manager, APTIM, delivered a PowerPoint presentation (included in the transmittal email of this summary) regarding the draft Solid Waste Cost of Service report that was distributed prior to the meeting. She thanked the committee members for the many questions and comments about the report received prior to the meeting. During her presentation, she responded to these questions as well as the critical questions that had emerged during the November meeting:
 - What do current programs cost, and are current funding levels/methods sustainable?
 - What regional collaborations options are currently available or may be available in the near future to support Ann Arbor's SWRMP?
 - How does Ann Arbor compare to other communities - diversion rate, programs, service delivery, cost of service?

After the presentation, Charlie asked the committee members to individually note: (1) key takeaways from the presentation; (2) questions they have; and, (3) requests for additional information. The project team compiled the committee feedback and responded to the questions. This documentation, which includes responses to the pre-meeting questions, begins on page 3.

- 4. Resident Survey Topics and Value** - Christina reviewed the upcoming survey and its purpose, and Charlie reviewed how surveys had provided valuable information in other Ann Arbor projects. A couple of Committee members expressed concerns about the value of the survey, and another expressed strong support for undertaking the survey. Cresson indicated that the project team had discussed these concerns (as they had been raised previously by the Environmental Commission) and had decided to go forward with the survey because it will provide critical information from the residents on cost sensitivity, and supports priorities of the City Council for increased and robust community engagement that is equitable and inclusive in its outreach to the community.
- 5. Close and Next Meeting** - Cresson thanked the committee members for their participation. The next meeting will be on Tuesday, March 12 from 1:00 pm to 3:00 pm at the Ann Arbor DDA offices.

January 15, 2019 AA Solid Waste Resource Mgmt Plan Advisory Committee Participant List

Last Name	First Name	Organization	Email Address
Andrade	Sandra	Main Street Association	sandra@mainstreetannarbor.org
Artley	Tracy	University of Mich	artelyt@umich.edu
Brown	Steve	Commissioner	browns6887@att.net
Bukowski	Todd	Resident	todd@ptisglobal.com
Butynski	Don	WeCare	dbutynski@weorganics.com
Connor	Al	ICPJ	alconnor1019@provide.net
Curtis	Jim	Curtis Commercial	jim@curtiscommercialllc.com
Diephuis	David	Resident	-
Eaton	Jack	City Council	jeaton@a2gov.org
Eccleston	Tyke	Hughes Properties	teccleston@property-accounting.net
Eggermont	Theo	Washtenaw County	eggermontt@washtenaw.org
Fleetham	Charlie	Project Innovations	charlie@projectinnovations.com
Fournier	John	City of Ann Arbor	jfournier@a2gov.org
Garfield	Mike	Ecology Center	michaelg@ecocenter.org
Gomez	Jeff	City of Ann Arbor	jgomez@a2gov.org
Greve	Pat	Waste Management	pgreve@wm.com
Kohn	Joe	Advanced Disposal	christopher.preston@advanceddisposal.com
Ladd	Maggie	South U. Area Assoc.	southu@gmail.com
Lazarus	Howard	City of Ann Arbor	hlazarus@a2gov.org
Maciejewski	Molly	City of Ann Arbor	mmaciejewski@a2gov.org
McMurtrie	Tom	Resident	tmcmurt1@gmail.com
Mirsky	John	Commissioner	jmirsky@a2gov.org
Nicholson	Mike	DeNali Water	michael.nicholson@denaliwater.com
Ohren	Joe	Elders Climate Action	joeohren@gmail.com
Pawlicki	Chris	Old Town Tavern	cpawlicki@comcast.net
Pollay	Susan	Ann Arbor DDA	spollay@a2dda.org
Praschan	Marti	City of Ann Arbor	mpraschan@a2gov.org
Ramlawi	Ali	City Council	aramlawi@a2gov.org
Seibert	Christina	APTIM	christina.seibert@aptim.com
Seyfarth	Heather	Ann Arbor	hseyfarth@a2gov.org

Singleton	Grace	Zingermans	gsingleton@zingermans.com
Stone	Nancy	Resident	nancystone123@yahoo.com
Slotten	Cresson	City of Ann Arbor	cslotten@a2gov.org
Stephens	Krystn	Resident	ksteph414@gmail.com
Stults	Melissa	City of Ann Arbor	mstults@a2gov.org
Teeter	John	First Martin	jteefer@firstmartin.com
Thomson	Maura	Ann Arbor DDA	mthomson@azdda.org
Weinert	Bryan	Recycle Ann Arbor	bryancweinert@recycleannarbor.org
Wright	Jan	Interfaith Council	janwrigh@umich.edu

I. Cost of Service Presentation Takeaways

Background: At the conclusion of the cost of service presentation, the participants were asked to identify key takeaways from the presentation, as noted below:

- We provide a wide level of service in AA.
- New information on cost comparisons, recovery, benchmarks, and alleys.
- Cost summary was very beneficial to understand all the ingredients needed for solutions.
- Cost and resource projections are very complex, and I'm glad there is variety of expertise in the room to raise questions and explain different aspects of this.
- Current systems are complicated and convoluted. Too many contracts and too many programs.
- Internal consistency of numbers presented hard to reconcile, especially to meaningfully inform cost/benefit analysis and decision making.
- Commercial sector is supporting residential sector for waste management services.
- Revenues are not likely to cover costs
- Recycling is more expensive than waste or composting
- Recycling is very costly.
- The cost of providing these services is costly.
- Residential recycling cost is too much – cost/benefit ratio is out of line.
- Cost is about \$29/month/household and rising and the City is concerned about the long-term viability of the program.
- Recycling costs are very volatile and must be factored into future plans.
- Residential and commercial costs will go up to maintain level of service.
- Recycling is expensive in AA.
- Recycling and composting will get more expensive in coming years.
- We need more work on future fund projections.
- AA waste and recycling services are competitive with benchmark communities.
- Other cities use different tools to augment their costs.

- Relative to others, AA does quite well for residential – diverts 41% for \$30/month
- AA is cost competitive in waste and recycling.
- We don't have a good handle on dealing with recycling for multi-family and commercial.
- Trash haulers on average make \$60K a year.
- Ann Arbor comes from a position of strength in regards to diversion rate – in residential sector is 55% of recycling and composting
- The City is delaying the RFP process.
- Other towns have more alley pickups. We need more.
- The new regional waste authority is not looking to build a MRF.

II. **Requests for Meeting Topics/Suggested Program Tasks**

Background: At the conclusion of the presentation, the participants were asked to identify topics for future meetings and/or tasks, as noted below:

II.1 Recommended Meeting Topics:

- Cost analysis model with all services contracted out/with commercial and residential carrying the same load.
- Benchmarking data seemed squishy ... give us more hard data/analysis.
- Need more alley benchmarking data for cities of similar size/business concentration and pickup schedules.
- More detailed breakdown of Downtown collection services/costs revenues, including:
 - DDA role in funding downtown collections – routine and events
 - Service schedule for refuse carts
 - Service schedule for recycling carts
 - Service schedule for street litter
 - Weekend service – for what and is it regular/event only/on demand?
- Deeper dive into the MRF – background/history of the business/current status/cost to operate/depreciation schedule/what will it take to restart it/would restarting it reduce recycling costs/a few scenarios on future of the recycling business at large.
- PAYT - best practices, lessons learned/objectives/will it increase user costs/impact on contamination rates/other issues
- Regional Authority – timetable, level of AA effort (are we doing work other communities should be doing?), regional funding options/would it help restore the MRF?

II.2 Suggested Program Tasks:

- Need to consider more frequent collection service model for Downtown – such as night collection at the curb. Current density and volume are more than our system can handle.
- It would be impossible for restaurants, bars and coffee shops to store trash/recyclables IN stores. Option to consider: Large dumpsters for waste and recycling must be required for all bars,

restaurants, and coffee shops in Downtown AA alleys. They must be picked up 6 days per week – this is required.

- Develop a comprehensive alley management program.
- Do a thorough assessment of PAYT for this plan.
- Review survey with Environmental Commission before executing it.
- If you are going to do the survey, get information from multi-family, business and apartment complex managers.
- No more funded official surveys. Dedicate the dollars to the financial modeling.
- More time for discussion on our meetings.

III. Responses to Pre-Meeting Questions re: Prep Material (excluding formatting-type questions):

1. What efforts are being made to re-start the City MRF. The existing process of double handling the City's recycling stream and shipping it to Ohio is expensive, wasteful, and has a high carbon footprint. Are there any options to use our facility?

Response: MRF options are anticipated to be explored as part of ongoing regional authority development conversations. Additionally, the future RFP for recyclable processing services is anticipated to include the opportunity for vendors to propose an option(s) to reuse or invest in the City's MRF.

The Environmental Commission also posed several questions related to the MRF at its December 6, 2018 meeting which were responded to in a memo from Cresson Sloten on January 22, 2019 (included in the email transmitted this summary). These responses provide additional information related to the MRF and recycling processing more broadly that may be of interest to the Advisory Committee members to review.

2. I would like the plan to lay out a course to convert to a true “pay-as-you-throw” approach. This will involve how the current millage is converted to individual accounts, developing a separate plan for the downtown and other business districts, and what technology is available, can be reasonable anticipated or can be locally-driven to allow more “customized” service schedules. This will allow our Council to make data based policy decisions going forward.

Response: Pay-as-you-throw (PAYT) is being evaluated as part of the SWRMP process, within the funding methods topic area.

3. Comment re. Pay as you throw history: When Nancy Stone and I started with the City 20+ years ago, PAYT was seriously considered. It was rejected at that time by City Council because it was viewed as regressive; i.e., larger low income families would be charged more. When we implemented the trash cart system, we moved slightly in the direction of PAYT: residents were no longer allowed to put out unlimited trash at the curb, and were charged more if they wanted to upsize from the standard 64 gallon cart or get additional trash carts.

Response: This is one version of PAYT that many communities have implemented. This will be explored as part of the funding methods topic area.

4. Regarding the Cost of Service Report:

a. What actions were taken to ensure the analyses and figures are accurate? Were methodologies as well as the individual figures double-checked or at least audited by someone in all cases? If so, who did so?

Response: The Cost of Service (COS) analysis and report was developed by the APTIM project team, including its subconsultant, Chris Bell, who is a CPA and former Waste Management controller with 30 years of waste industry and financial expertise. The COS was reviewed by City staff to confirm that costs are appropriately assigned to the functional areas and that operating parameters are reflected accurately. City staff reviewers have included Cresson Slotten, Marti Praschan, and Molly Maciejewski. The COS remains a draft at present while final review by the City and modification by APTIM is completed.

b. There is a large difference in hourly labor costs between Residential Waste Collection and Residential Compost Collection. Are the costs for the former for unionized City employees and the latter for non-union WeCare employees? Can we obtain hourly labor costs for RAA's Commingled Cart Recycling services for an additional benchmark?

Response: The hourly labor costs for Residential Waste Collection and Residential Compost Collection each reflect costs for employees through the City, not its contractors. The hourly labor costs between the functions are different due to the use of a greater amount of temporary labor for compost collection operations during FY2018. The use of temporary labor results in lower average hourly rates and lower average fringe benefit rates compared to the use of full-time labor (which was utilized for waste collection operations). The compost collection hourly labor costs are anticipated to increase to a rate more comparable to waste collection hourly labor costs in FY2019 as compost collection operations are staffed by more City employees and the use of temporary labor is decreased.

c. It's my understanding of comments in the COSA that the City provides trucks and related maintenance for both Residential Waste Collection and for RAA's use for Commingled Cart Recycling Collection. If so, why is the Truck Cost per Route Hour in the case of the former \$22.95/hour and in the case of the latter \$26.78, a delta of +16.7%?

Response: The Truck Cost per Route Hour shown in Table 7 of the COS report is an errant row and was not a part of the calculation of the City-Owned Truck Operations Cost on a cost / customer / month basis in that table. The City-Owned Truck Operations Cost per customer per month is calculated based on the Annual Cost of \$699,841 cited in Table 7, divided by the number of customers, and divided by 12 months.

There is, however, a difference of approximately 43% between the cost per customer per month for truck operations and maintenance for Residential Waste Collection (\$1.42/customer/month based on \$0.34 for fuel and \$1.08 for repair and maintenance) and for Commingled Cart Recycling Collection (\$2.03/customer/month based on the costs of fuel, repair and maintenance, and operations) as a result of more significant, and more costly, repairs required to the recycling collection fleet during FY2018.

d. Separate multi-family rates from the residential (< 3 units) as we have done with water rates to get a consistent cost-of-service analysis with other City utilities.

Response: Utilities such as water and sewer have a meter collecting a number of data values for each individual property, enabling costs to be readily segregated by property type. In contrast, the current structure of collection operations does not provide sufficient data to separate the multi-family costs from residential (2 unit and less) costs. This is because some multi-family properties are provided service as part of residential collection routes, while others are provided service by the City's front-load collection routes, and yet others are provided service by Waste Management under the commercial waste franchise.

Additional data collection by the City's collection operations would be required to provide a basis for segregating multi-family costs. The types of data required would include full inventories of the number, type, and size of containers present at each property by type and unit count on each route; the frequency of collection of each property; and the quantity of material collected from only multi-family properties. While this data can be collected, it is not able to be collected at present. It would require development and implementation of a data collection and monitoring program Citywide performed by City staff or through contracted services hired by the City.

e. Please specify what percentage of City parks trash carts are being serviced with the residential curbside program. Please also specify how many recycling carts are provided in the parks. (page 1)

Response: Of the 282 trash carts/cans in the City parks, 53 (18.8%) of them are serviced with the residential collection routes. The parks recycling collection provided through the RAA collection contract is provided seasonally, approximately June through September. In 2017, 81 recycling carts were provided in the parks. In 2018, 76 recycling carts were provided in the parks.

f. When I retired, food waste compost collection was being offered seasonally to commercial businesses. Is this not the case any more? (page 2)

Response: Seasonal food waste collection is provided to 26 businesses currently in the City as part of residential compost collection routes. This notation will be added to the report. It does not impact the COS calculations.

g. Please specify how many commercial recycling carts RAA is servicing, and what is the current mix. (96 & 300 gallon carts). (page 4, note 2)

Response: Based on invoices submitted to the City, as of the last month of FY2018 (June 2018), RAA was servicing 30,793 carts, broken down to the following property types: Single-family carts 20,573 Multi-family carts 8,069 Commercial carts 2,151

The split in 96-gallon and 300-gallon cart counts is not reported by RAA in their invoicing. Based on data provided to City staff by RAA in November 2018, the commercial carts serviced are primarily 96-gallon carts (1,829 carts). RAA also services 62 300-gallon carts, and the remainder of commercial customers have either 64-gallon carts or 32-gallon carts. As cart numbers are further reviewed and confirmed, adjustment to the customer count utilized in the cost per customer per month calculation in Table 7 of the COS will be revised if necessary.

h. Recycling residential customers: The 26,247 customer number does not include all multifamily units. RAA services all residential units as part of the recycling collection program. (page 12)

Response: Not all multi-family properties receive RAA collection service. RAA provides service to all single-family residential units (up to 2 units) and may provide service to some multi-family properties. The customer number for Commingled Cart Recycling Collection is based on the number of lifts reported by Recycle Ann Arbor in its invoices to the City.

i. The cost of services report shows a \$1.36M annual cost from "City MRF Cost," and a note explains that that consists of MRF oversight, repair and maintenance, utility costs, and depreciation. That's a big number. Can you break out the costs? (p. 14)

Response: These costs were broken out in the note on slide 11 of the presentation at the meeting and are as follows: Depreciation for the building and equipment \$625,000 Repair and maintenance for the building and equipment \$304,000 MRF oversight \$130,000 Utilities (primarily electricity for lights and baler) \$23,000 Administrative allocation \$278,000

j. It would be helpful to see the recycling processing costs going back several years, to see what the impact of closing the MRF has been. (page 15, top of page)

Response: Annual recyclables processing costs for FY2016 through FY2018 were shown graphically on slide 11 of the presentation at the meeting. The costs reflect a number of conditions that have impacted pricing over this period of time, as they include three separate contracts for services with the earliest having an entirely different structure and approach, and therefore are not solely reflective of the impact of closing the MRF.

FY2018 recycling processing costs of \$151.14 per ton are inclusive of transportation costs to Cincinnati, which are incurred on 90% of the recyclables tonnage collected (the remaining tonnage is source-separated cardboard which is transported a much shorter distance - approximately 25 miles - to Royal Oak). Transportation costs are incorporated into the processing fee charged under the contract and have not been separately specified by RAA. As an approximation, transportation cost in the current recycling processing contract may be around \$40 per ton based on the following parameters:

- Load weight of 20.5 tons (minimum load weight per contract requirements; over the term of the contract, loads have averaged 19.64 tons)
- Round-trip travel time of 8 hours
- Long-haul cost of \$100 per hour

k. The City's rear load routes outside of downtown should be merged into the residential cart collection program. (page 18, bottom of page)

Response: The City's rear load routes are almost exclusively commercial collection routes, with less than 5% of the stops that would be defined as residential. These have been accurately characterized in the COS report and calculations.

I. \$2.89M annual revenues from fees for service - It would be helpful to see a breakdown of this revenue, and an idea of well they are covering costs, particularly for commercial waste collection. (page 20)

Response: The revenue from fees for service includes \$2.76 million in commercial collection fees paid by commercial properties utilizing dumpster collection through the Waste Management commercial waste franchise and \$132,000 in commercial collection fees paid by commercial properties utilizing cart collection through the City.

5. Referring to slide 12 of the presentation, total costs of commercial collection services (including both waste and recycling collection) in FY2018 were approximately \$6.3 million. Commercial properties paid approximately \$7.3 million to the Solid Waste Fund through the refuse levy and fees for service in FY2018, resulting in a surplus of commercial funding of approximately \$1 million in FY2018.

6. Regarding the A2 Tonnage Summary and diversion rate figures: Can this information be provided on A2's Sustainability Framework Dashboard so it becomes available to all city residents?

Response: The City will work to incorporate this information into the Dashboard.

7. The tonnage report shows a large (~15%) increase in MSW for 2017, but no commensurate increase in recycling or composting, and then it goes back to normal for 2018. Any explanation of that?

Response: Scale tonnage data was utilized to compile the tonnage report. The increase in 2017 was also noted in the development of the summary by both APTIM and the City, and investigation into the data has not identified an explanation, nor an error in the data.

8. When the City does issue an RFP for SW services, can this information be provided to each vendor?

Response: This information will be publicly available. It may be included as an attachment to an RFP for solid waste services in the future, or identified as a reference document vendors may obtain to review in developing their proposals.

IV. **Responses to Questions Received During and After the Meeting:**

1. Will the Advisory Committee be empowered to make collective recommendations?

Response: The Advisory Committee is an advisory group empowered to review, comment, and advise the SWRMP team in its development of the SWRMP for consideration by the Environmental Commission, which is an advisory body to City Council.

2. Is U of M, EMU part of the proposed regional authority?

Response: The enabling state law for this authority stipulates that municipalities can be members. Washtenaw County and universities are not allowed to be members of the authority. They may be customers of the Authority, contract with the Authority, and contribute to/benefit from the activities of the Authority, but they are not allowed to be a member and therefore have no voting power.

3. Is U of M included in AA costs or do they pay separately?

Response: U of M performs its own collection operations at campus facilities, and the costs associated with that collection are not included in Ann Arbor's costs. Similarly, U of M separately pays for its costs for disposal, recycling processing, and composting for material it collects.

4. What are details of commercial waste collection fees – who pays what and how much?

Response: Commercial waste collection fees vary based on the container type, size, and collection frequency selected by individual properties. Fees are based on the fee schedule established by the City and can be viewed at <https://www.a2gov.org/departments/trash-recycling/Pages/BusinessTrash-Services.aspx>.

5. What is the long term budgetary and fund projection? When will an actual deficit occur?

Response: Long-term budgetary and fund projections are continuing to be developed and refined based on the COS analysis, known or anticipated cost adjustments in future years (e.g., for increased labor costs for compost collection), and the specific services and programs to be offered. The projections will be made available when they are completed.

6. Why does our recycling cost so much?

Response: Recycling costs are representative of a number of components, including costs for collection from generators, transportation to a processor / sorting facility, and processing of the material. Reasons for the higher cost of recycling relative to waste and composting include:

- Recycling collection is performed by RAA under contract, with RAA's compensation for collection service established by contract pricing terms which include an annual adjustment to the compensation rate based on economic indices. These can compound over time in a long-term contract and result in higher pricing compared to the market in the late years of a contract, as this contract is in. In addition, fleet-related costs paid by the City were higher in FY2018 for recycling fleet than other City fleet, resulting in a higher cost.
- Transportation costs are related to the distance that materials must be hauled to their processing or disposal destination. The City's waste is hauled approximately 30 miles from its transfer station to the Arbor Hills Landfill for disposal, and composting is delivered directly to the City's composting facility. Recyclables are principally hauled from the City MRF to the Rumpke facility in Cincinnati, a distance of approximately 240 miles. Therefore, transportation costs are greater for recycling relative to waste and composting.
- Processing costs are a function of costs associated with the labor, equipment, and building in which processing is performed. Recycling processing equipment includes many different components and requires a large capital investment upfront, as well as regular maintenance. Additionally, recycling processing operations are typically much more labor-intensive than waste disposal or composting operations, requiring considerably more personnel to handle the material. Processing costs also are impacted by the value of the material that the processor expects to receive after it has been

sorted. In Ann Arbor, a portion of this material revenue is shared with the City, and the remainder is retained by the processor.

- For the City, a portion of its recycling cost is also contributed by “legacy” costs associated with the City MRF, which include depreciation (the annual cost realized by the City to pay down the original capital expense for construction of the building and purchase and installation of the sorting equipment) and upkeep of the facility, in addition to utilities for the limited operations occurring in the building currently.

7. How do we reduce the cost of recycling?

Response: Increasing costs for recycling are being experienced by communities across the United States as a result of reduced market values for sorted recyclables, increasing levels of contamination or non-recoverable materials in the recycling stream, and increased quality standards from purchasers of material that are necessitating greater processing effort and cost (through increased labor, equipment upgrades, and/or multiple sorts).

Reduction in one or more of the cost components discussed in response to question 6 above may reduce the cost of recycling. Factors beyond the City’s control such as an increase in the material revenue received for the sorted recyclables may also contribute to a reduction in the cost of recycling.

8. Are other major communities doing dual stream recycling?

Response: Major communities have implemented single-stream recycling collection across the United States. The conversion to single-stream recycling from dual-stream (separation of fiber and containers) and from multi-stream (separation of fibers and containers by type) recycling has been implemented to increase the convenience of participation for generators (residents / businesses) and to reduce costs and increase efficiency of collection for haulers.

A small number of communities have transitioned back to dual-stream recycling collection during 2018 and the beginning of 2019, primarily in response to recyclable commodity market conditions and requirements to achieve very low levels of contamination in processed materials. Data is generally unavailable at present to assess the impact of the conversion to dual-stream recycling on costs of service and diversion performance.

9. Are costs for hauling sorted recyclables paid for/provided by the MRF operator? I think buyers of recycled content materials pay for hauling. That would lower/change 2018 AA MRF costs.

Response: The cost to haul sorted recyclables from a MRF to an end market or secondary processor is typically included in the material value paid (or charged) to the MRF for the material. Therefore, the post-sorting transportation cost is typically not reflected as a separate cost. Whether material is processed at the Ann Arbor MRF or at the Rumpke MRF in Cincinnati, transportation costs for sorted recyclable materials hauled away from the MRF would be incurred and captured through the material pricing.

10. Regarding diversion, what is being done on the C & D side – the diversion rate is 11% ... what can we do to improve it?

Response: Construction and demolition (C&D) wastes are not part of the City's collection program through either the services provided by City crews or under the commercial waste franchise. C&D materials generated in Ann Arbor have not been quantified or included in the tonnage or diversion rate calculations presented. This is an area that can be explored further for the SWRMP. Regarding the current commercial diversion rate of 11%, the SWRMP will evaluate alternatives to increase this rate to a higher level. Options may include methods to increase participation in the recycling program, expanded compost collection service to include the commercial sector, and greater outreach and awareness to the business community to encourage waste reduction and diversion.

11. What is the relationship between Recycle Ann Arbor and The Ecology Center?

Response: According to The Ecology Center's website, "Recycle Ann Arbor (RAA) is our recycling subsidiary non-profit organization that was founded in 1977 as a program of the Ecology Center. In 1981, RAA merged with the Ecology Center and received the first contract from the City of Ann Arbor to collect recyclables from the curb." (<https://www.ecocenter.org/recycle-ann-arbor-about>)

12. Would it be possible to get a breakdown of annual costs for just the downtown area – breaking it out of the general "Commercial Collection Cost of Service" numbers?

Response: Data that is currently collected and tracked on downtown collections compared to nondowntown collections is insufficient to segregate the City's costs for downtown waste and recycling collection. This information, however, will be valuable as downtown service options are explored, and the project team will work to identify the data required to ultimately develop this cost breakdown.